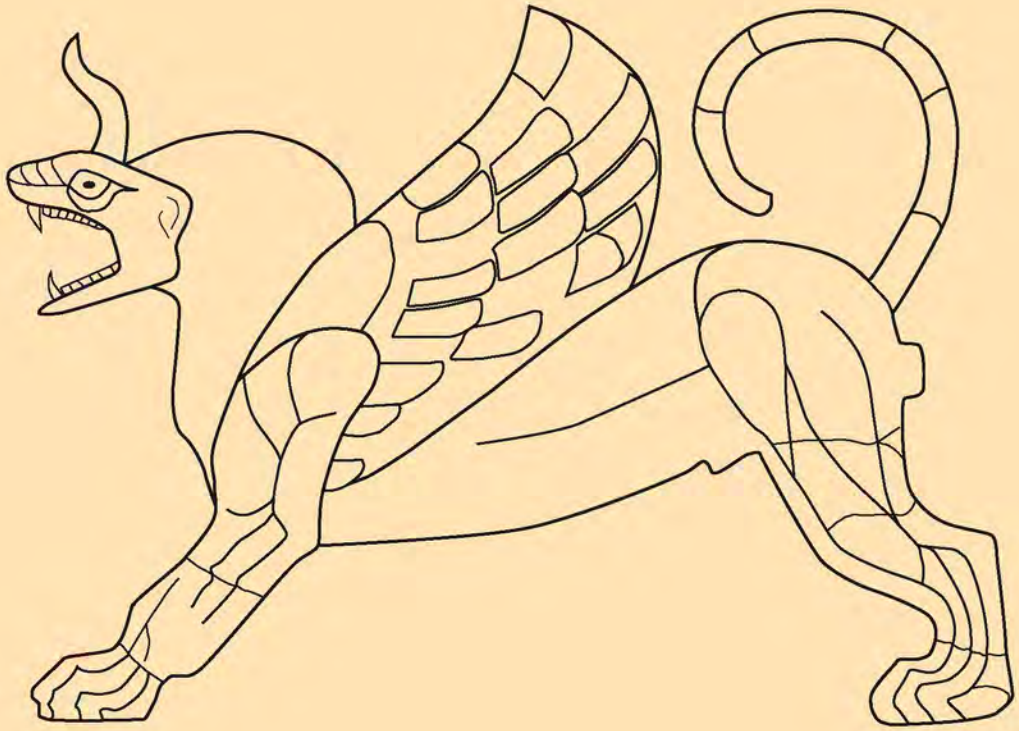
Schriften zur Vorderasiatischen Archäologie
12

Urban Cultures of Central Asia from the Bronze Age to the Karakhanids

Learnings and conclusions from new archaeological investigations and discoveries

Edited by
Christoph Baumer and Mirko Novák



Harrassowitz Verlag

Urban Cultures of Central Asia from the Bronze Age to the Karakhanids

Harrassowitz Journals
nur zum persönlichen Gebrauch / keine unbefugte Weitergabe

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

SCHRIFTEN ZUR VORDERASIATISCHEN ARCHÄOLOGIE

Herausgegeben von Winfried Orthmann,
Jan-Waalke Meyer und Mirko Novák

Band 12

2019
Harrassowitz Verlag · Wiesbaden

© 2019, Otto Harrassowitz GmbH & Co. KG, Wiesbaden
ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

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Proceedings of the First International Congress on Central Asian Archaeology held at the University of Bern, 4–6 February 2016

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© 2019, Otto Harrassowitz GmbH & Co. KG, Wiesbaden
ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Publication of this book was supported by a grant of the Society for the Exploration of EurAsia, Hergiswil, Switzerland.

Editing: Sabine Ecklin
Typesetting and Layout: Sabine Ecklin
Proof reading: Chris Murray und Judith Acevedo
Cover illustration: Winged Lion-demon from Gonur Depe, Turkmenistan, mosaic (ca. 1900 BCE).
Drawing: Gabriele Elsen-Novák

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Bibliografische Information der Deutschen Nationalbibliothek
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über http://dnb.dnb.de abrufbar.

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the internet at http://dnb.dnb.de.

For further information about our publishing program consult our website http://www.harrassowitz-verlag.de

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Printed on permanent/durable paper.
Printing and binding: Hubert & Co., Göttingen
Printed in Germany

ISSN 0340-6792
ISBN 978-3-447-11169-0
e-ISBN 978-3-447-19836-3

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

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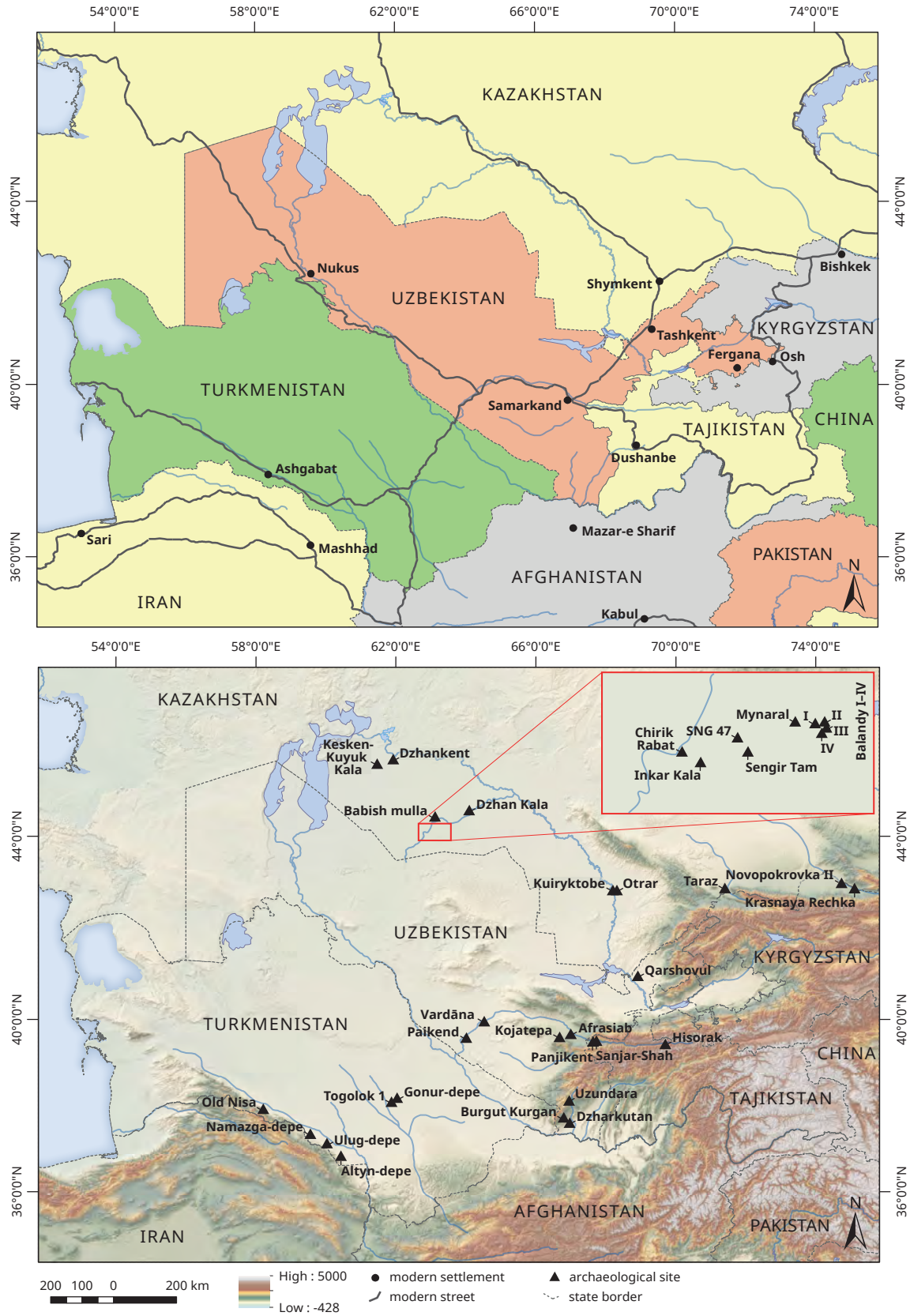
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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Foreword

Christoph Baumer and Mirko Novák

The present monograph on the urban cultures of Central Asia from the Bronze Age to the Karakhanid Middle Ages is the result of the international conference organised by the Society for the Exploration of EurAsia (Hergiswil, Switzerland) and the Institute of Archaeological Sciences (IAW) of the University of Bern (Switzerland) held from 4 to 6 February 2016 in Bern. The aim of the conference was to exchange new findings from ongoing archaeological excavations. Around 40 of the invited archaeologists from Central Asia, Russia, Western Europe and the USA presented significant results from their excavations. From a geographical perspective, the vaguely defined concept of Central Asia was limited to Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan. We are aware that at least Afghanistan should have been included in the geographical scope.

The conference dealt with the issues of the emergence of urban centres and cultures, their development and economic forms, and their interactions with other, sometimes distant, urban cultures. The first focus of the conference was the phenomenon of urbanism during the Bronze Age in south-western Central Asia. It appears that in Central Asia urban centres have existed since the early Bronze Age, and also that the meaning of the concept of urbanity changes across the Eurasian continent according to geography and climate. In Europe and much of Asia Minor, an urban core often developed on the basis of the high agricultural productivity of sedentary peasants in rain-fed agricultural regions, with their production surplus enabling them to create a spatial density of construction. But in south-western Central Asia, there was an arid climate even during the Bronze Age, albeit less pronounced than it is today. In landscapes ranging from dry to desert-like steppes, a thriving agriculture was only possible – as in Mesopotamia or Susiana in Elam – through the use of sophisticated irrigation systems whose construction, maintenance and administration required supra-local organisation. In the geographically confined oases or near watercourses, there was an increasing density of proto-urban building. Here the process was set in motion for the formation of a society based on a division of labour and on institutionalised administration.

In contrast to south-western Central Asia, colder and wetter conditions prevailed in the north-east. Grassy steppes covered the poor soils, ideal for extensive and nomadic livestock breeding. The herds provided not only sustenance but also, depending on the species of animal, the possibility of transporting goods over long distances.

The economies of agriculture in the south-west and livestock farming in the north-east complemented each other, encouraging trade between the sedentary farmers and the more mobile livestock breeders. It was this barter trade that favoured the flourishing of urban centres. Numerous walled complexes of the Bronze Age were apparently inhabited only by elites and artisans. They were used primarily for cultic, administrative, and representational purposes, as well as for the exchange of goods. The cultic and representational buildings were nonetheless often monumental, such as at Gonur and Togolok 21, located within the widely ramified delta of the Murghab River.

As far back as the Bronze Age, the flow of goods was not limited to regional trade between sedentary farmers and semi-nomadic livestock breeders. The urban centres also served as hubs for transcontinental trade networks. During the Murghabo-Bactrian culture (Bactria-Margiana Archaeological Complex, BMAC, ca. 2300–1500 BCE) – which extended from Chorasmia to western Tajikistan and northern Afghanistan – the cities were part of a widely branched trade network that extended from Ancient Chorasmia to the Indus Valley Civilisation in the south-east and across the Iranian plateau to the Elamite Empire and Mesopotamia in the south-west. Large-scale trade routes had developed long before the emergence of the so-called Silk Roads.

The survival of oasis settlements remained dependent on sufficient water resources both for irrigating croplands and for supplying water to the urban centres. As a result, shifting riverbeds in the wide-spread Murghab delta, and the simultaneous reduction in the volume of water that rivers carried, proved fatal to the urban settlements located there.

Settlements were first moved to the south and then, towards the end of the Bronze Age, and for reasons still not understood, abandoned. Semi-nomadic breeders moved into the region and at the beginning of the Iron Age (ca. 1500–900 BCE) village settlements superseded the urban centres with their monumental architecture. In Central Asia, water and control of its distribution are still today of vital economic importance and regularly leads to political tensions between the water-storing and hydroelectric producing states of Kyrgyzstan and Tajikistan and the water-consuming agricultural states of Uzbekistan and Turkmenistan.

Other focal points of the conference were Iron Age settlements by livestock breeders who maintained seasonal vertical migration with their flocks, and the influence of Hellenism in the last quarter of the 4th century BCE, which supplanted the Per-

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

sian-Achaemenid influence in Margiana and Bactria. Clear evidence of the Hellenistic influence on urban developments is provided not only by the famous cities of Merv (Turkmenistan) and Aï Khanum (northern Afghanistan), but also by the Uzundara Fortress, the settlement of Paikend, and other communities surrounding Samarkand (all in Uzbekistan). From the middle of the 3rd century BCE, the Parthians occupied the areas south of the Oxus and left behind two separate architectural complexes near the city of Nisa (Turkmenistan). With the Sassanids, Turkmenistan and southern Uzbekistan increasingly fell under Iranian influence, as sites such as Merv or Vardāna show.

The conference next dealt with the urban and mercantile culture of the Sogdians, as exemplified by Sanjar-Shah (Tajikistan), whose influence stretched eastward to the Chu Valley (Kyrgyzstan). In Krasnaya Rechka (ancient Nawakat) and Ak Beshim (Suyab), not far from Bishkek (the present capital of Kyrgyzstan), archaeologists discovered Buddhist cultic sites and material finds dating back to the period when the region was within China's sphere of influence, between the end of the 7th and the middle of the 8th century. At the same time, the Turkic-speaking, semi-nomadic horse people the Oghuz spread out along the middle and lower reaches of the Syr Darya River, ancient Iaxartes. The Oghuz, who mainly lived on livestock farming, continued to nurture the cities that flourished before their arrival, as shown by the example of Huvara (Juvara), today's archaeological site Kesken-Kuyuk-Kala. The local Oghuz, from whom the Seljuk Turks emerged at the turn of the millennium, thus designated the Huvara settlement – which was already mentioned by the Roman historian Ammianus Marcellinus (ca. 330–395/400) – as their capital in the 9th century. Instead of plundering or destroying existing urban trading hubs, the semi-nomadic Oghuz knew how to promote them. The Turkic-speaking tribal confederation of the Karakhanids, which was Islamised at the end of the 10th century, also acted similarly by further expanding the urban centres of south-western Central Asia.

The three-day conference clearly demonstrated that urban centres played an important role in Central Asia from the Early Bronze Age onwards and had a significant influence on the development of their respective cultures. Moreover, it elucidated the mutual and supra-regional influence of different cultures, ways of life, and economies.

This international conference was organised by the Society for the Exploration of EurAsia and the University of Bern.

One of the co-organisers of the conference, the Society for the Exploration of EurAsia, is a private initiative. It contributes scientifically to archaeological exploration in Eurasia by supporting fieldwork there and by closely coordinating with local scholars and institutions. The society also carries out rescue excavations when sites are endangered by infrastructure projects. Archaeological finds are preserved, restored and archived in regional museums. The society publishes research results on its homepage, *www.exploration-eurasia.com*, contributes to scientific and popular-science organs, and gives lectures. Each year in Switzerland it holds a public event with external speakers, and at longer intervals organises international conferences with institutional partners.

The other co-organiser, the Department of Near-Eastern Archaeology of the Institute of Archaeological Sciences, Bern, was founded in 1982 with a Chair for Near-Eastern Archaeology and a lectureship in Assyriology. It has been and is still conducting excavations in Syria, Turkey and Turkmenistan, while also undertaking a wide range of research projects beyond excavations, including remote sensing projects, graphical and semantic visualisations of complex data, and editions of cuneiform texts. The department also regularly organises conferences.

The conferece was financially supported by the Swiss Academy of Humanities and Social Sciences (SAGW) and by various foundations and private sponsors, to whom the organisers express their deep gratitude. Abhinay Agarwal (Viva Management GmbH), Sebastian von Peschke (IAW, University of Bern), and Therese Weber (Society for the Exploration of EurAsia) were in charge of logistical organisation. During the conference, Jonathan Gerber and Sebastian von Peschke took care of technical support. Further assistance was provided by Michelle Brunner, Joelle Heim, Maylawi Herbas, Alexandra Kull and Kasia Langenegger (all from the IAW, University of Bern). Because of everyone's dedication, the conference proceeded smoothly and was a great success.

We also thank Christopher John Murray for the English-language editing, Judith Acevedo for the indexing and Sabine Ecklin (IAW, University of Bern) for the volume's final editing and typesetting.

Предисловие

Кристоф Баумер и Мирко Новак

Настоящее издание, посвященное городским культурам Центральной Азии, начиная с бронзового века и до Караканидского средневековья, стала плодом международной научной кон-

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

ференции, состоявшейся 4-6 февраля 2016 года в Берне и организованной Обществом по изучению Евразии (Эргисвиль, Швейцария) и Институтом археологических исследований (IAW) Бернского университета (Швейцария). Главной задачей конференции был обмен новыми научными данными, полученными в результате текущих археологических раскопок. Около 40 участников конференции, археологов из Центральной Азии, России, Западной Европы и США, представили наиболее значительные результаты своих работ. Географически, не вполне четко очерченные границы центрально-азиатского региона были сознательно ограничены территорией Казахстана, Кыргызстана, Монголии, Таджикистана, Туркменистана и Узбекистана. Мы понимаем, что в этот ареал следовало бы включить и другие страны, в частности, Афганистан.

Темой конференции стала проблематика зарождения городских центров и культур, их развитие и экономические формации, их взаимодействие с другими, зачастую значительно удаленными центрами. Одним из основных направлений конференции стал феномен урбанизации Бронзового века в юго-западном регионе Центральной Азии. По всей видимости, первые очаги урбанизации появляются в Центральной Азии уже в период Ранней Бронзы; процессы урбанизации в различных частях Евразийского континента различны и во многом зависят от географических и климатических особенностей. Так, в Европе и на большей части малоазийского региона, очаги городской культуры возникают в плодородных, орошаемых районах с оседлым земледельческим населением, там, где избыток продукции неизбежно приводит к высокой демографической плотности. Однако на юго-западе Центральной Азии, климат и в Бронзовый век был засушливым (хотя и в меньшей степени чем сегодня). В условиях сухой степи или пустыни земледелие становилось возможным, - подобно Месопотамии или Эламским Сузам, - только при создании сложнейших ирригационных систем, строительство и обслуживание которых требовало высокоразвитых централизованных структур. Вблизи оазисов и в руслах разливающихся рек стали появляться первые локальные очаги протоурбанистических поселений. Так было положено начало созданию общественного устройства, основанного на разделении труда и узаконенном управлении.

В отличие от юго-западного региона, северо-восток Центральной Азии характеризовался более прохладным и влажным климатом. Бедные почвы покрывала луговая степь, идеальная для развития кочевого скотоводства. Обширные стада не только поставляли пищу, но и позволяли перевозить на значительное расстояние различные товары. Аграрная экономика юго-запада и животноводство северо-востока выгодно дополняли друг друга и способствовали развитию товарообмена между оседлыми земледельцами и мобильными скотоводами. Именно этот товарообмен и дал толчок процветанию городских центров. Очевидно, многочисленные укрепленные поселения Бронзового века были населены исключительно городской элитой и ремесленниками и использовались как культовые, административные и торговые центры. Многие культовые и парадные здания в этих центрах выстроены монументально, как, например, постройки в Гонуре и Тоголоке 21, расположенные в бассейне дельты реки Мургаб.

Уже в Бронзовом веке товарообмен между оседлыми земледельцами и полукочевыми скотоводами не ограничивался границами региона. Городские поселения быстро превратились в перекрестки трансконтинентальной торговли. Города Мургабо-Бактрийской культуры (Бактрийско-Маргианский археологический комплекс, ок. 2300-1500 до н.э.), простиравшаяей от Хорезма до Западного Таджикистана и Северного Афганистана, - были частью разветвленной торговой сети, связанной с Хараппской цивилизацией на юге и Эламом и Месопотамии на юго-западе. Протяженные торговые артерии возникли здесь задолго до знаменитого «Шелкового пути».

Благополучие оазисных поселений полностью зависело от водных ресурсов, необходимых для орошения посевных земель и снабжения городских центров. Смещение русел рек в бассейне дельты Мургаба и резкое их обмеление оказалось роковым для городских поселений оазисов.

Поселения переместились южнее, а затем, ближе к концу Бронзового века, по непонятным пока причинам, были покинуты. Постепенно земли были заняты полукочевым скотоводческим населением; в начале Железного века (ок. 1500-900 до н.э.) сельские поселения окончательно вытеснили прежние городские центры с их монументальной архитектурой. Отметим, что водные ресурсы и контроль над их распределением и сегодня остаются жизненно важной экономической проблемой Центральной Азии, зачастую приводящей к политической напряженности между изобилующими водой и гидроэлектроресурсами Кыргызстаном и Таджикистаном и потребителями этой воды, аграрными Узбекистаном и Туркменистаном.

Важными темами конференции стали скотоводческие поселения Железного века, с их сезонными вертикальными кочевьями, и культурное воздействие эллинизма последней четверти IV в. до н.э., в Бактрии и Маргиане пришедшее на смену персидско-ахеменидскому влиянию. Явные следы эллинистического влияния на городские центры региона прослеживаются не только

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

в знаменитых Мерве (Туркменистан) и Ай-Хануме (Северный Афганистан), но и на материалах узбекских памятников: крепости Узундара, Пайкенда и других поселениях, расположенных вокруг Самарканда. Начиная с середины III в. до н.э. территории к югу от Окса были завоеваны парфянами, выстроившими два самостоятельных архитектурных комплекса возле города Ниса (Туркменистан). С воцарением Сасанидов, Туркменистан и Узбекистан оказались под мощным влиянием иранской культуры, как ясно на примере Мерва и Варданы.

Городская и торговая культура согдийцев влияние которых простиралось до Чуйской долины, на конференции получила освещение на примере памятника Санджар Шах (Таджикистан). В Красной Речке (древнем Навакате) и в Ак Бешим (Суяб), неподалеку от современной столицы Кыргызстана, Бишкека, археологами были обнаружены буддийские культовые центры и материальные свидетельства эпохи китайского влияния, датирующиеся концом VII – серединой VIII вв. н.э. Именно в этот период тюркоязычные полукочевые племена огузов проникли в район среднего и нижнего течения реки Сырдарьи, древнего Яксарта. Пример Хувары (Джувары), известного сегодня как археологический памятник Кескен Куюк Кала, десонстрирует, что огузы, занимавшиеся скотоводством, пестовали торговые города, процветавшие задолго до их вторжения в Центральную Азию. Центрально-азиатские огузы, одной из ветвей которых стали в начале следующего тысячелетия турки-сельджуки, в IX в. превратили Хувару, древний город, упомянутый еще Аммианом Марцеллином (ок. 330-395/400), в свою столицу. Вместо того, чтобы грабить и разрушать существовавшие торговые центры, полукочевые огузы развивали их. Похожим образом, укрепляя городские центры юго-западной Центральной Азии, действовали впоследствии и тюрки Караханиды, в конце X в. принявшие ислам.

Трехдневная конференция продемонстрировала важнейшую роль городских центров в истории Ценральной Азии начиная с Бронзового века и их влияние на развитие цивилизаций региона. Были выявлены общие признаки устройства и развития городов, их экономических и культурных связей, выходящих далеко за пределы Центральной Азии.

Одним из учередителей конференции является Общество по изучению Евразии. Общество, основанное на частной инициативе, способствует археологическому изучению Евразии и поддерживает полевые исследования, ведушиеся в тесном сотрудничестве с национальными научными организациями и учеными. Общество также занимается спасательными раскопками памятников, оказавшихся под угрозой в результате строительных инициатив на местах. Археологические находки реставрируются, сохраняются и архивируются в местных музеях. Общество публикует результаты своих исследованиях на своем веб-сайте: www.exploration-eurasia.com, в научных и популярных изданиях, проводит тематические лекции. Ежегодные лекции с участием приглашенных исследователей проводятся Обществом в Швейцарии, периодически в рамках сотрудничества с научными партнерами устраиваются международные научные конференции.

Вторым организатором конференции является Отдел археологии Ближнего Востока Института археологических исследований в Бернском университете. Отдел с кафедрой археологии Ближнего Востока и отделением ассирологии был основан в 1982 г. Институт проводил и проводит раскопки в Сирии, Турции и Туркменистане, развивает несколько научных направлений. В их числе: дистанционное зондирование, графическая и семантическая визуализация данных, издание клинописных текстов, организация регулярных научных конференций.

Эта международная конференция стала возможной благодаря финансовому содействию Общества по изучению Евразии, Университета Берна, Швейцарской Академии гуманитарных и общественных наук, пожертвованиям ряда организаций и частных лиц. Абинай Агарваль (Viva Management GmbH), Себастьян фон Пешке (IAW, University of Bern) и Тереза Вебер (Society for Exploration of EurAsia) отвечали за логистику проекта. Техническая поддержка во время проведения конференции осуществлялась Джонатаном Гербером и Себастьяном фон Пешке. Большую помощь оказали Мишель Брюннер, Жоэль Хайм, Майлави Хербас, Александра Кулль и Касья Лангенеггер (IAW, University of Bern). Благодаря их самоотверженной работе, конференция действительно удалась.

Мы также признательны редактору английских текстов Кристоферу Джону Мюррею, Джудит Асеведо которая подготовила указатели и Сабине Эклин (IAW, University of Bern), подготовившей эту книгу к печати.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Programme of the International Congress held at the University of Bern, 4-6 February 2016

Urban Cultures of Central Asia from the Bronze Age to the Karakhanids

Learnings and conclusions from new archaeological investiagtions and discoveries

Thursday, 4th February 2016

Conference Venue:
The University of Bern, Switzerland. Building UniS Schanzeneck, Room A003

	up to 12:00: individual arrival / program	
12:00	**Registration (at the conference venue)**	
13:00	**Opening Conference**	University of Bern Society for the Exploration of EurAsia
	Session 1: Turkmenistan	
	Chair: Carlo Lippolis	
13:15	**Formation of the earliest urban centre in Central Asia (according to materials from Altyn-Depe)**	**Kircho Lyubov** Institute for the History of Material Culture, St. Petersburg (RU)
13:40	**City of Kings and Gods Gonur Depe – A Capital of Margush Country: Its Opening by Prof. Victor Sarianidi in Turkmenistan and Newest Discoveries**	**Dubova Nadezhda** Institute of Ethnology and Anthropology of Russian Academy of Sciences, Moscow (RU)
14:05	**The Swiss Research at Gonur Depe in 2014 and 2015**	**Winkelmann Silvia** University of Bern, Bern (CH) **Meier David** University of Bern, Bern (CH)
14:30	**Discussion**	
14:50	**Coffee Break**	
	Session 2: Turkmenistan / Uzbekistan	
	Chair: Pavel Lurje	
15:15	**Parthian Nisa: landscape, topography and settlement plan**	**Lippolis Carlo** Università Torino - Centro Ricerche Archeologiche e Scavi di Torino (IT)
15:40	**The phenomenon of urbanization between the Bronze and Iron Ages in the alluvial fan of the Murghab River (Turkmenistan). First data from the excavation of the Bronze Age sedentary site of Togolok 1**	**Cerasetti Barbara** University of Bologna, Bologna (IT)
16:05	**Settlement patterns at the Sasanian time in South Turkmenistan (Preliminary survey results in the Abiverd and Merv regions in 2014-2015)**	**Kurbanov Aydogdy** Institute of Archaeology and Ethnography, Ashgabat (TM)
16:30	**The Excavations at Kojtepa (Samarkand Area) (Uzbekistan: First Results and Work Perspectives**	**Genito Bruno** Università degli Studi di Napoli, Napoli (IT)
16:55	**Society for the Exploration of EurAsia: Objectives and projects 2004-2015**	**Baumer Christoph** Society for the Exploration of EurAsia, Hergiswil (CH)
17:15	**Discussion**	
17:40	**Coffee Break**	
18:00	**Key Note:** **The Long Spell of the Territory – Population – Resources Paradigm: Reading the Settlement Landscape in the Spiral of Time**	**Tosi Maurizio** University of Bologna, Bologna (IT)
18:50	**Questions**	
19:30	**Cocktail Dinner (at the confernce venue)**	**free for Inv. Speakers, others on registration**

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Friday, 5th February 2016

Conference venue:
The University of Bern, Switzerland. Building UniS Schanzeneck, Room A003

Session 3: Uzbekistan
Chair: Sören Stark

08:30	**Protohistoric settlement pattern in Central Asia: the case of Ulug-depe and Dzharkutan during the Bronze Age.**	**Bendezu-Sarmiento Julio** Kabul (AF)
08:55	**Protohistoric settlement pattern in Central Asia: the case of Ulug-depe and Dzharkutan during the Iron Age.**	**Lhuillier Johanna** CNRS, Paris (F)
09:20	**Urbanism in Sogdiana? A view from the western fringes of the Bukhara oasis**	**Kidd Fiona** New York University, Abu Dhabi (AE)
09:45	**Discussion**	
10:05	**Coffee Break**	

Session 4: Uzbekistan
Chair: Bruno Genito

10:30	**Urbanscape vs. Landscape or Urbanscape as Landscape? A case from ancient Samarkand (Sogdiana)**	**Mantellini Simone** University of Bologna, Bologna (IT)
10:55	**Pottery assemblage of Early Hellenistic time from the Sogdian City Paikend**	**Omelchenko Andrey** State Hermitage Museum, St. Petersburg (RU)
11:20	**The Hellenistic fortress of Bactria Uzundara**	**Dvurechenskaya Nigora** Russian Academy of Sciences, Mowscow (RU)
11:45	**Urban Hinterlands: Five years of investigations along the "Long Wall" of Bukhara**	**Stark Sören** New York University, New York (US)
12:10	**Discussion**	
12:40	**Lunch (at confernce venue)**	

Session 5: Uzbekistan
Chair: TBA

14:00	**Archaological investigations at Vardāna: preliminary results**	**Pozzi Silvia** Università l'Orientale di Napoli, Napoli (IT)
14:25	**Archaeological investigations on Qarshovultepa**	**Sheyko Konstantin** Taskent (UZ)
14:50	**Burials of urban population of Chach**	**Ivanov Genadiy** Ferghana Museum, Samarkand (UZ)
15:15	**Elements of military equipment as votive offerings at Qarshovultepa**	**Ilyasov Djangar** Bamberg University, Bamberg (DE)
15:40	**Discussion**	
16;00	**Coffee Break**	

Session 6: Tajikistan / Kyrgyzstan
Chair: Nadezhda Dubova

16:25	**Sanjar-Shah – a Sogdian Town in the Zeravshan Valley. Some Preliminary Results of the Recent Archaeological**	**Shenkar Michael** The Hebrew University of Jerusalem, Jerusalem (IS)
16:50	**The Study of Ceramics from Sanjar-Shah: Technological, Cultural and Administrative Connections with Panjikent**	**Kurbanov Sharof** Tajik Academy of Sciences, Dushanbe (TJ)
17:15	**Hisorak in the Upper Zeravshan valley and its Bactrian connections**	**Lurje Pavel** State Hermitage Museum, St. Petersburg (RU)
17:40	**One of the temples of the buddhist monastery in Krasnaya Rechka (Northern Kyrgyzstan)**	**Kulish Alexey** State Hermitage Museum, St. Petersburg (RU)
18:05 - 18.30	**Discussion**	
19:00	**Dinner at: Verdi Ristorante Gerechtigkeitsgasse 7 3011 Bern**	**Invited Speakers only Directions: Take Bus Nr 12 in direction "Zentrum Paul Klee", exit at "Nydegg", walk back for about 100 meters to Gerechtigkeitsgasse 7**

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Saturday, 6th February 2016

Conference Venue

The University of Bern, Switzerland. Building Unitobler, Lerchenweg 36, 3000 Bern, Room F 021

Session 7: Kyrgyzstan

Chair: Jan Bemmann

08:30	**Results of archaeological excavations on the site Novopokrovskoe II 2004-2014**	**Rott Philipp** Universität Bonn, Berlin (DE)
08:55	**Urban development in the Chu Valley in the Middle Ages in context of the archaeological materials of Novopokrovskoe II, Kyrgyzstan.**	**Kolchenko Valery** Institut für Geschichte und Kulturerbe der Nationalen Akademie der Wissenschaften Kyrgyzstans, Bishkek (KG)
09:20	**Nomadic Urbanism: New discoveries of highland cities of the Kharakhanid Empire**	**Frachetti Michael** Washington University, St. Louis (US)
09:45	**Discussion**	
10:05	**Coffee Break**	

Session 8: Mongolia / Kazakhstan

Chair: Aydogdy Kurbanov

10:30	**Urban cultures of Inner Asian Nomadic Empires: from Xiongnu to Mongols**	**Kradin Nikolay** Institute of History and Archaeology, Vladivostok (RU)
10:55	**Aspects of Urbanization und Centrality in Nomadic Empires of Mongolia**	**Bemmann Jan** University of Bonn, Bonn (DE)
11:20	**Walled Sites in the Inner Syrdarya delta: Evidences of Non-Permanent Urbanism during the Iron Age (2nd half of the 1st millennium BC)**	**Bonora Gian Luca** "L.N. Gumilev" Eurasian National University, Astana (KZ)
11:45	**Cross-planed constructions in the Tianshan Foothills region**	**Torgoev Asan** State Hermitage Museum, St. Petersburg (RU)
12:10	**Discussion**	
12:40	**Lunch (at Restaurant Beaulieu, Erlachstrasse 3, 3012 Bern)**	

Session 9: Kazakhstan

Chair: Michael Frachetti

14:00	**Dzhuvara – Ancient Capital of Oguz in the Light of Recent Archaeological Excavations**	**Voyakin Dmitriy** Archaeological Expertise LLC, Almaty (KZ)
14:25	**Kuiryktobe site – medieval Keder**	**Baipakov Karl** Institute of Archaeology MES RK, Almaty (KZ)
14:50	**On the interpretation of the female figure on a ceramic fragment from Taraz**	**Eder Saltanat** University of Bonn, Ampass (AT)
15:15	**Key Note:** **The connected oasis: Ancient Khorezm between the Near East and the Eurasian steppes.**	**Kidd Fiona** New York University, Abu Dhabi (AE)
16:00	**Questions**	
16;30	**Coffee Break**	

Closing Session

Chair: Mirko Novak

16:55	**Concluding discussion of the conference**	**Moderator:** **Novak Mirko** University of Bern
18:20 - 18:30	**Closure of Conference**	University of Bern Society for the Exploration of EurAsia
19:00	**Dinner at Restaurant Gurten, 3084 Wabern (uphill location)** **Meeting point:** **19:00 at the conference venue** **19:30 departure at the Gurten ground station** **19:40 arrival at the Gurten hill station** **19:45 arrival at Restaurant**	**Invited Speakers only**

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Group photo of the conference participants (© Corina Steiner, IAW, University of Bern).

The editors thank the following institutions for their generous support of the conference: The Swiss Academy of Humanities and Social Sciences (SAGW); The Swiss Society for Ancient Near Eastern Studies (SGOA); The Schindler Cultural Foundation; The University of Bern and The Society for the Exploration of EurAsia.

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Altyn-Depe

The Formation of the Earliest Urban Centre in Central Asia

Lyubov B. Kircho

Abstract: The results of many years of investigation of Altyn-Depe in Southern Turkmenistan have led to the identification of two stages in the formation of the earliest urban civilisation in Central Asia. The first stage is dated to the Late Eneolithic Period (ca. 3150–2750 BCE). The Altyn-Depe cultural complex of this period saw transformations in the technology and organisation of the main branches of industry, as well as changes in the dimensions and structure of the settlement, caused by changes in the natural environment and by interregional contacts in the late 4th to early 3rd millennium BCE – transformations that reflect the formation of the cultural basis of the earliest proto-urban centre in Central Asia. The second stage was related to the further development of Altyn-Depe during the Early Bronze Age (ca. 2750–2350 BCE) induced primarily by technical and technological progress. By the end of the Early Bronze Age at Altyn-Depe (as in Southern Turkmenistan in general), the main components of the cultural complex of the Middle Bronze Age had been established and the process of the construction of the industrial base of specialised crafts completed – the economic basis of an urban centre.

Keywords: South Turkmenistan, Altyn-Depe, earliest urban centre.

Резюме: Результаты многолетних исследований Алтын-депе в Южном Туркменистане позволяют выделить два этапа процесса формирования древнейшей раннегородской цивилизации Средней Азии. Первый этап – период позднего энеолита (около 3150–2750 гг. до н. э.).

Культурный комплекс Алтын-депе этого времени, изменения в технологии и организации производств, размерах и структуре поселения обусловлены изменениями природной среды и межрегиональными контактами конца 4 – начала 3 тыс. до н. э. и отражают формирование культурной основы древнейшего протогорода Средней Азии.

Второй этап связан с развитием культуры Алтын-депе в период ранней бронзы (около 2750–2350 гг. до н. э.), обусловленным техническим и технологическим прогрессом.

К концу периода ранней бронзы на Алтын-депе (и в Южном Туркменистане в целом) формируются основные компоненты культурного комплекса периода средней бронзы и завершается процесс создания производственной базы специализированного ремесла – экономической основы древнего города.

Ключевые слова: Южный Туркменистан, Алтын-депе, древнейший раннегородской центр.

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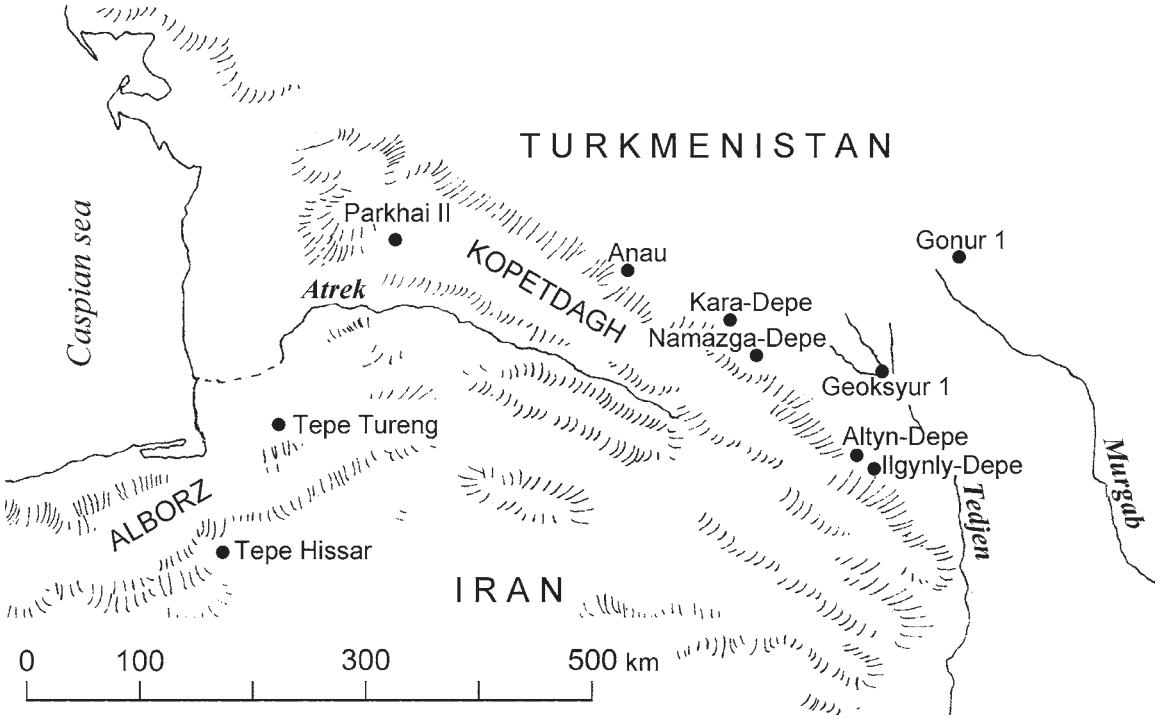


Fig. 1: Schematic map of the location of Altyn-Depe
(drawing by L.B. Kircho, based on the part of the map: Amiet 1986: 10–11).

1 Introduction

During the 20th century, archaeological research has demonstrated that the area of Southern Turkmenistan and, possibly, the entire Northern Khorasan region, was the location of one of the earliest agricultural communities of the Palaeometal period. The historical evolution of this area had led in the last third of the 3rd millennium BCE to the appearance of Bronze Age urban centres.

The Kara-Kum Expedition of the Leningrad Branch of the Institute of Archaeology, Academy of Sciences of USSR (now the Institute for the History of Material Culture, Russian Academy of Sciences) conducted systematic excavations at Altyn-Depe in south-eastern Turkmenistan (**Fig. 1**). This settlement-site is the second in terms of its size in the foothills of the Kopet Dagh Mountains. The investigations followed a uniform method employing a large group of specialists directed by Vadim M. Masson.[1] Beginning in 1965, the excavations continued for over 30 years.

The studies of Altyn-Depe have demonstrated that in the Middle Bronze Age (ca. 2350–1900 BCE) there was an urban centre with an area of over 25 ha, a monumental cult centre, and an advanced communication network. The latter included a system of entrances to the settlement, pedestrian and transport streets and passages (Masson 1988: 29, 32–80). These were all in some parts separated by buildings. The cultural complex of Altyn-Depe of that period is characterised by unpainted pottery, metal double-edge knives or daggers, cosmetic sticks with figured tops, partitioned seals with a suspension eye on the back, stone stamp seals, flattened terracotta sitting female figurines with signs, and terracotta models of four-wheel wagons drawn by camels (**Fig. 2:** 48). The pottery was made with a rapidly revolving potter's wheel and fired in two-tiered kilns. The burials were both individual ones with the dead lying in a flexed position with the head mostly oriented north-north-west, and multiple successive burials in rectangular tombs constructed of mud bricks (Masson 1988: 91).

The economic basis of the early urban centre was composed, along with the agriculture and animal breeding, of highly developed specialised industries (pottery-making, metallurgy and metal working, stone working) (Masimov 1976: 78–104; Korobkova 2001; 2004; Sajko/Terehova 1981; Terehova 2001). During the period under consideration, Southern Turkmenistan, including Altyn-Depe, became a periphery of the system of Ancient East civilisations (Masson 1977; 1988: 111–122).

The formation and development stages of early urban Altyn-Depe were investigated both in special stratigraphic trenches and pits, and in wide-area excavations (Kirčo 2005d). The settlement was founded at the late stage of the Early Eneolithic

1 Excavations at particular areas of Altyn-Depe were directed by Yu. E. Berezkin, A.F. Ganyalin, L.B. Kircho, V.I. Knyshov, G.N. Kurochkin, I.S. Masimov, V.A. Zav'yalov, and B.N. Udeumuradov.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



Fig. 2: Altyn-Depe during the Middle Bronze Age, the main components of the cultural complex: **1–16** – ceramics; **17–37** – metal; **38–41, 48** – terracotta; **42, 45, 53, 54, 56–65** – stone; **43, 44, 55** – firing stone; **46, 47** – gold; **49** – the monumental cult centre; **50, 51** – bone; 52 – ivory (based on Masson 2006: Table 12 with numerous additions of L.B. Kircho: 1–16, 38–42, 44, 46, 47, 50–65 – after Kirčo 2005b; 17–37 – after Kirčo 2001a; 43 – drawing by T.V. Čupyra; 45 – after Kirčo 2014a: Fig. 7, 5; 48 – after Masson 2006: Table 12/drawing by M.M. Lambet from photo: Masson 1988: pl. XIX, 1; 49 — after Masson 1988: fig. 18B/reconstruction by A.K. Filippov).

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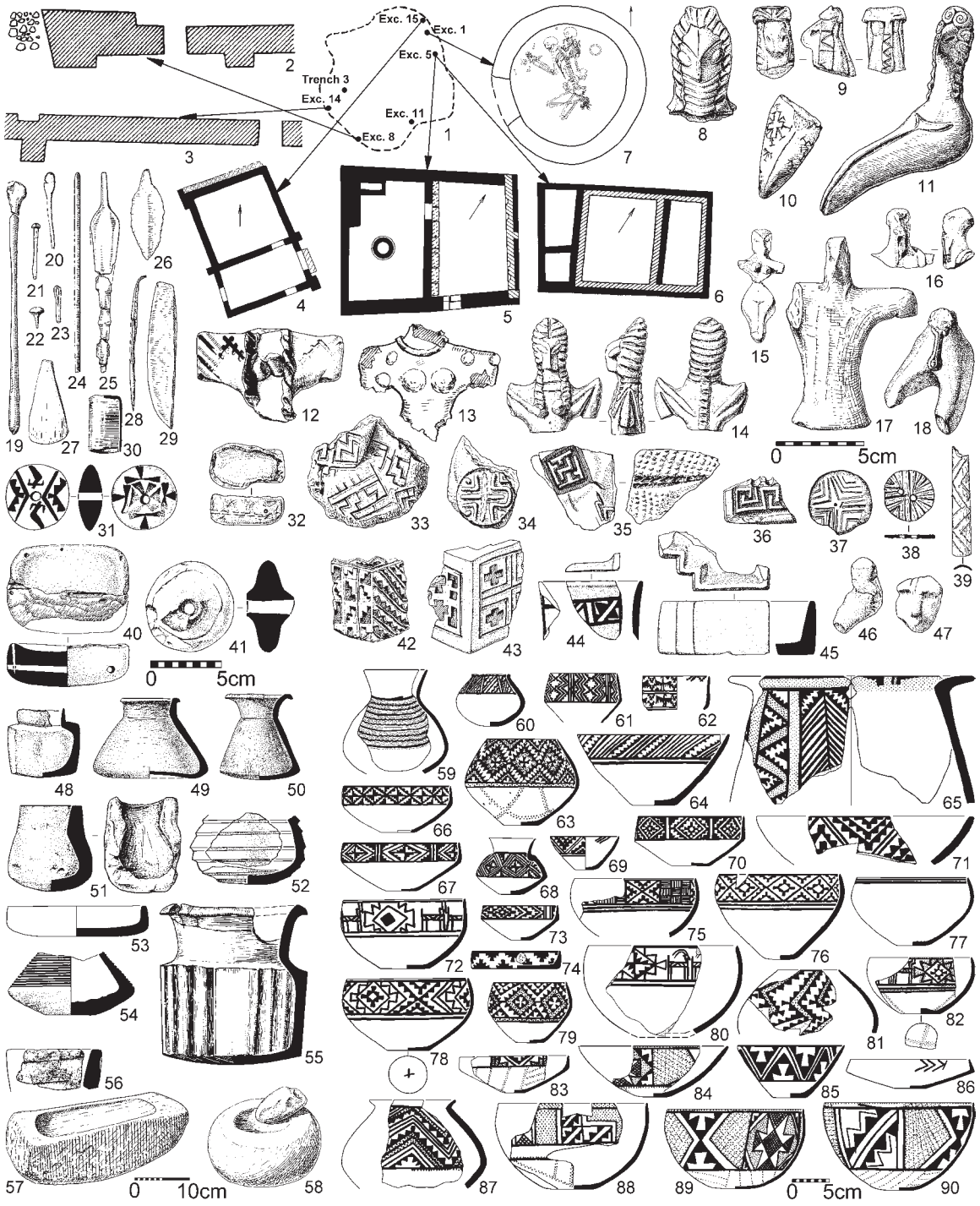


Fig. 3: Altyn-Depe during the end of the Middle Eneolithic age and the Late Eneolithic (horizons Altyn 14–9), the main components of the cultural complex: **1** – schematic plan of the location of the excavations; **2, 3** – the encircling walls; **4–6** – plans of the dwellings; **7** – burial chamber; **8–18, 31, 32, 36, 42–45** – terracotta; **19–30** – metal; **33–35** – slightly baked clay; **37, 40, 41** – clay; **38, 39** – bone; **46–58** – stone; **59–90** – ceramics (1 — drawing by L.B. Kircho based on Masson 2006: Pl. 11; 2–6, 8–10, 12–18, 20, 21, 23, 24, 26–43, 46–48, 51–68, 71, 72, 75–78, 80–90 – after Kirčo/Korobkova/Masson 2008; 7 – after Kirčo 2009b: Fig. 2; 11, 69, 70, 73, 74, 79 – after Kirčo 2005b; 22, 44, 45 – after Kirčo 2017/ drawings by S. Matveev; 19, 25, 49, 50 – after Masson 1988: Pl. XXVII, 9, 10, 13, 14).

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period (Late Namazga I, ca. 4100–3650 BCE). During the Middle Eneolithic period (Namazga II or the Yalangach period, ca. 3650–3300 BCE), its dimensions were gradually increasing. Its active growth took place at the end of the Middle Eneolithic age (Early Geoksyur period, ca. 3300–3150 BCE). During the Late Eneolithic (Geoksyur period, ca. 3150–3000/2900 BCE), the settled area grew a further 1.5 times and by the end of that period (Late Namazga III, post-Geoksyur period, ca. 3000/2900–2800/2700 BCE) the settlement was stabilised in terms of its size, occupying an area of about 25 ha (Kircho/Korobkova/Masson 2008: 70–71).

In general, the deposits of the Late Namaza II–Namazga III period (ca. 3300–2750 BCE) , with a total thickness of up to 4.5 m, contain building remains in six to seven horizons (horizons Altyn 14–9). Finds from five or six building horizons (horizons Altyn 8–4) of Altyn-Depe are dated to the Early Bronze Age (Namazga IV period, ca. 2800/2700–2350 BCE). These horizons have the total thickness of about 4 m. The deposits of the Middle Bronze Age (Namazga V, 2350–2000 BCE) are represented by the remains of buildings from four horizons (Altyn 3–Altyn 0) up to 3.5 m thick. Thus at Altyn-Depe the continuous evolution of the settlement from the end of the 5th to the end of the 3rd millennium BCE has been traced. Here the total thickness of the investigated cultural layers exceeds 20 m, while the cultural deposits dating from the Middle Eneolithic period up to the Middle Bronze Age inclusive amounts to about 14.5 m. This thickness corresponds to about 19–21 building horizons (Kirčo 2014b: 360–361, Fig. 1).

2 Evolution of ceramics: Points of innovations and boundaries of qualitative changes

Studies of ceramics from Altyn-Depe have shown that in the evolution and gradual replacement of ceramic assemblages of the Eneolithic period (Kirčo/Korobkova/Masson 2008: 72–95), two key points can be distinguished: 1) in the Middle Eneolithic period, the appearance of unpainted red-polished pottery with mineral tempers (sand and crushed limestone) in the texture that mark the beginning of firing of wares in two-chambered kilns; 2) the appearance of pottery with bichrome ornamentation in the Geoksyur style. The origins of these innovations are presumably rooted in the cultures of southern and central Iran. In the complex of ceramics of the post-Geoksyur type, a number of features appear which developed as late as the Early Bronze Age. In addition, the boundaries of the Early Bronze Age are marked by two historic events – the introduction of the potter's wheel, and the appearance of two-tiered kilns (Kirčo 2014b: 362).

The development of pottery-making from the Eneolithic to the Middle Bronze Age at Altyn-Depe is due, primarily, to technical innovations (Kirčo 2003: 188–189). In the Early and Middle Eneolithic, ceramic production was characterised by the use of clay with large quantities of organic or large-sized mineral non-plastic tempers, the method of shaping with clay bands resulting in a poor set of vessel forms, a dense slip layer on the surface, and widely spread polishing, the painting of vessels before firing, firing mostly in single-chambered pottery kilns, as well as the introduction of two-chambered kilns.

The end of the Middle Eneolithic age, the Late Eneolithic and beginning of the Early Bronze Age are marked by the use of clay mass with very fine admixtures and the making of wares on a pattern or by joining several separate parts. Plastic raw materials enabled the application not only of a painted (bichrome or monochrome) ornamentation (**Fig. 3**: 59–90), but also of relief decoration. The firing of the ware was carried out in two-chambered kilns. By the end of the Late Eneolithic period, the technology of pottery-making of the Early Bronze Age had been established (**Fig. 4**: 66–88).

The pottery-making of the second part of the Early Bronze Age and beginning of the Middle Bronze Age is remarkable because of the almost total predominance of the use of the potter's wheel and, correspondingly, the diversity of its forms (**Fig. 5**: 50–79). While of the Late Eneolithic period, 10 forms of pottery (34 variants of proportions) are characteristic, in the Early Bronze Age, 22 forms (51 variants of proportions) of tableware, household and cooking pots are found. In the manufacture of both tableware and storage vessels, the same homogeneous clay mass was used. The painted ornamentation and polish of the entire surface were gradually replaced by wet smoothing of the surface and its treatment with striated polishing (Kirčo 2003: 186). The beginning of technological changes with the introduction of two-tiered pottery kilns and the employment of new methods of firing is marked in the end of the Early Bronze Age by a brief period when pottery-making was characterised by the use of fine mineral non-plastic tempers and red coating (**Fig. 5**: 54, 56). The common techniques for preparing the raw materials, the employment of the potter's wheel as the main shaping instrument, and the standardisation of the forms of pottery suggest that pottery-making was then already a specialised branch of industry.

In the Middle Bronze Age, practically all the ceramic ware at Altyn-Depe was produced on the fast potter's wheel. The set of forms and the diversity of details of the vessel shapes sharply increased (Udeumuradov 1993: 42–53). The leading technique for shaping was to join several parts of the ware each

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Fig. 4: Altyn-Depe during the Early Bronze Age (horizons Altyn 8–6), the main components of the cultural complex: **1** – schematic plan of the location of the excavations; **2** – the encircling wall; **3** – isometric view of dwellings; **4** – burial chamber; **5–15** – metal; **16–20** – bone; **21, 23–27, 29–31, 33–38** – terracotta; **22** – slightly baked clay; **28, 32** – clay; **39–50, 53–65** – stone; **51, 52** – firing stone; **66–88** – ceramics (1 — drawing by L.B. Kircho based on Masson 2006: Pl. 11; 2, 3 — drawings by V.B. Zernov; 4, 30, 31, 40–43, 63 – after Kirčo 2009b ; 5, 10, 11, 13–16, 19, 44, 46–53, 55, 57–59, 61–62, 64, 66–86, 88 – after Kirčo 2005b; 6–9, 12 — after Kirčo 2001a; 17, 20–29, 32, 33, 35, 36, 39, 56, 60, 65 – after Kircho 1988; 18 – drawing by L.A. Šamševa; 34, 37 – drawings by T.V. Čupyra; 38 – after Kirčo 2010: Fig. 1, 3/drawing by V.B. Zernov; 45, 54 — after Kirčo 2014b; 87 – after Kirčo 2005c: pl. 97, 2).

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manufactured on the potter's wheel. Also of note is the making of large vessels with the use of ceramic "pedestals" (Masimov 1976: Fig. 11:4; Udeumuradov 1993: Fig. 19). The latter are the single mass potter's tools now found at Altyn-Depe. The firing of the pottery was carried out mostly in two-tiered kilns of three types (Sajko 1980: 48). All these factors led to a sharp increase in the volume of production and the local division of pottery-making within the limits of the settlement. During the Middle Bronze Age, pottery-making at Altyn-Depe was a specialised craft (Sajko/Terehova 1981: 120), which probably was of commodity character.

3 Main components of cultural complexes at Altyn-Depe from the Eneolithic to the Middle Bronze Age

Metal (copper) goods in the Late Eneolithic period are represented by very numerous categories. These include awls, needles, single-edged and double-edged knives, pins and cosmetic sticks (**Fig. 3**: 19–29). A plate handle (or perhaps a miniature cylindrical vessel – **Fig. 3**: 30) has also been found. During the Early Bronze Age, the number of types of metal goods almost doubled. Mainly this included diverse cosmetic sticks and pins, as well as metal seals and mirrors (**Fig. 4**: 9–15; **Fig. 5**: 6–12). However, even the most complicated artefacts of the Early Bronze Age were made employing the technique of forging from cast blanks (hammering and drawing the metal, folding bands, stamping and engraving) (Kirčo 2001a: 71, Table 2).

The assemblage of metal objects from the Middle Bronze Age is marked by a sharp increase in the diversity of the functional and typological composition of tools, ornaments, toiletry objects and seals (**Fig. 2**: 17–37, 46, 47). Complicated and carefully made objects (partitioned stamp seals, cosmetic sticks with zoomorphic tops, metal vials) cast by the lost-wax method from an alloy of copper and lead (Terehova 2001: 111–112), lead-based alloys and, occasionally, from silver became widespread (Egor'kov 2001: 90–91, Table 2, 3). However, most of such artefacts, as well as rare objects of tin bronze (Egor'kov 2001: 88–89), have been found in the latest layers of Altyn-Depe.

In the iconography of *anthropomorphic representations* from Altyn-Depe, the image of a woman in a sitting position is the basic statuary type. In the Middle Eneolithic period, details of decoration and symbols were painted on massive and bulky clay and terracotta statuettes before firing. Sharp changes in the iconography took place in the Late Eneolithic (Kircho/Korobkova/Masson 2008: 123–127). Representations of sitting women are divided into two types. One has straight shoulders, dropping arms and flat back (**Fig. 3**: 12–14) while the other has a rounded torso gently passing into the neck (**Fig. 3**: 11). The faces have a clearly expressed hook-nosed profile (**Fig. 3**: 8, 9, 11, 14). Most of the figurines have complicated coiffures and neck ornaments (scratched lines or neck-laces rendered by cylindrical protrusions). On the shoulders of the statuettes, often slant stripes or rounded "knobs" are applied (**Fig. 3**: 13, 14). The statuettes and the details of their coiffure were painted after firing. Occasionally, symbolic signs are scratched on the thighs (**Fig. 3**: 10). Very rarely, such signs are applied with paint on the shoulders after firing (**Fig. 3**: 12). Figurines of standing men appeared with applied double beards (**Fig. 3**: 16, 17) and a cylindrical necklace (neck ring?), "knobs" on the shoulders, and a belt around the waist. In the opinion of some scholars, the peculiarity of the Late Eneolithic anthropomorphic representations in Southern Turkmenistan is due to influences from southern Mesopotamia and south-western Iran (Masson/Sarianidi 1972: 90–93, Fig. 23). Most of the types and variants of anthropomorphic representations dating from the Early Bronze Age and Late Eneolithic period coincide, and the techniques of their manufacture, are similar (**Fig. 4**: 28–35; 5: 13–19). The differences are limited to some roughening and massiveness of the figurines of the Namazga IV period and the almost total disappearance of painting.

The spread of the flattened anthropomorphic plastics took place throughout a brief period in the Middle Bronze Age. The transitional variants (relatively weighty but already flattened) are rare (**Fig. 5**: 15, 19). Representations dating both from the Late Eneolithic and Middle Bronze Age (**Fig. 2**: 38–41) show hook-nosed faces, applied eyes, complicated hair-styles or wigs, and symbolic signs on the shoulders and thighs. Although different in manner and technique of making, all these statuettes probably represent the likeness of the same figures.

Terracotta "reliquary" boxes with their walls decorated with carved step-like ornamentation appear at sites in south-eastern Turkmenistan during the Late Eneolithic period (**Fig. 3**: 42, 43) at once in their complete form, evidently copying some wooden prototypes. Vessels of nearly square plan, some figured or ornamented with painting, were found in layers as late as the Late Eneolithic period (**Fig. 3**: 44, 45). At Altyn-Depe, the "reliquaries" are most widespread in complexes of the Late Eneolithic and Early Bronze Age (**Fig. 4**: 37, 38; 5: 23), though they also continue into the Middle Bronze Age (Masson 1988: Pl. XVIII, 2). The "stepped" motifs of the "reliquaries" repeat the ornamentation of the pottery of the Geoksyur and post-Geoksyur styles of the Late Eneolithic period and have parallels in the architectural style of Mundigak (Dumarçay 1984: Figs. 7, 8).

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All the terracotta boxes, independently of their size, are weighty, fragile and richly decorated, which excludes their everyday use. Possibly these were models of ceremonial rooms used as a symbolic "dwelling" for a statuette (patroness of the home hearth?) (Kirčo 2010).

Among *clay animal figurines* there are reliably identified representations of billy goats, she-goats with applied udders, sheep, bulls and dogs (Kasparov 2008b). The traces of bridling (applied painted stripes or holes in the withers) on figurines of bulls (oxen?) and the representations of camel heads in the Early Bronze Age (**Fig. 5**: 22) suggest that bulls and camels were used as draught animals.

The finds of clay and terracotta *models of wheels and wagons*, as well as representations of draught animals, define three stages in the development of the oldest wheel transport in the south of Central Asia (Kirtcho 2009a).

The first stage (Middle Eneolithic) is supposedly identified through wheel-like objects and the remains of presumed models of wagons with fixed discoid wheels hafted on a revolving axis. The Late Eneolithic period and the first part of the Early Bronze Age are marked by two-wheeled one-axle carts with a single draught-pole and revolving wheels with hubs at the two sides (**Fig. 3**: 32, 40, 41; **Fig. 6**). These carts were possibly drawn by a pair of bulls (oxen?). At the end of the Early Bronze Age, two- and four-wheeled wagons with high boards appear, as well as the roofed ones. These were yoked with oxen or camels using shafts (**Fig. 2**: 48; **Fig. 5**: 25–27; **Fig. 7**). These wagons are the *most ancient single-animal ones*.

The appearance of the basic models of wagons and the character of the distribution of their finds correspond to the periods of the most active interactions between the population of Southern Turkmenistan and inhabitants of the adjoining regions in the late 4th millennium BCE and in the first centuries and the second half of the 3rd millennium BCE. Aridisation possibly induced the domestication of the camel, which became the main transport animal in Central Asia from the second half of the 3rd millennium BCE on.

Flat *amulet seals* with a hole for suspension appeared in Southern Turkmenistan at the end of the Middle Eneolithic period (Kirčo 2009b: Fig. 4: 26). At Altyn-Depe, flat bone and terracotta square-shaped and round-shaped seals with two axial suspension holes dated to the end of the Late Eneolithic period have been found (**Fig. 3**: 36–38). These objects continued the tradition of carved amulet seals from Kara-Depe and Geoksyur 1 of the Namazga III period (Masson/Sarianidi 1972: Pl. 25; Kircho 1989: Fig. 1).

The employment of flat seals with two axial suspension holes, as well as later stamp seals with a suspension eye on the back side, in the function of seals proper is suggested by fragments of clay bullae with seal impressions found in Altyn-Depe layers of the end of the Late Eneolithic period (**Fig. 3**: 33–35).

Clay bullae indicate that the function of the talismanic signs was the protection of property. During the Late Eneolithic period, the system of storage of long-term supplies (harvests?) changed significantly. At settlements of the Namazga I and II periods, grain was kept in large vessels – *khums*. They have been found in almost all dwelling house and economic complex. Among the pottery from Altyn-Depe of the Namazga III period there are no such vessels, and moreover there was no place for them in the houses. Meanwhile, at Altyn-Depe and Kara-Depe of the Late Eneolithic period, there were found foundations of granaries where undoubtedly supplies of grain for several families were stored. Sealed pots and bags with grain were transferred to granaries where probably the records of the contribution of each family to the common possession were probably made (Kircho/Korobkova/Masson 2008: 129–131).

The imprints found suggest that, at the end of the Late Eneolithic period, not only terracotta seals but also stone and metal ones were used (**Fig. 3**: 34, 35). Similar flat seals with two axial suspension holes and stamp seals with a suspension eye on the back side been found also at Altyn-Depe of the Early Bronze Age. In that period, flat seals with two axial suspension holes with drilled or cut cross-like motif predominated (**Fig. 4**: 5, 16, 39–42; **Fig. 5**: 29, 30). Flat seals with two axial suspension holes were in use also in the Middle Bronze Age (Masson 1988: Pl. XVII, 2, 7) when some of them bore different symbolical motifs (**Fig. 2**: 45).

Stamp seals with a suspension eye on the back appeared as early as the beginning of the Early Bronze Age but they are considerably rarer than the flat seals with two axial suspension holes (**Fig. 4**: 6, 21; **Fig. 5**: 6, 28). Diverse metal, stone and terracotta stamp seals are more typical for Altyn-Depe of the Middle Bronze Age (**Fig. 2**: 27–37, 42–44; Masson 1988: Pl. XVI, 1–12, 14–17; XVII, 1, 3–6, 8–14). Flat seals with two axial suspension holes were probably of local origin, while the form of stamp seals with a suspension eye on the back continued the tradition of the early agricultural complexes of Northern Mesopotamia of the 5th millennium BCE and Central Iran (Sialk) of the 4th millennium BCE.

Stone vessels from Altyn-Depe are represented by three categories:

The *ornamented mortar* for grinding organic substances (**Fig. 3**: 56), judging by a similar find from Kara-Depe of the Namazga III period, dates from the Late Eneolithic (Kirčo/Šarovskaâ 2001).

The *small vessels* of alabaster, marble-like limestones and steatite possibly served for keeping cosmetic substances. These cosmetic vessels, predominantly of alabaster, appeared in the Late Eneolithic

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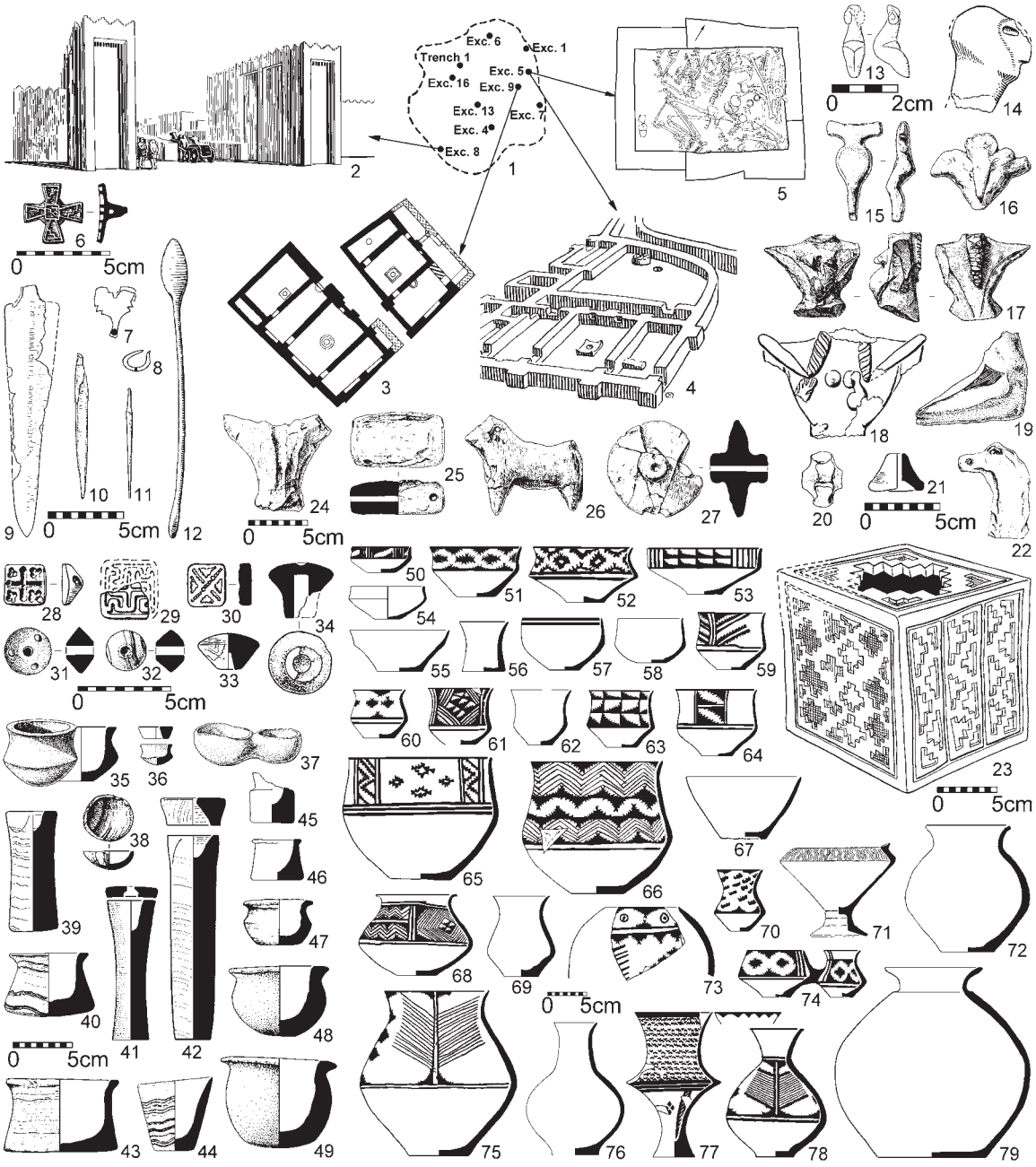


Fig. 5: Altyn-Depe during the Early Bronze Age (horizons Altyn 5–4), the main components of the cultural complex: **1** – schematic plan of the location of the excavations; **2** – south-western entrance (reconstruction, after Masson 1988: Fig. 11); 3, 4 – plan and isometric view of dwellings; 5 – burial chamber; **6–12** – metal; **13–23** – terracotta; **24–27** – clay; **28–49** – stone; **50–79** – ceramics (1 — drawing by L.B. Kircho based on: Masson 2006: Pl. 11; 2, 4 — drawings by V.B. Zernov; 3 – after Berezkin 2001: Fig. 1; 5, 14, 20, 21 — after Masson 2006: Pl. 11; 6–12 – after Kirčo 2001a; 13, 15, 16, 18, 19, 22, 28–30 – after Kirčo 2009b; 17, 23, 73, 78, 79 — after Kirčo 2005c; 24–27 – after Kirčo 2009a; 31–34, 39, 45, 46 – after Kirčo 2014a; 35–38, 40–44, 47–72, 74–77 – after Kirčo 2005b).

period (**Fig. 3**: 48–55). They are often decorated with slits or a relief fluted surface. As early as the Early Bronze Age, there appeared roughly cylindrical "glasses" from marble-like limestone with a flat nearly triangular rim (**Fig. 4**: 57–60). "Glasses" and small bowls became the leading forms of cosmetic vessels in the Early Bronze Age (**Fig. 5**: 35, 37, 41, 43, 46–49; Kirčo 2005b: 403–404) and in the Middle Bronze Age (**Fig. 2**: 56, 57, 60).

So-called "lamps" (**Fig. 2**: 58; **Fig. 4**: 61–64; **Fig. 5**: 5, 36, 39, 41, 42) served as special reservoirs for the *dilution* of cosmetics, as was identified by analyses of their contents (Vidale/Salviulo/Zorzi/Mocchiutti 2016). In the upper part of these arte-

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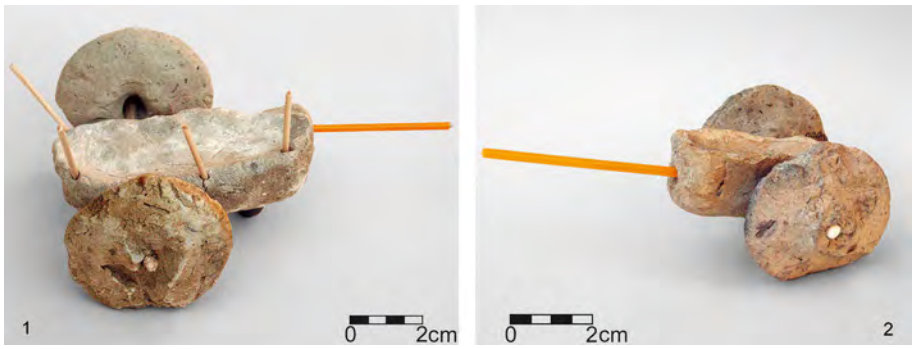


Fig. 6: Altyn-Depe, cart models of the Late Eneolithic period: **1** – clay; **2** – terracotta (1 and 2 after Kirčo 2009a: Figs. 4 and 3; photos by T.A. Eršova).

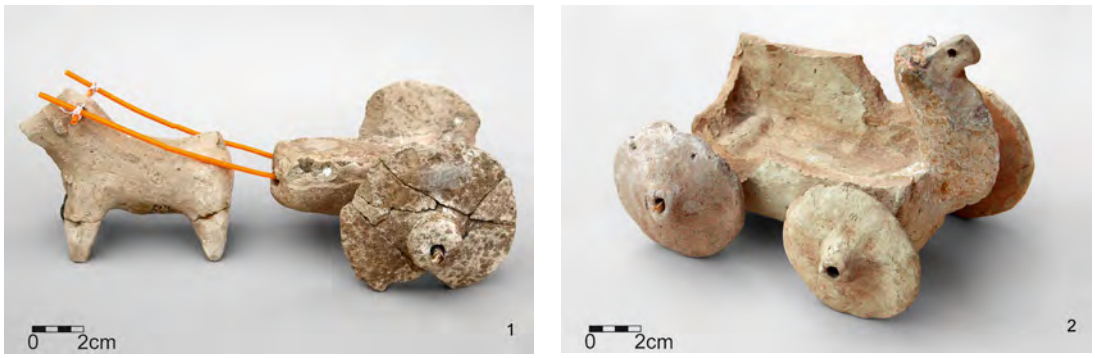


Fig. 7: Altyn-Depe, wagon models of the Early (**1**) and Middle (**2**) Bronze Age: 1 – clay; 2 – terracotta (after Kirčo 2009a: Figs. 7 and 8; photos by T.A. Eršova).

facts there is a hollow once covered with a nearly square or round lid with a hole (**Fig. 2**: 58; **Fig. 4**: 62, 63; **Fig. 5**: 36, 41, 42). Containers of this type were found almost exclusively among the grave goods from female burials. They are a typical component of cultural complexes at Altyn-Depe of the Namazga IV period (Kirčo 2014a: 68–70, Fig. 3).

Cosmetic stone vessels were most widespread at Altyn-Depe during the Late Eneolithic period and Early Bronze Age. At the end of the Early Bronze Age, ceramic cosmetic vessels appeared, while the end of the Middle Bronze saw bottles of metal, which evidently almost completely ousted the stone ones (Kirčo 2005b: 401–404).

There have been a few finds of *ornaments* (beads and a pendant) of the Late Eneolithic period and Early Bronze Age made from turquoise, cornelian, chalcedony, lapis lazuli, marble-like limestone, terracotta (Kirčo 2005b: 390–400) and artificial minerals (fired steatite and quartz/cristobalite) (Kirčo/Kovnurko 1999; 2003). In addition, there have been found wastes from manufacture of stone beads in horizons Altyn 7 and Altyn 6 of the Namazga IV period (Kirčo 2014a: 71–72, Fig. 4).

Among the Early and Middle Eneolithic *spinning tools*, large weighty terracotta spindle-whorls are the most widespread type. In the Late Eneolithic period, the spindle-whorls gradually diminished in size while their forms became differentiated. There appeared biconical bead spindle-whorls for making the knitting needles heavier. Terracotta "tops" which presumably served as locks for the bobbins became widespread (Kircho/Korobkova/Masson 2008: 131–133). In the Early Bronze Age, truncated-conical terracotta spindle-whorls, stone bead spindle-whorls and "tops" became predominant (**Fig. 4**: 23–26, 45–48; **Fig. 5**: 20, 21, 31–34). By the end of this period, almost all the spindle-whorls and "tops" acquired an elongated form with concave lateral sides. These truncated-conical spindle-whorls and "tops" made from limestone or shaped on the potter's wheel are a characteristic feature of the cultural complex of the Middle Bronze Age in Southern Turkmenistan (Kirčo 2014a: 75; Masimov 1976: Fig. 14).

4 Building complexes and the organisation of the space at Altyn-Depe: Traditions and innovations

At Altyn-Depe, the dwelling and economic complexes of the Late Eneolithic period consisted mostly of

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two-room houses (**Fig. 3**: 4–6) with adjoining courtyard areas.

In the settlements of the Geoksyur oasis, Ilgynly-Depe and Kara-Depe of the Namazga II–III periods, the entrances led from the courtyard or a passage between the houses directly into the main room of the house. In Altyn-Depe, the entrances to the houses found in horizons Altyn 11–10 led to the through-passage room or "vestibule" via which one passed to the main room. The latter usually had a fireplace on a round adobe base. Possibly, the change in the plan of the dwelling in the middle and end of the Late Eneolithic period was connected with changes in climate and the necessity to protect dwelling rooms against atmospheric effects.

The courtyards served for communication and economic purposes, while courtyard B in horizon Altyn 11 with a specially levelled surface and a water drain was intended for a ceremonious purpose (Kircho/Korobkova/Masson 2008: 63, Fig. 12). In building horizon Altyn 9, there was found the foundation of a large granary (**Fig. 8**; Kircho 1988: Fig. 2) which could have stored up to 30 sq m of grain. Almost all fragments of clay bullae with imprints of seals and ropes come from the courtyard area around this granary. Each courtyard was evidently used by inhabitants of several households, so the granary undoubtedly stored of supplies for a group of families.

As early as in the 4th millennium BCE, Altyn-Depe (or, at least, some part of it) was encircled by adobe walls up to 1.7 m thick. The walls had special passages and were strengthened by buttresses (**Fig. 3**: 2, 3). The same period is marked by the beginning of construction of the south-western entrance to the settlement. However, the defensive character of these structures is rather doubtful. It is more probable that these walls of the Eneolithic period served to support the edge of the settlement (Kirčo 2001b: 14–17).

At the beginning of the Early Bronze Age (horizons Altyn 8–7), houses with two (occasionally three) fairly large rooms constituted, as before, the main architectural units at Altyn-Depe (Kirčo 2001b: 17–20, Figs. 8, 9). In horizon Altyn 6, the majority of excavated dwelling units represented block-houses with the main room (living space) and a small "vestibule" (**Fig. 4**: 3). Five houses of this type occupied the eastern living quarter and three of them had a common household courtyard.

More spacious three-room houses with a suite of passages appeared in the period associated with horizon Altyn 5 (Fig. 5:4). In the centre of the house there was a dwelling room. On both sides of this there were two other rooms, one of which served as the "vestibule". Auxiliary rooms were ranged along one or two sides. Each house of this type had its own small household courtyard. Similar houses became predominant in the end of the Early Bronze Age.

In the centre of the main rooms there were fireplaces on adobe bases raised above the floor. In the middle of the bases there were found slightly fired round holes. In the houses of the Late Eneolithic period at Altyn-Depe, there were only fireplaces on round clay bases (1 m in diameter) with a low retaining wall forming their perimeter (**Fig. 3**: 5). Similar fireplaces (0.8–0.85 m in diameter) were discovered in one of the houses in horizon Altyn 7 at excavation 5 and in complex 28 in horizon Altyn 4 at excavation 9 (**Fig. 5**: 3; Berezkin 2001: 42, Fig. 1). Hearths on round bases (0.7–0.9 m in diameter) without ledges around the perimeters were found in houses of horizons Altyn 6–4. During the Middle Bronze Age, hearths on round bases became rare and are considered as cult installations.

In houses of the Early Bronze Age, hearths on nearly square adobe bases were predominant. Large (0.8–0.9 × 0.8–1.04 m) fireplaces of this type with low walls along the edge and with small clay posts in the four corners are often called hearth-podiums (**Fig. 4**: 3; **Fig. 5**: 3, 4). These have been discovered in houses of horizons 7–4 in Altyn-Depe. Smaller (0.5–0.7 × 0.5 × 0.7 m) hearths had no walls at the perimeter. Hearths on an approximately square adobe base without ledges are typical also of dwellings of the Middle Bronze Age.

In each building horizon of the Early Bronze Age, one dwelling complex in the settlement's quarter is remarkable for the regularity of its plan, the care of its finish and the details of the interior (large fireplaces on adobe bases, niches – Masson 1988: Pl. I). These houses are probably to be considered as dwellings of families concerned with some administrative or religious functions. A living quarter of five to six dwelling complexes may have belonged to a group of small families united by kindred relations and possessing a common sanctuary.

Monumental structures of the Early Bronze Age were uncovered at the north-eastern and south-western edges of Altyn-Depe. At the north-eastern edge of the "Wall Mound", an encircling wall about 2 m thick and over 2.5 m high was built at the very beginning of the period under consideration. At the side of the settlement, this wall was strengthened by square buttresses (**Fig. 4**: 2; **Fig. 9**; Kircho 1988: Fig. 7; 2001b: 36, Fig. 15).

At the south-western edge of Altyn-Depe during the Bronze Age, the main entrance to the settlement continued to function. Here, monumental structures have been excavated where the history of construction and function comprise, in the opinion of Vadim M. Masson, at least five periods (Masson 1988: 27–29, Figs. 10, 11). At the end of the Early Bronze Age (period 4), the gate was flanked by two pylons. The latter were joined by sections of thick (up to 6 m) walls strengthened by buttresses from the outside. The internal space of the entrance was divided by

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Fig. 8: Altyn-Depe, the foundation wall (?) of the granary (horizon Altyn 9) (after Kircho 1988: Fig. 5:2/photo by L.B. Kircho).

low walls into the transport and pedestrian streets (**Fig. 2**: 2).

5 Burial complexes of Altyn-Depe: Problems of cultural transformation

The Late Eneolithic period and the beginning and middle of the Early Bronze Age at Altyn-Depe are characterised by individual graves of children and adults in pits, and by sequential burials in round and rectangular surface chambers where mostly two or three persons were buried (**Fig. 3**: 7; **Fig. 4**: 4). Simultaneous interment of three persons in a pit is also known (**Fig. 10**). The small number of the dead suggests that a small family of two or three generations was the basic unit of the community. The ornaments put in burials of women and children[2] are limited by small necklaces of beads and amulet pendants. For the Early Bronze Age, "rich" grave goods comprising a cosmetic set (stone cosmetic vessels and a metal stick), meat, and, in addition, a metal mirror and a stone container for the dilution of cosmetics have been uncovered only in burials of women of different age who possibly fulfilled religious functions. In a burial, presumably of a man there were found two seals (**Fig. 4**: 5, 16). In a child's grave and funerary chambers were found anthropomorphic statuettes.

At the end of the Early and beginning of the Middle Bronze Age, the number of those buried in funerary chambers increased. These tombs are represented by exclusively rectangular structures (**Fig. 5**: 5). There appeared double sequential burials in a subterraneous chamber and children's burials in ceramic vessels. Dated to the same period are three funerary complexes where successive replacement of the remains from one chamber to another and burials of isolated skulls have been discovered. A tradition appeared of placing some of the grave offerings near the funerary chamber, whereas storage vessels were put in the chambers themselves, along with tableware. Stamp seals and toiletry sets are found among the grave goods in "rich" female burials and, as during the preceding stage, these types of artefacts are never encountered together.

At the middle and beginning of the later stage of the Middle Bronze Age, the diversity of forms of burials increased sharply (individual, double simultaneous and successive interments in pits and vessels, triple sequential burials, funerary chambers with a large number of the dead). The grave goods also became richer and more diverse. A series of children's and female burials are characterised by numerous ornaments consisting of beads (necklaces, belts, and sewn-on decorations) and metal seals. The traditions of including anthropomorphic figurines in the composition of grave offerings and the placement of some goods near the funerary chamber continued. In "rich" individual female burials, toiletry sets and seals are represented. New categories of metal objects appear in the graves – "small shovels" (**Fig. 2**:

2 Anthropologic identifications were carried out by Tat'yana P. Kiyatkina.

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Fig. 9: Altyn-Depe, the encircling wall of the Early Bronze Age (horizons Altyn 8–6) (photo by L.B. Kircho).

26) and cosmetic vials. First, burials of men are distinguished through the composition of their grave goods. The diversity of groups of burials and differing sets of funeral offerings in the periods of the Middle and Late Namazga V indicate the complex social structure of Altyn-Depe of the Middle Bronze Age (Kirčo 2005a: 344–345; 2005b: 419–421).

6 Production at Altyn-Depe: Traditional techniques, technical and technological innovations, and the formation of handicrafts

In the Late Eneolithic period there appeared irrigation *agriculture* in Southern Turkmenistan (Lisicyna 1978: 209–212). For the cultivation of land, probably the draught strength of bulls (oxen?) in paired ploughing teams was employed (Kirtcho 2009a: 27). Evidently, wooden ploughs were still used. Hull-less barley and wheat were harvested, possibly using metal sickles. The shelling of the corn was done by means of mortars and pestles,[3] while the grain was ground with two-handled grinders on boat-shaped or square querns (Korobkova 2004: 108). The granary uncovered, together with numerous grain-processing tools of the Late Eneolithic period (Korobkova 2001: 157, Table 1), suggest that fairly large quantities of grain were harvested.

During the Early Bronze Age, the number of grain-processing tools steadily increased. Simultaneously, at the end of this period the system of storage of the supplies again changed. In houses of horizons Altyn 4A–B at excavation 5, separate storage vessels standing or dug into the floors, and probably for keeping current supplies of corn, were found.

The sources of meat and raw materials for a number of manufactures were provided by *animal breeding* and *hunting*. As suggested by animal skeletal remains, from the Late Eneolithic to the Middle Bronze Age, small horned cattle, mostly sheep, predominated.[4] The ratio of large horned cattle decreased from 7–8% to 5% over the Bronze Age. This fact was probably due to the deterioration of the climate. There were also found bones of dogs of different breeds and sizes. Skeletal remains of hunted animals including Asiatic wild ass, goitrred gazelle, mountain goat and sheep amount to about 30% in the Late Eneolithic period (Kasparov 2008a). In the Early Bronze Age, the importance of hunting

3 Tracewear identifications of the functions of tools and the technology of their manufacture were conducted by Galina F. Korobkova and her assistants Tamara A. Sharovskaya and Natalya N. Skakun.

4 Animal breeding and hunting in the Late Eneolithic – Middle Bronze Age were studied by Nina M. Ermolova and Alexey K. Kasparov on the basis of osteological finds.

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Fig. 10: Altyn-Depe, burials 843–845 of the Early Bronze Age (period Altyn 8) (photo by L.B. Kircho).

decreased (the ratio of wild animals was 15–20%) (Ermolova 1976: Fig. 2).

At Altyn-Depe, stone tools formed the majority of unearthed instruments for all kinds of manufactures, including metallurgy and metalworking (Kircho/Korobkova/Masson 2008: 161–166). *Stone* was worked in specialised working areas (in the workshops) by cleaving, stone-pecking, pressure flaking, sawing, cutting, scraping, drilling, grinding and polishing.

For making alabaster vessels in the periods from Namazga III to early Namazga IV, natural concretions were used, which were worked by flaking, cutting, trimming and scraping the stone (**Fig. 3**: 51; Šarovskaâ 2002). The technology of this type is rather archaic and its prototypes are found in the technology of making wooden vessels.

Mortars from limestone and sandstone, including an ornamented one, were manufactured by means of stone-pecking and grinding with abrasives (Kirčo/Šarovskaâ 2001).

In the Early Bronze Age, the importance of the stone-working production decreased considerably (Korobkova 2001: 182). Simultaneously, the specialised character of manufacture of cosmetic vessels, seals, statuettes and beads from hard semi-precious stone became more distinct. For making blanks, the stone was sawn. Shaped as parallelepipeds, these blanks served for making roughly square seals and cosmetic vessels with cubic containers. For the manufacture of objects of round section (vessels and seals), cylindrical blanks were used which were shaped by flaking and chopping. It is also possible that cylindrical blanks were prepared by abrasive drilling on the inside.

The outer surface of the blanks was ground and polished. The inner space of the vessels was shaped mostly by internal abrasive grinding or by means of massive conical drills. Circles as ornamentation were engraved by means of the circle-shaped chisels. Dotted motifs, mostly on stone seals of the Early and Bronze Age, were engraved by pointed drilling (Kirčo 2014a: 75–78).

Thus in the Early Bronze Age, sawing and drilling of stone by means of diverse revolving instruments was widely used. Possibly, a considerable number of operations were already carried out with metal tools. The complex technology with the use of diverse tools and the high artistic level of the prestigious, symbolic and cult stone objects suggest production by highly qualified stone-carving artisans.

The middle of the Early Bronze is marked at Altyn-Depe by the introduction of the technology of the *production of artificial minerals*. These included fired steatite and quartz/cristobalite. The latter is formed during high-temperature firing of sedi-

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mental rocks containing compounds of silicon. The technique of making objects from steatite with subsequent firing was introduced to Iran and Central Asia from India. The recrystallisation of steatite and compounds of silicon occurs at about 1000 °C and higher, and obtaining of such temperatures needs, among other things, a strong air feed. The use of sedimental rocks as the raw material with the subsequent production of quartz/cristobalite indicates that artisans from Altyn-Depe applied the borrowed technology to local materials (Kircho/Kovnurko 2003: Table 2).

The set of stone tools for *metallurgy* and *metalworking* comprises the following objects: 1) abrasives and whetstones for grinding and whetting metal tools; 2) tools for forging – hammers and anvils; 3) tools for making jewellery – anvils for drawing foil, small hammers and matrixes for the manufacture of relief objects from foil. In the layer of the end of the Late Eneolithic period, there were uncovered tools for cool forging and for the extraction and reduction of ore, as well as areas for casting and forging work.

In the Early Bronze Age, the importance of metallurgy and metalworking sharply increased: the number of tools for processing of ore rose, forging tools were differentiated, and tools for hot forging (anvils and special hammers) appeared (Korobkova 2001: 182, 183, Table 2). Tools for the manufacture of small jewellery amount to about 20% of all tools for metalworking. In almost every dwelling complex, specialised abrasives and whetstones were found. However, their stratigraphic distribution is irregular: 70% of tools for ore reduction, over 50% of forging tools, and almost 40% of abrasives and whetstones dating from the Early Bronze Age at excavation 5 were found in horizon Altyn 8, where the buildings differ from those of other dwelling and economic complexes. It is possible that most of these structures comprised the production complex for processing ore and making metal tools and goods.

Investigations of the main branches of industries concerned with stone tools and goods, as well as analysis of their stratigraphic and topographic distribution, suggest that as early as the Late Eneolithic period and the beginning of the Early Bronze Age, three categories of manufacture related to activities of professional artisans were distinguished. This was the making of stone vessels and other articles, forging and metallurgy connected through a common technological process, and jewellery, i.e. the manufacturing of metal ornaments. These kinds of manufacture were not only provided with a set of professional tools, but were also separated in space, and, along with ceramic production (which widely comprised the making of clay pottery and prestigious, religious and everyday products from clay), were technologically and organisationally the most advanced branches of economy.

7 Conclusions

Studies of material finds from Altyn-Depe enable us to identify two stages of the formation of the cultural complex and technical and technological base of the industry of an early-urban centre.

The first stage is the Late Eneolithic period, when in Southern Turkmenistan, in particular at Altyn-Depe, there were transformation of the Middle Eneolithic Anau cultural complex (Namazga II, ca. 3700/3600–3200/3100 BCE), the system of settlement changing and the population becoming concentrated in large centres. These transformations had been prepared by the high level of development of the culture of the Middle Eneolithic period comparable with that of advanced Ancient Near Eastern centres. At the same time, progress in pottery-making (the invention of two-chambered kilns), the beginning of specialisation in metalworking (in particular, the separation of jewellery) and, presumably, the appearance of wheeled transport in the Middle Eneolithic period were produced by influences from more developed Iranian centres, whose population may also have moved to the area. In addition, these changes may have been due to cultural interactions concerned with the strengthening of interregional relations and the appearance of the northern "Lazurite Road" in the second half of the 4th millennium BCE.

During the Late Eneolithic period (Namazga III, ca. 3200/3100–2800/2700 BCE) Altyn-Depe had become a large centre with an area of about 25 ha. The organisation of the space of the settlement as a single whole began. In some areas, fencing and supporting walls up to 1.7 m thick were constructed; the south-western entrance and the main street extending from south-west to north-east were arranged. Via the latter, two-wheeled wagons possibly moved, drawn by bulls (oxen?). Irrigated fields were the basis of agriculture, with draught cattle possibly employed for ploughing. The system of the individual storage of grain in each household was replaced by collectively used granaries for keeping supplies for groups of families. The circulation of these supplies was controlled by means of seals which served, perhaps, as signs of ownership.

The cultural complex of Altyn-Depe of the Late Eneolithic period is characterised (**Fig. 3**) by pottery of the Geoksyur and post-Geoksyur types, clay and terracotta representations of sitting women and standing men with applied details of decoration, flat seals with two axial suspension holes from terracotta and bone used as protective amulets and, possibly, as signs of ownership, terracotta "reliquary" boxes (presumably models of dwellings), models of

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one-axle wagons on wheels with hubs at two sides, cosmetic alabaster vessels; copper cosmetic sticks, ornaments in the form of stone and terracotta bead pendants and small necklaces, differentiated types of spinning tools (diverse spindle-whorls) and the appearance of knitting tools (stone biconical beads/spindle-whorls).

The specialised set of working tools, the division of manufacturing areas, and the high technological and artistic level of the artefacts suggest that professional artisans were occupied with pottery-making, and with stone- and metal-working. By the end of the period under consideration, the metallurgic production concerned with processing of imported ore instead of just copper blanks was first localised. In the manufacture of both cult and everyday objects, new raw materials began to be employed.

The structure of dwellings also changed. One-room houses of the Early and Middle Eneolithic periods were replaced by two-room houses consisting of a dwelling room (with a round hearth on an adobe pedestal) and an entrance "vestibule", i.e. the living space became more protected against external impacts. In burial rites, along with individual interments in the cultural layer of the site, collective burials in surface mortuary chambers became widespread. Moreover, at Kara-Depe and Geoksyur 1, the burials, both individual and collective, began to be grouped into separate small burial grounds. There appeared "rich" female burials with a "standard" toiletry set of stone cosmetic vessels and a copper stick topped with a "shovel", while terracotta female statuettes were introduced into the composition of grave goods in burial chambers.

In the Late Eneolithic cultural complex at Altyn-Depe, changes in the technology and organisation of the main kinds of production, as well as in the dimensions and internal structure of the settlement, all suggest the strengthening of cooperation (in agriculture and building) and the greater complexity of the social structure. These processes explained by the changes in the natural environment (the widespread climatic change known as "event 5300 cal BP") and intensive interregional contacts in the late 4th and early 3rd millennium BCE reflect the formation of the cultural and technical-technological basis of the earliest urban settlement of the Bronze Age in Central Asia.

The second stage included the further development of the culture of Altyn-Depe during the Early Bronze Age (period Namazga IV, ca. 2800/2700–2350 BCE), induced primarily by the technical and technological progress in the main branches of production. The introduction of the pottery wheel and then use of revolving tools (different types of drills and, possibly, table drills and chisels by the end of the period under consideration) for working a variety of hard stones not only provided the increase of the working efficiency of the potters and stone cutters but also promoted standardisation of products and a higher level of quality. Diverse semi-precious stones and artificial minerals were used in manufacture of objects of cult and prestige (seals, anthropomorphic statuettes), toiletry articles (vessels for storing and diluting cosmetics) and ornaments. Metalworking made progress – there appeared articles with stamped and engraved ornamentation, and figured tops of sticks. Tracewear studies of tools and manufacture have demonstrated that specialisation concerned practically all kinds of production.

The second very important technological factor in the Early Bronze Age was related to a breakthrough in the field of heat engineering and systems for controlling fire. The smelting of copper at the site, the wide use of hot forging in metalworking, and the attaining of high temperatures for firing small stone artefacts show that in different branches of production at Altyn-Depe during the Early Bronze Age, a search was conducted for optimal regimes for the heating of raw materials and articles. This research finally led at the end of this period to the invention of the lost-wax method of casting and of two-tiered kilns for firing pottery.

The cultural complex of the Early Bronze Age (**Fig. 4; Fig. 5**) continued and developed into Late Eneolithic traditions. Almost all the main components of the culture of the periods of the Early and Middle Namazga IV (types of houses, forms and ornamentation of ceramic vessels, anthropomorphic figurines, seals, "reliquaries", alabaster cosmetic vessels, copper cosmetic sticks and mirrors) have prototypes among the Late Eneolithic materials. However, in addition, as early as during the beginning of the Early Bronze Age, there appeared metal and terracotta stamp seals, vessels fashioned from hard stones for keeping and diluting cosmetics, and there was finally established the "standard" set of grave goods in the "rich" female burials containing stone cosmetic vessels, a copper stick, and a copper mirror. The cultural complex of the Late Namazga IV (ca. 2400 BCE) is close to that of the Middle Bronze Age (Namazga V, ca. 2350–2000 BCE). Partitioned stamp seals of copper or stone, standard forms of ceramic ware, and stone cosmetic vessels, as well as tools for spinning and knitting, demonstrate that these artefacts were produced by experienced artisans.

By the end of the Early Bronze Age, the social structure of the population of Altyn-Depe began to change. This is suggested by the increase of those buried in funerary chambers, double successive burials in subterranean chambers and children's burials in ceramic vessels. Graves of women with a cosmetic set differed distinctly from female burials with seals – symbols of property and household account. Nevertheless, the social differentiation was still rather indistinctly expressed.

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Thus at the end of the Early Bronze Age at Altyn-Depe (as well as in Southern Turkmenistan in general), the formation of the industrial base of specialised crafts as the economic basis of the ancient urban settlement was complete. Simultaneously, the appearance of new means of transport, i.e. four-wheeled wagons and the domestication of the camel, had intensified the cultural and trade interactions with all the surrounding cultures, with regions that provided raw materials, and centres of ancient civilisations.

The further evolution of the early urban culture in Southern Turkmenistan was related to the development of the ancient delta of the Murghab River. As a result of the global climatic changes of the late 3rd millennium BCE ("event 4200 cal BP"), the movements of ancient peoples and tribes were intensified both in the Ancient East and in the steppe belt of the cultures of the Middle and beginning of the Late Bronze Age.

Bibliography

Amiet, P.
1986: *L'âge des échanges inter-iraniens 3500–1700 avant J.-C.*, Paris.

Berezkin, Û.E.
2001: Kvartal'nyj centr èpohi bronzy na Altyn-depe, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 40–59.

Dumarçay, J.
1984: L'architecture de Mundigak, *Bulletin de l'Ecole française d'Extrême-Orient* 73, 47–66.

Egor'kov, A.N.
2001: Osobennosti sostava metalla Altyn-depe, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 85–103.

Ermolova, N.M.
1986: Materialy k izučeniû skotovodstva i ohoty v Central'noj Azii v èpohu èneolita i bronzy, in: Masson, V.M. (ed.), *Drevnie civilizacii Vostoka. Materialy II Sovetsko-amerikanskogo simpoziuma*, Tashkent, 110–117.

Kasparov, A.K.
2008a: Faunal Remains from the Late Eneolithic Layers at Excavation 5 of Altyn-Depe, in: Kircho, L.B./Korobkova, G.F./Masson, V.M., *The Technical and Technological Potential of the Eneolithic Population of Altyn-Depe as the Basis of the Rise of an Early Urban Civilisation* (= Proceedings of the Institute for the History of Material Culture 28), Appendix 1, St. Petersburg, 354.

2008b: Zoomorphic Figurines from the Settlement of Altyn-Depe in: Kircho, L.B./Korobkova, G.F./Masson, V.M., *The Technical and Technological Potential of the Eneolithic Population of Altyn-Depe as the Basis of the Rise of an Early Urban Civilisation* (= Proceedings of the Institute for the History of Material Culture 28), Appendix 2, St. Petersburg, 355–364.

Kircho, L.B.
1988: The Beginning of the Early Bronze Age in Southern Turkmenia on the Basis of Altyn-depe Materials, *East and West* 38, 33–64.

1989: Seals and their Imprints in the Early Agricultural Assemblages (New Materials from Southern Turkmenia), in: Bökönyi, S. (ed.), *Neolithic of South-Eastern Europe and its Near Eastern Connections: International Conference Szolnok – Szeged 1987* (= Varia Archaeologica Hungarica 2), Budapest, 123–129.

Kirčo, L.B.
2001a: Metalličeskie izdeliâ Altyn-depe, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 60–84.

2001b: Osnovnye tipy sooruženij i tehnologiâ stroitel'stva Altyn-depe v èpohu pozdnego èneolita i rannej bronzy, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 5–39.

2003: Osnovnye ètapy razvitiâ tehnologii gončarstva Altyn-depe, in: Masson, V.M. (ed.), *Peterburgskaâ trasologičeskaâ škola i izučenie drevnih kul'tur Evrazii*, St. Petersburg, 177–191.

2005a: Obŝaâ harakteristika pogrebenij Altyn-depe, in: Masson, V.M./Berezkin, Û.E. (ed.), *Hronologiâ èpohi pozdnego èneolita – srednej bronzy Srednej Azii (pogrebeniâ Altyn-depe)* (= Trudy Instituta istorii material'noj kul'tury Rossijskoj akademii nauk 16), St. Petersburg, 324–346.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

2005b: Pogrebal'nyj inventar' Altyn-depe, in: Masson, V.M./Berezkin, Û.E. (ed.), *Hronologiâ èpohi pozdnego èneolita – srednej bronzy Srednej Azii (pogrebeniâ Altyn-depe)* (= Trudy Instituta istorii material'noj kul'tury Rossijskoj akademii nauk 16), St. Petersburg, 347–421.

2005c: Tablicy, in: Masson, V.M./Berezkin, Û.E. (ed.), *Hronologiâ èpohi pozdnego èneolita – srednej bronzy Srednej Azii (pogrebeniâ Altyn-depe)* (= Trudy Instituta istorii material'noj kul'tury Rossijskoj akademii nauk 16), St. Petersburg, 147–313.

2005d: Stratigrafiâ Altyn-depe, in: Masson, V.M./Berezkin, Û.E. (ed.), *Hronologiâ èpohi pozdnego èneolita – srednej bronzy Srednej Azii (pogrebeniâ Altyn-depe)* (= Trudy Instituta istorii material'noj kul'tury RAN 16), St. Petersburg, 315–323.

Kirtcho, L.B.
2009a: The Earliest Wheeled Transport in Southwestern Central Asia: New Finds from Altyn-Depe, *Archaeology, Ethnology and Anthropology of Eurasia* 37/1, 25–33.

Kirčo, L.B.
2009b: Osnovnye napravleniâ i harakter kul'turnyh vzaimodejstvij naseleniâ Ûžnogo Turkmenistana v V–III tys. do n. è., *Stratum plus* 2005–2009/2, 374–392.

2010: "Relikvarii" Altyn-depe, *Zapiski Instituta istorii material'noj kul'tury RAN* 5, 117–122.

2014a: Izdeliâ iz kamnâ i istočniki syr'â v period rannej bronzy (po materialam Altyn-depe, Ûžnyj Turkmenistan), in: Alëkšin, V.A. et al. (ed.), *Arheologiâ drevnih obŝestv Evrazii: hronologiâ, kul'turogenez, religioznye vozzreniâ. Pamâti Vadima Mihajloviča Massona* (= Trudy Instituta istorii material'noj kul'tury RAN 42), St. Petersburg, 62–85.

2014b: Problems in the Periodic Division and Chronology of Sites of the Palaeometallic Age of Southern Turkmenistan and the Stratigraphic Sequence at Altyn-Depe, in: Lamberg-Karlovsky, C.C./Genito, B./Cerasetti, B. (ed.), *"My Life is Like the Summer Rose": Maurizio Tosi e l'archeologia come modo di vivere. Papers in Honour of Maurizio Tosi for his 70th birthday* (= British Archaeological Reports Series 2690), Oxford, 359–364.

2017: K datirovke geoksûrskogo kompleksa (novye dannye iz Altyn-depe v Ûžnoj Turkmenii), *Zapiski Instituta istorii material'noj kul'tury RAN* 16, 35–51.

Kircho, L.B./Korobkova, G.F./Masson, V.M.
2008: *The Technical and Technological Potential of the Eneolithic Population of Altyn-Depe as the Basis of the Rise of an Early Urban Civilisation* (= Proceedings of the Institute for the History of Material Culture 28), St. Petersburg.

Kirčo, L.B./Kovnurko, G.M.
1999: Mineralogo-petrografičeskaâ harakteristika nahodok iz pogrebenij Altyn-depe i voprosy hronologii, *Arheologičeskie vesti* 6, 76–85.

2003: Prestižno-kul'tovye predmety i ukrašeniâ Altyn-depe iz drevnih iskusstvennyh mineralov (po dannym rentgenometričeskogo analiza), *Arheologičeskie vesti* 10, 108–113.

Kirčo, L.B./Šarovskaâ, T.A.
2001: Ornamentirovannyj kamennyj sosud iz Altyn-depe (k voprosu o postgeoksûrskom komplekse Ûžnogo Turkmenistana), *Arheologičeskie vesti* 8, 120–124.

Korobkova, G.F.
2001: Funkcional'naâ tipologiâ orudij truda i drugih nemetalličeskih izdelij Altyn-depe, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 146–212.

2004: Hozâjstvenno-proizvodstvennaâ deâtel'nost' naseleniâ Altyn-depe (po dannym kompleksnogo izučeniâ kamennyh orudij), in: Korobkova, G.F. (ed.), *Orudiâ truda i sistemy žizneobespečeniâ naseleniâ Evrazii (po materialam èpoh paleolita – bronzy)*, St. Petersburg, 92–136.

Lisicyna, G.N.
1978: *Stanovlenie i razvitie orošaemogo zemledeliâ v Ûžnoj Turkmenii*, Moscow.

Masimov, I.S.
1976: *Keramičeskoe proizvodstvo èpohi bronzy v Ûžnom Turkmenistane (po materialam raskopok poseleniia Altyn-depe)*, Ashgabat.

Masson, V.M.
1977: Pečati protoindijskogo tipa iz Altyn-depe, *Vestnik drevnej istorii* 142, 147–156.

1988: *Altyn-depe* (= University Museum Monograph 55), Philadelphia.

2006: *Kul'turogenez Drevnej Central'noj Azii*, St. Petersburg.

Masson, V.M./Sarianidi V.I.
1972: *Central Asia: Turkmenia before the Achaemenids* (= Ancient Peoples and Places 79), London.

Sajko, È.V.
1980: Remeslennoe proizvodstvo poselenij Ûžnogo Turkmenistana v èpohu bronzy (O gončarnom proizvodstve Altyn-depe), *Izvestiâ Akademii nauk Turkmenskoj SSR* 3, 46–51.

Sajko, È.V./Terehova, N.N.
1981: Stanovlenie keramičeskogo i metalloobrabatyvaûŝego proizvodstva, in: Kolčin, B.A./Sajko, È.V. (ed.), *Stanovlenie proizvodstva v èpohu*

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èneolita i bronzy (po materialam Ûžnogo Turkmenistana), Moscow, 72–122.

Šarovskaâ, T.A.
2002: Tehnologiâ izgotovleniâ alebastrovyh sosudov, in: Piotrovskij, Û.Û. (ed.), *Stepi Evrazii v drevnosti i srednevekov'e, Materialy naučno-praktičeskoj konferencii, posvâšennoj 100-letiû so dnâ roždeniâ M.P. Grâznova. Kniga 1*, St. Petersburg, 252–253.

Terehova, N.N.
2001: Tehnika metalloobrabotki na poselenii Altyn-depe, in: Masson, V.M./Kirčo, L.B. (ed.), *Osobennosti proizvodstva poseleniâ Altyn-depe v èpohu paleometalla* (= Materialy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 5), St. Petersburg, 104–117.

Udeumuradov, B.N.
1993: *Altyn-depe i Margiana. Svâzi, hronologiâ, proishoždenie*, Ashgabat.

Vidale, M./Salviulo, G./Zorzi, F./Mocchiutti, I.
2016: Cosmetics and Cosmetology at Shahr-i Sokhta, *Iran* 54/2, 1–24.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Gonur Depe – City of Kings and Gods, and the Capital of Margush Country (Modern Turkmenistan)

Its discovery by Professor Victor Sarianidi and recent finds

Nadezhda A. Dubova

Abstract: Over 40 years ago, in 1972, Professor Victor Sarianidi picked up the first fragments of pottery from the surface of a huge hill named by the local people "Gonur Depe" ("Grey Hill" in Turkmen). Excavations were not carried out there every year after that: Sarianidi was busy excavating near the Kopet Dagh Mountains, at other sites in ancient Murghab Delta, and in northern Afghanistan. But steadily the finds of monumental architecture, fine art and engineering, indicative of a complex ideology and social stratification, provided an opportunity to take a new look at historical processes at work on the eve of the 2nd millennium BCE. This settlement lifted the curtain on the formation and development of a previously almost unknown country, a centre of ancient oriental civilisation (2300–1500 BCE) – the Bactria-Margiana Archaeological Complex (BMAC). In addition to the description of major discoveries in the Margush (= Margiana) country, this paper discusses features of the ancient city and some of the factors that contribute to the process of urbanisation.

Keywords: Central Asia, Bronze Age, BMAC, urbanisation, ritual centre, monumental architecture, funeral rituals, migrations.

Резюме: Немногим более 40 лет назад (в 1972 г.) профессор Виктор Сарианиди поднял первые черепки от сосудов с поверхности огромного холма, получившего у местных жителей название Гонур-депе (в переводе с туркменского «серый холм»). Первоначально раскопки проводились там не ежегодно, т.к. археолог работал в предгорьях Копетдага, на других памятниках древней дельты Мургаба, а также в Северном Афганистане. Но открываемые от года к году монументальная архитектура, прекрасные образцы искусства и инженерного дела, сложное мировоззрение и социальная стратификация давали возможность все более ясно взглянуть на исторический процесс на пороге между III и II тыс. до н.э. Это поселение приоткрыло завесу над тайной сложения и развития ранее неизвестной страны – центра древневосточной цивилизации (2300–1500 до н.э.) – Бактрийско-Маргианской археологической культуры. Кроме описания основных открытий в стране Маргуш, обсуждаются отличительные черты древнего города и факторы, способствующие урбанизации.

Ключевые слова: Средняя Азия, эпоха бронзы, БМАК, урбанизация, ритуальный центр, монументальная архитектура, погребальные ритуалы, миграции.

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1 Gonur: Its discovery and recent finds

Before the beginning of the 20th century, our knowledge of Central Asian history was restricted to the medieval period: no sites of the Paleolithic, Neolithic or Chalcolithic Periods, nor even of the Bronze and Iron Age, were known in this region. By the end of 1940s, key discoveries had been made by Russian archaeologists: Sergey P. Tolstov had discovered the Khorezm civilisation (Tolstov 1948; 1948a; 1962), and Alexey P. Okladnikov had found Mesolithic sites and caves such as those of Jebel, Kailyu and Dam-Dam-Cheshme (Okladnikov 1949; 1966 etc.). Southern Turkmenistan was investigated by the South Turkmenistan Archaeological Complex Expedition (YuTAKE) under the leadership of Professor Mikhail Masson and later Vadim Masson. Through the efforts of A. Marushchenko and then V. Masson, the Djeitun Neolithic culture was discovered and its outstanding monuments excavated (see, e.g., Hlopin 1961; Masson 1971). By the beginning of the 1950s, thanks to Boris A. Kuftin's excavations at Namazga Depe, the stratigraphy of all Central Asia was becoming clearer. Vadim M. Masson, Ovez Berdyev, Victor I. Sarianidi, Igor N. Khlopin and E. Masimov are the archaeologists who have made a great contribution to our understanding of such places as Altyn Depe, Ulug Depe, archaic Dakhistan (Dehistan), Parthian Nisa, and many other now world-famous archaeological sites in Turkmenistan. Their excavations during the following decades revealed the continuity of cultures over a wide area of the Kopet Dagh foothills extending over millennia. But all information was restricted to the south and north regions of Turkmenistan. Nobody thought that any settlement or city might exist in the sands of the Karakum Desert. Hence, YuTAKE began excavations along the Murghab River. One of pioneers of this expedition was Victor Sarianidi, then a young archaeologist keen to know all about the ancient history of Turkmenistan.

After some years of digging at the Yaz Depe and Takhirbai sites in the Merv oasis, by the end of the 1980s prospecting along the ancient delta of Murghab River had revealed more than 200 Bronze and Early Iron Age sites (Sarianidi 1990). In the 1990s, the international project Archaeological Map of the Murghab Delta was carried out (Gubaev/Koshelenko/Tosi 1998; Salvatori/Tosi 2008), thanks to which more than 500 settlements (including many nomadic ones) were identified. The largest monument is Gonur Depe ("Grey Hill" in Turkmenian), found in 1972 (Sarianidi 1973) and excavated from 1974 to the present day by the Margiana Archaeological Expedition under the direction of Victor Sarianidi. Organised and funded by the Institute of Archaeology of the Academy of Sciences of the USSR, the expedition was conducted in collaboration with colleagues from the Institute of History of the Academy of Sciences of Turkmenistan. Since 2003, it has been a Russian-Turkmenian expedition, carrying out its tasks within the framework of an agreement between the Institute of Ethnology and Anthropology of Russian Academy of Sciences (IEA RAS) and the National Department for Protection, Investigations and Restoration of the Historical Monuments of Turkmenistan of the Ministry of Culture. Since Professor Sarianidi's death in 2013, the present author has been the head of this expedition. Many scholars from different countries and institutions have taken part, and are still taking part, in the excavations. In 2013, an agreement on co-operation between IEA RAS and Bern University in the archaeological investigation of Gonur Depe was signed.

A large amount of C14 data (Zajceva et al. 2008) shows that there were three main stages of building at the site (approximate dates; we can now refine the dating for various monument areas):

I period – the start of construction and the foundation of the centre: 2300–ca. 1900 BCE;

II period – reconstruction of the buildings after a "large fire": 1900–1700 BCE;

III period – last years of habitation and final abandonment: 1700–1500 BCE.

At the centre of Gonur Depe was the moumental Kremlin, a fortified complex (120 × 120 m) that included a palace with official ceremonial halls, a complex for funeral rituals, a royal "chapel", smaller living apartments exclusively for the ruler and his family, and two duplex structures (so-called "temple-towers" according to Artem'ev/Urmanova 2010: 195–199). Apart from the palace complex, *kelyii* (cells) (Urmanova 2014), the rooms for guards and service staff, are situated in the Kremlin, which is surrounded by a fortification wall that had rectangular towers (Sarianidi 2000; 2002; 2002a; 2007a; Artem'ev/Urmanova 2010). Outside the Kremlin, on the eastern side, there is a Fire Temple (Sarianidi 1998: 120–132); and in the northern part there is a "royal sanctuary" (Sarianidi 2005: 112–123); and in the western, southern and south-eastern parts, there are sacrificial temples (Sarianidi 2005: 148–165). All the temples, together with round altars on the west and water pools in front of the east, west and south entrances to the complex, are surrounded by an enclosure wall with rectangular towers, a *caré*.[1] In the area outside this second wall, non-residential premises were built and not less than four complexes for communal eating (two to the north, and one

1 From the French *carré* (square). Victor Sarianidi gave this name to the second row of walls at Gonur.

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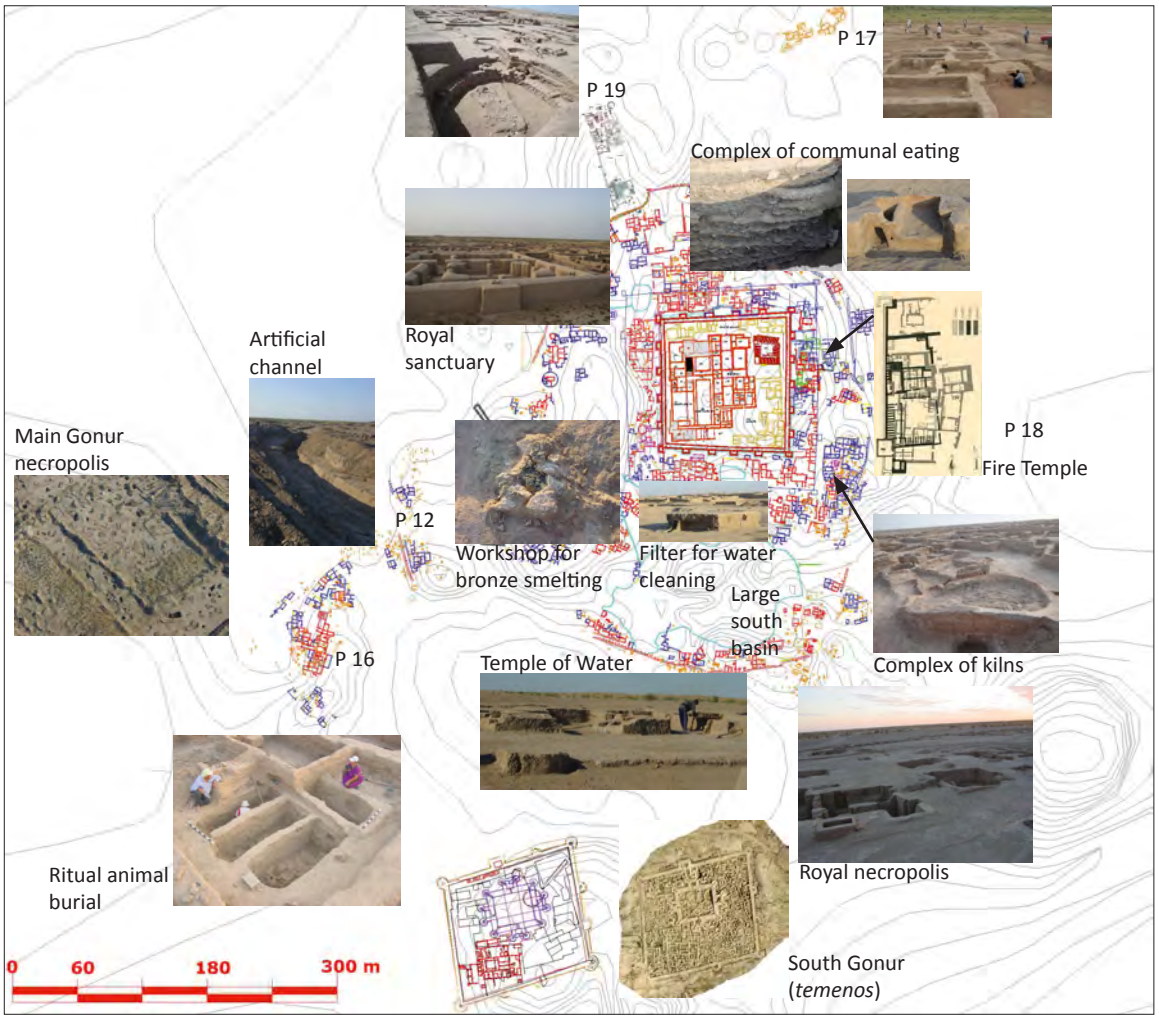


Fig. 1: General plan on Gonur Depe, with images of the main objects, 2015 (© Margiana archaeological expedition).

each in both the east and the south), all of which included a water pool, rooms with ritual double ovens (see e.g., Sarianidi 2010: 36–38, 133–134), and large squares filled with a "pie" of alternating layers of clean sand and ash with animal bones (Sarianidi 2005: 125–145; 2010: 44–45, 137–138). Professor Sarianidi identified two Temples of Soma-Haoma (one south-west, one south-east), the characteristic features of which are large vessels embedded in the ground. Some of them have many layers of white substance, and others small ceramic plates with 1–2 large fragments of animal bones (Sarianidi 2010: 75–79, 146–148) (**Fig. 1**).

A system of two pools was located to the south: the large 120 × 85 m, and the small 58 × 29 m. For water cleaning, a special filter construction connected these two reservoirs. On the south side of the large basin there was a Temple of Water (Sarianidi 2005: 167–181), identified on the basis of some open rooms with several ritual double ovens facing the water. On the north-western bank of the same water pool, a workshop for smelting bronze, where many moulds, melting pots, tools, and other appropriate artefacts, including ritual ones, were found (Dubova 2008; Papachristou 2008; 2010). The remains of possibly one more similar workshop were excavated on the east side of the basin (Sarianidi/Dubova 2014: 103–109). Not far from this, a "royal" graveyard had been discovered earlier. It consists of eight sepulchre-like multi-room underground houses and three huge pit tombs. Though all sepulchres were robbed several times in antiquity, they still provided very rich findings – gold, silver, stone and unique bronze artefacts that confirme the high social status of the buried (Sarianidi 2005; 2006; 2007; Sarianidi/Dubova 2010). This was the first time tombs of this type have been found in Central Asia. Particularly interesting are mosaic compositions with elements of painting (Dubova 2011; Sarianidi/Dubova 2013).

All listed architectural ensembles were surrounded by the third encircling wall. Only 1 m thick, and thus unlikely to function as a fortification, it was probably a wall protecting the holy place from the profane world outside. The settlement was at the beginning of the delta on the right bank of the Murgh-

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Types of tombs at Gonur Depe (more than 5000 tombs)



ground pits 32.3%



sepulchres 0.2%



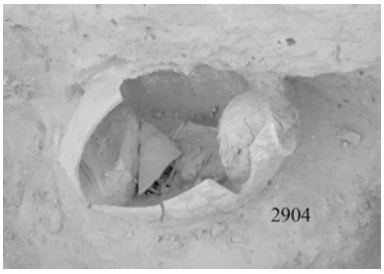
burnt pits 1.45%



large pits 0.15%



shafts 55.2%



in jars 2.3%



cists 6.6%



fractional burials 6 = 0.001%



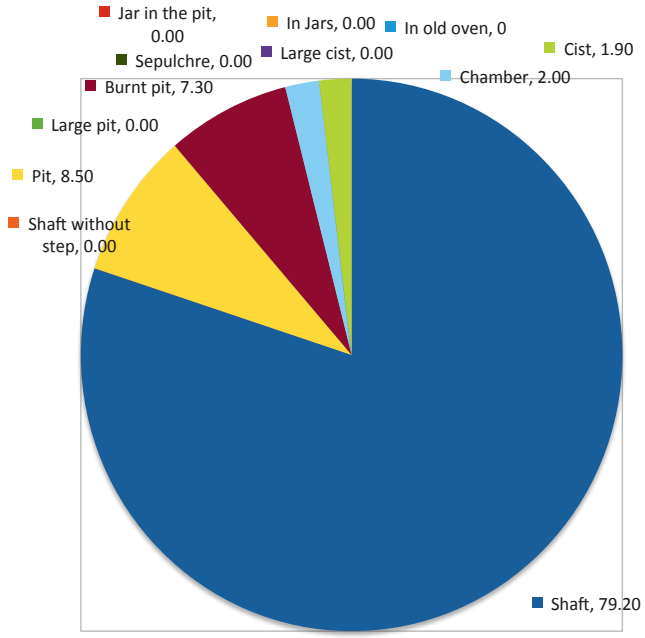
chambers 1.8%



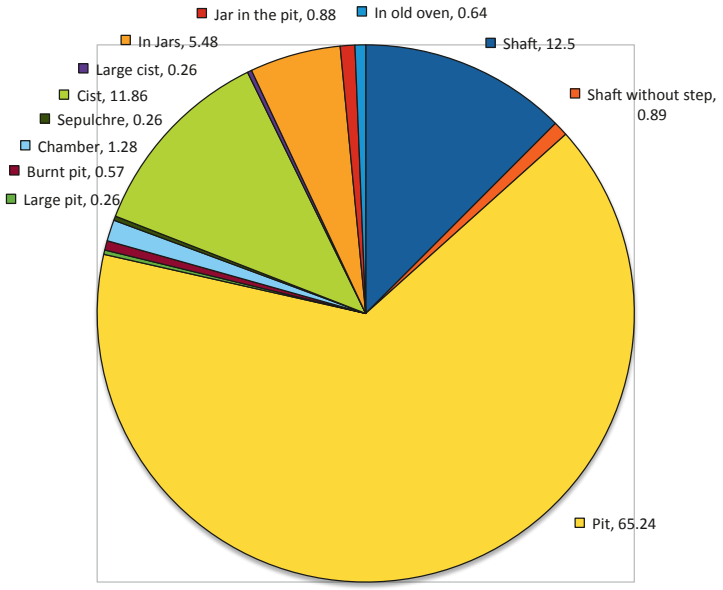
dakhma
1 = 0.0002%

Fig. 2: Types of tombs at Gonur Depe graveyards, with their frequency (© Margiana archaeological expedition).

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Main Necropolis



"Ruins of the Complex"

Fig. 3: Frequencies of different types of tombs at the Great (Main) Gonur Necropolis and at other graveyards in the ruins of the former monumental buildings.

ab River (or one of its major branches), which made it possible to control and regulate water flow to the oases located downstream. On the other bank of the same branch, 300 m to the west of the described settlement, a large graveyard was found (Salvatori 1993; 1994; 1995; Sarianidi 2001; 2007). Outside this necropolis with its almost 2,900 known tombs, more than 2,000 human burials were additionally found in different parts of the site (mostly in the last stages of Gonur's habitation). At the Great (or Main) necropolis, only adults and juveniles (over eight years old) were buried. Young children were mostly buried near the occupied houses in the ruins of abandoned buildings (Dubova/Rykushina 2007).

Very characteristic of Gonur is the range of burial types. Ten types can be distinguished: sepulchres (multi-room underground houses with an entrance); cists (underground pits with arch roof and walls lined with mud bricks); chambers (two or three rooms with tables, niches for vessels, ovens

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Examples of some analogies between Gonur artefacts and architecture and those of Middle East and Mediterranean



Fig. 4.I: Map of the distribution of similar motifs, found on seals and amulets (after Sarianidi 1994: 38).



Fig. 4.II: "Harpoons" or "rods". **a**: from the tombs at Gonur Depe, Turkmenistan: tomb 3280 on the top, tomb 3130 – two others (© Margiana archaeological expedition); **b**: in the hand of Ishtar Goddes (her foot is on the lion's back) on the wall painting in the Royal Palace of Mari in Syria, II Mil. BCE (modern location – Louvre Museum; detail of photo by N. Dubova); **c**: Egyptian khopesh (photo by N. Dubova).

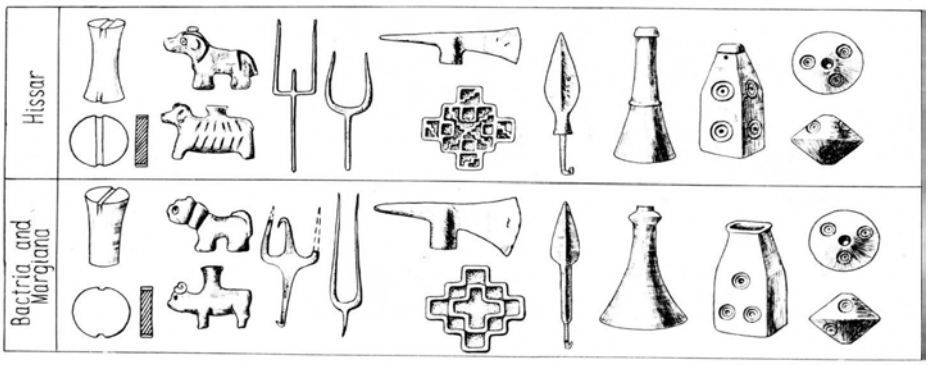


Fig. 4.III: Comparison of artefacts from Bactria, Margiana and Tepe Hissar, Iran (after Sarianidi 1990: 81).

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a


b


c

Fig. 4.IV: Comparison of wheels. **a**: Choga Zanbil (Tehran archaeological museum); **b:** tomb 3225 at Gonur Depe; **c:** on Ur Standart (British Museum) (all photos by N. Dubova).



Fig. 4.V: Bird-headed men on the impression of the cylinder seal on the ceramic vessel from the Gonur palace, Turkemenistan; see also Fig. 4.I (©Margiana archaeological expedition).

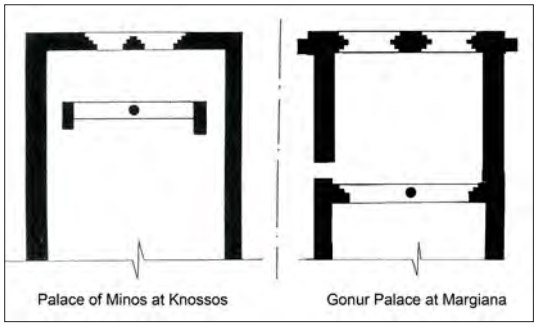


Fig. 4.VI: Comparison of the plans of main hall. **a**: of the Palace of Minos at Knossos (Greece); **b**: audience-hall of the Gonur palace (after Sarianidi 2008: 287, fig 17).


a


b

Fig. 4.VII: "Griffin in cartouche". **a**: from the tomb 3210 at Gonur Depe (©Margiana archaeological expedition); **b**: griffin on the wall painting in the Royal Palace of Mari (Syria, II Mil. BCE) (modern location – Louvre Museum; detail of photo by N. Dubova).

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Examples of some analogies of Gonur artefacts and architecture with those of the Harappan (Indus) civilisation



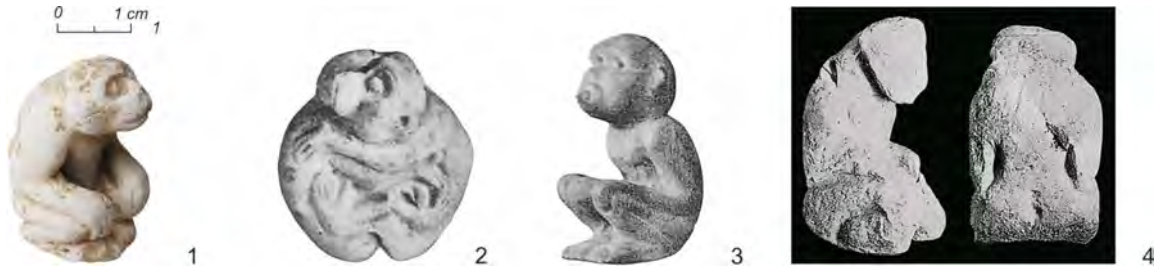
a b

Fig. 5.I: Seals with elephant image. **a**: from Gonur Depe, Turkmenistan (© Margiana archaeological expedition); **b**: Mohenjo Daro, Indus Valley (photo by J. Lyytikkä; courtesy by National Museum of India, accession no. 134).



a b

Fig. 5.II: Ivory sticks for "future telling" or games. **a**: from Mohenjo Daro (after Marshall 1931: Pl. CXXXII, 22, 27); **b**: from Gonur Depe (Area 5, room 115; © Margiana archaeological expedition).



1 2 3 4

Fig. 5.III: Monkey figurines. **1**: from Gonur Depe (tomb 4150); **2–4**: from Mohenjo Daro (**2, 4** after Mackey 1938/1939: Pl. C; **3** after Mackey 1931: Pl. XCVI; Fig. 5.III also published in Sarianidi/Boroffka/Dubova 2014: 137).

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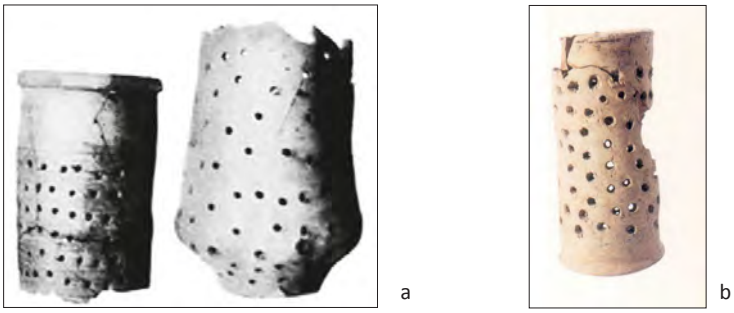


Fig. 5.IV: Perforated jars. **a**: from Mohenjo Daro (after Marshall 1931, vol. 1: 289); **b**: from Gonur Depe necropolis (© Margiana archaeological expedition).

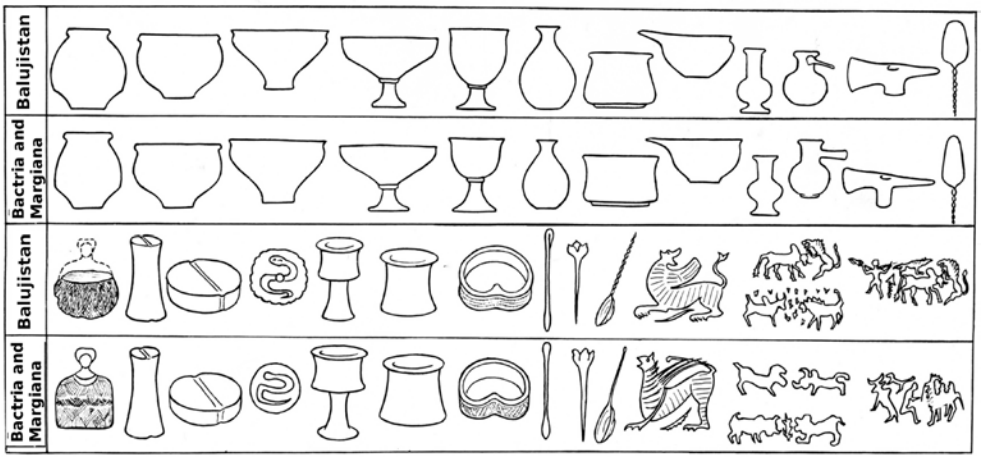


Fig. 5.V: Comparison of artifacts from Bactria, Margiana and Baluchistan (after Sarianidi 1990: 86).

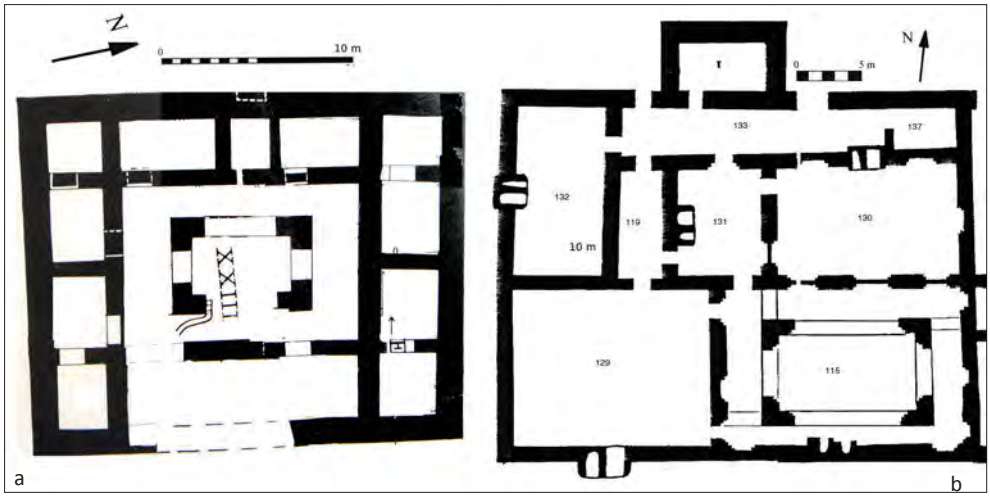


Fig. 5.VI: "Kiosk" construction. **a**: at area HR of Mohenjo Daro (room XXIII, after Marshall 1931: Pl. 39); **b**: at Gonur Depe, Area 5 (after Sarianidi 2012: 26).

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a


b

Fig. 5.VII: Stone ram sculptures. **a**: from Gonur Depe (tomb 3220; © Margiana archaeological expedition); **b**: and Mohenjo Daro (after Aruz 2003: 289, Fig. 275b).



Fig. 5.VIII: Ivory artefacts from the tomb 3245 at Gonur Depe (© Margiana archaeological expedition).


a


b

Fig. 5.IX: Fragments of seating stone statuettes. **a**: from Gonur Depe, Area 5, room 130 (© Margiana archaeological expedition); **b**: from Mohenjo Daro (after Marshall 1931: 176, Pl. C).

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and entrance); shaft tombs (pits with a niche in one wall, where the human remains were placed); simple ground pits; "burnt pits" (with the walls burnt to red); and huge pits (diameter more than 5 m, depth around 2 m); burials in jars (only children); fractional burials (simple pits with secondary burials of isolated human long bones and scull) (Sarianidi 2001; 2007); and one grave-like *dakhma*[2] (Sarianidi 1998: 70–73) (**Fig. 2**). The greatest proportion of graves at the Great Gonur necropolis are shaft graves (ca. 80%), while in other areas pit graves predominate (65%). There is a difference in the frequency of other grave types between the areas (Dubova 2014; Sarianidi/Dubova 2016) (**Fig. 3**).

Between the Great Necropolis (on the other side of the river) and the south-western corner of the encircling wall, two architectural ensembles were found: most likely buildings for household purposes (Area 12) and complex finds called "ritual animal burials" – three chamber graves where sheep were buried, and a pit with a donkey with three lambs near its hind legs (Sarianidi/Dubova 2008: 28–64). An artificial channel constructed when the Murghab River began to dry up was found crossing the earliest buildings close to the west side of Area 12 (Sataev 2008).

On the north-western side outside encircling wall, one more complex was excavated, revealing houses and some unusual graves – huge cists (ca. 6 m long) with rich funerary offerings (Area 19) (Sarianidi/Dubova 2014: 98–99; Sarianidi/Boroffka/Dubova 2014). To the east of this area outside the encircling wall, Area 17 was used for household purposes, in particular for making wine (Sarianidi/Dubova 2012: 29–33).

Only one space (Area 18), on the east side of the central part of Gonur North, shows traces of agriculture: the earliest layers of this part of the complex (within the encircling wall, but outside the walls of the Fire Temple). The basis of the economy of the population of the Gonur oasis was irrigation agriculture (in the early stages estuary, later irrigation). The main crops were wheat and six-row barley. Also for a crop, millet was grown, for legumes there were lentils, chickpeas and peas, and from the gardens came apples, plums, cherries and grapes. Melons were also grown (Sataev/Sataeva 2010; Sataeva 2014). On the southern edge of the same Area 18, many kilns were the earliest structures over which at a later time (ca. 1900–1800 BCE) rooms of a different function were built.

Later in date than the palace and the Kremlin (dating to approximately 2000 BCE) is the *temenos* of Gonur South, a large Soma-Haoma sacred place with powerful walls, having round towers at the corners of a parallelogram and half-towers along the perimeter. In the south-western part of the ensemble, there is a small temple, the centre of which is a courtyard with doors on all four sides, three leading to corridors and one to a unique vestibule. Over time, a small temple named the "fort" was built inside the *temenos*. The fort's walls have a cruciform plan, with a round tower at each of the 12 angles (each of which has a special narrow–door), and rest on the ruined walls of the structure of the first period, which are already covered by thick layers of waste accumulated over time (Sarianidi 1994; 1997). The fort remained unfinished. Of all the known monumental Middle Eastern buildings, the closest parallel to it is the fire temple at Tepe Nush-i Jan (Stronach/Roaf 2007) in Media (Sarianidi 1996; 1997: 160).

Apart from monumental architecture, which reveals a high level of attainment in the art of building, brilliant jewellery and other fine-art objects indicate a complex social structure. When Victor Sarianidi analysed the worldview of the people of Margiana, he found much evidence of the presence of the cults of Fire, of Water, of Earth, and of the Dog, as well as of the plants and drink used in the worship of Soma-Haoma, and he suggested that in Margiana early religious beliefs subsequently evolved into Zoroastrianism (Sarianidi 1998; 2010: 27–57, 66–84).

Of particular interest are the 74 animal burials and places with partial remains of animal skeletons. The most frequent burials are of rams/goats (37 burials with the remains of 58 individuals), and dogs (33 burials, 57 individuals). Special tombs for the animals with funeral gifts comprise a little more than half of these burials. If we add to this information the placement of the animal burials throughout Gonur Depe, it seems plausible to consider that the 2nd millennium BCE inhabitants of Margush included rituals associated with sheep, horses, camels and dogs in their religious system. Perhaps deities were embodied by those animals. It is difficult without written sources to reconstruct ideological concepts, but it is clear that they had their own image of the world and the afterlife, connected somehow with animals (Dubova 2012; 2015).

Animal burials have also been encountered at other sites, including Togolok 24 in Margiana (Sarianidi 1990: Table LV), Dashly 3 in northern Afghanistan (Sarianidi 1977: 54, Fig. 24), Sapallitepa (Askarov 1973), and Buston VI (Avanesova 2003: 24; 2013: 18, 23, 28) in southern Uzbekistan. Almost all the graves in which rams (or sheep) were buried in a central position are characterised by rich funerary offerings, thus indicating the high social status of the buried persons. Among the offerings are miniature columns, stone staffs, bronze rods ("harpoons"), game-boards, gold and silver objects, bronze plates with holes (so-called "staircases"), and other objects.

2 *Dakhma*: a structure in which the bodies of the dead were exposed to predatory birds or animals to clean the bones of soft tissues, in accordance with Zoroastrian rituals.

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So far, the theme of the burials of animals and their role in religious beliefs has been considered only within the same region, within the same type of farming, and of one or more, but close, historical periods. However, a lot of such material has been found: from the graves of dogs in the Neolithic centres of the Baikal region (Okladnikov 1961: 73; Danilov 1983) to a wide range of sources in a special relation to dogs/wolves and horses among the Scythians, to the ritual burials of bulls in Egypt (Brass 2002), and to animal burials (mainly donkeys) in the Nile Delta (Bietak 1996) and in Syria (e.g. Schwartz 2012). The occurrence of such rituals traditionally associated with the emergence of pastoralists in the agricultural areas had, for example, a place in the Egyptian countryside of Nagada, where the arrival of the shepherds of the desert areas led to the spread of the ritual burial of domestic bulls (Brass 2002). All Gonur animal burials have many parallels and analogies with those of the Middle East. In this relation, the Gonur tombs 2900 (Sarianidi 2007: 146–155) and 3310 (Dubova 2014: 111, 117–119) are very significant since they have not one but a group of animals (including sheep, donkeys and dogs) buried close to a human tomb. The important role of animals in the life and beliefs of the people of Margush country was underlined by archaeozoological investigations (Sataev 2016).

Even though the overall appearance of the BMAC culture is very close to those of the Kopet Dagh foothills (the greatest part of pottery relates to Namazga VI and a smaller one – with Namazga V complexes), certain parallels between Gonur, the Middle East and eastern Mediterranean world as a whole can be seen in some architectural details, in the images seen on seals, amulets, and mosaics images, and in types of vessels (**Fig. 4**). But the artefacts also show the influence on Margiana culture of another Oriental centre – the Indus (or Harappan) civilisation is also present at Gonur (**Fig. 5**).

Here an important question arises: Are these parallels a result of trade and cultural transmission, or of the migration of people? In one of his latest books, Vadim Masson has remained faithful to his idea that the culture of the agricultural population of the south Turkmenistan foothills – characterised by the spread of durable unfortified settlements and the production of painted ceramics, and home-craft and semi-craft production – was transformed into a new culture, a nascent class-based social structure associated with a monumental palace and defensive architecture, the mass production of prestigious products, the use of the potter's wheel in the ceramic industry, and other signs of an emerging high civilisation (Masson 1981: 119–131; 2006: 61–85). In this case, all the above-mentioned analogies can be explained by trade and contacts. But the whole complex of BMAC materials indicates that not only the old delta of the Murghab River, but other areas as well experienced the influence not only of powerful cultural forces, but also migration from the Middle East at the end of 3rd millennium BCE (and possibly earlier). Gonur's culture shows many similarities with those of the Near and Middle East and with the Indus. Only a few salient examples can be noted here. The cosmetic spatula from tomb 3245 at the "royal necropolis" of Gonur (see **Fig. 5**) is made from ivory and has a handle with an engraving of a typical Margiana-Bactrian scene: a winged dragon swallowing a goat. Another example is the well-known large silver cylindrical vessel from "royal sepulchre" 3220, which has a relief of two fine, carefully crafted images of two-humped camels, Bactrians. A third example: Gonur mosaics, the subjects and image style of which are closely related to Middle Eastern examples (Sarianidi/Dubova 2013) (**Fig. 6**). Unfortunately, art critics and specialists in ancient art have not studied these images. This is a task for the near future. Nevertheless, we can already say that many of the mosaics' subjects are very characteristic of Margiana and Bactrian art. The technology of mosaics production was unique: neither in contemporaneous nor in earlier and later periods on the closely located areas is such a technique of connecting painting with mosaic inlays known.

Other interesting details in connection with mosaics should be mentioned. On the back of some stone inserts having similar form there are certain characters – circles, ticks, crosses, hearts, ovals, and dashes. The same marks appear on the insets, which can make one figure or whole composition (**Fig. 6g**). A careful analysis of all available photographic material, as well as insert labels, allowed G. Veresotskaya to create a reasonable reconstruction of one of the most interesting compositions from sepulchre 3210 (**Fig. 6h**) (Veresotskaya 2014; 2016: 179, 180, 183).

Analysis of the minerals from which the inserts are made is also indicative. Sedimentary rocks in which the siliceous component predominates (flask, bergmeal, and diatomite) were used as raw materials for the production of mosaic inserts (Yuminov 2012: 189–190). It is important to underline that a similar technique of minerals processing for the making the beads, including those with serrated edges, was noted at another Bronze Age site in Turkmenistan – Altyn-Depe (Kirčo/Kovnurko 2003). The method of burning the minerals in order to facilitate their handling is known at monuments in the Indus Valley civilisation, starting from the Neolithic (Vidale 1989). Harappan seals were produced mainly from steatite after it had been fired (Masson 1977: 149).

Most mosaic inserts at Gonur have a sloping profile, which means that details could be sharpened when assembling the image (**Fig. 6i**). T.A. Shaposhnikova has shown that the greater part of the outer bevel inserts range from 45 to 85 degrees. A num-

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Gonur mosaics



Fig. 6.a: Coloured stone mosaic insets in the form of bird's heads from tomb 3230.



Fig. 6.c: Stone mosaic inset in the form of a dragon's head from tomb 3210.



Fig. 6.e: Volumetric object (possible mosaic inset) from tomb 3250.



Fig. 6.b: A marble mosaic inset in the form of a lion's head from sepulchre 3230.



Fig. 6.d: Some of the first mosaic insets found in 1997, on the area of Gonur palace in a cultural level without context.

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Fig. 6.f:
Volumetric insets from sepulchre 3880.



Fig. 6.g: Mosaic insets from sepulchre 3210 with the marks on the reverse (on the right).



Fig. 6.h: Variant of the reconstruction of the mosaics compositions on the “ostensory” from sepulchre 3210 (drawing by G. Veresotskaya).



Fig. 6.i: Mosaic insets from sepulchre 3235 on which slants are seen.

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Fig. 6.j: Coloured stone inset in the form of animal head in sepulchre 3210 during cleaning.



Fig. 6.k: The box with mosaics from ivory and stone in tomb 3870 during cleaning.



Fig. 6.l: A box decorated with stone mosaics in sepulchre 3235 during cleaning.

(all photos ©Margiana archaeological expedition)

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ber of inserts are followed by a straight profile (90 degrees). Among the dozens of stone tools at Gonur, cutters were found, shaped and sharpened at an angle that allowed the cutting of mosaic inserts with the profile that was found in the "royal" sepulchres. This indicates that master stone-cutters and artists created the magnificent compositions at Gonur. Art literature states that in early antiquity, mosaics were formed from naturally formed coloured pebbles, and that it was only by 200 BCE (at Morgantina in Sicily) that cut-stone tesserae were being used in Ancient Roman decorative mosaic panels and floor mosaics (e.g. Jenkins/Mills 2012). The cutting of stones was employed to ensure that there was a snug fit between tesserae so that details could be more clearly defined. But, as shown by Gonur material, the technique of fitting stone inserts to each other by giving them sloping profiles was already known at the end of the 3rd millennium BCE. These observations make it necessary to consider the history of ancient art in new way.

Mosaics, as well as many other examples of Margush art, demonstrate the highest level of the arts and crafts of the ancient population of the Murghab oasis. A detailed analysis of their subjects, as well as many hundreds of seals, amulets, images on vessels and other objects, is only just beginning. Their symbolic or narrative meaning indicate the wide range of ideas the ancients had about the world around them. And it must be said that the splendour of medieval portals and the domes of mosques and madrassas could well have been seen in the ancient Gonur mosaics.

2 Gonur: A city

So in the second decade of the 21st century, Victor Sarianidi was able to convince many academics that in south-eastern Turkmenistan at the end of 3rd/beginning of the 2nd millennia BCE, the ancient delta region of the Murghab River was the location of a flourishing, independent Oriental civilisation. The largest and most fully excavated site was Gonur Depe, the original name of which, unfortunately, is not now known.[3] But was this site a real town, or even a city? This is not a simple question. The general definition of a "city/town" is "a territorial centre, a settlement surrounded by a wall". Other definitions include: "a *town* is a human settlement larger than a *village* but smaller than a *city*", and "a town is a large settlement, whose residents are mainly engaged in industry (earlier in crafts) and commerce, as well as in the areas of maintenance, management, science and culture. Usually the administrative and cultural centre for the surrounding area." Several scholars stressed that a city must have the specific features characteristic of urban life. Russian scholar N. Šahova has analysed many different points of view, beginning from Maximillian Weber's, and identified five criteria of the early city applicable to the archaeological objects: 1. the significance of the monument for the region and the period, combined with a relatively high density of building, reflecting a significant density of population; 2. a complex of monumental buildings with different functions; 3. complex building structures that reflect social and industrial differentiation; 4. craft and trade centres; 5. fortifications, or the use of the natural terrain for this purpose (Šahova 1995: 13; 1996: 8).

Gonur Depe has good, well-planned monumental architecture surrounded by three walls. According to scholars, the arrangement of low (1.1–1.2 m from the ground) narrow triangular openings intended to provide light to the closed-in spaces and bypass gallery rather than for defence testifies to the mostly "peaceful" nature of the fortifications. Each tower of the Kremlin has a double-chamber oven of sophisticated design. It is therefore likely that the towers had a ritual rather than defensive purpose. Victor Sarianidi thought that their "defensive shape", as well as constructions like "*kelyii*" (cells), may have been a form of "architectural memory" – the memory of the real walls that could protect against an attack in one case, or perform some function (probably ritual?) unclear to us now.

The various types of graves, and the differentiation in funeral gifts in them, are evidence of a complicated social structure in the Gonur/Margush population. Several architectural substructures at Gonur Depe can be distinguished. More than 200 Bronze Age sites in the ancient delta of the Murghab River have been identified, but only eight of them are excavated (Masimov 1981; Sarianidi 1981; 1981a; 1986; Sarianidi/Dubova 2012: 39–44; Rossi Osmida 2007; 2011). In some satellite settlements or villages, houses much simpler than the aristocratic Gonur palace can be seen. There are many more living spaces, but only a few of them (in the inner part of the Kremlin and small complexes of rooms outside the encircling wall) can be discerned at Gonur. As has been shown by many publications, different crafts reached a high level of development. It is therefore necessary to conclude that in this area of 25–30 ha (ca. 50 ha if the large necropolis is included), there were very few permanent residents. This feature is the only one that does not accord with the selected criteria of a city mentioned above.

Various analogies demonstrate that in the Bronze Age close economic and cultural interactions between different centres of the ancient civilisation were widespread. A unique cultural community was created over a vast territory thanks to the contacts, caravan routes in particular, mutual influence, and

3 Daniel Potts (2008: 165–194) has argued that it might have been Simashki, the original home of an Elamite dynasty.

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the interactions of different peoples (Dubova 2012: 148). Victor Sarianidi underlined the fact that the trade routes of the so-called Silk Road began to develop long before the silk trade. They started to be used in the Bronze Age, if not earlier. It was through the contact and interaction of various cultural traditions, and the peaceful coexistence of different economic-cultural types in Central Asia in general, and Turkmenistan in particular, that people had the opportunity to enrich one another with the latest knowledge and technology, and moreover to create a brilliant centre of world culture (Sarianidi 2012b: 157).

3 Anthropological data

The new paleoanthropological material (unique by its quantity – more than 5,000 tombs with human remains) has shown that not only cultural transmission and trade took place, but real and not sporadic migration. Analysis of the anthropological traits[4] demonstrates that the gender ratio was near normal, with an insignificant number of men exceeding the number of women (1.06), as noted by G.V. Rykushina (Babakov et al. 2001; Dubova/Rykushina 2004; 2007a). Though the greater number of men over women in the entire group is insignificant it is quite reliable. As it does not correspond to the normal biological gender ratio (1:1), it is possible to surmise that the first settlers of Gonur were immigrants, who usually have a significant excess of men over women. As the site of Gonur is characterised by three periods of agricultural life, the gender ratio was levelled in due course and became almost equal. It is possible to assume that some of the women (about 36%) could be included in a population from outside regions. It may also be possible that a group coming from a new territory superseded part of the local male population and included among its members local women. Therefore, if the second assumption is true, the people who founded Gonur Depe probably came not only in one wave but in several.

Preliminary analysis of the general parameters of the skull, developed by A.P. Pestryakov (Babakov et al. 2001), shows that length, width, and height of skulls from the Gonur necropolis are typical of the synchronous Bronze Age population of the Middle East, from Mesopotamia to north-west India. Towards the Great Eurasian steppe in the north, the impurity of Tropoids (long, narrow and low skull) decreases, and the most remote cranio-series (Okunevo, Karasuk, Plitoschniki of Transbaikalia) are probably completely absent. This conclusion is based on the variability of the craniometrical and angular features of the brain and the facial parts of the skull. The Gonur series shows a variation from the smallest to the greatest sizes of many dimensions. This data allows us to speak of its heterogeneity. The presence of more archaic and more progressive forms in the anthropological type of Gonur population is attested, as well as the existence of a Veddoid component (gracile face with the lower part protruding forward – prognathism).

G. Rykushina (Babakov et al. 2001; Dubova/Rykushina 2001; 2007a) assumes that odontological traits show that for numerous reasons the Gonur series differs from the ancient and modern Europoid series by the interpolation of a complex of signs of the "western odontological trunk". This series also shows features of the eastern trunk. It is also possible to speak of the reference of Gonur people to the group of undifferentiated odontological types and of their mixed character (between "western" and "eastern" odontological trunks). In both cases, the population buried in the Gonur necropolis occupies a marginal position, showing on the level of eastern odontological traits a complex similarity to the majority of ancient Europoid series, and, on the expressiveness of the western complex, approaches to the modern population of southern and south-eastern Asia (Oraon, Munda, and Viets). This last circumstance allows us to connect a certain specificity of the Gonur population with contacts to representatives of South Asia. Also, we can suppose that the Gonur (or, more widely, the Margiana) population was a part of the ancient anthropological substratum that was widespread in the territory from south-west Asia to northern India.

The material from Gonur shows for the first time that on the territory of Central Asia the Bronze Age population of Margiana, being dolichocephalous as a whole (the male cephalic index is 71.0, the female 71.6), was subjected to brachicephalisation: among representatives of both sexes, there are brachicephals (they are 5 or 2.1%). It is important to note that sites such as Tepe Sialk and Tepe Hissar in Iran are the first centres of the brachicephalisation process. As V.V. Bunak, A. Valois, I. Schwidetzki and M. Cappieri have demonstrated (Bunak 1927; Vallois 1939; Schwidetzki 1950; Cappieri 1961), in many aspects this process is interfaced with extensive immigration and connected with several previous groups not in contact with each other. On the other hand, the ecological factor was also very important (Alekseeva 1977: 16–18; 1998: 45–51). It is clear that the craniological series of Gonur – which can be testified as the population moved from one of the earliest centres of brachicephalisation (the Near Eastern one) and about the presence in the population of metisation process of various groups – previously lived away from each other.

4 Paleoanthropological research is being carried out with the financial support of the Russian Humanitarian Science Foundation (project No. 16-01-00288).

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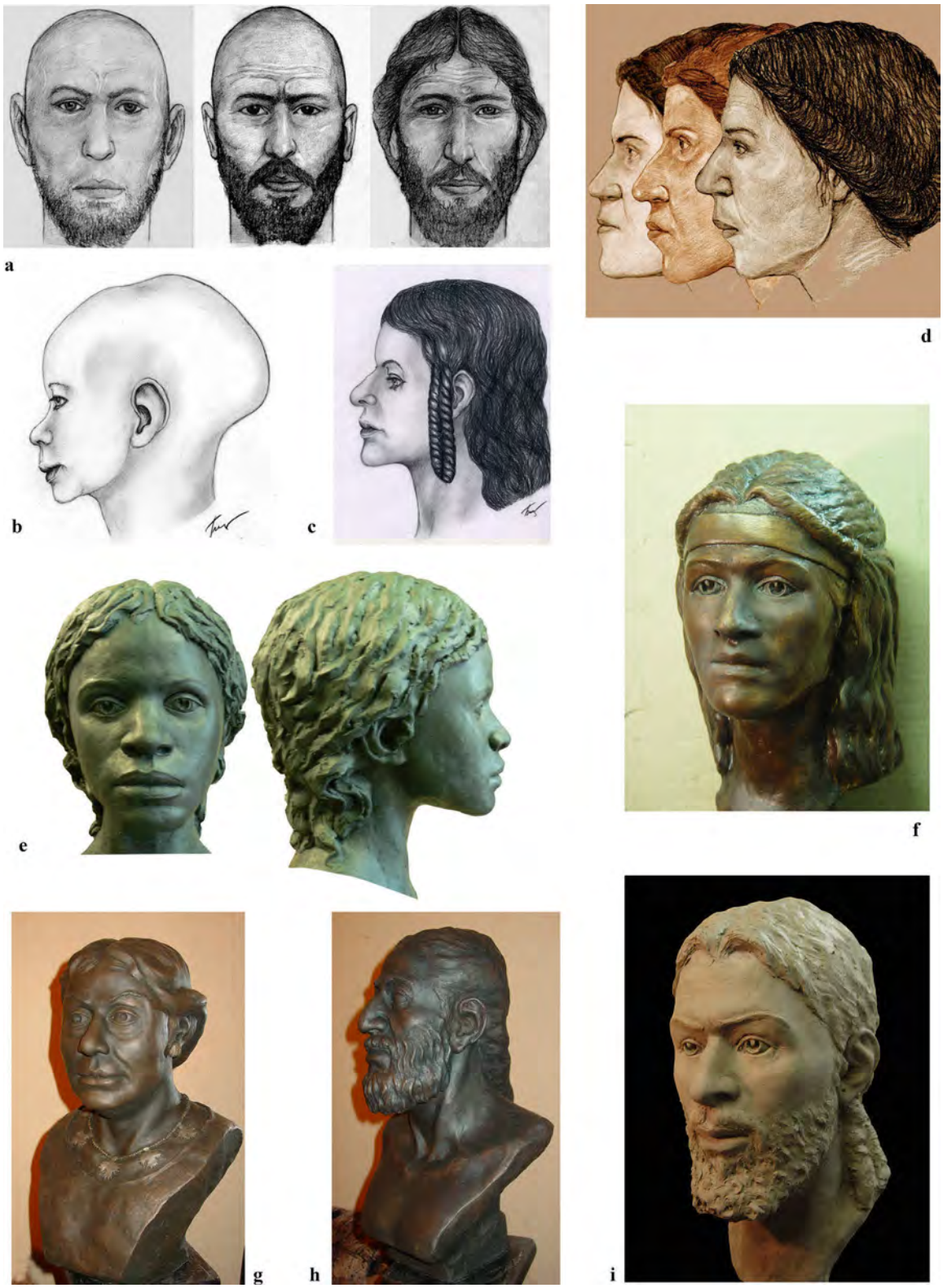


Fig. 7: Graphic (**a–d**) and sculptural (**e–i**) anthropological reconstructions after skulls from Gonur Depe tombs. By T.S. Balueva (**b, c, g**), E.V. Veselovskaya (**h**), and A.I. Nechvaloda (**a, d, e, f, i**) (all photos and drawings © Margiana archaeological expedition).

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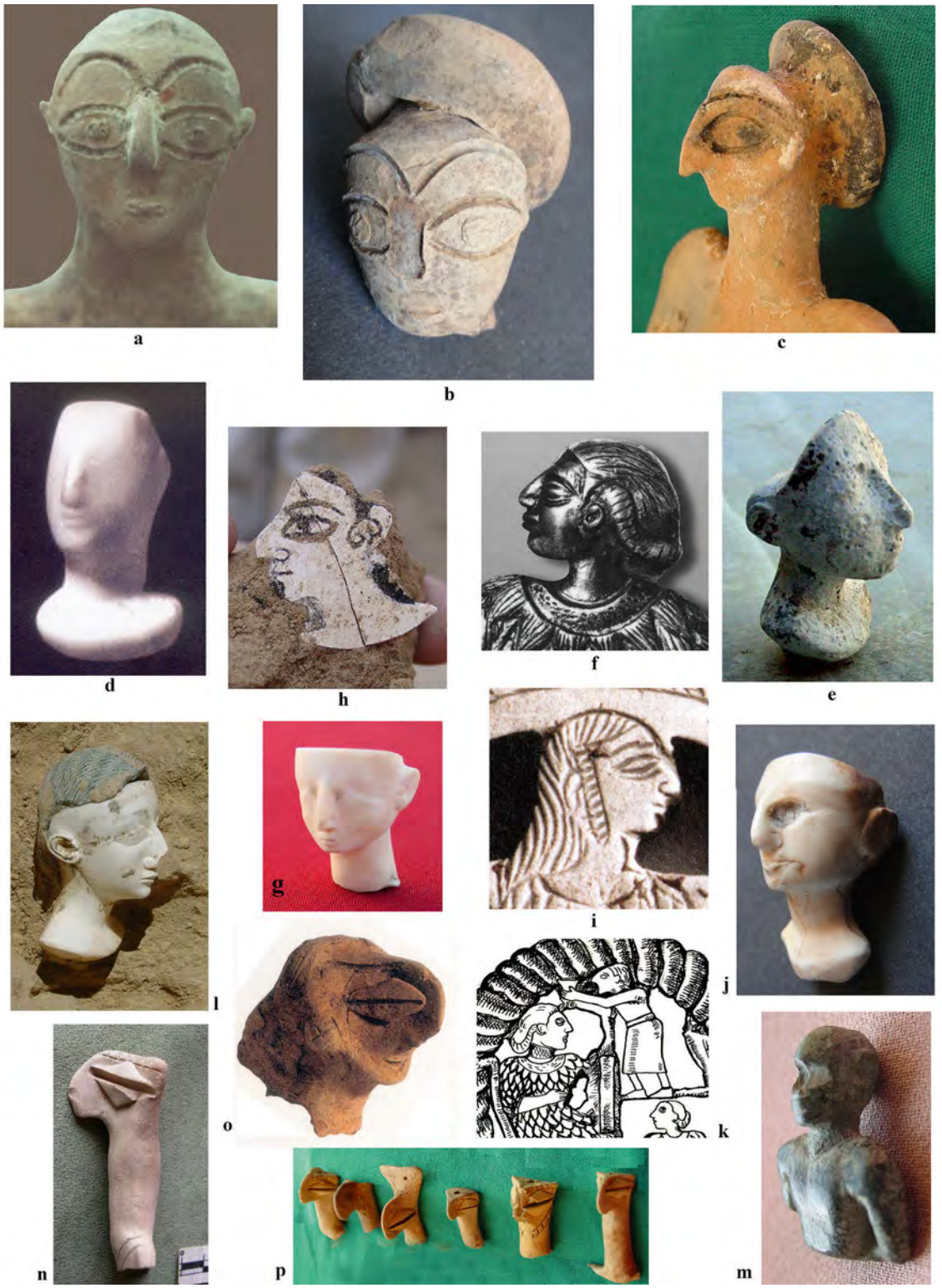


Fig. 8: Anthropomorphic Gonur plastics. Fragments of terracotta figurines (**a, b, c, n, o, p**); marble heads from the composite statuettes (**d, e, g, j, l**); fragment of mosaic (**h**); compartment seals (**f, i, k**); stone figurine (**m**), from the population of Margiana (all photos and drawings ©Margiana archaeological expedition).

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New evidence from the population of Margiana of the use of artificial deformation of the skull is not less important. Most likely a kerchief (or special hats popular among modern Turkmens) placed on an infant's head, causing the flatness of the bregma and occipital mound, were an item of baby care (**Fig. 7b**) (Dubova 2004a; 2004b; 2006a).

This custom, judging by the available bibliographical data (Hodžajov 1966; 2000; Tur 1996), appeared in the steppe areas of Eurasia not earlier than the middle of the 1st millennium BCE, whereas at Gonur it had already appeared during the 2nd millennium BCE. It is possible therefore to speak of its spread to the steppe from southern Margiana. Certainly, a parallel occurrence of this tradition in various territories is still not excluded. Anyway, we can conclude that this data does not confirm the presence of steppe migrants in the southern areas of Central Asia in the middle of the 2nd millennium BCE.

It was noticed previously that the images of facial features of anthropomorphic plastics from Gonur are predominantly of Sumerian style, though there are some images of Eastern Mediterranean type (gracile, high and narrow faced, and dolichocranial) (**Fig. 8**) (Dubova 2006a; 2006b). The same process of anthropological plastic reconstruction was performed by several authors, with the application of a method used by M.M. Gerassimov (**Fig. 7**). It is significant that there is no reconstructed figure which could be connected with a Palaeoeuropoid (broad-faced and dolichocranial) population very characteristic of the steppe.

Statistical comparison was carried out on 85 craniological series from steppe, forest-steppe, desert, and semi-desert areas of Central Asia, the Urals, Siberia and the north Caucasus (Dubova/Saipov/Junusbayev 2015). Cranial series from the southern regions of Central Asia, representing populations where the features of agricultural and pastoral cultures are combined (Kokcha III, Buston VI, Karaelematasai, and Patmasai, Djarkutan), have been clearly located between "typical" farmers (Hasanlu, Gonur, Mohendjo Daro, Pakistani Timargarha, and Butkara) and series from the territory of Kazakhstan, southern Siberia, and the Volga-Ural region. At the same time, Gonur skulls from the necropolises situated in and around the ruins of early buildings, and the Buston VI series from Uzbekistan, as well as those from the later layers of Tepe Hissar in Iran, have large transversal dimensions while maintaining the same height-size traits as those of earlier periods from the same monuments. This could be connected primarily with a general brachicephalisation process occurring at that time. But it is also likely that this was the result of the gradual penetration of groups from the Eurasian steppe to the south, which was initially random but then became increasingly common, with frequent mating between steppe groups and farmers. The term "infiltration" best characterises this process of mixing. It should be noted that the currently available archaeological material from Gonur Depe reveals that around such major proto-urban centres (which Gonur was at the end of the 3rd/beginning of 2nd millennium BCE) by the middle of the 2nd millennium BCE, herders were already indigenous, as evidenced by small settlements of cattle breeders in the vicinity of the city walls (see e.g. Hiebert/Moore 2004; Cattani 2004). In addition, separate (sporadic) steppe pottery fragments have been unearthed from some areas of the site and its surrounding smaller settlements (Sarianidi/Dubova 2012: 39–42). However, we must particularly emphasise that at Gonur (i.e. in southern Turkmenistan), manifestations of minimal impurities in anthropological components, which could be linked to pastoral surroundings, were not seen prior to the middle of the 2nd millennium BCE.

4 The status of Gonur

Anthropological data is one more "marker" of the city/town: its variety, heterogeneity by origin, ethnic composition, culture, and other traits. V.V. Karlov (though using the example of Russian medieval cities) has shown that three stages can be distinguished in the process of the formation of a city: first, the necessary cultural and economic potential accumulates in large, conveniently located centres; second, there occurs the introduction and integration of the agricultural population into an urban lifestyle (the "cultural colonisation"); third, the rural and urban periphery are organically included in the activities of the leading centres (Karlov 1976: 57). The third stage defined by V.V. Karlov is – according to V.M. Masson – characteristic for societies with established state power. In such circumstances, the city and the rural periphery function as a unified socio-economic system, subject to the fulfilment of the most important objectives defined by the central government (Korčagin/Mel'ničuk 2003: 59).

Some other hypotheses, formulated on the basis of Mesopotamian data, are applicable to monuments of Margush. Robert C. Adams thought that the development of irrigation systems had a fundamental role in the societal development of the area, and that a strong relationship existed between irrigation agriculture and urban growth. He also believed that cities may be considered as centres to store surpluses of agricultural production, to be used in times of periodic water shortage (when agricultural yield was low) (Adams 1981: 243–244; Adams/Nissen 1972). His interesting idea, that conflicts over the control of irrigation water, caused by the instability of the Euphrates River, led to the interaction of heterogeneous communities taking refuge inside the city walls in times of conflict (Adams 1981: 244) can

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be enlarged. It can be said that heterogeneous city communities were also created by the wide trade routes coming together in them.

Guillermo Algaze revisited Adams's conclusions for the Mesopotamian region, and argued that urbanisation was favoured by a combination of high agricultural yield generated by irrigation practices, and by the low transportation costs of people and goods the system of canals provided. According to him, the waterway system and the proximity of settlements provided the south with extensive connections and mobility for goods and people, giving the area an advantageous position for trade relations in respect to other landlocked area of the north (reached on foot or by donkey) (Algaze 2008). So the models used for these studies dealt with the relationships between ecology and trade, and with the interaction of forces between centre and periphery.

Sandro Salvatori, who analysed settlement pattern of ancient Murghab Delta using the "rank-size rule", demonstrated that during the Middle Bronze Age the settlement of Gonur I North attained and perhaps even exceeded 40 ha. This would make it without doubt the largest settlement in the whole delta at that time. When drawing circles with Gonur as the center, and with radiuses of about 10, 15, 20, 30 and 40 km respectively, he covered the entire system of sites as they are known today. He has shown that during the Middle Bronze Age the territorial settlement patterns indicate some form of integrated territorial hierarchy or political-administrative dominance by the centre in Gonur (Salvatori 1998a: 58). He also mentioned that inside the triangle that can be drawn between Sarazm (Zeravshan River, Tajikistan), Mundigak (Kandagar, Afghanistan) and Namazga depe (Southern Turkmenistan) lie the two regions of Bactria and Margiana, with delta systems suitable for the development of agricultural communities technologically similar to those of the Late Chalcolithic and Early Bronze Age. It is no coincidence that all these regions that saw the development of important agricultural communities during the Middle and Late Bronze Age later became the fulcrum of large urban centres throughout the Iron Age and up to the well-known instances in historical times (Salvatori 1998: 52).

We believe that all the evidence from Gonur suggests that Gonur Depe demonstrates the third stage of the scheme of Korčagin/Mel'ničuk. So, despite having only the palace, ritual and crafts buildings, Gonur was a settlement very close to being a real city. It is not an accident that one of the books by Victor Sarianidi has the subtitle *City of Kings and Gods* (2005).

Bibliography

Alekseeva, T.I.
1977: *Geografičeskaâ sreda i biologiâ čeloveka*, Moscow.
1998: *Adaptaciâ čeloveka v različnyh èkologičeskih nišah zemli (biologičeskie aspekty)*, Moscow.

Artem'ev, V.I./Urmanova, A.M.
2010: Predvaritel'nye itogi arhitekturnogo issledovaniâ Severnogo Gonura v 2007 godu, in: Kožin, P.M./ Kosarev, M.F./Dubova, N.A. (ed.), *Na puti otkrytiâ civilizacii. Sbornik statej k 80-letiû V. I. Sarianidi/On the Track of Uncovering a Civilization. A volume in Honor of the 80th Anniversary of Victor Sarianidi*, St. Petersburg, 172–203.

Aruz, J. (ed.)
2003: *Art of the First Cities: The Third Millennium B.C. from the Mediterranean to the Indus*, New York/New Haven/London.

Askarov, A.A.
1973: *Sapallitepa*, Tashkent.

Avanesova, N.A.
2003: Novye raboty na nekropole Buston VI, in: Širinov, T.Š. (ed.), *Arheologičeskie issledovaniâ v Uzbekistane – 2002. Vypusk 3*, Tashkent, 20–25.
2013: *Buston VI – nekropol' ognepoklonnikov dourbanističeskoj Baktrii*, Samarkand.

Babakov, O./Rykushina, G.V./Dubova, N.A./Vasiliev, S.V./Pestryakov, A.P./Khodzhayov T.K.
2001: Human Skeletal Remains of the Necropolis of Gonur-Depe, in: Sarianidi, V., *Necropolis of Gonur and Iranian paganism*, Moscow, 219–240.

Bietak, M.
1996: *Avaris. The Capital of the Hyksos. Recent Excavations at Tell el-Dab'a*, London.

Brass, M.
2002: Tracing the Origin of the Ancient Egyptian Cattle Cult, http://www.antiquityofman.com/brass_EEF2002.pdf (accessed 30 January 2017).

Bunak, V.V.
1927: *Crania armenica. Issledovanie po antropologii Perednej Azii* (= Trudy naučno-issledovatel'skogo instituta antropologii Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova 2), Moscow.

Cappieri, M.
1961: Die asiatischen Proto-Mediterranen, *Ethnographisch-Archäologische Zeitschrift* 2, 95–111.

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Cattani, M.
2004: Margiana at the End of the Bronze Age and Beginning of the Iron Age, in: Kosarev, M.F./Kozhin, P.M./Dubova, N.A. (ed.), *Near the Sources of Civilization. The Issue in Honor of 75-Anniversary of Victor Sarianidi*, Moscow, 303–315.

Danilov, S.V.
1983: Životnye v pogrebal'nyh obrâdah Zabajkal'â, in: Konovalov, P.B. (ed.), *Po sledam grevnih kultur Zabajkal'â*, Novosibirsk, 107–112.

Dubova, N.A.
2004a: Eŝe raz o tysâčeletnej davnosti dolihokefalii turkmen, *Miras* 4, 78–85.

2004b: Obyčaj kol'cevoj deformacii golovy. Novye dannye o ego bytovanii v ûžnyh rajonah Srednej Azii v epohu bronzy, in: N.A. Tomilov (ed.), *Integraciâ arheologičeskih i etnografičeskih issledovanij, Almaty, 23–24 sentâbrâ 2004 g.*, Almaty, 295–297.

2005: Animal Burials and their Cults in Margiana, in: Laneri, N. (ed.), Defining the Sacred: Approaches to the Archaeology of Religion in the Near East, Oxford, 11–23.

2006a: Iskusstvennaâ deformaciâ golovy u zemledel'zev èpohi bronzy, in: Mednikova, M.B. (ed.), *Iskusstvennaâ deformaciâ golovy čeloveka v prošlom Evrazii* (= OPUS: meždisciplinarnye issledovaniâ v arheologii 5), Moscow, 22–36.

2006b: Qui vivait à Gonur Dépé?, *Dossier de l'Archéologie & Sciences des origines* 317, 40–45.

2008: Masterskaâ po proizvodstvu splavov na osnove medi Severnogo Gonura (Zapadnaâ čast' Raskopa 9), in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/ Transactions of Margiana archaeological expedition. Volume 2*, Moscow, 94–104.

2011: Gonur Mosaics with Elements of Painting, in: Myratgutlyýewa, Ş./Pirnepesowa, O./Smirnowa, N. (ed.), *The Ancient Material Culture of Turkmenistan and its Place in the Development of World Civilization. Materials of the International Scientific Conference*, April 7–8, 2011, Ashgabat, 48–51.

2012: Pogrebeniâ životnyh v strane Marguš, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 4. Issledovaniâ Gonur Depe v 2008–2011 godah/Transactions of Margiana archaeological expedition. Volume 4. Gonur Depe Studies in 2008–2011*, Moscow, 101–139.

2014: Tipy pogrebal'nyh sooruženij Gonur-Depe (Turkmenistan), in: Molodin, V.I./Epimahov, A.V. (ed.), *Arii stepej Evrazii. Epoha bronzy i rannego železa v stepâh Evrazii i sopredel'nyh territoriâh. Sbornik pamâti Eleny Efimovny Kuz'minoj*, Barnaul, 327–340.

Dubova, N.A./Rykushina, G.V.
2004: Necropolis and Area 5 of Gonur-Depe: Some Anthropological Data, in: Kosarev, M.F./Kozhin, P.M./Dubova, N.A. (ed.), *Near the Sources of Civilization. The Issue in Honor of 75-Anniversary of Victor Sarianidi*, Moscow, 317–336.

2007: Paleodemografiâ Gonur-Depe, in: Alekseeva, T.I. et al. (ed.), *Čelovek v kulturnoj i prirodnoj srede. Trudy tret'ih antropologičeskih čtenij k 75-letiû so dnâ roždeniâ akademika V.P. Alekseeva, g. Moskva, 15–17 noâbrâ 2004 g.*, Moscow, 309–319.

2007a: New Data on Anthropology of the Necropolis of Gonur-Depe, in: Sarianidi, V., *Necropolis of Gonur-Depe*, Athens, 296–329.

Dubova, N.A./Saipov, A.B./Junusbayev, S.M.
2016: Interaction between Steppe and Agricultural Tribes during the Bronze Age: Morphological Aspects, *International Journal of Anthropology* 31, 111–127.

Gubaev, A./Koshelenko, G./Tosi, M. (ed.)
1998: *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome.

Hiebert, F.T./Moore, K.M.
2004: A Small Steppe Site near Gonur, in: Kosarev, M.F./Kozhin, P.M./Dubova, N.A. (ed.), *Near the Sources of Civilization. The Issue in Honor of 75-Anniversary of Victor Sarianidi*, Moscow, 294–302.

Jenkins, L./Mills, B.
2012: *The Art of Making Mosaics*, Princeton/New Jersey.

Karlov, V.V.
1976: O faktorah èkonomičeskogo i političeskogo razvitiâ russkogo goroda v èpohu srednevekov'â (k postanovke voprosa), in: Ânin, V.L. (ed.), *Russkij gorod (Istoriko-metodologičeskij sbornik)*, Moscow, 32–69.

Hlopin, I.N.
1961: Nekotorye voprosy razvitiâ drevnejših zemledel'cev, in: Gajdukevič, V.F. (ed.), *Issledovaniâ po arheologii SSSR. Sbornik statej v chest' prof. M. I. Artamonova*, Leningrad, 47–55.

Hodžajov, T.K.
1966: O prednamerennoi deformacii golovy u narodov Srednei Asii v drevnosti. *Vestnik Karakalpakskogo filiala AN UzSSR, Nukus* 4, 56–60.

2000: Obyčaj iskusstvennoj deformacii golovy v Srednej Azii, in: Dubova, N.A./Rykušina, G.V. (ed.), *Antropologičeskie i ètnografičeskie svedeniâ o naselenii Srednej Azii* (= Ètničeskaâ antropologiâ Srednej Azii 2), Moscow, 22–45.

Kirčo, L.B./Kovnurko, G.M.
2003: Prestižno-kultovye predmety i ukrašeniâ Altyn-depe iz drevnih iskusstvennyh mineralov

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

(po dannym rentgenometričeskogo analiza), *Arheologičeskie vesti* 10, 108–113.

Kovaleva, N.A.
2016: Viktor Sarianidi – poslednij krylatyj lev Margiany, in: Dubova, N.A. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi/Transactions of Margiana archaeological expedition. Volume 6. To the Memory of Professor Victor Sarianidi*, Moscow, 108–125.

Korčagin, P.A./Mel'ničuk, A.F.
2003: "Protogorod": a byla li problema?, *Vestnik Permskogo universiteta* 4, 55–64.

Marshall, J.
1931: *Mohenjo-Daro and the Indus Civilization*, 3 vol., London.

Masimov, I.S.
1981: The Study of the Bronze Age Cities in the Lower Murgab, in: Kohl, P.L. (ed.), *The Bronze Age Civilization of Central Asia*, New York, 194–220.

Masson, V.M.
1971: *Poselenie Džejtun: Problema stanovleniâ proizvodâšej èkonomiki* (= Materialy i issledovaniâ po arheologii 180), Moscow.

1981: *Altyn Depe*, Leningrad.

2006: *Kulturogenez drevnej Centralnoj Azii*, St. Petersburg.

Okladnikov, A.P.
1949: Izučenie drevnejših arheologičeskih pamâtnikov Turkmenii, *Kratkie soobšeniâ Instituta istorii material'noj kultury* 28, 66–71.

1961: Arheologičeskie nahodki na velikih strojkah Vostoka, *Vestnik Akademii nauk* 8, 71–77.

1966: Paleolit i mezolit Srednej Azii in: Masson, V.M. (ed.), *Srednââ Aziâ v èpohu kamnâ i bronzy*, Moscow/Leningrad, 11–75.

Papahristu, O.A.
2008: K rekonstrukcii tiglej dlâ plavki splavov na osnove medi iz masterskoj Gonur in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/Transactions of Margiana archaeological expedition. Volume 2*, Moscow, 196–224.

2010: Litejnye formy iz masterskoj stoličnogo Gonura (predvaritel'noe soobšenie), in: Kožin, P.M./ Kosarev, M.F./Dubova, N.A. (ed.), *Na puti otkrytiâ civilizacii. Sbornik statej k 80-letiû V. I. Sarianidi/On the Track of Uncovering a Civilization. A Volume in Honor of the 80th Anniversary of Victor Sarianidi*, St. Petersburg, 265–284.

2016: Opyt sopostavleniâ: Masterskaâ metallistov na gorodiše Gonur-depe (Turkmenistan) i kvartal metallistov na gorodiše Şahdad (Iran), in: N.A. Dubova et al (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi/Transactions of Margiana archaeological expedition. Volume 6. To the Memory of Professor Victor Sarianidi*, Moscow, 232–256.

Potts, D.
2008: Puzur-Inšušinak and the Oxus Civilization (BMAC): Reflections on Šimaški and the Geo-political Landscape of Iran and Central Asia in the Ur III Period, *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 98, 165–194.

Rossi Osmida, G. (ed.)
2007: *Adji Kui Oasis. III–II mill. BC. La citadella delle statuette/The Citadel of the Figurines/Heykelleriñ sitadeli, Vol. 1*, Trebaseleghe.

2011: *Adji Kui Oasis. III–II mill. BC. La citadella delle statuette/The Citadel of the Figurines/Heykelleriñ sitadeli, Vol. 2*, Trebaseleghe.

Salvatori, S.
1993: The Discovery of the Graveyard of Gonur-Depe 1(Murghab delta, Turkmenistan). 1992 Campaign, Preliminary Report, *Rivista di archeologia* 17, 5–13.

1994: Excavations at the Namazga V Late Graveyard of Gonur I (Murghab delta, Turkmenistan). Preliminary Report on the 1993 Field Season, *Rivista di archeologia* 18, 14–39.

1995: Gonur-Depe 1 (Margiana, Turkmenistan). The Middle Bronze Age Graveyard. Preliminary Report on the 1994 Excavation Campaign, *Rivista di archeologia* 19, 5–37.

1998: The Bronze Age in Margiana, in: Gubaev, A./Koshelenko, G./Tosi, M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 47–56.

1998a: Margiana Archaeological Map: The Bronze Age Settlement Pattern, in: Gubaev, A./ Koshelenko G./Tosi M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 57–65.

Salvatori, S./Tosi, M. (ed.)
2008: *Lowlands: Facts and Methodological Proposal for a Redefinition of the Research Strategies* (= British Archaeological Reports. International Series 1806), Oxford.

Salvatori, S./Tosi, M.
1997: Postscriptum. Some Reflections on Shahdad and Its Place in the Bronze Age of Middle Asia, in: Hakemi, A. *Shahdad, Archaeological Excavations of a Bronze Age Centre in Iran* (= Reports and Memoirs 27), Rome, 121–138.

Sarianidi, V.I.
1973: Drevnosti nizovij Murgaba, *Arheologičeskie otkrytiâ* 1972, 483–484.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

1977: *Drevie zemledel'cy Afganistana. Materialy Sovetsko-Afganskoj èkspedicii 1969–1974 gg.*, Moscow.

1981: Margiana in the Bronze Age, in: Kohl P.L. (ed.), *The Bronze Age Civilization of Central Asia: Recent Soviet Discoveries*, New York, 165–193.

1986: Le complexe cultuel de Togolok 21 en Margiane, *Arts Asiatiques* 41, 5–21

1990: *Drevnosti strany Marguš*, Ashgabat.

1994: Temples of Bronze Age Margiana: Tradition of Ritual Architecture, *Antiquity*, 68, 259, 388–397.

1996: Proishoždenie iranskih hramov ognâ, in: Accademia Nazionale dei Lincei (ed.), *La Persia e l'Asia centrale da Alessandro al X secolo: Convegno Internazionale, Roma, 9-12 Novembre 1994* (= Atti dei convegni Lincei 127), Rom, 319–329.

1997: Temenos Gonura, *Vestnik drevnej istorii* 1, 148–168.

1998: *Margiana and Protozoroastrism*, Athens.

2000: Dvorec Severnogo Gonura, *Vestnik drevnej istorii* 2, 248–259.

2001: *Nekropol' Gonur-depe i iranskoe âzyčestvo/ Necropolis of Gonur-depe and Iranian Parganism*, Moscow.

2002: The Fortification and Palace of Northern Gonur, *Iran* 40, 75–85.

2002a: The Palace and Necropolis of Gonur, in: Rossi-Osmida, G. (ed.), *Margiana. Gonur-depe Necropolis. 10 Years of Excavations by Ligabue Study and Research Center*, Venice, 17–49.

2005: *Gonur-Depe. Turkmenistan. City of Kings and Gods*, Ashgabat.

2006: Carskij nekropol' na Severnom Gonure, *Vestnik drevnej istorii* 2, 155–192.

2007: *Necropolis of Gonur-depe*, Athens.

2007a: Dvorcovo-hramovyj kompleks Severnogo Gonura, *Rossijskaâ arheologiâ* 1, 49–63.

2008: *Zoroastrianism. A New Motherland for an Old Religion*, Thessaloniki.

2010: *Zadolgo do Zaratuštry/Long before Zaratushtra*, Moscow.

2012a: Peredneaziatskie arii v Baktrii i Margiane, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 4. Issledovaniâ Gonur Depe v 2008–2011 godah/Transactions of Margiana archaeological expedition. Volume 4. Gonur Depe Studies in 2008–2011*, Moscow, 11–28.

2012b: On Ancient Crossroads, in: *The Revival of the Silk Road in the Happy Epoch of the Powerful State. Abstracts of Papers of the International Scientific Conference (December 13–14, 2012)*, Ashgabat, 156–157.

Sarianidi, V.I./Boroffka, N.G.O./Dubova, N.A.
2014: Kulturnye kontakty Margiany (Turkmenistan) v III tys. do n.è. Novye dannye po Gonur Depe (pogrebenie № 4150), in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 5. Issledovaniâ Gonur Depe v 2011–2013 godah/Transactions of Margiana archaeological expedition. Volume 5. Gonur Depe Studies in 2011–2013*, Moscow, 127–137.

Sarianidi, V.I./Dubova, N.A.
2006: Temple of Haoma at Gonur Depe, *Miras* 3, 142–146.

2008: Arheologičeskie raboty na ûgo-zapadnom holme Gonur Depe (Raskop 16), in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/Transactions of Margiana archaeological expedition. Volume 2*, Moscow, 28–83.

2010: Nouvelles sépultures sur le territoire de la "nécropole royale" de Gonur Dépé, *Arts Asiatiques* 65, 5–26.

2012: Arheologičeskie raboty Margianskoj arheologičeskoj èkspedicii v 2008–2011 godah, in: V. Sarianidi (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/Transactions of Margiana archaeological expedition. Volume 4*, Moscow, 29–55.

2013: Mozaika III tys. do n.è. v Gonur Depe (Turkmenistan), in: Kolganova, G.Û./Petrova, A.A./ Kullanda, S.V. (ed.), *Poslednij ènciklopedist. K ûbileû B.A. Litvinskogo*, Moscow, 379–413.

2014: Raboty Margianskoj arheologičeskoj èkspedicii v 2011–2013 gg, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 5. Issledovaniâ Gonur Depe v 2011–2013 godah/Transactions of Margiana archaeological expedition. Volume 5. Gonur Depe Studies in 2011–2013*, Moscow, 92–111.

2016: Types of Graves at Gonur Depe Bronze Age Site in Turkmenistan, in: Stucky, R.A./Kaelin, O./ Mathys, H.-P. (ed.), *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East, June 9–13, 2014, Basel. Volume 3*, Wiesbaden, 615–626.

Sataev, R.M.
2008: Raskopki drevnego irrigacionnogo kanala, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/Transactions of Margiana archaeological expedition. Volume 2*, Moscow, 65, 66, 83.

2016: *Životnye v culture drevnej Margiany/Animals in the Culture of Ancient Margiana*, Moscow.

Sataev, R.M./Sataeva L.V.
2010: Vozmožnosti ispol'zovaniâ ètnoèkologičeskih analogij pri reconstrukcii sistemy žizneobespečeniâ drevnego naseleniâ Gonurskogo oazisa,

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in: Tomilov, M.A. et al. (ed.), *Integraciâ arheologičeskih i ètnografičeskih issledovanij*, Kazan/Omsk, 171–174.

2014: Results of Archaeozoological and Archaeobotanical Research at the Bronze Age Gonur Depe Site (Turkmenistan), in: Bieliński, P. et al. (ed.), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East, 30 April–4 May 2012, University of Warsaw*, Wiesbaden, 367–370.

Sataeva, L.V.
2014: Rasteniâ v material'noj i duhovnoj kulture Baktrijsko-Margianskogo arheologičeskogo kompleksa, in: Sitdikov, A.G./Makarov, N.A./Derevyanko, A.P. (ed.), *Trudy IV (XX) Vserossijskogo arheologičeskogo s''ezda v Kazani, Tom 1*, Kazan, 497–499.

Schwartz, G.M.
2012: Archaeology and Sacrifice, in: Porter, A.M./Schwartz, G.M. (ed.), *Sacred Killing. The Archaeology of Sacrifice in the Ancient Near East*, Winona Lake, 1–32.

Schwidetzki, I.
1950: *Turaniden Studien* (= Akademie der Wissenschaften und der Literatur. Abhandlungen der Matematisch-Naturwissenschaftlische Klasse 9), Wiesbaden.

Šahova, N.A.
1995: O sušnosti i arheologičeskih kriteriâh drevnego goroda, *Problemy istorii, filologii, kultury* 2, 6–16.

1996: *Kušanskij gorod: fortifikaciâ i graždanskaâ arhitektura. Avtoreferat dissertacii na soiskanie stepeni kandidata istoričeskih nauk*, Moscow.

Stronach, D./Roaf, M.
2007: *Nush-i Jan I: The Major Buildings of the Median Settlement*, Leuven.

Tolstov, S.P.
1948: *Drevnij Horezm. Opyt istoriko-arheologičeskogo issledovaniya*, Moscow.

1948a: *Po sledam drevnehoreznijskoj civilizacii*, Moscow/Leningrad.

1962: *Po drevnim del'tam Oksa i Âksarta*, Moscow.

Tur, S.S.
1996: K voprosu o proishoždenii i funkciâh obyčaâ kol'cevoj deformacii golovy, in: Kirûšin, Û.F. *Arheologiâ, antropologiâ i ètnografiâ Sibiri. Sbornik, posvâšennyj pamâti antropologa A.R. Kima*, Barnaul, 237–249.

Urmanova, A.M.
2014: K probleme sooruženij tipa "kel'i", in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 5. Issledovaniâ Gonur Depe v 2011–2013 godah/Transactions of Margiana archaeological expedition. Volume 5. Gonur Depe Studies in 2011–2013*, Moscow, 138–150.

Vallois, H.
1939: Les ossements humains de Sialk, in: Ghirshman, R. (ed.), *Fouilles de Sialk près de Kashan. 1933, 1934, 1937. Volume 2*, Paris, 5–127.

Veresotskaya, G.È.
2014: Predvaritel'nye rezul'taty raboty po razboru i sistematizacii razroznennyh fragmentov mozaičnogo dekora iz grobnicy 3210, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 5. Issledovaniâ Gonur Depe v 2011–2013 godah/Transactions of Margiana archaeological expedition. Volume 5. Gonur Depe Studies in 2011–2013*, Moscow, 218–223.

2016: Sarianidi Victor Ivanovič. Korotkie vstreči, in: Dubova, N.A. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi/Transactions of Margiana archaeological expedition. Volume 6. To the Memory of Professor Victor Sarianidi*, Moscow, 178–187.

Vidale, M.
1989: Early Harappan Steatite, Faience and Paste Beads in a Necklace from Mehrgarh–Nausharo (Pakistan), *East and West* 39, 1–4, 291–300.

Zajceva, G.I./Dubova, N.A./Semencov A.A./Rejmar, P./Mallory, J./Jungner, H.
2008: Radiouglerodnaâ hronologiâ pamâtnika Gonur Depe, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 2/Transactions of Margiana archaeological expedition. Volume 2*, Moscow, 166–179.

Ûminov, A.M.
2012: Mozaičnye vstavki iz grobnizy 3915, in: Sarianidi, V.I. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 4. Issledovaniâ Gonur Depe v 2008–2011 godah/Transactions of Margiana archaeological expedition. Volume 4. Gonur Depe Studies in 2008–2011*, Moskau, 189–191.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

The Swiss IAW-EurAsia Project on Urban Development and Land Use in Gonur Depe (Turkmenistan)

A geo-magnetic survey

Christian Hübner, Mirko Novák, and Sylvia Winkelmann

Abstract: The Institute for Archaeological Sciences (IAW) of Bern University and the company GGH Solutions in Geosciences undertook a large-scale magnetometer survey of the city of Gonur Depe in south-east Turkmenistan in 2014 and 2015. This was done within the framework of a Swiss-Russian project to analyse urban development and land use in Gonur Depe, and was headed by Bern University in cooperation with the Russian Academy of Sciences, Moscow, the funding being provided by the Society for the Exploration of EurAsia. An area of 257,712 sq m was scanned in and around Gonur Depe. Numerous urban elements can be identified in the magnetogram, such as parts of the city wall, a ditch, water basins, high-temperature areas like kilns and ovens, mud-brick buildings, and tombs belonging to the necropolis. Hence important additional information has been revealed concerning the urban layout. This will help to define and select future fields of excavation.

Keywords: Gonur Depe, GIS, magnetometry, necropolis, kilns.

Резюме: Институт Археологических Наук (IAW) Бернского Университета и компания "GGH Solutions in Geosciences" предприняли крупномасштабное магнитометрическое исследование города Гонур-Депе на юго-востоке Туркменистана в 2014 и 2015 годах. Исследование было проведено в рамках швейцарско-российского проекта по изучению городского развития и эксплуатации территории на Гонур-Депе, возглавляемого Бернским Университетом в сотрудничестве с Российской Академией Наук, г. Москва, и финансируемого организацией "EurAsia Society". Была просканирована территория площадью 257,712 кв. м. внутри Гонур-Депе и вокруг него. На магнитограмме можно выделить многочисленные признаки городской цивилизации, такие как части городской стены, ров, водоемы, высокотемпературные области — печи и очаги, кирпичные здания и могилы, относящиеся к некрополю. В результате была получена дополнительная важная информация о городской планировке. Это поможет определить и выбрать участки для будущих раскопок.

Ключевые слова: Гонур-Депе, GIS, магнитометрия, некрополь, печи.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



Fig. 1: Fluxgate-Magnetometer mounted on a portable rack, Gonur Depe (photo C. Hübner).

1 Introduction

The Bronze Age settlement of Gonur Depe has been excavated by the Russian archaeologists Victor Sarianidi and Nadezhda Dubova over the past 40 years.[1] The site is situated in the historical region of Margiana, 70 km north of modern Mary in south-east Turkmenistan. It lies at the margins of the alluvial inland fan of the Murgab River in the southern part of the Karakum Desert. Here, on the lower slopes of the fan, the deposits are dominated by fine sands, silts and muds, so it is no wonder that almost all the architecture was made of mud bricks.

The settlement consists of two complexes, Gonur North, at the centre of which is a huge building inside the so-called *kremlin*, and Gonur South, with a similar but significantly smaller structure, called the *temenos*.

The Russian excavations have revealed huge parts of the entire settlement, providing an impressive insight into the layout of the ancient city. However, some areas still remained unexcavated, leaving open several questions, such as the exact limits of the settlement. Hence the project initiated by the Institute of Archaeological Sciences (IAW) of Bern University, and funded by the Society for the Exploration of Eur-Asia, was intended to gather further information, first on the extension of the settled area, and second on the functional structure of the ancient city. The method used was geomagnetic prospection, which was executed by GGH-Solutions in Geosciences, Freiburg (Germany).[2] The work, which was made possible through the kind invitation of Professor Doctor Nadezhda Dubova, was based on a cooperation agreement between the Margiana Expedition of the Russian Academy of Sciences and the University of Bern.

2 Geomagnetic survey

At the centre of Gonur North is the *kremlin*, a square fortified complex approximately 120 × 120 m, consisting of the palace and several adjacent buildings. It was surrounded by other public buildings, presumably temples, inside another enclosing wall.[3] Together, they form a square "inner" city with a side width of 175 m. This inner city was situated in an extensive urban settlement with domestic areas, water basins, royal tombs and open spaces, and was encircled by another wall with an irregular outline. The oval-shaped town had a maximum diameter of about 450 m. To the west of the outer city wall, an extensive necropolis was discovered and completely excavated. About 200 m south of Gonur North, another square structure similar in size and layout to the *kremlin* was exposed, so-called Gonur South.

The major objective of the project Urban Development and Land Use in Gonur Depe was to prospect the unexcavated areas of Gonur Depe with the help of non-invasive research methods, preferably

1 On the excavations in Gonur Depe, see Dubova in this volume; on the Swiss IAW-SLSA project, see Winkelmann 2014 and 2015.

2 Two campaigns have been undertaken so far: from 15 to 27 September 2014, and from 22 April to 1 May 2015, led by Christian Hübner and Klaus Kurz. The project is directed by Mirko Novák, and Sylvia Winkelmann is field director.

3 See Dubova in this volume.

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Fig. 2: Magnetogram of Gonur Depe North and the *temenos*; area 257,712 sq m; Förster gradiometer; measuring grid: 0.5 x 0.2 m; dynamic range [+- 5 nT] combined with World Imagery, Sources: ESRI, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

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Fig. 3: Three excavated kilns outside the outer city wall to the south-east of Gonur Nord (photo C. Hübner).

a magnetic survey. This method, which guaranteed the fast acquisition of data, is suited to capturing remains like high-temperature areas, mud-brick walls, ditches, pits and tombs. The magnetic survey was carried out in September 2014 and April 2015, over an area measuring 257,712 sq m. Four Fluxgate gradiometer probes con 650 with a Ferex 4.032 data logger, mounted on a portable rack, were carried by one person along survey profiles, with a sampling interval of 0.20 m inline and 0.50 m crossline (**Fig. 1**).

The datasets were processed with the software magtools[4] and presented in the Geographic Information System ArcMap by ESRI as a greyscale image. Created using a high-precision DGPS System, the magnetogram and the topographical maps made by the Russian team were transformed into the UTM coordinate system 41N. This means that the results can be synchronised with the satellite image within GIS (**Fig. 2**).

The magnetic prospection of Gonur North was carried out in areas inside and outside the outer ("third") fortification wall and in the vicinity of Gonur South. Unfortunately, some other areas were covered by the dump of the former excavations, rising up to 8 m in height and making a survey impossible, or preventing the creation of clear images. Numerous linear elements, visible in the magnetogram, were caused by mechanical removal of dump over the past 40 years.

However, the results were more than satisfying, for prominent magnetic anomalies were discovered in all prospected areas.

West of the palace, two linear structures were detected. The western one has a length of 130 m and runs exactly along the assumed line of the expected third city wall (and seems to mark the border of settlement in the west of Gonur Depe North during period II.). The eastern one has a length of 112 m and is identical with a moat excavated in the Swiss team's Trench A.[5] East of this ditch, the anomalies refer to mud-brick architecture and high-temperature spots that indicate furnaces or ovens. The elements belong to structures excavated by the Russian team further to the east. West of the ditch, narrow, restricted positive anomalies can be observed which can be identified with tombs and pits of a newly found cemetery existing additionally to the huge necropolis further west. The centre of the cemetery is situated 200 m west of the ancient town and was excavated by the Russian team.[6]

To the south and west of the palace, outside the "second" city wall, magnetic anomalies indicate the existence of water basins similar to those already excavated by the Russian team. The great southern basin is limited by linear elements.

Other prominent anomalies are located 30 m south of the royal tombs. They are related to burned mud-brick structures and high-temperature spots. Numerous magnetic dipole and multipole anoma-

4 Giese/Grubert/Hübner 2007.

5 Excavations carried out by the University of Bern within the framework of a Swiss project, Excavations in Gonur Depe, and funded by the Swiss-Liechtenstein Foundation for Archaeological Research Abroad (SLSA), have proved the existence of this ditch, which was filled completely with ash and refuse. Its function, however, remains still unclear.

6 Sarianidi 2007.

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lies like these result from the thermoremanent magnetisation of clay and muds by kilns, fireplaces and ovens.[7] They have ash layers in parts up to 1 m thick. Most of these anomalies appear between the second and third city wall. In addition, a concentration of kilns can be seen outside the south-eastern alignment of the "third" city wall, indicating a workshop area (**Fig. 3**).

Furthermore, a prominent circle structure was detected in the magnetic survey south of the *kremlin* between the second and third city wall. The object with a diameter of 7 m was sounded by the Russian team. It could be identified as a further and well preserved circular altar.

North of Gonur South, multipole anomalies identified further high-temperature areas. The predominant positive anomalies west and east of this field are caused by two modern fields for ceramic studies, arranged by the Russian team in the past decades. More anomalies related to high-temperature area and pits were detected 130 m west of Gonur South. Here, a high accumulation of pottery sherds covers the surface.

Finally, another concentration of numerous contiguous multipole anomalies is located 70 m south of Gonur South, situated in the centre of a wide mound with a diameter of 120 m. The anomalies cover an area of 20 × 50 m and again indicate high-temperature areas like fireplaces. In two soundings opened by the Russian team several years ago, thick layers of ash have been exposed. On the same mound, several linear structures, presumably mud-brick walls, are visible. All indications are that this area was a workshop quarter.

3 Urban implementations

In total, 549 anomalies of pits or tombs and 111 high-temperature spots were discovered in the survey, distributed over almost all areas surrounding the "inner city", both inside and outside the "third" city wall. The enormous quantity of ceramics found, together with the absence of metal slag, suggests ceramic production rather than metallurgy. Depending on the weak susceptibility contrast between the soil and mud-brick material, only in a few areas of the site were mud-brick walls detected, mainly in undisturbed fields like those east of the *kremlin* and around Gonur South.

The magnetic survey has revealed some extramural occupation areas. One such settlement is situated 150 m north-north-east of Gonur North and was partly excavated by the Russian team. They belong to a small settlement outside of the third city wall with remains of a street-system and some graves. The settlement is in total 100 × 30 m. North of it, at a distance of 100 m, some spots of positive anomalies were observed. In between Gonur North and South, as well as to the east and west of Gonur North, the magnetogram does not reveal striking anomalies. In the magnetogram, geological structures of river channels are visible, as well as traces of the modern path network, and agriculture features (**Fig. 4**).

How can all this data be interpreted in respect of urban development and land use?

First of all, it seems obvious that the ancient settlement shows a very thorough town-planning concept, with a concentric structure of the settlement sectors. Another characteristic feature is a functional distinction between the official quarters inside the *kremlin* and the "inner city". The dwelling quarters were situated both inside and outside the enclosed area, showing that the primary function of the outer ("third") city wall was symbolic, its role being to segregate rather than to provide a real military fortification, as has already been observed by the Russian excavators.[8] Of high interest are the satellite settlements located at a considerable distance from the main site.

Some traces of irrigation channels have been detected in the magnetic survey, between Gonur North and South, and east of Gonur North. Such channels, similar to those discovered by the Russian excavations,[9] presumably became necessary when the Murghab River started to dry out. It seems likely that the moat excavated in the Swiss Trench A and identified in the magnetic survey west of the *kremlin* was originally constructed as a water channel for irrigation, being the first approved example inside the city wall. However, this channel's primary function was abandoned shortly after construction and it was re-used for other, as yet unknown, purposes. When it was exposed, it was completely filled with ash and settlement debris. As the Swiss excavations have revealed, it was later re-used for a small cemetery during Period III. West of the second city wall, a water basin was detected, presumably also part of the water-supply system.

The high quantity of anomalies indicating high-temperature workshop areas is surprising. As mentioned above, it is unclear so far whether all kilns served for pottery production, or at least partly also for metallurgy. For the latter conjecture, no supplementary indicators – like metal slag at the surface – have been found. However, one important consequence is that obviously more pottery was produced in Gonur than required for internal consumption. Hence we can conjecture that the city was a production centre, at least for parts of the Murghab delta, if not the entire BMAC (Bactria-Margiana Archaeological Complex). This question must be

7 Le Borgne 1960.

8 Dubova in this volume.

9 Dubova in this volume.

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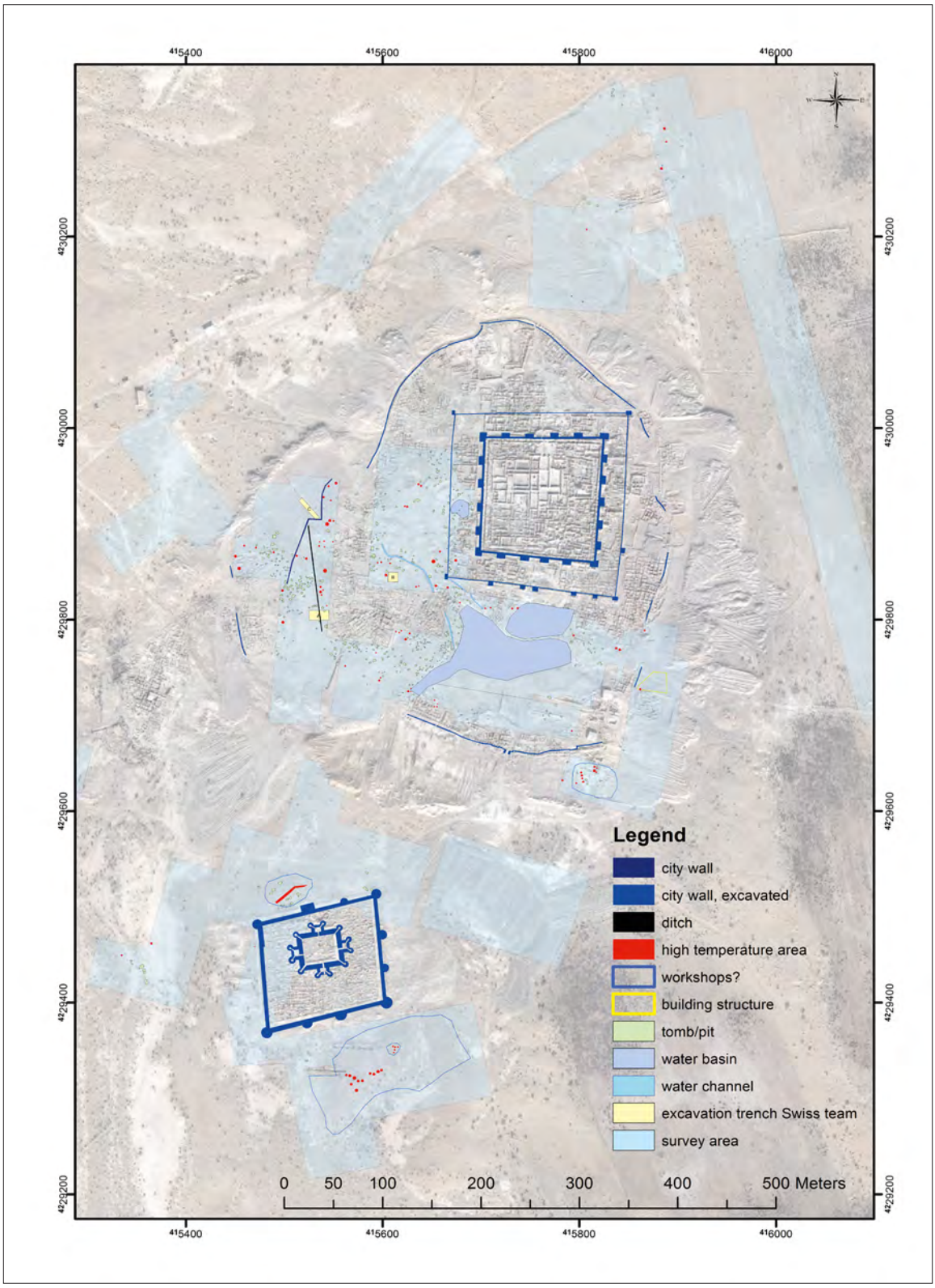


Fig. 4: Archaeological interpretation of the magnetogram, combined with the city map of the Russian team and World Imagery, sources: ESRI, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

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resolved by detailed typological and archaeometric studies on BMAC pottery in general.

Another even more interesting consequence of the survey is the fact that a number of artisans and craftsmen must have lived in or around Gonur. And if this is the case, other specialised professions have to be expected among the inhabitants of ancient Gonur, including their families. We have to assume that Gonur was not only a "city of kings and gods"[10] but of "ordinary" people as well.

Further investigation has to test these suppositions. Beside the Russian excavations, a continuation of the Swiss research is intended, both in respect of further geophysical prospections and remote sensing, and also archaeological excavations. The latter will focus on fine-tuning the stratigraphy, but also on exploring some dwelling quarters to gain more information on the "ordinary" people among the inhabitants of Gonur Depe.

Bibliography

Giese, S./Grubert, A./Hübner, C.
2007: Geoinformatics as a tool for archaeological prospection: geomagnetic mapping in the prehistoric settlement "Udabno 1" (Kachetia, Georgia), *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften – German Journal of Geology* 158/1, 177–182.

Le Borgne, E.
1960: Influence du feu sur les propriétés magnetiques anomale du sol et sur celles du chistre et du granite, *Annales de Géophysique* 16, 159–195.

Sarianidi, V.
2005: *Gonur Depe, Turkmenistan: City of Kings and Gods*, Ashgabad.

2007: *Necropolis of Gonur*, Athens.

Winkelmann, S.
2014: Gonur Depe, Turkmenistan. Bericht über die 1. russisch-schweizerische Kampagne, *Schweizer-Liechtensteiner Stiftung für Archäologie. Jahresbericht 2014*, 135–166.

2015: Bericht über die Berner Ausgrabungen 2015 in Gonur Depe, Turkmenistan = Report on the 2015 Excavation Campaign of the Russian-Swiss Expedition in Gonur Depe, Turkmenistan, *Schweizer-Liechtensteiner Stiftung für Archäologie. Jahresbericht 2015*, 179–210.

10 Sarianidi 2005.

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Bronze and Iron Age Urbanisation in Turkmenistan

Preliminary results from the excavation of Togolok 1 on the Murghab alluvial fan

Barbara Cerasetti, Roberto Arciero, Marialetizia Carra, Antonio Curci, Jacopo De Grossi Mazzorin, Luca Forni, Elise Luneau, Lynne M. Rouse, Robert N. Spengler III

Abstract: Despite the hostile climate, since the Bronze Age the populations of Southern Turkmenistan have been able to create, through an impressive network of canals, an artificial agricultural territory with villages and large towns. Between 2400 and 1950 BCE, the Murghab alluvial fan was characterised by the presence of complex urban societies. This period was followed by a deep crisis that led to the disappearance of the largest sites. At the beginning of the Iron Age (1300 BCE), the water flow in the Murghab River decreased, resulting in a southward movement of settlements and the abandonment of a large portion of the territory by sedentary farmers. At the same time, new groups of mobile pastoralists began to settle in the area and started to interact with farmers. The excavations of Togolok 1 are providing vital data on the integration between sedentary and mobile pastoralist cultures, as well as on the birth and evolution of urbanism during the later Iron Age.

Keywords: Turkmenistan, Murghab River, Bronze Age, mobile pastoralism.

Резюме: Начиная с бронзового века, несмотря на неблагоприятный климат, жителям Южного Туркменистана с помощью впечатляющей сети каналов удалось сделать свои земли пригодными для сельского хозяйства и жизни в больших поселениях. В период между 2400 и 1950 гг. до н.э. дельта реки Мургаб характеризуется присутствием сложных городских обществ. Кризис в конце этого периода привел к исчезновению самых больших поселений. Снижение уровня воды в реке Мургаб в начале Железного века (1300 г. до н.э.) привело к смещению поселений на юг и исходу оседлых крестьян со значительной части упомянутых территорий. В то же время новые группы скотоводов-кочевников начали заселять данную территорию и вступили в контакт с крестьянами. Раскопки памятника Тоголок 1 предоставляют данные о взаимопроникновении оседлой и кочевнической культур, а также о зарождении и эволюции городов в период позднего железного века.

Ключевые слова: Туркменистан, река Мургаб, бронзовый век, кочевой образ жизни.

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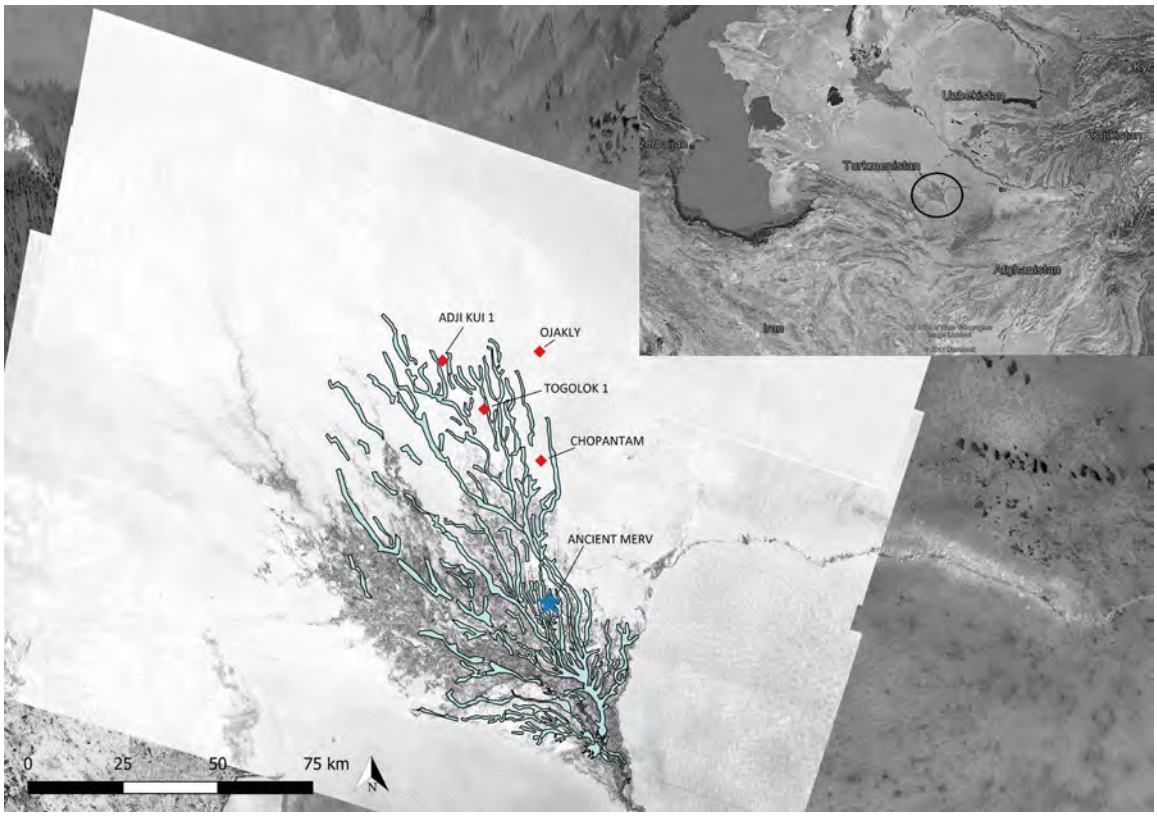


Fig. 1: Distribution of Bronze Age archaeological sites (red diamond), excavated by the Italian-American-Turkmen mission, along the main fluvial ridges (basemap: CORONA KH-4A 1972 satellite mosaic); modern Murghab alluvial fan in the black circle (basemap: Google Earth 2016) in the upright image (GIS elaboration by R. Arciero).

There are several interesting research questions being explored by archaeologists working in the Murghab alluvial fan region in what is now Southern Turkmenistan (**Fig. 1**).

One of the most interesting of these topics of inquiry relates to the nature of mobility and interaction during the 3rd to the 1st millennia BCE, especially in a context of increasing social complexity.

Much of this ongoing research centres around possible links between exchange and increasing social complexity, increasing central urbanisation during the period between the Middle-Late Bronze Age (2400–1300 BCE) and the following Iron Age 1 and 2 (1300–550 BCE), and the formation of a "state'" during historical periods (e.g., Hiebert 1994; Kohl 2007; Cerasetti 2012; Frachetti 2012; Rouse/Cerasetti 2014; Spengler 2015) (**Fig. 2**).

With these questions of inquiry in mind, we conducted a collaborative excavation at the Bronze Age (Namazga culture) village of Togolok 1, located in a central position in the north-eastern sector of the Murghab alluvial fan (Sarianidi 1990; Sarianidi 1994; Hiebert 1994; Salvatori 2006; Cerasetti 2016; Cerasetti et al. forthcoming a; Cerasetti et al. forthcoming b) (**Fig. 3**).

The data from these ongoing excavations is shedding light on the question of which changes took place in the politics and economy of the region during the transition period. The Togolok 1 excavation has focused, and will continue to focus, on the gap in our understanding of how the pastoral and agricultural peoples were interconnected, whether they were in close contact or had hostile relations, especially as they all lived in close proximity on the alluvial fan. In addition, the results from Togolok 1 are creating fertile ground for further inquiry into the process of urbanisation in the Murghab region.

The Bronze Age Murghab region was occupied by peoples who can be divided into two cultural and economic categories: sedentary farmers and mobile pastoralists. It is still not clear how these two groups interacted with one another in day-to-day activities, whether they saw themselves as one people, or how their economic ties played out. In order to further understand the process of urban growth and the development of cities in the Murghab, we have also conducted a series of excavations at nearby contemporaneous sites that were occupied by mobile pastoralists or small-scale agro-pastoralists. These sites provide a point of contrast with the larger sedentary urban sites and they are helping us to piece together the broader economic picture for this period. Such

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Archaeological Chronology of the Murghab Alluvial Fan

	Archaeological Period	*Calendar Years BC*
earlier --->	Middle Bronze Age	2400–1950
	Late Bronze Age	1950–1500
	Final Bronze Age	1500-1300
	Iron Age 1 (Early Iron Age)	1300–900
later <---	Iron Age 2	900–550

Fig. 2: Archaeological chronology of the Murghab alluvial fan (by L.M. Rouse).

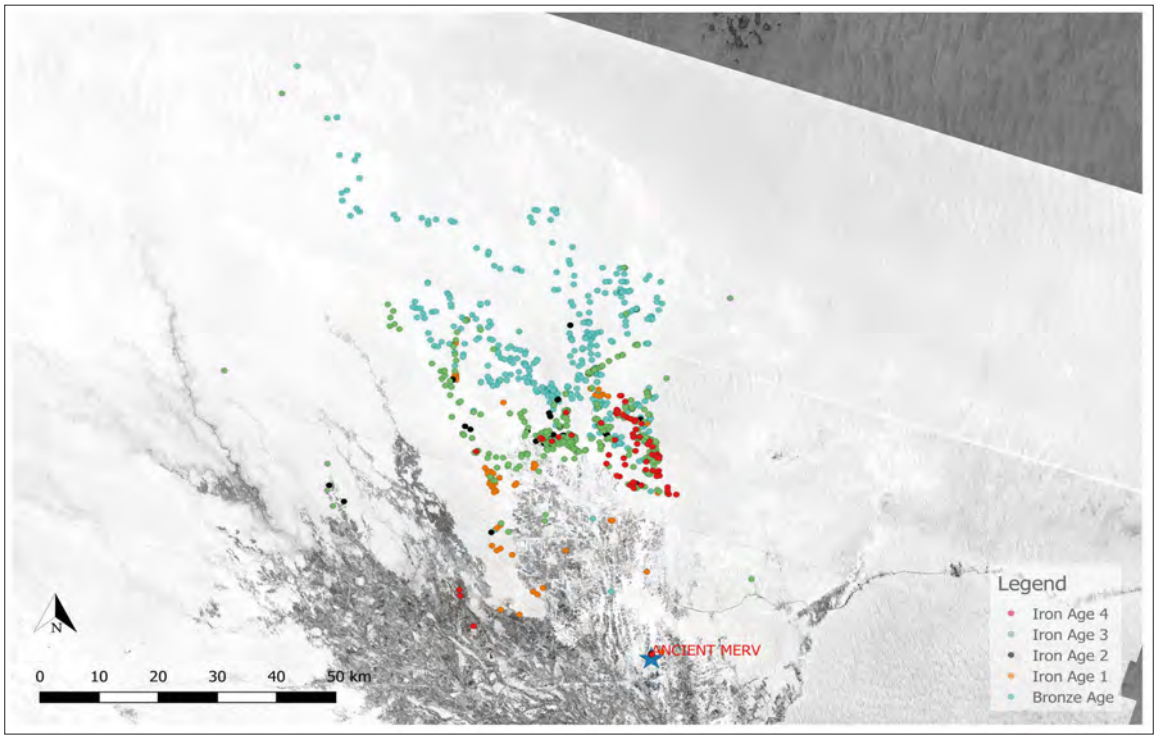


Fig. 3: Bronze and Iron Age distribution along the main fluvial ridges, with the evidence of Bronze-Iron Age water system (basemap: CORONA KH-4A 1972 satellite mosaic) (GIS elaboration by R. Arciero).

semi-nomadic contexts, such as the short-term occupation settlements of Ojakly (Cerasetti 2012; Rouse/Cerasetti 2014) and Chopantam (Cattani 2008; Cerasetti/Rouse/de Nigris 2018), were clearly part of a broader network of communication and exchange on the Murghab alluvial fan.

The mobile pastoralists who lived at these small seasonal sites had to deal with a very different set of ecological stressors and engaged in economic activities that set them apart from their sedentary neighbours. These peoples adapted to their environment through a more intensive management of herds, as well as through sometimes supplementing the pastoralist-dominant system with foraging, hunting, and possibly limited farming. Therefore, the broader question that we are seeking to answer through these excavations and through our multi-proxy approach to the data are: How did this multi-faceted economic and political system function? How did these populations with different cultural and economic contexts coexist?

Ethnographic analogies have been used to reconstruct the economy of those who occupied these small-scale seasonal sites. While a direct comparison between the modern and past economies in the region is not appropriate, it can be insightful; it is interesting to note, for example, that modern Turkmen pastoralists switch back and forth between economic strategies, sometimes spending part of a year as farmers and part as shepherds (**Fig. 4**).

As long as the often erratic climate of this region is favourable and the temperature remains more or less moderate, herds are still brought into the vast open pasturelands of the Karakum Desert. There was a similar process during the Bronze Age, when the now-desert area was an extensive floodplain

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Fig. 4: Modern Turkmens engaged in their daily tasks
(photos: a. by S. De Boeck 2015, b. by R.N. Spengler 2010).

(Cremaschi 1998; Cerasetti 2012). These intermingled economic systems include, and likely included in the past, planned rotations between pastoral and cultivation chores. There are myriad ways in which these economic systems could have functioned, but many scholars have polarised the situation, creating a narrative that suggests that the two populations maintained either specialised herding or farming economies. The reality of the situation was probably much more complex and more integrated, and we believe that many parallels between past and present are possible.

Our team's investigation of the sedentary site of Togolok 1 has helped to clarify just how intensive the degree of integration between the farmers and pastoralists was and how this process transformed the dietary economy (Cerasetti et al. forthcoming a). Interestingly, both of these populations preserved their cultural identity, and appear to be distinct populations in the archaeological record, a fact that has led scholars to the conclusion that they had very distinct economic systems, even in spite of clear exchanges and integrations visible in the archaeological evidence. We would argue instead that the development of urban centres and the eventual formation of a "state" in the historical periods that would follow were the logical consequence of the exchange of goods and ideas between these two cultures.

Our two seasons of excavation at Togolok 1 (September to October in 2014 and 2015) focused on the later levels, leaving deeper earlier layers for further investigation. These later excavation layers at Togolok 1 date to the late 3rd and early 2nd millennium BCE, and appear to represent mobile pastoralist occupation on top of what was already an abandoned urban centre. The material culture from these layers is dominated by artefacts that are

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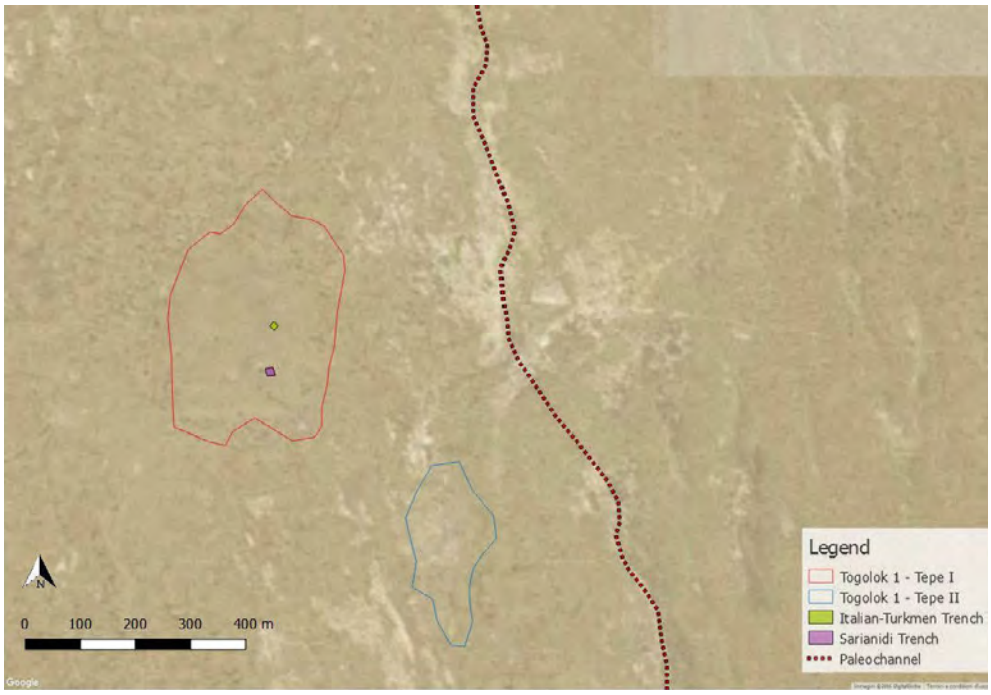


Fig. 5: Location of Togolok 1 along the ancient paleochannel (basemap: Google Earth 2016; GIS elaboration by R. Arciero).

characteristic of mobile pastoralists and not of sedentary agriculturalists. Therefore, we have argued that the large urban village of Togolok 1 was largely abandoned by its farming population around this time, probably because of the desertification of the region (**Fig. 5**).

This hypothesis is mainly based on the presence of a layer of abandonment of about 20 cm, primarily consisting of sandy sediments, which separated the pastoralist phase from the earlier occupation (see Forni in Cerasetti et al. forthcoming a).

Thanks to new radiocarbon dates obtained from material from the two Bronze Age sedentary sites of Adji Kui 1 and Togolok 1, we can finally date the presence of mobile pastoralists in sedentary contexts from the Middle (2400–1950 BCE) to Late/Final Bronze Ages (1950–1300 BCE; Spengler et al. 2016; see Cerasetti and Rouse in Cerasetti et al. forthcoming a). While the urban centre of Togolok 1 was occupied from the Middle Bronze Age, we are focusing here on the last period of the site's occupation, when groups of semi-nomadic pastoralists seasonally camped on the site after the abandonment of the village, or at least in a final farming stage of the settlement. Our excavation team investigated three different phases of this late occupation at Togolok 1, with material culture from each of these layers suggesting that even as these mobile pastoralists became more physically integrated into farming communities in the alluvial fan, and possibly took up aspects of agricultural production, they maintained clear aspects of their pastoralist lifestyle and economy. The traditional dichotomy imagined between farmers and pastoralists is therefore not seen in the archaeological record of the site; instead, the palimpsest of layers represents a range of diverse practices and economic strategies that changed over time. As excavations progress at Togolok 1, we aim to understand how and when occupation of the site by pastoralists and farmers overlapped, and how their practices shifted through contact with one another. We suggest that it is these changing relationships and practices are what shaped the Bronze Age in the Murghab, and had a direct impact on the development of local cultures into the Iron Age (see Cerasetti and Rouse in Cerasetti et al. forthcoming a).

Furthermore, the archaeological layers so far excavated at Togolok 1 testify to the process of exchange between mobile pastoralists and sedentary farmers in the Murghab, in that material cultural traits that are often thought of as characteristic of one group or the other, were found together. For example, wheel-shaped pottery (farmers) was found in association with handmade forms (pastoralists) (see Forni/Luneau in Cerasetti et al. forthcoming a), and the remains of pig and cow (farmers) were found with those of sheep and goat (pastoralists) (see Curci and De Grossi Mazzorin in Cerasetti et al. forthcoming a). Taken together, this mingling of traits paints a picture of a semi-permanent community involved in (limited) farming activities. Furthermore, botanical remains from these later layers also illustrate that people were moving fluidly between these two spheres of economy; domesticated plants, for example, illustrate that people may have

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Fig. 6: Modern pastoralist camp with a herd animal pen to the left, close to a "living area" on the right (photo by B. Cerasetti 2015).

been involved in seasonal agricultural activities (see Carra and Spengler in Cerasetti et al. forthcoming a). Future investigations at Togolok 1 will allow us to understand how the patterns and timing of cohabitation were adapted to, and how various cultural and lifestyle elements were integrated into, a larger cultural context.

Togolok 1 is composed of a large northern mound, "Tepe 1", and a small lower mound, "Tepe 2" (Sarianidi 1990; Sarianidi 1994; Hiebert 1994; Gubaev/Koshelenko/Tosi 1998; Salvatori 2008; Cerasetti 2012). From 2014 to 2015, research conducted in the centre of "Tepe 1" identified a "living area" (or more generally a domestic context) where light-weight movable structures were built as shelters and mobile pastoralists made fires for cooking food and for heating. While resting at this site, the occupants could easily control medium-sized animals grouped in the adjacent pen, as testified by the presence of numerous small fragments of wattle and daub (wall fragments) (**Fig. 6**).

We interpreted these archaeological finds as the remains of a possible mobile pastoralist camp, with fireplaces, storage-pits, and numerous post holes, probably supporting poles for shelters and connected with artificial platforms. The "living area" was characterised by the presence of a large fireplace with a significant quantity of large- to medium-sized animal bones, likely ovicaprid, and both handmade and wheel-shaped pottery. We further interpreted this area as a "food processing location", used by mobile pastoralists during their seasonal stay at the camp (see Arciero in Cerasetti et al. forthcoming a).

Adjacent to this "living area", the excavators identified a refuse deposit enclosed by non-permanent structures. The presence of numerous post holes and fragments of wattle and daub allowed us to reconstruct this area as a probable herd-animal pen, presumably to hold sheep and goats, as testified by the presence of sheep/goat dung and twigs from shrubs. In the sediments within this pen, we also found charcoal, burnt wood, and the bones of medium-sized animals (likely sheep and goat) in a thick layer spread over the entire trench. The excavation trench was also cut by two fireplaces, where handmade and wheel-shaped pottery fragments were concentrated. On the eastern side of this trench, the excavators identified a greyish artificial platform which may have also been the base of a temporary structure (see Forni in Cerasetti et al. forthcoming a). The herd-animal pen was part of the pastoralist camp, together with the shelter where the shepherds could rest and watch their nearby flocks.

In addition, the sediment samples from this trench provided a large number of carbonised seeds. These seeds probably came from dung that had been burned as fuel, and the samples from this context were characterised by the excellent preservation of a remarkable variety of taxa. These remains help us to understand the paleodietary practices of these pastoralist peoples, as well as what cultivated and wild flora characterised the surrounding landscape

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Fig. 7: Head of a terracotta anthropomorphic figurine and a chlorite amulet recovered during the 2015 campaign in Togolok 1 (inventory photos a. and b. and image elaborations by L. Forni 2015).

at that time (see Forni; Carra and Spengler in Cerasetti et al. forthcoming a).

The bones, mainly from sheep and goat, were recovered together with handmade and wheel-shaped pottery and were probably the remnants of meals. Sheep and goat are the most prevalent zooarchaelogical component at the site and are still the most common animals raised by herders in the region today. However, it is interesting to note that other species, like pigs and cows, were also present in the assemblage. These animal remains are of considerable interest from an economic and environmental point of view seeing that they are less mobile, need more water, and require a different human-animal relationship for their care and maintenance. Furthermore, there is clear evidence of hunting at the site, attested by the presence of wild faunal remains of animals that need vegetation-rich environments, such as cervids and animals typical of open environments like leporidae (see Curci and De Grossi Mazzorin in Cerasetti et al. forthcoming a). Over the next few seasons of excavation, we will explore the zooarchaeological remains further, developing this crucial dataset to better understand the different ecosystems that characterised the area surrounding Togolok 1 in the Bronze Age.

Two partially burnt clay spindle whorls or loom weights were also identified in these contexts; it is clear that textiles were produced at the site using upright looms, as opposed to the typical hand looms used by many mobile pastoralist groups across Central Asia to this day. At present, a wide range of ornamental textiles with unique designs and patterns are produced in southern Central Asia by mobile pastoralist groups. These spindle whorls could also represent ornaments in and of themselves. One object typically recovered from Namazga VI sites is the biconical chlorite spindle whorl decorated with three incised circles with a dotted centre, widely present in the large sedentary Late Bronze Age settlements (Masimov/Salvatori/Udeumuradov 1998, 38).

At the same time, the excavators recovered the bottom of a red-stone vessel as well as a rectangular chlorite amulet, with a depiction on one side of a winged woman surrounded by snakes and on the other a lion with a serpentine body (Sarianidi 2007: 100–104; Winkelmann 2007: 193–207) (**Fig. 7**).

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The spindle whorls and amulet represent typical "sedentary" objects recovered from a mobile pastoralist context, and help illustrate the level of integration between pastoralists and sedentary farmers, and the exchange of goods and knowledge between them.

The diet of the people who seasonally inhabited the area on top of the ruins of the ancient city of Togolok 1 after the sedentary village was abandoned by its original occupants was diverse. The cultivated crops included grains, such as barley and wheat; legumes, such as grass peas, lentils, peas, and vetch; and fruits, such as apricots (or plums) and grapes. Interestingly, until now broomcorn millet grains were absent from the assemblage, despite the fact that they were recovered from other contemporaneous small-scale pastoralist sites in the region, like Ojakly, Chopantam, and the campsite at Adji Kui 1. Although millet was also absent from the large contemporaneous urban centres of prehistoric Margiana (Moore et al. 1994; Miller 1999; Cerasetti et al. forthcoming a), the excavations conducted at the Bronze Age urban centres in the Murghab region suggest that caution is needed in drawing conclusions about the exact distribution of the millet in this territory. Nonetheless, millet seems to be associated more closely with small-scale sites than with large sites at this time period.

The large quantity of domesticated grains and legumes among the preserved botanical remains recovered from the site is clear evidence of just how complex the economy was at this settlement and how integrated the broader economic system. While it is not clear whether these grains were locally produced or obtained through trade, it is evident that the pastoral and agricultural peoples on the alluvial fan were closely integrated and that knowledge of farming and seeds moved often between the two groups. The archaeobotanical data suggest that pastoralist products were supplemented by grains and legumes obtained from seasonal farming near the site as well as through intensive exchange with neighbouring farmers (see Carra and Spengler in Cerasetti et al. forthcoming a).

In the archaeobotanical assemblage from the site, seeds from wild herbaceous plant species that are typical of arid regions, as well as species that are typical of wetlands, were recovered. The presence of such a diverse array of wild species, which presumably were incorporated into the assemblage through the burning of dung as fuel, could suggest that people living at Togolok 1 were herding their animals in micro-environmental areas near rivers, canals or small oases, and that the broader vegetation in the region was that of an arid steppe, much like the herding patterns used in the region today (see Carra and Spengler in Cerasetti et al. forthcoming a). This data could also be another confirmation that the process of desertification in the Murghab region, and thus the withdrawal of the river water, was already well underway, especially as Togolok 1, which is located in a central position in the north-eastern section of the alluvial fan, would have comprised the Bronze-Iron Age water system (Cerasetti 2008; Cerasetti/Tosi 2010). As the rivers dried up and crops could no longer be irrigated, or soils became salinated, people had to switch back to a more pastoral economy, and this process may have played a role in the abandonment of the village by its sedentary inhabitants.

In conclusion, on the basis of the available data from Togolok 1, as well as from several other sites that our team has excavated in Margiana (Cerasetti forthcoming a; Cerasetti forthcoming b; Cerasetti/Rouse/de Nigris 2018; Spengler et al. 2016; Rouse/Cerasetti 2014; Cattani 2008), it is possible to argue that during the Late Bronze Age the relations between mobile pastoralists and farmers were highly integrated. By the mid-2nd millennium BCE, the introduction to southern Central Asia of crops from regions farther away led to an intensification of the agricultural system, a change of ecology in the Murghab region, and finally to more expansive irrigation systems to support the growing population. The results of these important processes radically transformed the situation in the Middle Bronze Age Margiana, when the entire settlement pattern was centred on major urban centres. During the Late and Final Bronze Ages, the territory was settled in a more capillary way and the settlement system became less hierarchical and more homogeneous among different urban centres (Salvatori 2008; Cerasetti 2012).

This settlement structure, characterised by a diffused population rather than densely occupied central nodes, remained almost unchanged in the Early Iron Age (Iron Age 1), before the strong process of Achaemenid nationalisation began. At first glance, it seems counter-intuitive to believe that the integration between sedentary and mobile people was one of the phenomena of significant influence on the process of urbanisation in the Murghab region in the following Iron Age. However, the excavations at the site of Togolok 1, as evidence of the constant mobile pastoralist presence in the last phases of large Bronze Age towns in the Murghab region, have clearly demonstrated how the coexistence between mobile pastoralists and sedentary farming groups, and the investment in architecture at all the sites, attest to a high level of integration between the two cultures. The gradual process of this integration marks the beginning of a deep transformation of the territory, leading to a complex and variable system that characterised the following Iron Age, the interpretation of which requires deeper investigations than those conducted so far in the vast region of the Murghab.

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Acknowledgments: The authors wish to thank Dr Mukhammed A. Mamedov of the National Department for the Protection, Research and Restoration of Monuments of the Ministry of Culture of Turkmenistan, who is co-partner of the project, for his strong support of the present research. We would like also to thank Dr Rejepmyrat Jepbarov, Director of the Ancient Merv National Historical Park of the Ministry of Culture of Turkmenistan, for his kind hospitality and help with the organisation of fieldwork.

Funding for the project has been provided by the Italian Ministry of Foreign Affairs and International Cooperation and the Department of History and Cultures of University of Bologna.

Bibliography

Cattani, M.
2008: Excavations at Sites No. 1211 and No. 1219 (Final Bronze Age), in: Salvatori, S./ Tosi, M./Cerasetti, B. (ed.), *The Bronze Age and Early Iron Age in the Margiana Lowlands: Facts and Methodological Proposals for a Redefinition of the Research Strategies* (= British Archaeological Reports. International Series 1806), Oxford, 119–132.

Cerasetti, B.
2008: A GIS for the Archaeology of the Murghab Delta, in: Salvatori, S./ Tosi, M./Cerasetti, B. (ed.), *The Bronze Age and Early Iron Age in the Margiana Lowlands: Facts and Methodological Proposals for a Redefinition of the Research Strategies* (= British Archaeological Reports. International Series 1806), Oxford, 29–37.

2012: Remote Sensing and Survey of the Murghab Alluvial Fan, Southern Turkmenistan: The Coexistence of Nomadic Herders and Sedentary Farmers in the Late Bronze Age and Early Iron Age, in: Matthews, R./Curtis, J. (ed.), *Proceedings of the 7th International Congress on the Archaeology of the Ancient Near East, 12 April–16 April 2010, the British Museum and UCL, London. Vol. 1: Mega-cities and Mega-sites. The Archaeology of Consumption and Disposal. Landscape, Transport and Communication*, Wiesbaden, 539–558.

2016: Missione in Turkmenistan: Le ricerche italiane ricostruiscono la dinamica dei rapporti fra genti nomadi e sedentarie, *Archeo. Attualità del passato* 376, 100–101.

Cerasetti, B./Arciero, R./Forni, L./Rouse, L.M./Carra, M./Curci, A./De Grossi Mazzorin, J./Luneau, E./Spengler , R.N., III
Forthcoming a: Interactions between Sedentary and Mobile Peoples in the Bronze Age of Southern Central Asia: Excavations at Togolok 1 in the Murghab region, *Archäologische Mitteilungen aus Iran und Turan*.

Cerasetti, B./Rouse, L.M./Arciero, R./Forni, L./Luneau, E./Spengler, R.N., III
Forthcoming b: 2013–2014 Field Campaigns of the Turkmen-Italian-American Expedition at Adji Kui 1 and Togolok 1: Preliminary Results, in: Blochin, J./Muradov, R./Solovyova, N. (ed.), *Materials of Archaeological Field Seasons 2013–2014 in Turkmenistan*.

Cerasetti, B./Rouse, L.M./ de Nigris, I.
2018: The Influence of Bronze Age Sedentary-Mobile Interactions on the Iron Age: Mobile Pastoral Occupation Sites in the Murghab Alluvial Fan, Turkmenistan, in: Lhuillier, J./Boroffka, N. (ed.), *A Millennium of History. The Iron Age in Southern Central Asia (2nd and 1st Millennia BC). Proceedings of the Conference held in Berlin (June 23–25, 2014). Dedicated to the Memory of Viktor Ivanovich Sarianidi* (= Archäologie in Iran und Turan 17 = Mémoires de la délégation archéologique française en Afghanistan 35), Berlin, 17–30.

Cerasetti, B./Tosi, M.
2010: Once Upon a Time...: A Brief Reflection on the History of "The Archaeological Map of the Murghab Delta (AMMD)" Project in Relation to the Fundamental Role of V.I. Sarianidi, in: Kozhin, P.M./Kosarev, M.F./Dubova, N.A. (ed.), *On the Track of Uncovering a Civilization. A Volume in Honor of the 80th-Anniversary of Victor Sarianidi.* (= Transactions of the Margiana Archaeological Expedition 3), Saint Petersburg, 86–103.

Cremaschi, M.
1998: Palaeohydrography and Middle Holocene Desertification in the Northern Fringe of the Murghab Delta, in: Gubaev, A./Koshelenko, G./Tosi, M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–95* (= Reports and Memoirs. Series Minor 3), Rome, 15–25.

Frachetti, M.D.
2012: Multi-regional Emergence of Mobile Pastoralism and Non-uniform Institutional Complexity across Eurasia, *Current Anthropology* 53, 2–38.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Gubaev, A./Koshelenko, G./Tosi M. (ed.)
1998: *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–95* (= Reports and Memoirs. Series Minor 3), Rome.

Hiebert, F.T.
1994: *Origins of the Bronze Age Oasis Civilization in Central Asia* (= American School of Prehistoric Research. Bulletin 42), Cambridge, MA.

Kohl, P.L.
2007: *The Making of Bronze Age Eurasia* (= Cambridge World Archaeology), Cambridge, UK.

Masimov, E./Salvatori, S./Udeumuradov, B.
1998: Preliminary Analysis of the Bronze Age Material Collected by the Margiana Archaeological Project and a First Chronological Assessment, in: Gubaev, A./Koshelenko, G./Tosi, M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–95* (= Reports and Memoirs. Series Minor 3), Rome, 35–46.

Miller, N.F.
1999: Agricultural Development in Western Central Asia in the Chalcolithic and Bronze Ages, *Vegetation History* and *Archaeobotany* 8, 13–19.

Moore, K.M./Miller, N.F./Hiebert, F.T./Meadow, R.H.
1994: Agriculture and Herding in Early Oasis Settlements of the Oxus Civilization, *Antiquity* 68, 418–427.

Rouse, L.M./Cerasetti, B.
2014: Ojakly: A Late Bronze Age Mobile Pastoralist Site in the Murghab Region, Turkmenistan, *Journal of Field Archaeology* 39, 32–50.

Salvatori, S.
2006: Togolok, in: Moscati, S. (ed.), *Enciclopedia Archeologica. Americhe/Oceania, Europa, Africa, Asia. Volume Asia*, Rome, 404.

2008: The Margiana Settlement Pattern from the Middle Bronze Age to the Parthian-Sasanian Period: A Contribution to the Study of Complexity, in: Salvatori, S./Tosi, M./Cerasetti, B. (ed.), *The Bronze Age and Early Iron Age in the Margiana Lowlands: Facts and Methodological Proposals for a Redefinition of the Research Strategies* (= British Archaeological Reports. International Series 1806), Oxford, 57–74.

Sarianidi, V.I.
1990: *Drevnosti strany Marguš*, Ashgabat.

1994: Temples of Bronze Age Margiana: Traditions of Ritual Architecture, *Antiquity* 68, 388–397.

2007: *Necropolis of Gonur*, Athens.

Spengler, R.N., III
2015: Agriculture in the Central Asian Bronze Age, *Journal of World Prehistory* 28, 215–253.

Spengler, R.N., III/de Nigris, I./Cerasetti, B./Carra, M./Rouse, L.M.
2016: The Breadth of Dietary Economy in Bronze Age Central Asia: Case Study from Adji Kui 1 in the Murghab Region of Turkmenistan, *Journal of Archaeological Sciences: Reports*, Online First.

Winkelmann, S.
2007: Le dee dell'altopiano iranico e della Battriana, in: Ligabue, G./Rossi Osmida, G. (ed.), *Dea Madre*, Venice, 193–207.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Parthian Nisa

Landscape, topography and settlement planning

Carlo Lippolis

Abstract: Despite almost 80 years of scientific research, the dynamics of settlement in the territory of Parthian Nisa during the Hellenistic/Parthian period are still little understood. Recently, some aspects of the landscape and territory immediately surrounding the two ancient districts (Old and New Nisa) have been further investigated. Concerning the internal "urban" layout, today Old Nisa is comparatively well known, while very little is known about New Nisa: no extensive excavations have been ever conducted in the latter. Furthermore, the recent discovery of pottery fragments dated to pre- and proto-historical times seems to suggest the existence of ancient cultural levels at Old Nisa (3rd–2nd millennium BCE), albeit smaller and partially removed by the levelling work carried out during later phases.

Keywords: Parthian Nisa, topography, settlement pattern, water systems.

Резюме: Динамика поселения на территории парфянской Нисы эллинистического и парфянского периодов до сих пор мало изучена, несмотря на почти восемьдесят лет научных исследований. В последнее время были более тщательно изучены некоторые аспекты ландшафта и территории, непосредственно соседствующую с двумя древними районами (Старая и Новая Ниса). Результаты многочисленных раскопок Старой Нисы сегодня дают немало сведений о внутренней "городской" планировке, в то время как Новая Ниса остаётся мало изученной, поскольку там не проводились интенсивные археологические раскопки. Следует заметить, что недавнее открытие фрагментов керамики, датируемых доисторической эпохой, предполагает наличие в Старой Нисе более древних слоев (III–II тысячелетия), частично разрушенных из-за строительства в более поздние периоды.

Ключевые слова: Старая Ниса, динамика поселения, топография, водоснабжение.

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Fig. 1: Settlements of the 3rd century BCE to 3rd century CE along the central part of the Kopet Dagh's piedmont (nowadays Akhal district, with its capital Ashgabat; © C. Fossati).

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Little systematic research has been carried out and published regarding Parthia, and the location and identification of ancient toponyms still remain highly uncertain.[1] After the mid-3rd century BCE, the Parthians, of nomadic origins and led by their first king, Arsaces, invaded the province (now southern Turkmenistan and north-eastern Iran) and adopted its name (Parthava-Parthyene) as their own; it was only later that they gradually emerged as a power. According to Strabo, Parthia comprised Hyrcania and part of Media. In Isidore's itinerary, Parthia had at least three administrative districts:[2] Astauene, Parthiene (with Parthaunisa as its main centre), and Apauarktikene (near present-day Kaakhka). Even today, Isidore's description is not immune from doubts:[3] the identity of the main sites cannot be thoroughly demonstrated on a purely archaeological basis.

Though arid, the northern slopes of the Kopet Dagh and the foothills have since ancient times supported a thriving agricultural community, with lands watered by ancient canals, *qanats*, wells and seasonal rivers.

The majority of Parthian settlements lying at the foot of the Kopet Dagh Mountains can be related to the agricultural exploitation of a territory that must have been provided with an effective irrigation system in part dating back to the Achaemenid age. Ancient canals took advantage of springs and secondary streams, while wells reached the water table. After the winter season, the water provided by secondary streams flowing from the Kopet Dagh was not negligible. This was the case at Nisa, where even viticulture was practised, as is well documented by the numerous ostraka brought to light in the large storehouses of Old Nisa.[4]

While there is no doubt that the environmental characteristics of the area, which was devoid of large permanent water courses, were not ideal for the development of a substantial agricultural civilisation, its geographical position played a key role within the communications system linking the lands inhabited by both nomadic and sedentary peoples.

The frontiers and routes of the Achaemenid satrapy of Parthava were apparently maintained by the Seleucids, though the topography and geography for this period are still relatively unknown. Nevertheless, according to Pilipko,[5] in Hellenistic times the culture of the central Kopet Dagh piedmont (i.e. present-day Akhal district) seems to have been typically local, a "western" influence in the pottery production, for example, increasing only in the 2nd century BCE.[6]

About 140 sites with Parthian-age layers – datable to between the 3rd century BCE and the 3rd century CE – were identified in the region immediately west and east of Ashgabat, i.e. the ancient Parthyene and Apauarktikene. Most of them are on the plain immediately at the foot of the Kopet Dagh range, along the country's main road from west to east. This position guaranteed the water supply from the seasonal streams and the "alluvial" fans associated with the mountains slopes.

The Parthian settlements were classified by the Soviet scientific literature as:

1. Urban settlements. According to Pugačenkova,[7] the typical urban scheme has three main elements: a main dwelling area (*shahristan*), possibly surrounded by walls; a fortified inner citadel (*ark*); and the outlying suburbs immediately outside the city walls. One of the main sites exhibiting this pattern is New Nisa, with an approximately 4 ha citadel on the southern corner of a settlement surrounded by walls (the total area being 18–20 ha).

2. Rural settlements. Among larger rural settlements, two basic patterns are found: sites showing a high density of structures, and with flattened-out outlines blending into the surroundings; and sites whose shapes can be either quadrangular or oval (between 0.25 and 4 ha), with fortified outer wall and vast inner open areas. There is also a series of smaller estates or plots of land never exceeding 0.5 ha, usually with a square/rectangular plan.

3. We may include in this last category (rural settlements) settlements made up of small, independent but close buildings that could even be enclosed by an outer defensive perimeter. The site of Garry-Kjariz (60 km north-west of Ashgabat) comprises 14 mounds of varying size, 9 of which date from the Parthian era. On the surface of almost all of these mounds, originally separated by green areas and gardens over a total surface of approximately 12 ha, both quadrangular and oval dwellings with an inner court meant for domestic work and economic activities can be recognised.[8]
An even larger (ca. 1 sq km) "diffused" settlement corresponding to the same pattern may be the series of approximately 50 mounds located bet-

1 See Parthyene - Map 97 (compiled by E.J. Keall, M. Roaf), in R.J.A. Talbert (ed.), *Barrington Atlas of the Greek and Roman World*, 1997, Princeton.
2 Isidore 11, 12, 13 (Isidore of Charax: 8–9).
3 Pilipko 1989.
4 Diakonoff/Livshits 1976–1979 and 2001.
5 Pilipko 2012.
6 For a recent overview on the early Arsacid period's pottery in this area, see: Bruno, forthcoming.
7 Pugačenkova 1958: 29; Košelenko 1985: 209–225.
8 Pilipko 1975.

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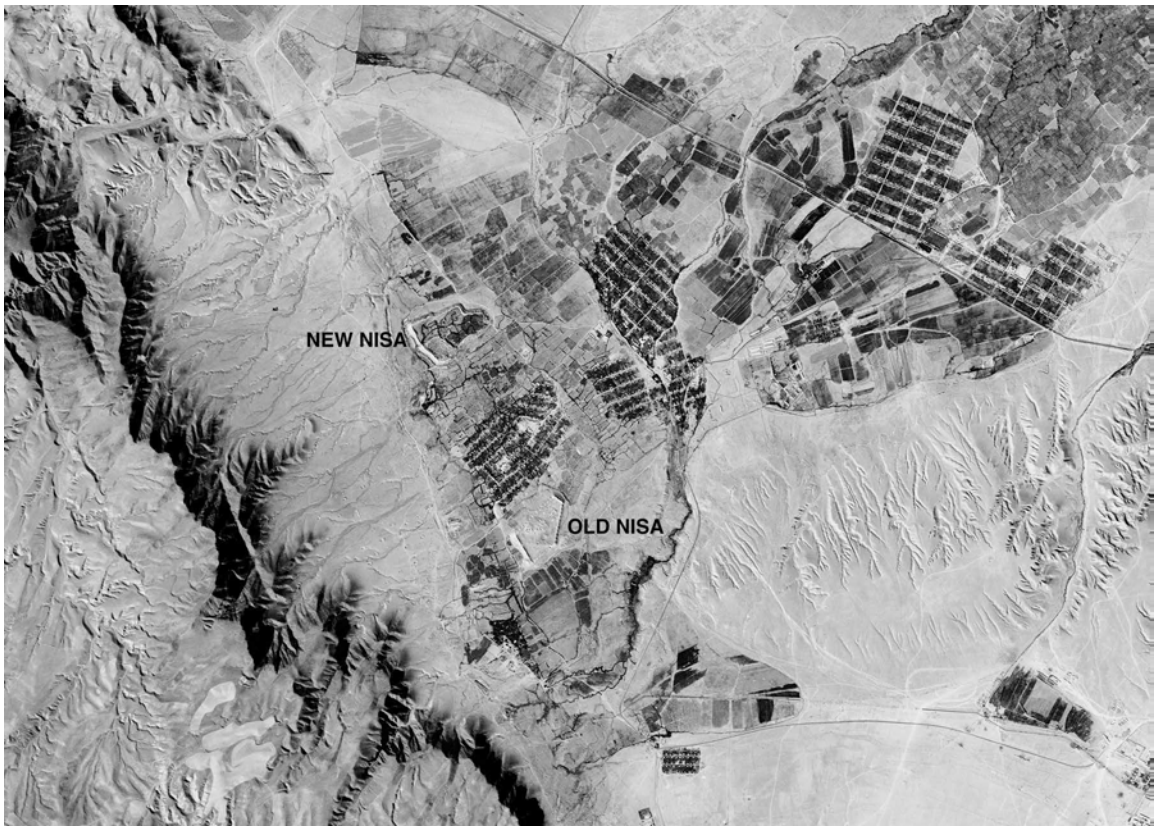


Fig. 2: CORONA satellite image (DS1010-2071DF152, Sept. 1964): clearly visible are New Nisa and Old Nisa, and the seasonal streams (left) descending from the mountains.

ween the present-day towns of Arman-Sagat and Dushak.

4. Monuments with a particular meaning (a merely indicative definition including several variables). In this context, two sites stand out for their significance, Old Nisa and Mansur depe, owing both to their monumental and ceremonial architecture, and to their outstanding artistic production.

This four-fold classification, albeit general, still remains valid. In fact, we know very little about the dynamics of the Parthian settlements and even less about the internal organisation of the large sites. In general, we may add that between the end of the 1st century BCE and the 1st century CE, many of these "northern" Parthian settlements were abandoned. In this regard, Parthian Nisa, with its urban core New Nisa (unfortunately almost totally unknown) and the ceremonial citadel of Old Nisa, represents an important reference.

First of all, in so far as New Nisa still remains unexplored at its more ancient cultural levels, the idea that Nisa is the first capital, or one of the first capitals, of the Parthian empire (still present in some literature) is no longer sustainable: Old Nisa is a ceremonial site and its planning does not display the features typical for a settlement, but rather those of a large Eastern sanctuary.

We can now consider the topography and the landscape of Old Nisa. The two hills, which emerge from the plain at the foot of the mountains, are in a favourable position. Obtaining water was probably easier in ancient times than it is today. In addition to the alluvial fans visible here and there at the foot of the mountain slopes (a large one is visible to the east of Nisa, in the proximity of modern Ashgabat) numerous seasonal streams run down from the Kopet Dagh to the plain (**Fig. 2**; **Fig. 3**). Moreover, it should be noted that natural springs still exist in the area, and it is also likely that, in ancient times, the water table was higher than it is today and more easily accessed.

As far as the water supply is concerned, we now have some data. At New Nisa, a channel (maybe full of water only during the winter and spring seasons) entered through the city walls from the south, probably after having picked up water from the mountain slopes (and/or from the water table). In the area south of New Nisa, a large number of *qanats*, probably of Islamic period, are still visible as evidence of how this system for supplying and distributing water was employed in antiquity, and was still in use until recent times.

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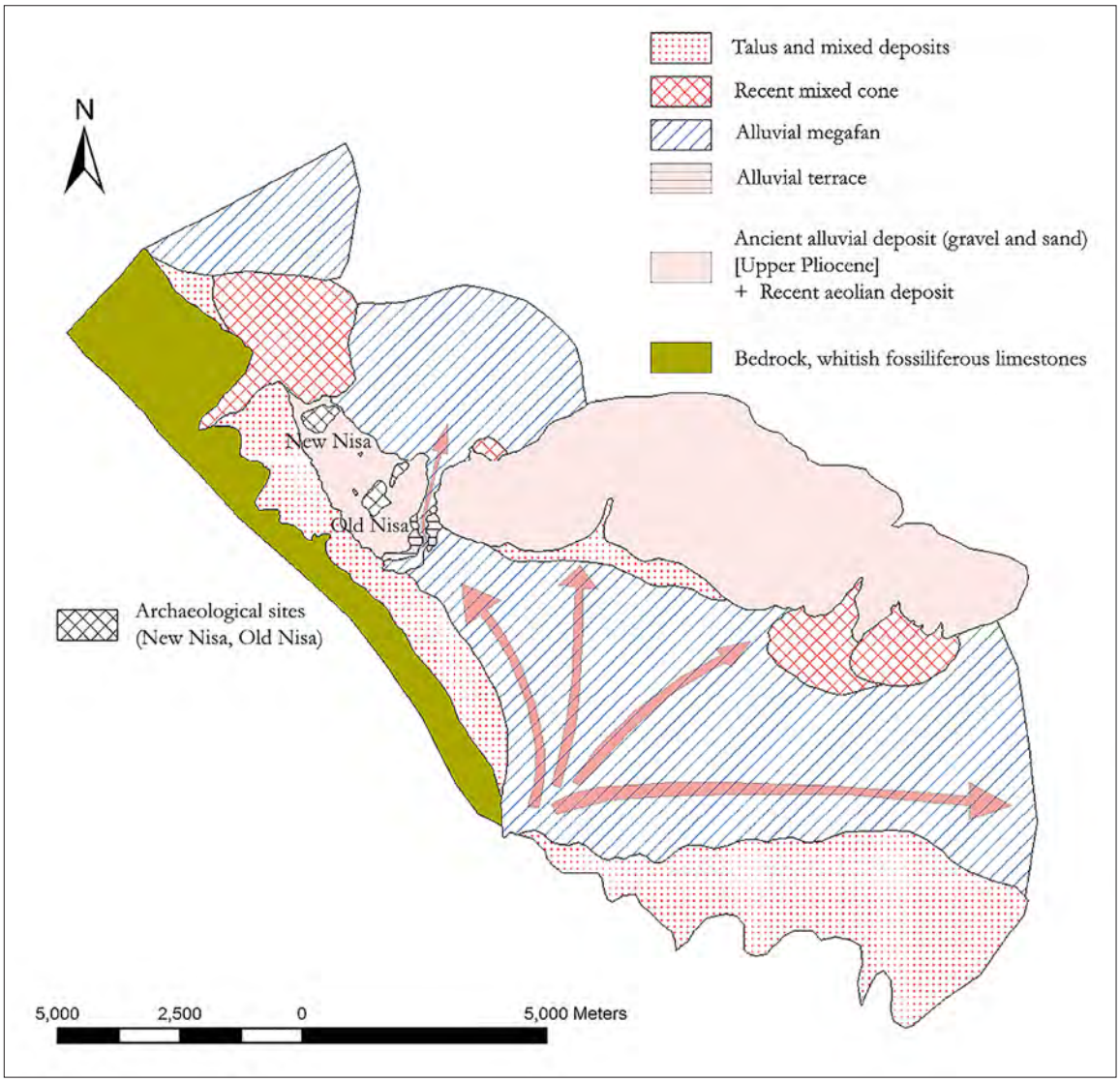


Fig. 3: Geological map of the area around Old and New Nisa (elaborated by B. Monopoli).

For Old Nisa, the picture is more complex (**Fig. 4**). It lies on a higher hill and, though seasonal streams from the mountains flowed towards and surrounded it, none of them apparently entered the site. The only remains that could relate to such a system is a terracotta pipeline found in the 1930s by Maruščenko on the external slope of the southern fortification walls.[9] According to him, this could be part of a water-supply system connected with the area at the foot of the mountains (though no traces of other water-related equipment remain in this area). Furthermore, this pipeline – which has not been further identified inside the site – was associated, by the YuTAKE[10] archaeologists, with the large and more or less regular depressions or basins in the central-east part of the site. These depressions are difficult to interpret and their nature and origin not totally clear.

In most of the YuTAKE reconstruction sketches, these large hollows have been indicated as an area of water basins and "depressions" (*vodoemy*), and, possibly, gardens. This interpretation fits well with the presence of a slight and elongated depression in the ground at the foot of the external walls (beyond their north-eastern segment), which could be interpreted as the mark of an ancient channel overflowing from the city walls. However, this interpretation remains problematic, for the surveys carried out recently did not find any trace of walls or masonry, nor stratigraphic levels of water deposit inside these "depressions". Moreover, the natural virgin soil at Nisa is quite porous and not suitable for retaining water. All this seems to exclude the possibility that these depressions could have been used for the permanent storage of water.

9 Pilipko 2001: 139–140, Fig. 107.

10 YuTAKE (South Turkmenistan Archaeological Complex Expedition), was a Soviet expedition, headed by M.E. Masson, which carried out work at New and Old Nisa from 1946 to 1967.

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Fig. 4: Topographic map of Old Nisa (elaborated by C. Bonfanti).

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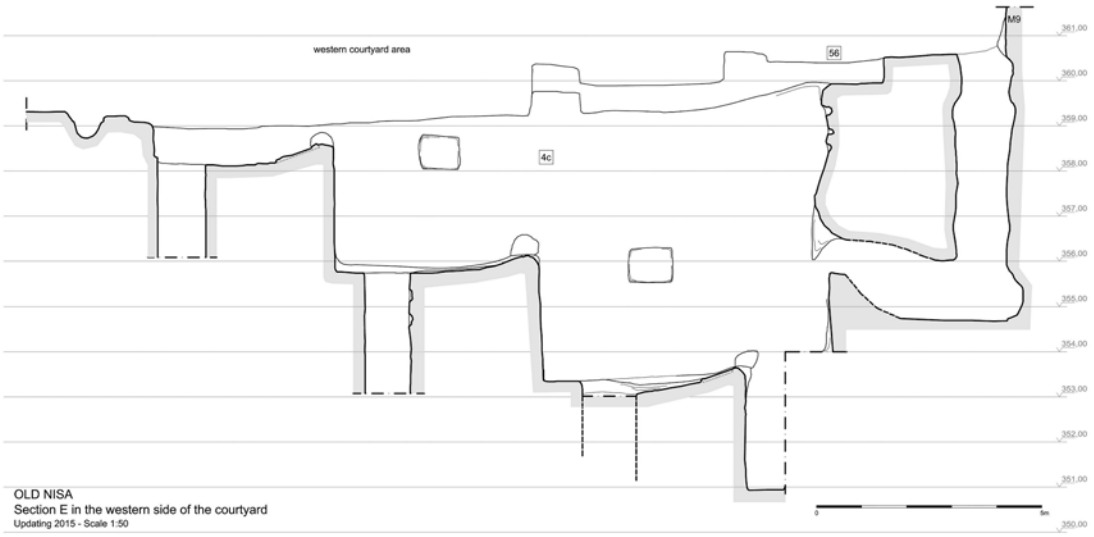


Fig. 5: North-south section of the underground water/well system in the South-Western Building at Old Nisa (elaborated by C. Bonfanti).

According to the topography of the site, Masson[11] has suggested that water entered Nisa (or was brought into the site) from the west side and was then distributed through drains and pipelines (up to now, only a few segments have been found) to the main complexes. This reconstruction, though highly speculative, seems to be supported by recent discoveries by the Italian expedition[12] (2007–2015) in the south-western corner.

In Old Nisa, water was provided by groundwater wells, and the presence of a water-supply system discovered during the latest excavations in the south-western corner of the fortress should be interpreted as part of this system. Here, inside a functional building (a large storehouse, the so-called South-Western Building),[13] four underground rooms – each with a well reaching down to the water table (**Fig. 5**) – have been brought to light. These wells were also connected with features (drains or channels cut in the bedrock) that allowed rainwater from the central courtyard of the building to be gather and stored.

The planimetric organisation of the inner buildings of Old Nisa is better known. The fortification walls were of course built first, and the alignment of the main complexes of Nisa follow the orientation of the different sections of the fortification, highlighting how the construction method, starting from the defensive line and then proceeding inwards, anticipated the erection.

It is worth mentioning that the walls of Old Nisa were erected only after a massive effort undertaken to regularise the natural hill. Indeed, if we compare New with Old Nisa, the smoother, geometric shape of the latter stands out instantly. We cannot consider the straight and steep sides of the trapezoidal shape of Old Nisa as a natural one: the existing relief, a ridge that emerges from the plain of about 10 metres, had to be carefully regularised and cut into the almost trapezoidal shape we see today. This did not happen at New Nisa (**Fig. 7**), which originally rose much less above the plain (our perception today is distorted by the superimposed Islamic layers). We might think that such a deliberate regularisation of the hill is somehow connected to the sacred function of Old Nisa itself and to the visual meaning it must have had.

The main entrance is likely to have been in the middle of the western side (**Fig. 4**), where in the Middle Ages a road still ran from west to east. From this point, the lowest in the hill, it was possible to reach the nearby northern sector (Square House) to the left, or the Monumental Complex to the right, and, behind it, the southern blocks.

The Monumental Complex (or Central Complex), which lay on a raised terrace, consisted of buildings around a central open area. In order to rise above this height (ca. 3 m), the front of this court must have had a ramp or staircase; this area has not yet been systematically investigated.

11 Masson 1952: 16; Pilipko 2001: 139.

12 Since the very beginning of the 1990s, an Italian-Turkmen Archaeological Expedition has been operating in Parthian Nisa, thanks to a fruitful scientific collaboration between the Ministry of Culture of Turkmenistan (National Department for Study, Research and Preservation of Cultural Monuments of Turkmenistan), the local museums and university, and the Centro Ricerche Archeologiche e Scavi di Torino (Italy). Since 2001, the project has been supported by the Italian Ministry of Foreign Affairs and International Cooperation.

13 Lippolis/Manassero 2015. For a preliminary report, see also Lippolis 2013.

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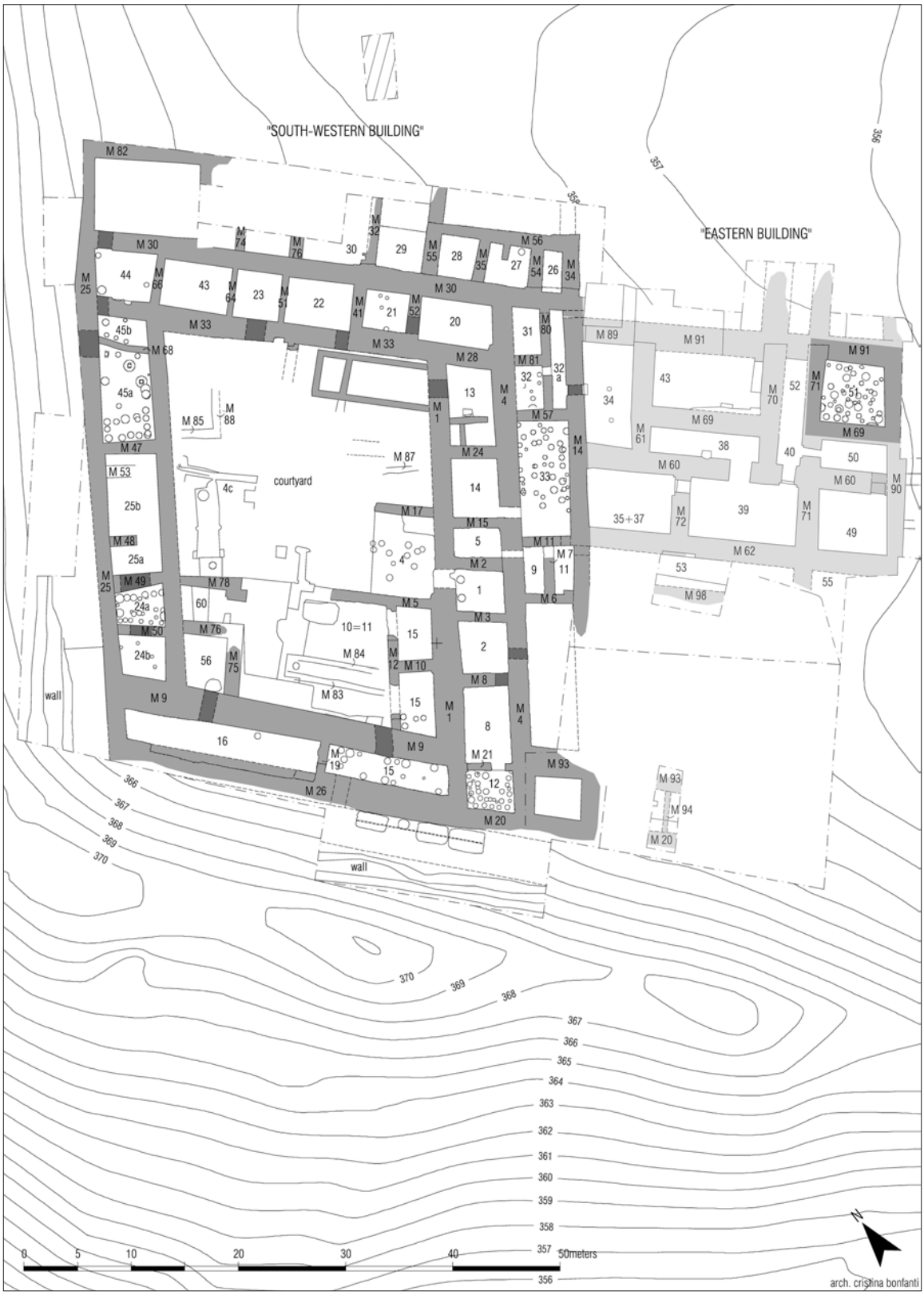


Fig. 6: The South-Western Building at Old Nisa: The spatial distribution of the *khums* inside the rooms (elaborated by C. Bonfanti).

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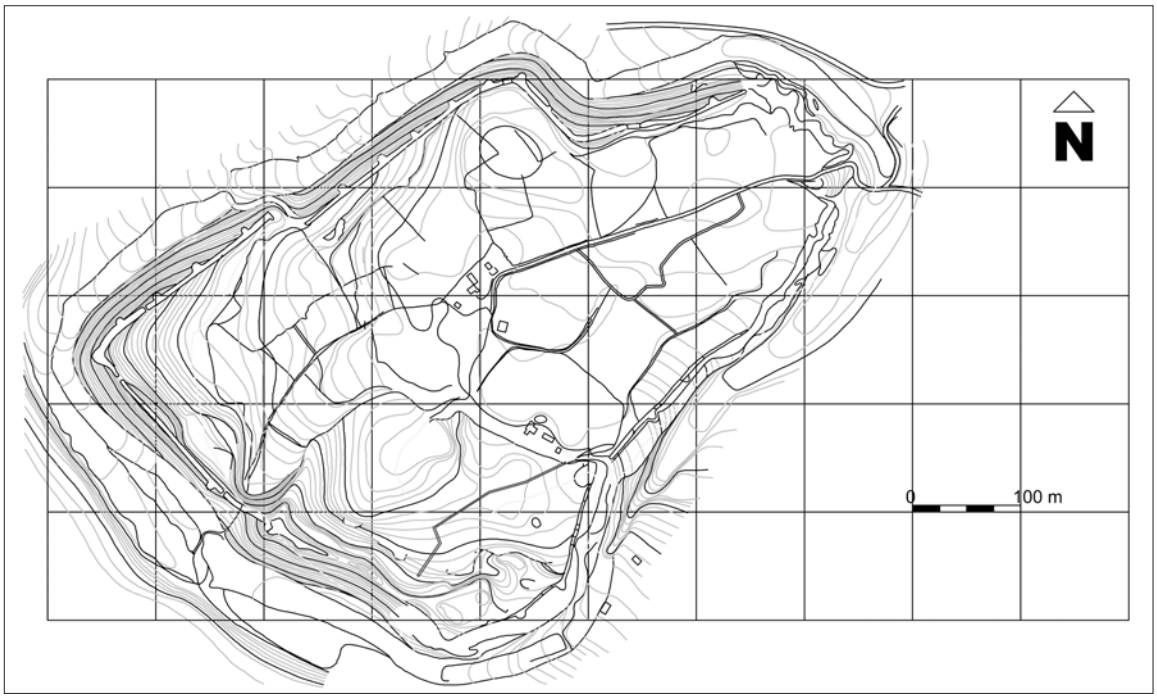


Fig. 7: New Nisa: Digitalised drawing of the 1936 topographic map of the site (elaborated by A. Barrocu).

A discussion of the planning of the single buildings at Nisa is beyond the aim of this study. What we can consider here, after almost a century of research, is the general organisation of the site. First, we can note that the plan here reflects the "state of art" in the period of maximum activity at the complex (i.e. between the 2nd and 1st century BCE).

Anyhow, even though Old Nisa is the result of a series of built interventions spread over two centuries or more, we may recognise the existence of an organic project that, at least in general terms, was anticipated from the beginning.

In general, it can be observed how the great ceremonial complexes, both the northern and the central, are placed side by side with, and possibly entirely surrounded by, large built areas used for storage, which sometimes could include production activities (food preparation, gypsum production, and so on). In addition to the well-known facilities to the east and south of the Square House, recent excavations have confirmed the presence of other storage areas on its north side as well.

Large storage jars (*khums*, indicated by circles) also emerged on the north side of the Monumental Complex, and, in particular, recent excavation in the south-western corner of the citadel brought to light an even larger storage complex (**Fig. 6**). Russian scholars, after only a few trenches limited in extent, supposed for this area the existence of a small house or of some military barracks flanked by open areas.[14] In fact, the Italian excavations have established the presence of a large block of storehouses where flour, oil and wine were stored side by side, as well as other rooms perhaps intended for the food preparation, and also workshops.

The eastern limits of this building have not yet been identified on the ground: the micro-topography of the site seems to indicate that the block goes further to the east, along the fortification walls and almost as far as their middle section. In this way, the total length of the west-east side of the storage block would have matched the length of the southern front of the entire Monumental Complex.

Finally, the northern walls of this block were very close to the Monumental Complex, and we may suppose that the two areas were simply separated by a road. This demonstrates, once again, how the two sectors were linked functionally and even conceptually.

According to all this data, we may therefore suppose that all along the fortification walls of Old Nisa were storage areas as well as workshops and military barracks. The site of Old Nisa, in this way, would fully fit the tradition of the great Oriental sanctuaries, where ceremonial buildings are surrounded by economic and functional structures meeting the needs of the entire compound.

14 According to short notes in the (sometimes unpublished) preliminary reports, Kraščenninikova apparently interpreted these structures as the remains of the watchman's house; Pugačenkova speaks more generally of military barracks and block along the fortification walls of Nisa.

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Returning to New Nisa, this site must have been the city proper in a more extended settled territory comprising nearby Old Nisa and Mansur depe.

In spite of the Soviet surveys, and owing to the substantial depth of the Islamic layers (which attests to the importance of New Nisa during the Islamic age), it is still difficult to reconstruct the characteristics of Parthian urban planning. The more ancient layers have been reached through a few trenches limited in extent, with the sole exception of the northern side of the city, where a cultic complex and burial chambers of the late Parthian era have been found. The soundings in the south-west sector of the site, on the other hand, have produced traces of rather simple dwelling structures, perhaps pointing to a productive area.

The suburbs were no doubt less densely settled area, but no archaeological data is so far available. Also, for the rampart built of *pakhsa*[15] identified by soviet archaeologist outside New Nisa, to the south of the hill, we do not have up-to-date information. The area supposed to be encircled by this earthen rampart apparently included only New Nisa and its suburbs, not Old Nisa. We do not know if the extension of this rampart can be supposed for the Parthian era, as the material coming from the soundings included only a few diagnostic Parthian pottery sherds among the more copious finds of Islamic pottery.

A final reflection on the earlier phases in the district of Nisa

Ancient cultural levels prior to the Hellenistic-Parthian period are not documented by excavations either in Old or New Nisa. Nevertheless, the presence of sporadic pottery fragments (from the Middle Bronze Age if not earlier) is attested in both the hills and in the surrounding area.[16]

Unfortunately, we do not have any trustworthy source relating to the foundation of Nisa. We have only some clues about the antiquity of the settlement in this area. The following list summarises the archaeological evidence to date – mainly sporadic pottery sherds – related to the most ancient periods in the district of Nisa.

1. For the Northern Complex: The Square House of Old Nisa (YuTAKE expedition, 1951–1952), M.E. Masson reported some 2nd millennium pottery sherds (V.N. Pilipko more cautiously describes them as "pre-Arsacid").

2. From the Central Complex of Old Nisa (YuTAKE and Parfianskaja Ekspedicija, 1950–1980s): reports mention three flint blades from the Tower Temple and one "Namazga I (ca. 3700–3500)" pottery sherd from the Tower Temple (*pomescenije* 2).

3. During the excavations of the Round Hall at Old Nisa (YuTAKE, 1951–1953), Kraščenninikova reported "Eneolitic pottery" and "Jaz pottery" (the latter, according Pilipko, could be "Namazga I" pottery).

4. Always from the Central Complex, Soviet reports mention several jars and bowl fragments of Jaz III/Achaemenid period. In response, we have to say that Hellenistic/Arsacid pottery in Parthia may display features (as, for example, carinated profiles and everted rims) that recall some Late Iron Age types: today, we cannot exclude the possibility that some of the so-called "Achaemenid pottery" is, in fact, of the Hellenistic or early Arsacid period.

5. Also in New Nisa, where no really extensive excavations have ever been carried out, Jeytun period (ca. 4500 BCE), Bronze and Iron Age pottery has been recorded in the southern and northwestern areas of the site.

6. In the surroundings of Nisa, the presence of a Namazga I, Namazga IV (Early Bronze Age, ca. 2500 BCE) and Namazga V (2000–1600 BCE) settlements can be also supposed (as, for example, for some evidences near Geokcha) and these few pottery sherds could have been brought to Nisa from there. According to Pilipko, the Iron Age/Achaemenid pottery sherds could also come from the surrounding areas, or may have been transported inside the citadel along with the clay needed for the making of the bricks during the huge works of the Arsacid era; in particular, this pottery could have come from the low hill immediately to the north of Old Nisa (nowadays a military camp), where YuTAKE registered the presence of "Achaemenid pottery".[17]

15 The building technique of *pakhsa* (i.e. beaten clay or *pisé*) is widespread at Nisa; it may appear together with the mud-brick technique in the same building, though the *pakhsa* is mainly used for the fortification walls and in the latest occupational phases.

16 An Islamic tradition is reported by the Arab historian Šihāb ad-Dīn Muḥammad an-Nisawī (13th century) regarding the construction of the platform foundation of the *shahristan* of New Nisa in the period of (the first) Hystaspes: the fortress would have been part of a defensive line on the northern frontier of the empire.
A "royal Nisaea, in Parthia" is also mentioned by Pliny (VI, 25: 113) when he recalls the foundation of an Alexandroupolis by the Macedon. Of course, in this case the problem of the identification of "Nisaea" with the Turkmen site (on a road likely not covered by Alexander's army) raises several problematic issues.

17 Pilipko 2001: 125–129, Fig. 99.

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Fig. 8: Old Nisa: Pottery from a deep sounding in the central area (basins) of the site shows comparison with Anau II's production (Archive Centro Scavi Torino).

Taking into account data from recent Italian excavations, we think it is necessary to reconsider these assumptions, at least partially. Although we did not find ancient cultural levels or structures, we can in a preliminary way add more data and observations to the above picture:

1. Deep soundings in the south-western area of Old Nisa have revealed that a huge amount of levelling work was carried out, and not only in the central Monumental Complex. Large areas were probably flattened or levelled, with large amounts of virgin soil (bedrocks as well) being removed from some areas and unloaded in other. Possible ancient cultural layers would then have been completely removed or obliterated by the levelling carried out by the Arsacid kings.

2. Deep sounding in the northern "basin" of Old Nisa produced sherds that can be compared with some of the Anau II pottery from the site of Anau (generally dated to the end of the 4th/the beginning of the 3rd millennium: **Fig. 8**). We cannot consider these fragments as sporadic, as they compose an almost entire jar; and this is not the only vessel, almost complete, coming from the above-mentioned sounding. Moreover, these pottery sherds and shapes are connected with a layer of ashes and gypsum (maybe a floor?) only partially intercepted by our trench. Although the available data is still provisional and limited, we may consider this to be the first prehistoric cultural layer ever discovered in Old Nisa attesting to the presence of ancient phases at the site.

3. In the south-west area, layers cut by the Parthian levelling work and Islamic graves returned some flint blades and pottery sherds of the Jeytun and Namazga (?) cultures. We can also add the recovery of some little plaster fragments painted in a dark red that we cannot really consider as Parthian or Islamic in date.

According to this overall picture, then, we cannot totally rule out the presence of small prehistoric settled areas not only in the "surroundings" of New Nisa or Old Nisa, but also on the top of the two hills (which we know have been extensively inhabited only since the Parthian era). Unfortunately, at the moment we are not able to understand fully, or to define, the main features of these cultural phases, and it is also likely that some of these ancient layers have been levelled and removed by the substantial building activities of the Arsacids kings.

On the other hand, the picture seems to confirm the absence (or only sporadic presence) of Achaemenid materials in the Nisa district, even from the deepest trenches (as, for example, those dug by the YuTAKE along the fortification walls of New Nisa).

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Bibliography

Bruno, J.
Forthcoming: Ceramics of the Parthian Homeland: New and Old Data on the Ceramic Production of the Early Arsacid Period from the Italian Excavations in Old Nisa (Turkmenistan), in: Peignard-Giros, A. (ed.), *Daily Life in a Cosmopolitan World: Pottery and Culture in the Hellenistic Period, Hellenistic Period. Proceedings of the 2nd Conference of the International Association for Research on Pottery of the Hellenistic Period, Lyon, 2015*.

Diakonoff, I.M./Livshits, V.A.
1976–1979: *Parthian Economic Documents from Nisa, edited by D.N. MacKenzie* (= Corpus Inscriptionum Iranicarum. Part 2: Inscriptions of the Seleucid and Parthian Periods and of Eastern Iran and Central Asia 2), 3 vols., London.

2001: *Parthian Economic Documents from Nisa, Texts I, edited D.N. MacKenzie, A.N. Bader, N. Sims-Williams* (= Corpus Inscriptionum Iranicarum 2: Inscriptions of the Seleucid and Parthian Periods and of Eastern Iran and Central Asia 2.1), London.

Isidore of Charax
Parthian Stations. An Account of the Overland Trade Route between the Levant and India in the First Century B.C. The Greek Text with a Translation and Commentary by W.H. Schoff, 1976 (reprint), Chicago.

Košelenko, G.A. (ed.)
1985: *Drevnejšie gosudarstva Kavkaza i Srednej Azii*, Moscow.

Lippolis, C.
2013: Old Nisa: Excavations in the South-Western Area. Second Preliminary Report (2008–2012), *Parthica* 15, 89–115.

Lippolis, C./Manassero, N.
2015: Storehouses and Storage Practices in Old Nisa (Turkmenistan), *Electrum* 22, 115–142.

Masson, M.E.
1952: Novye arheologičeskje dannye k istorii Parfii, *Izvestiâ akademii nauk Turkmenskoj SSR* 5, 14–20.

Pilipko, V.N.
1989: K voprosu o lokalizacij Parfavnisy, *Izvestiâ akademii nauk Turkmenskoj SSR* 2, 17–25.

1975: *Parfânskoe sel'skoe poselenie Garry-Kâriz*, Ashgabat.

1990: *Pozdneparfânskie pamâtniki Ahala*, Ashgabat.

2001: *Staraâ Nisa. Osnovnye itogi arheologičeskogo izučeniâ v sovetskij period*, Moscow.

2012: Remarks on the Material Culture of the Akhal Area in the Hellenistic Period, *Anabasis* 3, 109–125.

Pugačenkova, G.A.
1949: Arhitekturnye pamâtniki Nisy, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii. Tom 1*, Ashgabat, 201–259.

1952: Parfânskie kreposti Ûžnogo Turkmenistana (iz materialov rabot ÛTAKÈ), *Vestnik drevnej istorii* 40, 215–225.

1958: *Puti razvitiâ arhitektury Ûžnogo Turkmenistana pory rabovladeniâ i feodalizma* (= Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 6), Moscow.

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Settlement Patterns during the Sasanian Era in Southern Turkmenistan

Preliminary survey results in the Abiverd and Merv regions 2014–2015

Aydogdy Kurbanov

Abstract: The Sasanian Empire (224/226–651 CE), one of the most extensive and powerful pre-Islamic empires, was divided into four principal regions. One of these was Khorasan, which incorporated north-eastern Iran, north-western Afghanistan, and southern Turkmenistan. The position of the empire's north-eastern frontier was dependent on military fortunes. Throughout most of the Sasanian reign, the north-eastern edge of the empire lay in southern Turkmenistan, notably around the ancient Merv oasis (now Mary province) and in the Abiverd area (now part of Ahal province). These two regions have the highest concentration of Sasanian sites. The preliminary results of the survey conducted in 2014–2015 were achieved by systematically surveying the region in a way not used before. Furthermore, through this survey an attempt was made to connect the development of these regions to that of other areas both inside and outside Turkmenistan.

Keywords: Sasanian Empire, southern Turkmenistan, Khorasan, Late Antique period, archaeological survey.

Резюме: Сасанидская империя (224/226–651 гг.) была одной из крупных и сильных домусульманских империй. Империя была разделена на четыре основные области. Одна из таких областей называлась Хорасан, которая включала в себя некоторые части современных северо-восточного Ирана, северо-западного Афганистана и южного Туркменистана. Очертания северо-восточной границы Сасанидской империи были в основном связаны с ее военными успехами. В течение долгого времени правления Сасанидов, она проходила в южном Туркменистане, и включала в себя, в частности Мервский оазис (в наши дни Марыйская область Туркменистана) и Абивердский район (в наши дни часть Ахалской области Туркменистана). Эти две области имеют самую большую концентрацию сасанидских памятников в стране. Результаты археологической разведки в этих регионах в 2014-2015 гг. стали предварительной работой с использованием методов разведки не использованных раннее и попыткой соединить развитие этих регионов с теми, которые находятся внутри и вне современных границ Туркменистана.

Ключевые слова: Сасанидская империя, Южный Туркменистан, Хорасан, позднеантичный период, археологическая разведка.

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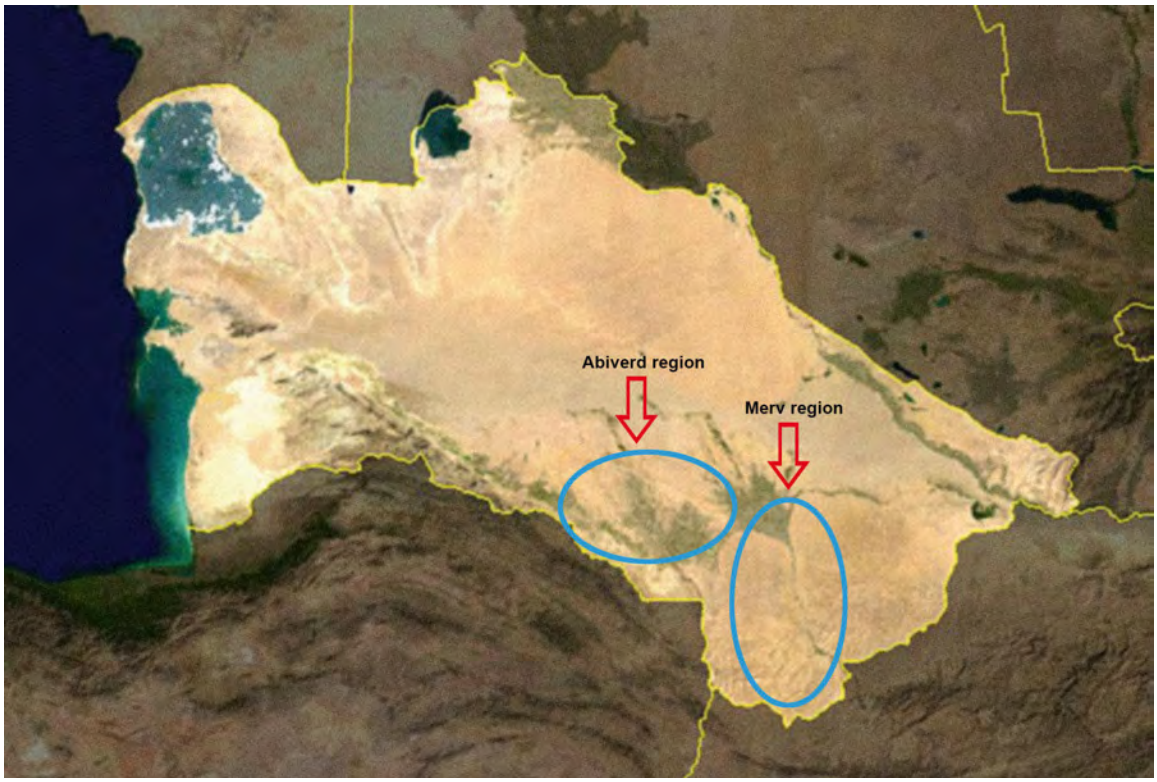


Fig. 1: Survey areas (elaborated by M. Brouillard after worldmap.net).

1 The research history of Sasanian sites in southern Turkmenistan

One of the most extensive and powerful pre-Islamic empires, the Sasanian Empire (224/226–651 CE) was divided into four principal regions, one of which was Khorasan, which incorporated north-eastern Iran, north-western Afghanistan, and southern Turkmenistan. The position of the empire's north-eastern frontier was dependent on the Sasanian military fortunes: at its height (ca. 4th century CE), its extent included the towns of Balkh (in present-day Afghanistan) and Bukhara (Uzbekistan). Throughout most of Sasanian rule, however, the north-eastern edge of the empire lay in southern Turkmenistan, notably around the ancient Merv oasis, nowadays the Mary *welayat* (province) of Turkmenistan, and in the Abiverd region, nowadays part of the Ahal *welayat* of Turkmenistan.[1] These two regions have the highest concentration of Sasanian sites in Turkmenistan (**Fig. 1**).

The Khorasan provinces within what is today southern Turkmenistan were Merv, Merverud, and Serakhs, located in the northern piedmont zone of the Kopet Dagh. Khorasan was governed by a Sasanian deputy called a *spakhbed*. It is difficult to determine whether the western part of this piedmont zone was part of Khorasan, while in the east it seems clear that the oasis zone demarcated Sasanian territory. The districts to the east (starting from Ashgabat up to the modern town of Kaka, also spelled Kaakhka) were part of the province of Abiverd and were connected to Abarshahr in the region of modern Nishapur. Abiverd was the centre of a province bearing the same name (from Babadurmaz to Meana-Chache in the foothills of the Kopet Dagh Mountains in southern Turkmenistan) (Košelenko/Gaibov/Gubaev 1999: 16).

Despite historical cataclysms, many sites and monuments from the Sasanian period have survived in southern Turkmenistan. The earliest information about the Sasanian sites in southern Turkmenistan we can find in works of A.V. Komarov, a Russian general who in the 1880s was head of the Transcaspian province (Zakaspiyskaya oblast)[2] of the Russian empire. His interest in the history of the province led him to organise archaeological excavations in Anau, Merv, Nisa, Khivabad, and Khosrov-kala (**Fig. 5**). He gave several scientific reports on his excavations and their results during meetings in Tbilisi and

1 South-western Turkmenistan-Dehistan, nowadays the Balkan *welayat* (province) of Turkmenistan, was not included here. In the future, the survey will be extended to this region as well.

2 Nowadays, this territory is mostly part of modern Turkmenistan.

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Fig. 2: Akdepe near Artyk (photo courtesy of Aydogdy Kurbanov).



Fig. 3: Akdepe near Babadurmaz (photo courtesy of Aydogdy Kurbanov).

St. Petersburg. His large collection of coins is currently in the State Hermitage, St. Petersburg.

In 1890, V.A. Jukovskiy studied the architecture of ancient and medieval Merv, and left interesting notes on Gyaur-kala (**Fig. 8**) as well (Žukovskij 1894: 104–105, 111–119). In 1904, an archaeological team from the USA under the direction of R. Pumpelly (Carnegie Institution Washington, DC) excavated sites in southern Turkmenistan (Pumpelly 1908). During his excavations in Gyaur-kala, he found several items from the Sasanian period (Pumpelly 1908: 54). In 1916, Kuren-kala (Abiverd region) was studied by I. Rybakov (Rybakov 1915/16: 2–3) (**Fig. 4**).

The next phase of research came at the end of 1920s and during the first half of the 1930s, when several Sasanian sites were described by T.G. Machnev, O.V. Orestov, A.A. Semenov in the Abiverd region (Peshtag, Akdepe, Kosha-depe, Kone Kaka, Kuren-kala) (**Fig. 2**; **Fig. 6**), by V. Robinzon around Ashgabat city (Gami-kala), by P.A. Arbekov in Serakhs oasis, by A.A. Marushenko in Babadurmaz (**Fig. 3**), Bami, Baharden, Durun, Kelata, Togolok-depe (near Geok-depe village), and by S.A. Ershov at several sites along the Kaka-Tedzhen-Serakhs-Mary road. In 1936–1937, A.A. Marushenko excavated in Gyaur-kala, where he discovered artefacts from the Sasanian period (Loginov 1996: 166–169; Pilipko 2012: 305).[3]

3 Unfortunately, much of the archaeological research of A.A. Marushenko has remained unpublished.

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Fig. 4: Kuren-kala (photo courtesy of Aydogdy Kurbanov).



Fig. 5: Khosrov-kala (photo courtesy of Aydogdy Kurbanov).

The South Turkmenistan Archaeological Complex Expedition (YuTAKE) of the Academy of Sciences of the Turkmen Soviet Socialist Republic, also known the South Turkmenistan Archaeological Complex Expedition (STACE), was established in 1946 to study sites in southern Turkmenistan from prehistoric to medieval times. The main focus of YuTAKE was systematic excavation in Merv, which became one of the pillars of the Sasanian rule in the east, its ruler acquiring the title of *marzban*. In 1947, the 11th brigade of YuTAKE studied some Sasanian sites in southern and western parts of Turkmenistan (Masson 1951: 38–43). In 1948–1950, A.A. Roslâkov conducted a survey around Ashgabat city, during which he noted ceramic finds at several Sasanian sites (Roslâkov 1955: 84–88). In 1950–1951, S.A. Ershov conducted a survey in the piedmont area of the Kopet Dagh Mountains, between Kyzyl-Arvat (the modern-day town of Serdar) and Gyaurs (modern-day Ak-Bugday), and noted 59 archaeological sites, including the Sasanian ones. Unfortunately, his manuscript was not published and later lost (Pilipko 2012: 306).

In the 1950s, S.A. Ershov also studied ossuary burials in Bayram-Ali necropolis (Eršov 1959: 160–204), and in the mid 1950s D. Durdyev worked in Kone Kaka and Kishman-depe (Durdyev 1959a: 7–14; 1959b: 136–159) (**Fig. 9**).

In 1955–1957, the Sasanian site Varryk-depe in the Merv region (Masson 1978: 123) was excavated by the 18th brigade of YuTAKE, and in 1966–1967 the same brigade continued works on the Sasanian

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Fig. 6: Kone Kaka (photo courtesy of Aydogdy Kurbanov).



Fig. 7: Walls of Chilburdzh (photo courtesy of Aydogdy Kurbanov).

sites in the Mary oasis, in particular in Varryk-depe (Pilipko 1980: 38–46). The architecture of the southern Turkmenistan relating to the Sasanian period was studied by G.A. Pugachenkova (Pugačenkova 1958).

In 1967, A. Gubaev[4] and G. Koželenko made a short survey in Geok-depe region. They noted several sites and conducted archaeological excavations in Gash-depe. According to their findings, Gash-depe dates to the late Parthian/early Sasanian period (Gubaev/Košelenko 1968: 37–41). That same year (1967), V.N. Pilipko carried out archaeological excavations in Yandakly-depe (Yayly), which is situated 7 km south-east of Geok-depe. Their excavations noted Sasanian layers (Pilipko 1968: 31–34). The excavations in Yandakly were continued by V.Yu. Vdovin (Vdovin 1992: 47–102), who in 1985–1986 also excavated Togolok-depe (8 km north-east of the

4 It should be noted that A. Gubaev prepared a degree thesis, "Kandidat nauk – Sites of the Sasanian period in the South Turkmenistan", in 1967. This remains unpublished.

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Fig. 8: Gyaur-kala (photo courtesy of Aydogdy Kurbanov).



Fig. 9: Kishman-depe (photo courtesy of Aydogdy Kurbanov).

rail station at Geok-depe; **Fig. 11**), where he found several Sasanian levels, but all results were unpublished[5] because he died in a road accident (Pilipko 2012: 308).

From the 1970s onwards, YuTAKE was no longer active. In the 1970s, some Sasanian sites in Pendi oasis were studied by G. Gutlyev and A. Burhanov (Gutlyev/Burhanov 1979: 16–18). In the Serakhs region, O. Orazov studied the archaeological sites of different periods, including Sasanian sites from the 1950s to the 1970s (Orazov 1970: 10–11; 1973).

A. Gubaev, G. Koshelenko and S. Novikov attempted to map the archaeological sites in the Merv oasis in the 1980s (Gubaev/Košelenko/Novikov 1990a: 117–127; Gubaev/Koshelenko/Novikov 1990b: 51–60; Bader/Gaibov/Koshelenko 1992: 225–250). Their work was continued in the context of a joint Turkmen-Italian project from the end of the 1980s to the first half of the 1990s, the last investigation of sites related to Sasanian times in

5 Except for a short notice (Vdovin 1987).

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Fig. 10: Geobekli-depe (photo courtesy of Aydogdy Kurbanov).



Fig. 11: Togolok-depe (photo courtesy of Aydogdy Kurbanov).

Turkmenistan. As a result of this project, a book was published as an archaeological map of sites from all historical periods in the Murghab Delta (Gubaev/Koshelenko/Tosi 1998). It should be noted that a British archaeological mission in the Bayram-Ali district of Mary region studied all stages of the history of Merv, including the Sasanian period, at the site of Gyaur-kala (Herrmann/Kurbansakhatov/Simpson 1998: 53–75; 1999: 1–24; 2000: 1–31; 2001: 9–52; Puschnigg 2006).

The most intensively studied Sasanian site in Turkmenistan is Gyaur-kala, while Chilburdzh (**Fig. 7**) and Geobekli-depe (**Fig. 10**) have been only superficially investigated. In all cases, walls were made from mud brick and built above Parthian walls. Protruding from the walls were many rectangular towers. For defence purposes, gates were very narrow. In the Sasanian sites of the 3rd to the 4th century CE, many terracotta figurines of female goddesses were found (Filanovič 1974: 15–139; 1989: 62–121). The Sasanian coins found from the 19th century to the 1970s in the territory of Central Asia have been analysed by M.E. Masson (Masson 1974: 140–154). Later, the Sasanian coins from Merv were analysed by S.D. Loginov and A.B. Nikitin (Loginov/Nikitin 1993a: 225–246; 1993b: 247–269; 1993c:

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271–312; 1993d: 313–317). Also in the 1960s, two Buddhist manuscripts written in Brahmi and dated to the Sasanian period were found: one not far from Bayram-Ali during agricultural work, together with the copper coins of Khusrov I Anushirvan (531–579) minted in 549, and a small, broken stone statuette of the Buddha (Vorob'eva-Desâtovskaâ 1983: 22–96; Bongard-Levin/Vorob'eva-Desâtovskaâ/Temkin (ed.) 2004: 273); another during the archaeological works on a Buddhist stupa in Gyaur-kala. Both manuscripts were inside big vases, notably the one from Gyaur-kala, which became famous as the "Merv vase" (Košelenko 1966: 92–105).

Another Sasanian site which is among the most studied in southern Turkmenistan is Akdepe, which is situated by the rail station of Artyk on the Central Asian railway in the Kaka region of South Turkmenistan. It was excavated in 1963–1978 by A. Gubaev (Gubaev 1967: 262–266; 1968: 39–42; 1971b: 112–135; 1972: 88–95; 1974: 503–504; 1977: 49–60). Remains of an ancient settlement cover an area of about 40 ha. The mound of Akdepe occupies its northern part. There are traces of walls encircling the mound, the area within these walls being approximately up to 10 ha. The mound of Akdepe contains the remains of several successively erected fortified buildings, the earliest of them of Late Parthian date, and the last of the Late Sasanian period. The active life of the settlement also dates to between the 2nd and the 7th centuries CE. In all, over 100 Sasanian clay bullae dating to the late 6th century/first half of the 7th century CE have been found in the remains of a fortified building at Akdepe that forms the upper strata of the mound (Gubaev/Lelekov 1970: 105–107; Gubaev 1971a: 46–49; Gubaev/Loginov/Nikitin 1996: 55–59); coins have also been found (Gubaev/Loginov/Nikitin 1993: 71–74). Analysis of large clay vessels (*khum*) found in Ahal province was made by V.Yu. Vdovin (Vdovin 1984: 80–95).

In the second half of the 1980s, V. Pilipko worked briefly around the city of Ashgabat in Paryz-depe, Karaul-depe, and Govduz-depe, in all of which he found Sasanian layers. In 1900–1992, V. Pilipko also studied the late antique and Early Medieval sites in Ahal province (Pilipko 2012, 309).

The Polish archaeological expedition in Turkmenistan (beginning in 1997) discovered a fire temple at Mele Hairam. The site is located ca. 15 km east of Serakhs. Although built of sun-dried brick, the temple of Mele Hairam is one of the best preserved ancient structures of this type. Numerous well-preserved objects found in the rooms of the temple building are extremely important in the reconstruction of the history of ancient fire temples. The comparative study of architectural components of the temple and of the material collected during the excavation allows us to assume that Atash Bahram, or "victorious fire", was worshiped in the temple at Mele Hairam from the 2nd to the 5th century CE (Kaim 2002; 2004).

2 Preliminary survey results

For the systematic and detailed survey, I had at my disposal two sources that were of substantial help: first, a preliminary list of archaeological sites in the Abiverd and Merv regions, which allowed me to obtain a general impression of where to expect particularly dense clusters of sites; and, second, the register of sites stemming from the Soviet era, which contains more information than the preliminary list.

While these two documents constitute an important foundation for my research, they cannot replace systematic survey work. And there are problems with them: they were made in the Soviet era, and most of the sites are listed with one site size for all periods, rather than being differentiated according to phase of occupation; furthermore, period attributions are chronologically crude, making distinctions only between dynasties – such as Parthian, Sasanian – rather than relying on detailed topographic maps and surface distributions of time-sensitive items such as coins and pottery types for dating purposes.

In preparation for the survey, the area to be investigated was identified on preliminary geographic information derived from satellite imagery and available Soviet military maps from the mid-1960s to the 1970s, with main roads, rivers, and archaeological sites indicated, which was compared to current satellite images already in use from Google Earth. Using the Google Earth images as a base map, we kept the Soviet military maps of the region to use in the principally hand-held GPS system during the walking survey, which reduced the time needed for pinpointing and recording sites and land forms in the field. With the aid of GPS, site locations could be pinpointed with geographic coordinates to update local and international information regarding land formation and changes in settlement patterns.

During the project, archaeological artefacts were analysed, with particular attention being paid to ceramics as indicators of changes in production. Beyond diagnostic pottery, other artefacts with restricted chronological distributions were collected, plus diagnostic materials of other types, such as glass, copper, slag, and stone vessels. Following this analytical step, it was possible to date sites and parts of sites within the Sasanian periods.

Sites and site boundaries were identified on the basis of topography and the density of artefacts. Mounded areas with high densities of artefacts were the easiest to recognise and define, while low and non-mounded areas with low density and with ground vegetation were easy to miss.

Within the survey in the Abiverd and Merv regions, we have identified and recorded around 190

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sites (130 in Mary province and 60 in Ahal province). The GPS locations were obtained for all surveyed sites. All diameters were compared, where possible, with the relative size in satellite images, and when we were unable to estimate diameters on the ground, we estimated them from satellite images. For each site, general observations on architecture (if present), vegetation, and other characteristics were made.

All the identified sites can be divided into three groups:

1. Parthian-Sasanian sites (3rd century BCE to the 7th century CE)
2. Sasanian sites (3rd century to 7th century CE)
3. Sasanian-Islamic sites (3rd century to 16th century CE)

The preliminary results presented here emphasise sites and their periodisation based mostly on ceramics. It is possible that more multi-period occupations will be identified when the all collected material has been further evaluated. It is clear that these two main regions (Abiverd and Merv), being in the Sasanian period in northern parts of Khorasan, have the highest concentration of Sasanian sites in Turkmenistan, one of the four principal regions of the empire.

Bibliography

Bader, A./Gaibov, V./Koshelenko, G.
1992: Materials for an Archaeological Map of the Merv Oasis: Köne Kishman, *Mesopotamia* 27, 225–250.

Bongard-Levin, G.M./Vorob'eva-Desâtovskaâ, M.I./Temkin, È.N. (ed.)
2004: *Pamâtniki indijskoj pis'mennosti iz Centralnoj Azii, Vypusk 3* (= Pamâtniki pis'mennosti vostoka 73, 3 = Bibliotheca Buddhica 50), Moscow.

Durdyev, D.D.
1959a: Itogi polevyh rabot sektora arheologii Instituta istorii arheologii i ètnografii AN Turkmenskoj SSR v 1954–1957 gg., *Trudy Instituta istorii, arheologii i ètnografii Akademii Nauk Turkmenskoj SSR* 5, 7–14.

1959b: Gorodiše starogo Kišmana (otčet o raskopkah 1956-1957 gg.), *Trudy Instituta istorii, arheologii i ètnografii Akademii Nauk Turkmenskoj SSR* 5, 136–169.

Eršov, S.A.
1959: Nekotorye itogi arheologičeskogo izučeniâ nekropolâ s ossuarnymi zahoroneniâmi v rajone goroda Bajram-Ali (raskopki 1954–1956 gg.), *Trudy Instituta istorii, arheologii i ètnografii Akademii Nauk Turkmenskoj SSR* 5, 160–204.

Filanovič, M.I.
1974: Gâur-Kala, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 15. Materialy po arheologii Merva*, Ashgabat, 15–139.

1989: Istoriko-kul'turnye arheologičeskie tablicy po gorodišu Gyaurkala v Starom Merve, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 19. Drevnij Mevr*, Ashgabat, 62–121.

Gubaev, A.
1967: Novyj pamâtnik sasanidskogo vremeni v Ûžnom Turkmenistane, *Sovetskaâ arheologiâ* 1, 262–266.

1968: Izučenie rannesrednevekovyh pamâtnikov v rajone Artyka, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 2. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah v 1968 g. v zone orošaemyh zemel' III očeredi Karakumskogo kanala im. V. I. Lenina*, Ashgabat, 39–42.

1971a: Sasanidskie bully iz zamka Ak-depe (Predvaritel'naâ publikaciâ), *Èpigrafika Vostoka* 20, 46–49.

1971b: Zamok Ak-depe i ego raskopki, in: Masson, V.M. (ed.), *Materialnaâ kul'tura Turkmenistana*, Ashgabat, 112–135.

1972: Novye raskopki zamka Ak-depe u Artyka, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 4. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah v 1970 g. Sektora pervobytnoj arheologii i Sektora drevnej i srednevekovoj arheologii Instituta istorii im. Š. Batyrova AN TSSR*, Ashgabat, 88–95.

1974: Raskopki zamka Ak-depe, *Arheologičeskie otkrytiâ* 1973, 503–504.

1977: Novye rezultaty raskopok v zamke Ak-depe sasanidskogo vremeni, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 6*, Ashgabat, 49–60.

Gubaev, A./Košelenko, G.A.
1968: Izučenie antičnyh i rannesrednevekovyh pamâtnikov, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 1. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah v 1967 g. v zone orošaemyh zemel' III očeredi Karakumskogo kanala im. V. I. Lenina*, Ashgabat, 36–42.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Gubaev, A./Lelekov, L.A.
1970: Bully sasanidskogo perioda iz Ak-depe, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 2. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah v 1968 g. v zone orošaemyh zemel' III očeredi Karakumskogo kanala im. V. I. Lenina*, Ashgabat, 105–107.

Gubaev, A.G./Košelenko, G.A./Novikov, S.V.
1990a: Ob arheologičeskih issledovaniâh v Mervskom oazise, *Vestnik drevnej istorii* 194, 117–127.

Gubaev, A./Koshelenko, G./Novikov, S.
1990b: Archaeological Exploration of the Merv Oasis, *Mesopotamia* 25, 51–60.

Gubaev, A.G./Loginov, S.D./Nikitin, A.B.
1993: Coin Finds from the Excavations of Ak-Depe by the Station of Artyk, *Iran* 31, 71–74.

1996: Sasanian Bullae from the Excavations of Ak-Depe by the Station of Artyk, *Iran* 34, 55–59.

Gubaev, A./Koshelenko, G./Tosi, M. (ed.)
1998: *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome.

Gutlyev, G./Burhanov, A.
1979: Novyj pamâtnik sasanidskoj èpohi v Pendinskom oazise, *Pamâtniki Turkmenistana* 1, 16–18.

Herrmann, G./Kurbansakhatov, K./Simpson, St. J.
1998: The International Merv Project. Preliminary Report on the Sixth Season (1997), *Iran* 36, 53–75.

1999: The International Merv Project. Preliminary Report on the Seventh Season (1997), *Iran* 37, 1–24.

2000: The International Merv Project. Preliminary Report on the Eighth Season (1999), *Iran* 38, 1–31.

2001: The International Merv Project. Preliminary Report on the Ninth Season (2000), *Iran* 39, 9–52.

Kaim, B.
2002: Un temple du feu sassanide découvert à Mele Hairam (Turkménistan méridional), *Studia Iranica* 31, 215–230.

2004: Ancient Fire Temples in the Light of the Discovery at Mele Hairam, *Iranica Antiqua* 39, 323–337.

Košelenko, G.A.
1966: Unikal'naâ vaza iz Merva, *Vestnik drevnej istorii* 95, 92–105.

Košelenko, G./Gaibov, V.A./Gubaev, A.
1999: Severnyj Horasan, in: Brykina, G.A. (ed.), *Srednââ Aziâ i Dal'nij Vostok v èpohu srednevekov'â. Srednââ Aziâ v rannem srednevekov'e*, Moscow, 16–29.

Loginov, S.D.
1998: K istorii arheologičeskogo izučeniâ drevnejših gorodov Ûžnogo Turkmenistana, in: Muradov, R.G. (ed.), *Kul'turnye cennosti. Meždunarodnyj ežegodnik. Vypusk 2. 1996*, 166–169.

Loginov, S.D./Nikitin, A.B.
1993a: Sasanian Coins of the Third Century from Merv, *Mesopotamia* 28, 225–246.

1993b: Coins of Shapur II from Merv, *Mesopotamia* 28, 247–269.

1993c: Sasanian Coins of the late 4th–7th Centuries from Merv, *Mesopotamia* 28, 271–312.

1993d: Post-Sasanian coins from Merv, *Mesopotamia* 28, 313–317.

Masson, M.E.
1951: Ûžno-Turkmenistanskaâ arheologičeskaâ kompleksnaâ èkpediciâ (ÛTAKÈ) 1947 g., in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 2*, Ashgabat, 7–72.

1974: Rasprostranenie monetnyh nahodok ĉekana dinastii Sasanidov (224-651 gg.) na territorii sovetskih respublik Srednej Azii, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 15. Materialy po arheologii Merva*, Ashgabat, 140–154.

1978: Kratkaâ hronika polevyh rabot ÛTAKÈ za 1955–1957 gg., in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 16. Materialy po arheologii Merva*, Ashgabat, 111–186.

Orazov, O.
1970: K izučeniû osnovnyh ètapov istorii Serahskogo oazisa v drevnosti i srednevekov'e, *Pamâtniki Turkmenistana* 1, 10–11.

1973: *Arheologičeskie i arhitekturnye pamâtniki Serahskogo oazisa*, Ashgabat.

Pilipko, V.N.
1968: Issledovanie pamâtnikov antičnogo vremeni v rajone Geok-Tepe, in: Masson, V.M. (ed.), *Karakumskie drevnosti. Vypusk 1. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah v 1967 g. v zone orošaemyh zemel' III očeredi Karakumskogo kanala im. V. I. Lenina*, 30–35.

1980: Razvedyvatel'noe izučenie Varyk-depe v okrestnostâh Starogo Merva, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 17. Kul'tura Turkmenii v srednie veka*, Ashgabat, 38–46.

2012: Istoriâ arheologičeskogo izučeniâ rannesrednevekovyh pamâtnikov Ahala, *Problemy istorii, filologii, kul'tury* 4, 304–311.

Pugačenkova, G.A.
1958: *Puti razvitiâ arhitektury Ûžnogo Turkmenistana pory rabovladeniâ i feodalizma* (= Trudy Ûj-

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no-Turkmenistanskoj arheologiĉeskoj kompleksnoj èkpeditsii 6), Ashgabat.

Pumpelly, R.
1908: *Explorations in Turkestan. Expidition of 1904. Prehistoric Civilizations of Anau. Volume 1*, Washington.

Puschnigg, G.
2006: *Ceramics of the Merv Oasis: Recycling the City* (Publications of the Institute of Archaeology, University College London), London/New York.

Roslâkov, A.A.
1955: Melkie arheologičeskie pamâtniki v okresnostâh Ašhabada, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkpedicii. Tom 5. Za 1948–1952 gg.*, Ashgabat, 71–103.

Rybakov, I.
1916: Razvaliny kreposti Kûren-Kala, in: Belâev, I.A. (ed.), *Protokoly zasedanij i soobŝeniâ členov Zakaspijskogo kružka lûbitelej arheologii i istorii. Vypusk 2. 1915–1916*, Ashgabat, 2–3.

Vdovin, V.Û.
1984: Humy Ûžnogo Turkmenistana parfânskogo i sasanidskogo vremeni (Parfieny i Apavarktikeny), in: Masson, V.M. (ed.), *Problemy arheologii Turkmenistana*, Ashgabad, 80–95.

1987: Raskopki verhnego sloâ Togolok-depe, *Arheologiĉeskie otkrytiâ* 1985, 605.

1992: Itogi issledovaniâ poseleniâ Ândakly-depe, in: Pilipko, V.N. (ed.), *Arheologiĉeskie issledovaniâ v Turkmenistane*, Ashgabad, 47–102.

Vorob'eva-Desâtovskaâ, M.I.
1983: Pamâtniki pis'mom kharošthi i brahmi iz sovetskoj Srednej Azii (obŝij obzor), in: Bongard-Levin, G.M. (ed.), *Istoriâ i kul'tura Central'noj Azii*, Moscow, 22–96.

Žukovskij, V.A.
1894: *Drevnosti Zakaspijskogo kraâ. Razvaliny Starogo Merva*, St. Petersburg.

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Habitat and Occupancy during the Bronze Age in Central Asia

Recent work at the sites of Ulug-depe (Turkmenistan) and Dzharkutan (Uzbekistan)

Julio Bendezu-Sarmiento and Johanna Lhuillier

Abstract: For more than 15 years, two French archaeological expeditions, together with both an Uzbek (MAFOuz-Protohistoire) and a Turkmen (MAFTUR) team, have been leading excavations at two major protohistoric sites of Central Asia: Dzharkutan and Ulug-depe.

These two sites are representative of the Oxus Civilisation, or Bactria-Margiana Archaeological Complex (BMAC). They testify to the development of complex cities, surrounded by fortification walls, that included living quarters, storage and handicrafts areas, as well as more notable buildings – interpreted as palaces and temples – that reflect strong social hierarchies. The finest arts and crafts are associated with this urbanism, including mainly metallurgy, the working of fine stones, and very standardised pottery production. All these elements situate these cities within a larger exchange network that included the neighbouring civilisations of the Indus Valley and the Iranian Plateau. In this paper, we will reflect on these various elements by putting into perspective the results of our recent excavations at Dzharkutan and Ulug-depe.

Keywords: Central Asia, Bronze Age, Bactria-Margiana Archaeological Complex (BMAC).

Резюме: Уже более 15 лет две французские археологические экспедиции ведут раскопки вместе с узбекскими и туркменскими коллегами на Джаркутане и Улуг-депе, двух основных протоисторических поселениях Центральной Азии.

Эти два поселения хорошо представляют Цивилизацию Окса или Бактрийско-Маргианский Археологический Комплекс. Они свидетельствуют о развитии сложных городов, окруженных крепостными стенами. В них включены жилые помещения, хранилища продуктов и центры ремесла, а также более важные здания, которые интерпретируются как дворцы и храмы, отражающие глубокую социальную иерархию. Этот урбанизм характеризуется высоко развитым искусством и ремеслами, прежде всего, металлургией, камнерезным делом и в значительной степени стандартизированным керамическим производством. Все эти элементы вписывают эти города в большую сеть обмена с соседними цивилизациями долины Инда и Иранского нагорья. В данной статье мы вернемся к рассмотрению разнообразных элементов культуры, представив результаты наших недавних раскопок в Джаркутане и Улуг-депе.

Ключевые слова: Центральная Азия, бронзовый век, Бактрийско-Маргианский Археологический Комплекс.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

1 Introduction

Since the 7th millennium BCE – between the Neolithic and the Chalcolithic – and up to the protohistoric periods of the Bronze and Iron Age, the populations of Central Asia underwent long periods of adaptation to their environment. Over time, techniques for cultivating land and the agrarian economy, which seem to have originated in the Middle East, spread across a vast territory.

Though for centuries the cultures of the Central Asian Bronze Age were regarded as marginal extensions of the great civilisations that surrounded them, especially those of Mesopotamia or the Iranian Plateau, the discoveries of the last four decades, mainly made by V.I. Sarianidi (Bendezu-Sarmiento in press), have shown otherwise. Indeed, the Bronze Age in Central Asia, though devoid of writing, composed its own history and generated a complex civilisation, organised on a large scale, with routes of exchange, such as the "lapis-lazuli road", a sort of proto-Silk Road, linking north-eastern Afghanistan with the Mediterranean and the Far East.

2 General characteristics of the Bronze Age

The Bronze Age in Central Asia is dated, currently, between 3000 and 1500/1400 BCE (Francfort 2009; Hiebert 1994). The Namazga-depe site (Turkmenistan) provided the cultural sequence used to define the general chronology (**Fig. 1**). This period largely corresponds to the most well understood human occupation in the region, as it is the best documented through multidisciplinary archaeological studies conducted at various sites in southern Central Asia. It was a society whose economy was based mainly on productive irrigated agriculture (Francfort/Lecomte 2002; Gentelle 1988; Lisicyna 1978), producing grains such as wheat and millet, dried legumes, and numerous fruits such as pistachio and olives from Bohemia (Tengberg 2013). Populations of this period also controlled peripheral areas they could cultivate, located near the desert (Hiebert 1994). Animal husbandry was also very important, mainly of goats and bovines (zebu and buffalo), but also camels and equids (Mashkour 2013).

In the Early Bronze Age (3000–2500 BCE), imposing brick architecture emerged, comprising large community structures, in particular ceramic and metallurgical workshops, and large granaries.

In the Middle Bronze Age, between 2500/2400 and 1800/1700 BCE, a more complex architecture emerged, reaching its apogee with the proto-Urban Oxus Civilisation, also called Bactria-Margiana Archaeological Complex (BMAC) (Francfort 2009; Sarianidi 1987); sites are more numerous, with the construction of mansions, palaces, terraces, and probably temples, the plans of which are very elaborate (Bendezu-Sarmiento in press).

This civilisation flourished in Bactria, southern Uzbekistan (Askarov 1973; Askarov/Abdullaev 1983; Bendezu-Sarmiento/Musfakulov 2013; Teufer 2005), northern Afghanistan (Sarianidi 1977), as well as in Margiana in the endorheic zone of the Murghab delta (Sarianidi 1990; 2002; Hiebert 1994; Salvatori 2016), and in the foothills of the Kopet Dagh mountain range in Turkmenistan (Götzelt 1996; Kohl 1984; Lecomte 2013; Masson 1981). Recent discoveries made in north-eastern Iran at the sites of Tepe Damghani (Francfort et al. 2014) and Tepe Chalow (Vahdati/Biscione 2015) are also related to this civilisation. This cultural complex relates to the apogee of a proto-urban culture whose main archaeological sites may have been fortified (Gonur Depe, Adji-kui, Namazga-depe, Ulug-depe, Altyn-depe, Kelleli, Taip, and Togolok in Turkmenistan; Dashly in Afghanistan; Sapallitepa, Molalitepa and Dzharkutan in Uzbekistan) and are organised in scattered oases along the Murghab and Amu Darya rivers (**Fig. 2**). Despite local disparities, these regions, though distant from one another, maintained economic relations and shared cultural (e.g. material, funerary practices, architecture, etc.) and symbolic elements (common iconography and pantheons).

The material culture of this period shows a mastery of ceramic production, the processing of alloys of several metals (gold, silver, copper, lead, or tin), and the working of soft and/or semi-precious stones (lapis-lazuli, carnelian, steatite, and alabaster, among others). Adding to this high-quality craftsmanship is the rich production of a repertory of mythological iconography, with codes and styles partly borrowed from Mesopotamia and the Iranian Plateau (Amiet 1986), but showing a pantheon whose specificities are local, and include female divinities (mistress of the animals), leonine creatures, and other anthropo-zoomorphic beings (Francfort 1992; Vidale 2017). These markers of wealth reveal a hierarchical society (Luneau 2014a), the elite of which resided in proto-state fortified buildings, and which controlled a rich, irrigated agricultural territory (Bendezu-Sarmiento/Lhuillier/Luneau 2013; Francfort 2009; Luneau 2014b).

Most of the material just mentioned comes from tombs – often plundered since antiquity (Sarianidi 2007) – whose grave goods testify to the prosperity and wealth of the elites of this civilisation (Pottier 1984).

Funerary practices maintain certain norms throughout the various periods of the Bronze Age, such as the position of the deceased in lateral decubitus, right or left, with flexed members. But in the Early Bronze Age, we find mainly collective burials, whereas in the Middle and Late Bronze Age, most graves are individual, in pits, in a construction of

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Period	Russia Kazakhstan	Zeravshan Sogdia Fergana	Bactria	Margiana	Kopet Dagh	Iran	Southern Afghanistan Pakistan	Indus
3000–2500	Afanasievo (Late)	Sarazm III–IV	Taluqan	Kelleli ? Adzh Kui 9	Namazga III–IV (Early) Geoksyur	Shahr-i Sokhta II–III	Mundigak III–IV, 1–2 Mehrgarh VI–VII	Early
2500–1800	Okunevo Sintashta Petrov	Shagym Zardcha Khalifa	Sapallitepa Dzharkutan Dashly 1 & 3 Shortughaï I–II	Kelleli Gonur North Togolok	Namazga IV (Late)–V	Hissar III Tureng Tepe IIIC1	Nausharo II–IV Mehrgarh VII–VIII Kulli	Mature
1800–1500/1400	Fedorovo	Fedorovo Tazabagjab Kajrak-Kum Dzham	Dzharkutan (Kuzali/Molali/Bustan) Kangurttut Teguzak Shortughaï III–IV Bishkent/ Vakhsh	Gonur South Takhirbaj 3 Gonur-N	Namazga VI Tekkem-depe	Tureng Tepe IIIC2	Pirak I	Late
1500/1400–1000	Kajrak-Kum Karasuk Begazy-Dandybaj Tagiskent	Chust Burguljuk Koktepe I	Dzharkutan Kuchuk I–II Tillja Tepe I–II Naibabad	Jaz I	Ulug-depe	Western gray Ceramic Hasanlu Godin	Pirak II	Cemetery H Culture Ochre Coloured Pottery Culture

Fig. 1: Chronological table (after Luneau 2014b: Table 1).

bricks or in jars. Some tombs are very rich in décor and grave goods, such as those found at Gonur Depe, within the walls of the palace, where mausoleums adorned with paintings or mosaics constituted houses of the dead, with multiple inhumations and "companion" human sacrifices, and objects of luxury such a cart drawn by draft animals (Sarianidi/Dubova 2010).[1] The graves are often located in necropolises near the cities, but other burials have been found in areas of former habitation, abandoned at the time, or in other spaces reserved for this purpose. Certain female tombs, richer in the quantity and quality of objects deposited as an offering, no doubt indicate that women may have played an important role in Bronze Age society or, more prosaically, that the spouse possessed a certain measure of wealth (Luneau 2008; 2015).

At the end of the Bronze Age, funeral practices diversified, with manipulations of bones concomitant with the reopening of burials, and the appearance of cremation (Avanesova/Lyonnet 1995; Avanesova 2016), indicating, for some researchers, the influence of the northern steppe of Central Asia on this southern zone (Bendezu-Sarmiento 2004).

For a number of reasons, at the end of the Bronze Age, around 1800/1500 BCE, the Oxus Civilisation underwent socio-political and cultural transformation (Lhuillier 2013; 2016; Luneau 2014b). The weakening and then the abandonment of large agglomerations, as well as technological change that transformed the local material culture, are evidence of a deterioration of long-distance trade. A number of new cultural facets emerge and coexist with the Oxus Civilisation throughout Central Asia, as shown by the Vakhsh or Bishkent cultures (Pyankova 2002; P'ânkova 2003; Vinogradova/Kuz'mina 1996) between Tajikistan, Uzbekistan, and Afghanistan. This is interpreted as the extension and cultivation of new land on loess hills favourable to dry agriculture and the development of pastoralism. The presence of Andronovo-type steppe material is also reported in some Late Bronze Age sites (Luneau 2014b; Rouse/Cerasetti 2014).

It is within the context of these profound changes that the cultures of the Iron Age (Yaz I period) emerged (ca. 1500–1300 BCE), with the appearance of rural settlements in scattered oases often containing a small fortified building that likely housed a reduced elite who managed the development of land through irrigation controlled more efficiently than in the Late Bronze Age (Lhuillier in this volume; Lhuillier 2013; Lhuillier/Bendezu-Sarmiento/Mustafakulov 2018; Rouse/Cerasetti 2017). This new era, which began with a post-urban phase and extended to the end of the Iron Age, is called the Sine Sepulchro Cultural Complex. This phase, also aniconic, is characterised by radical changes in mortu-

1 The tombs of animals (goat, sheep, camel, ox, horse or dog) are also a special feature of this civilisation. These are not sacrificed animals deposited with humans but specific tombs, of substitution (?), that include funerary deposits such as objects of prestige (Luneau 2014c).

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Fig. 2: Distribution map of archaeological sites dating from the Bronze Age in Southern Central Asia (by J. Bendezu-Sarmiento and J. Lhuillier, © MAFOUZ-P).

ary practices, leading to the disappearance of tombs (Bendezu-Sarmiento/Lhuillier 2015).

While the pattern of settlement and habitation during this long sequence of the Bronze Age are now well known in general, many unknowns remain. Ulug-depe in Turkmenistan and Dzharkutan in Uzbekistan provide new insights. The decision to excavate these two proto-urban sites is indeed strategic on several levels. In the first place, because of their very large size, they both have a very important urban design, which is particularly well preserved, and which allows the development of architecture to be monitored throughout the Bronze Age. In the second place, the geographical location of these two sites was an important factor. Indeed, they are located in two zones that developed at different times in proto-history and not necessarily in a homogeneous way. One of them, Ulug-depe, is anchored in the long chronological sequence of the Kopet Dagh sites, while the other, Dzhartutan, provides a new "foundation" in the Middle Bronze Age. The urban planning of these two sites can therefore be compared, but over time they give a different perspective of the occupation of the territory.

3 The work of MAFTur at the site of Ulug-depe (Turkmenistan)

Created in 1994, the Franco-Turkmen Archaeological Mission (MAFTur)[2] aims to explore the site of Ulug-depe from the Chalcolithic to the Middle Iron Age.

Located in Kaahka Prefecture, 175 km southeast of the capital Ashgabat (**Fig. 2**), Ulug-depe is halfway between Namazga-depe and Altyn-depe. Recognised in the 1930s by A. Maruschenko, the site was partially opened in the late 1960s by V.I. Sarianidi, whose results demonstrated the site's historical importance and its place among the largest proto-urban sites in southern Central Asia. At 13 ha, it occupies a more modestly sized area than the other two sites, and has a current elevation of more than 30 m, which is lower than during the occupation of the site, judging by the accumulation of alluvial deposits brought by the Kelet River from Kopet Dagh Mountains, 13 km away.

With an occupation extending from the final Neolithic (6th millennium BCE) to the Hellenistic period in the second half of the 1st millennium BCE, Ulug-depe presents the longest stratigraphic sequence in Central Asia.[3] Along with Namazga-depe, Altyn-depe, and Khapuz-depe, it is one of the major sites of ancient Bronze Age cultures in Central Asia.

2 In collaboration with the Turkmenistan Directorate for the Protection, Study, and Conservation of Historical and Cultural Heritage, under the direction of M. Mamedow. The French part of the mission was directed by O. Lecomte (CNRS) until 2012, and is now under the direction of J. Bendezu-Sarmiento.

3 This long period of occupation was only interrupted by several centuries between the end of the Middle Iron Age and the Hellenistic, as the Late Iron Age (Achaemenid period) is represented by few potsherds only. For this latest, Hellenistic occupation, see Lhuillier/Bendezu-Sarmiento 2018.

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Fig. 3: Ulug-depe. An ancient Bronze Age wall in the north of the depe, in the foreground an oven built against the inner part of the wall (© MAFTUR).



Fig. 4: Ulug-depe. Early Bronze Age burial in trench 17, located against an oven and the abandoned rampart (© MAFTUR).

During three campaigns carried out in the late 1960s (1967, 1968, 1970), the Geoksûrskogo otrâda èkspedicii instituta arheologii AN/SSSR (Geoksûr detachment of the expedition of the institute of archaeology of the Academy of Sciences of the USSR) team, led by V.I. Sarianidi, succeeded in identifying the main features of the stratigraphy from half a dozen surveys at different locations on the site (Sarianidi 1969; 1971; 1972). The Bronze Age is omnipresent, especially the Early Bronze Age (Namazga IV: 3000–2300 BCE), which is best represented, with a powerful stratigraphy of more than 7 m, followed by the Middle Bronze Age (Namazga V: 2300–1800 BCE) at nearly 2 m deep. Only the Late Bronze Age (Namazga VI: 1800–1500 BCE) seems to be lacking architecturally.

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Fig. 5: Ulug-depe. Ceramics from the Early Bronze Age Namazga IV from Ulug-depe (© MAFTUR).

Early Bronze Age (ca. 3000–2500 BCE)

By placing a trench on the north-west slope of the site, V.I. Sarianidi quickly and accurately estimated the long occupation during the Bronze Age at Ulug-depe. The trench revealed, in particular, the structures of Early Bronze Age habitations. Resuming excavations and extending the trench made it possible to uncover the stepped enclosure wall of this period, as well as the habitations that butted up against it (**Fig. 3**), providing the north-west limit of the first step in the establishment of an Early Bronze Age agglomeration. The extension of the city appears to have become necessary, and in a second stage it was a craft district and housing that reoccupied the area of the ruined enclosure wall: a potter's kiln at the foot of which a grave was later hollowed out (**Fig. 4**), stands directly on the external wall of the wall's vestiges. The town would then probably have developed "outside the walls" to the north-west.

The material culture of this period is represented by a very fine production of painted ceramics with finely executed geometric decoration that represents the culmination of a tradition initiated as early as the Chalcolithic (**Fig. 5**) and which reached its peak during this time (Dupont-Delaleuf 2016).

Middle Bronze Age (ca. 2500–1800/1700 BCE)

The entire northern part of the Ulug-depe site appears to have been uniformly occupied during the Middle Bronze Age: it can be seen wherever the Iron Age structures have not obliterated the domestic habitat that must have been uniformly distributed. The excavation of a residential area on the northern edge of the site showed that the houses had been supported during the reconstruction by the vertical face of the partially ruined walls of the previous period. Indeed, this district, limited to the north by the topography of the site, could not be extended, which justified the reappropriation of the space (**Fig. 6**), alleys, and modest dwellings along the north-east/south-west axis. This superimposition without modification of plans or orientation is one of the essential peculiarities of Ulug-depe during the Namazga IV and V phases of the Bronze Age (**Fig. 7**).

But the agglomeration of the Middle Bronze Age did not include only ordinary habitat areas. Indeed, in the architectural register, one of the exceptional discoveries was made on the north-eastern flank of the depe. Within an area of about 170 sq m, a massive, poorly preserved structure was uncovered: a horizontal terrace, built in blocks of compact and homogeneous *pakhsa*. This high terrace, with a length of 10 m and a width that may have been the same, is badly preserved in the slope. Its minimum height is estimated at 4 m. The stratigraphy shows that this upper terrace was constructed on layers of the Middle Bronze Age, and the *pakhsa* blocks contain ceramic sherds from the Namazga V period (Middle Bronze, second half of the 3rd millennium BCE).

Structures of this type are known on contemporaneous sites, where they have been dated to the 3rd millennium, notably in Altyn-depe (Masson 1981), Tureng Tepe on the Iranian Plateau (Deshayes 1975), Konar Sandal and Nad-i Ali in the Afghan Seistan (Ghirshman 1939–1942; Dales 1977; Besenval/Francfort 1994), and Mundigak (Casal

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Fig. 6: Ulug-depe. Trenches 5 and 17 in Ulug-depe. Note the enclosure wall on the right of the picture (© MAFTUR).

1961). They are sometimes connected to places of worship, but their function and their place in the site still remain in question.

At the top of this terrace, the tomb of a woman – dating from the Middle Bronze Age Namazga V – was discovered.[4] Although partially plundered in an ancient period, this tomb housed rich furnishings, including exceptional alabaster vases; over a dozen ceramic vases, including one from the Indo-Pakistan region; a wicker basket; and beads, mainly gold, lapis lazuli and carnelian (Bendezu-Sarmiento/ Lhuillier 2016).

When some areas of this village were temporarily abandoned, they began to accommodate burials. Several have been excavated, and in the case of one house several skeletons of children were uncovered (Bendezu-Sarmiento 2006; 2010; 2013) near an interesting "scene": a simulacrum composed of two alabaster long-necked colonnettes and two grinding stones (**Fig. 8**), the whole ensemble evoking an elongated human body. Beneath one of the grinding stones, representing perhaps the head, was a large jar without a base, the use of which escapes us, but which O. Lecomte (2013) has interpreted as being intended to collect symbolical libations made in this sepulchral area reserved for children.[5]

Late Bronze Age (ca. 1800/1700–1500/1400 BCE)

The question of the Late Bronze Age remains delicate at Ulug-depe, for no architectural remains can be attributed with certainty to this period.[6]

The Late Bronze Age in the Kopet Dagh region is associated with the Namazga VI material complex as recognised in Namazga-depe and Tekkem-depe. It includes a number of diagnostic forms that have not yet been identified at Ulug-depe.

However, this does not lead to the conclusion that the site was completely unoccupied during the Late Bronze Age. Indeed, the stratigraphic continuity between the Bronze Age and the beginning of the Iron Age was highlighted in several trenches: in some cases, the architectural structures of the Iron Age were directly situated on vestiges of the Bronze Age, and generally the passage from one period to the other is mainly marked by a gradual change of ceramic types (Lhuillier 2016). The material found in these later layers of the Bronze Age is of the Namazga V type.

A single type of ceramic production usually associated with the Namazga VI period was discovered in Ulug-depe: a grey ceramic, primarily found in burials located in the eastern and north-eastern parts of the site.[7] In the same area, sherds were also discovered both on the surface and in the layers attributed to the Early Iron Age.

4 The analysis of radiocarbon dating this human bone gave between 2472–2278 cal. BCE with 95.4% probability (Centre for Isotope Research of Groningen University, Lyon-13732).

5 These child burials had no offerings or accompanying objects. It is important to note that the immatures were not recognized as full members of the social group in the Middle Bronze Age.

6 For a more in-depth synthesis of this question, see Lhuillier 2016.

7 Some of these burials were excavated by V.I. Sarianidi (Sarianidi/Kačuris 1968: 344–345, see a summary in Bendezu-Sarmiento 2010: 516, Table 2); others excavated by the MAFTur are still unpublished.

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Fig. 7a: Ulug-depe. Photo of trenches 1 and 1E in Ulug-depe (© MAFTUR).

These seemingly paradoxical elements can be explained by the hypothesis that the Namazga V and Namazga VI assemblages refer to cultural variants as much, or more than, to successive phases of the Bronze Age. In this case, the Namazga VI assemblage would in fact have been much more localised than previously believed and limited to certain sites only, while at other sites such as Ulug-depe, Namazga V-type assemblages could have persisted both during the Middle Bronze Age and the Late Bronze Age. In this case, some of the architectural structures of Ulug-depe attributed to the Middle Bronze Age could actually date from the Late Bronze Age, both periods being characterised by great continuity and homogeneity.

4 Research conducted by MAFOuz-Protohistory on the site of Dzharkutan (Uzbekistan)

Dzharkutan is located 60 km north of the present town of Termez and about 10 km from the town of Sherabad near the Afghan border (**Fig. 2**). Situated on the left bank of the Bustansaj, the city and the necropolis stretch over many natural hills covering an area of 50 ha (**Fig. 9**). The chronology of the site extends over part of the Bronze Age and Early Iron Age, a long occupation that is an exception in Central Asia (Bendezu-Sarmiento/Mustafakulov 2013).

Several excavation campaigns between 1973 and 1990, led by A. Askarov (Askarov 1977; 1980; 1981), by A. Askarov and T. Shirinov (Askarov/Shirinov 1991; Askarov/Širinov 1993), and by T. Shirinov and S. Baratov (1997), mainly concerned the large buildings of the establishment, as well as certain residential districts inside and around the area known as the "citadel". Between 1994 and the early 2000s, the work of the Uzbek-German team focused on several inhabited mounds (Tepes IV, VI, VIII, X), but the results remain partially unpublished (Huff 2000a; 2000b; 2001; Huff/Pidaev/Chaydoullaev 2001; Huff/Šajdullaev 1999; Kaniuth 2006; Teufer 2015).

The research of Franco-Uzbek Archaeological Mission: Protohistory (MAFOuz-Protohistoire) began in 2006 with a survey in the Surkhan Darya Valley, followed by an assessment of the archaeological potential of the Dzharkutan site. In the spring of 2007, excavations began on Necropolis 3 (Bendezu-Sarmiento 2013; Bendezu-Sarmiento/Mustafakulov 2008) and from 2009 onwards the work concerned the habitat area, specifically the "citadel" (Bendezu-Sarmiento/Mustafakulov 2013; Mustafokulov et al. 2012; 2013).

Middle Bronze Age (ca. 2200–1800 BCE)

It is almost certain that Dzharkutan was not occupied during the Early Bronze Age or the early Middle Bronze Age. No material dating from the Early

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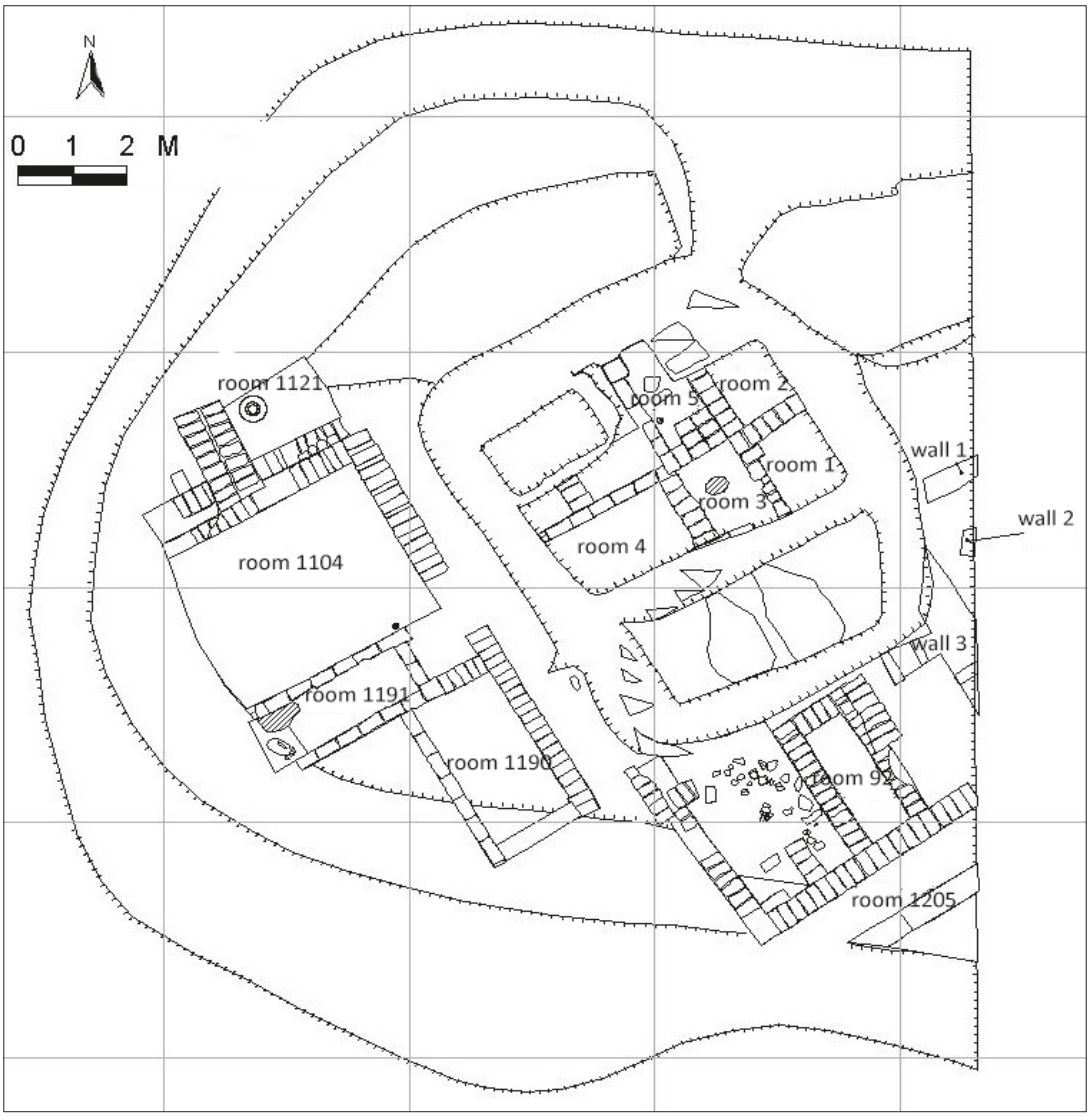


Fig. 7b: Ulug-depe. Plan of trenches 1 and 1E in Ulug-depe (© MAFTUR).

Bronze Age has yet been discovered in the area. Towards the middle of the Middle Bronze Age, a simple habitat was set up, evolving towards an architecture more and more complex, leading to an ensemble of buildings consisting of a fortified "citadel", artisan quarters and dwellings, and two monumental buildings known as the "temple" and "palace" (**Fig. 10**).

The "temple" (Tepe VI), located to the south-east of the "citadel" (Askarov/Širinov 1993), is a large rectangular building (44.5 × 60 m), surrounded by a wall 4.5 m thick which has nine round towers (Huff 2000a; Huff/Šajdullaev 1999). The internal organisation is tripartite, with the central and eastern areas dedicated to official functions and a western area interpreted as a domestic area. This "temple" was built on a wider platform, 1.4 m thick and paved in bricks, an older structure whose original function is unknown.

A large enclosure seems to have to defend the city throughout the south-western part, but only a few traces of a large wall (2 m) and rectangular towers (3 × 9 m) were noted. Inside the city, several residential districts, each with several rooms and corridors, were excavated. All of the buildings date mainly from the oldest occupation of the site, the period known as Dzharkutan.

In the north-western part of Dzharkutan, the "citadel" is built on a craggy, circular hill with an area of about 3 ha. Excavations on the southern and eastern edges have partially dismantled a mudbrick rampart, preserved to over a 1 m high, over 80 m long, and 3 to 5 m wide. This rampart, which must have surrounded the "citadel", had an entrance to the south and was built on an abandoned settlement.[8] Inside, a "palatial complex" was divided into sever-

8 Before the installation of large buildings in this area, including the temple or palace surrounded by the rampart, two earlier stages of occupation are identified, including mainly a large area of food reserves in silos.

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Fig. 8: Ulug-depe. “Simulacrum” of burial with stone elements (© MAFTUR).



Fig. 9: Dzharkutan. Buttes constituting the site (© MAFOuz-Protohistoire).

al sectors, leaning against the southern and eastern part of the rampart, each comprising several rooms. This group dates from one of the first periods of occupancy of the establishment, the Dzharkutan phase, and would have existed until the end of the Bronze Age (Askarov/Širinov 1993).

At the edge of an artificial slope created in the western part of the “citadel” by the opening of a modern road, the “palatial complex”, partially destroyed, appears in old publications as a trapezoidal structure of 42 m (Askarov/Širinov 1993). Its exterior walls seem to have been more than 4 m thick, with, to reinforce it, thirteen square towers, two at each corner, one in the middle of three façades and two on each side of the main entrance located to the south. The interior of this structure consisted of a dozen rooms arranged around a large quadrangular *sufa*-type bench (12.8 × 13.8 m).

During five excavation campaigns, we worked on the central part of the “citadel”, located 20 m east

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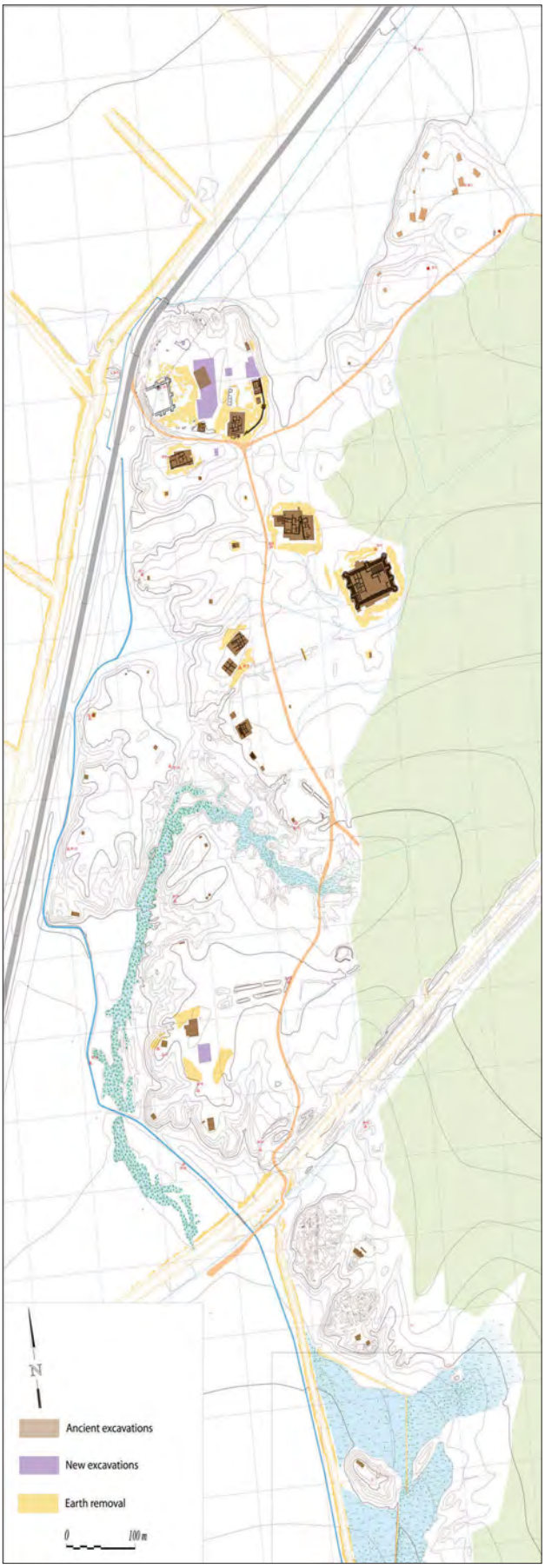


Fig. 10: Dzharkutan. Topography of the site (© MAFOuz-Protohistoire).

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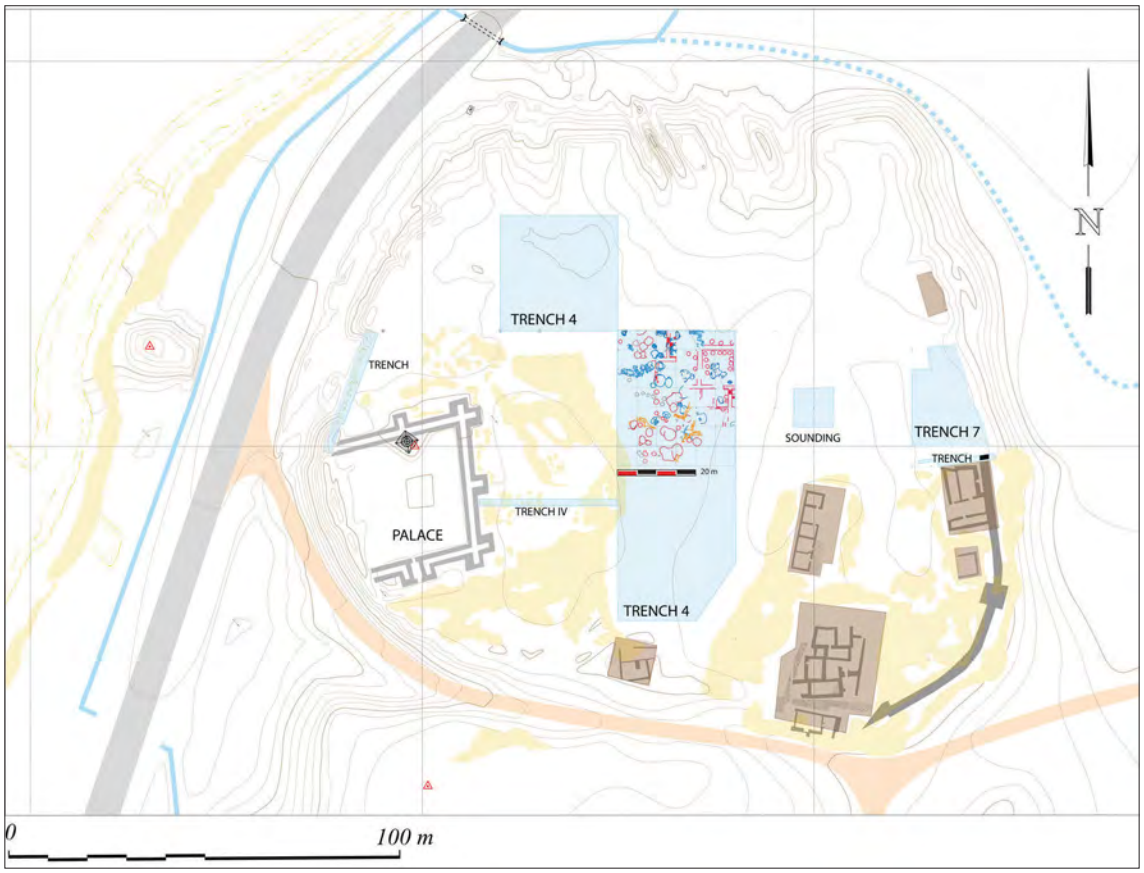


Fig. 11: Dzharkutan. "Citadel" of Dzharkutan (© MAFOuz-Protohistoire).

of the "palace", in trench 4 (**Fig. 11**). The cleaning and excavation of this area of almost 3,000 sq m has brought to light a large number of oval pits of various diameters, but also a large architectural ensemble. Stratigraphically, these buildings span at least four stages of occupation, the first two of which are related to the Middle Bronze Age, the third to the Late Bronze Age, and the last to the Iron Age.

Moreover, there is perhaps an older occupation (beginning of the Middle Bronze Age): inside a large trash pit, we discovered a black, polished ceramic sherd smoothed with incised decoration (**Fig. 12**), which may have been imported from Iran (Hissar IIIC). This element is similar to another found on the site of Sapallitepe (Askarov 1973: Fig. 35), which dates from an earlier occupation near the middle of the 3rd millennium.

The first well-documented occupation of the Middle Bronze Age includes an ensemble consisting of more than ten oval pits, interpreted as silos of various sizes, up to 2.9 × 2.5 m in diameter at the opening and more than 3 m deep (**Fig. 11**).

The second occupation of the Middle Bronze Age reveals a building preserved on the surface, with only one or two layers of bricks (oriented north-south/east-west). The exterior walls of this construction were almost 1 m thick (without an apparent foundation) and internal walls, 0.5 m wide, delineated rooms with a surface area of at least 20 sq m and corridors (**Fig. 11**). Against the internal walls of these rooms, we found traces of a large number of circular pits about 1 m in diameter. Aligned along the axis of the latter building, impressions of this type of pit were discovered almost everywhere at site 4, their depth sometimes reaching more than 1 m, even in cases where the walls themselves were not well-preserved. Although most of these pits (around 50) were found to be empty, some have delivered fragments of large jars up to 1 m in diameter; in five of them, a good half of the jar was conserved in situ. These different indices converge to allow us to assume the presence in this part of the "citadel" of a reserve of food and liquids stored in buried or semi-buried jars and perhaps closed or sealed using mudbrick (Bendezu-Sarmiento/Mustafakulov 2013).

The presence of depots dedicated to storing cereals or grains for sowing is documented in the Bronze Age at various Bactrian and Margian sites, notably at the site of Sapallitepe, near Dzharkutan. This contributes to the plausibility of the hypothesis that the "citadel" seems, during part of its long history, to have sheltered silo storage structures, some of which, at very great depths, include a method of accessing them. Later constructions, found with buried or semi-buried jars – some of which bear

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Fig. 12: Dzharkutan. Hissar IIIC-type ceramic found in the "citadel" (© MAFOuz-Protohistoire).

imprints of seals – could constitute an important centralised storage unit, controlled by a local elite established in the large architectural complexes described above. We can then imagine a complex building surrounded by a rampart and guarded by a garrison installed in the building commonly called the "palace". The real palace, then, would instead be located in place of the "temple" (Huff 2000b).

It is clear that the "citadel" remains a space that is somewhat crowded with previously inhabited or habitable buildings. A very long (43 m in length, 0.5 m in width, and more than 1 m deep in places) east-west trench (IV) was opened between the "palace" and trench 4. Despite expectations, no brick structure was found; only a tomb of the Dzharkutan period was discovered against the "palace" wall, along with several shallow pits (+/- 20 cm) containing mainly ceramic material from the Iron Age. This lack of structures suggests that the Bronze Age settlement is likely to have had an open plaza, the function of which remains unknown, between the large storage building (trench 4) and the "palace".

Late Bronze Age (ca. 1800–1500 BCE)

Despite the presence of ceramic material from later periods – the Kuzali, Molali, and Bustan (**Fig. 1**) – few ceramics have been identified securely in stratigraphy in the settlement (Rahmanov 1987; Askarov/Širinov 1993). Only Tepe VIII seems to have had a more occasional occupation during the Kuzali period (Huff/Pidaev/Chaydoullaev 2001), whereas the external fortification is likely dated, without certainty, from the Molali period (Askarov/Širinov 1993). In terms of absolute chronology, the various calibrated dates for these different complexes fluctuate between 2010 and 1510 BCE (Görsdorf/Huff 2001).

In Dzharkutan, material from the so-called Kuzali period is rarely found, and the question now arises whether this complex can be described as a chronological period or if, as is most probable, the Kuzali/Molali phases are actually one phase and are the first stage of the Late Bronze Age (Luneau/Bendezu-Sarmiento 2013; Luneau/Bendezu-Sarmiento/Mustafakulov 2014).

Some elements of the Late Bronze Age complete the chronological table of the Dzharkutan site. These are in particular Molali/Bustan miniature ceramics, deposited in pits at trench 4 of the "citadel". Similar pits, interpreted as offering pits, were discovered in the necropolis (Lûno/Bendezu-Sarmiento/Mustafakulov 2013). Also in the necropolis there is a reduction in the number of objects deposited in the tombs, which are sometimes replaced by miniature objects in bronze (knives, daggers), or ceramics. On the other hand, in trench 7 of the "citadel", a building with at least two rectangular rooms, the walls of which were preserved on only two or three floors

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of brick, appears to be associated with Late Bronze Age levels. In the same area, a niche dug in a circular dwelling similar to that of the Early Iron Age had three vases belonging to the Late Bronze Age complex in terms of form, but technologically and materially (clay) to that of the Iron Age (Lhuillier/Bendezu-Sarmiento/Mustafakulov 2018).

Sherds belonging to the semi-settled Vakhsh culture), established in the neighbouring region of south-west Tajikistan during the Late Bronze Age (Hiebert 1994), were scattered between trenches 4 and 7 (Lûno/Bendezu-Sarmiento/Mustafakulov 2013).

It was on the ruins of the buildings of this flourishing Bronze Age settlement that the people of the Iron Age settled (Askarov 1976), recreating a village occupied for several centuries, which will be the subject of the second part of this article (Lhuillier in this volume).

5 Conclusions

Generally speaking, Bronze Age cultures raise the enigmatic and complex question of the origins of settlement and the evolution of local populations in Central Asia (Bendezu-Sarmiento 2007; Lhuillier 2013; Luneau 2014a) between the 3rd and 2nd millennia. If the hypothesis of peaceful north-south and east-west migratory movements involving populations of diverse and varied cultures circulating between the Middle East, the Caucasus to Siberia or India is highly probable, since no evidence of conflicts has been identified (work in progress on DNA, J. Bendezu-Sarmiento, C. Bon, J. Lhuillier, and A. Monnereau), it will be appropriate in the future to study these displacements and to examine the causes of migration. This may be related to important historic changes, such as climate and environmental shifts, or changes in societies, and the need for certain groups to be forced into fortified settlements. These and many other questions can be answered in our future research on the Ulug-depe and Dzharkutan sites. We are only at the beginning of a long history that largely still remains to be discovered and written.

Bibliography

Amiet, P.
1986: *L'âge des échanges inter-iraniens. 3500–1700 avant J.-C.*, Paris.

Askarov, A.A.
1973: *Sapallitepa*, Tashkent.

1976: Raspisnaâ keramika Džar-Kutana, in: Masson, V.M. (ed.), *Baktrijskie drevnosti. Predvaritel'nye soobŝeniâ ob arheologičeskih rabotah na ûge Uzbekistana*, Leningrad, 17–19.

1977: *Drevnezemledel'českaâ kul'tura èpohi bronzy Ûžnogo Uzbekistana*, Tashkent.

1980: Raskopki poseleniâ Džarkutan, *Arheologičeskie otkrytiâ* 1979, 444–445.

1981: Southern Uzbekistan in the Second Millenium B.C., in: Kohl, P.L. (ed.), *The Bronze Age Civilization of Central Asia: Recent Soviet Discoveries*, New-York, 256–279.

Askarov, A.A./Abdullaev, B.N.
1983: *Džarkutan (k probleme protogorodskoj civilizacii na ûge Uzbekistana)*, Tashkent.

Askarov, A.A./Shirinov, T.Š.
1991: Le temple du feu de Dzharkutan, le plus ancien centre cultuel de la Bactriane septentrional, in: Bernard, P./Grenet, F. (ed.), *Histoire et cultes de l'Asie centrale préislamique. Sources écrites et documents archéologiques. Actes du Colloque du CNRS (Paris, 22–28 novembre 1988)*, Paris, 129–142.

Askarov, A.A./Širinov, T.Š.
1993: *Ranââ gorodskaâ kul'tura epohi bronzy ûga Srednej Azii*, Samarkand.

Avanesova, N.
2016: *Buston VI. The Necropolis of Fire-Worshippers of Pre-Urban Bactria*, Samarkand.

Avanesova, N.
1995: Bustan VI, une nécropole de l'âge du bronze dans l'ancienne Bactriane (Ouzbékistan méridionale): témoignages des cultes du feu. Traduit par B. Lyonnet, *Arts Asiatiques* 50, 31–46.

Bendezu-Sarmiento, J.
2004: Les structures funéraires à crémation de l'âge du bronze au Semirech'e, Kazakhstan (nécropoles de Kul'saj, de Kyzyl-Bulak et d'Oj-Dzhajljau), *Paléorient* 30/2, 179–202.

2006: Pratiques funéraires à Ulug-depe, in: Lecomte, O. (ed.), *Turkménistan, un berceau culturel en Asie centrale* (= Dossiers d'Archéologie 317), 28–33.

2007: *De l'âge du bronze à l'âge du fer au Kazakhstan, gestes funéraires et paramètres bio-*

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logiques. Identités culturelles des populations Andronovo et Saka (= Mémoires de la Mission Archéologique Française en Asie centrale 12), Paris.

Bendezu-Sarm'ento, H. (= Bendezu-Sarmiento, J.)
2010: Arheo-antropologičeskoe issledovanie materialov gorodiša Ulug-Depe v Turkmenistane, in: Kožin, P.M./ Kosarev, M.F./Dubova, N.A. (ed.), *Na puti otkrytiâ civilizacii. Sbornik statej k 80-letiû V. I. Sarianidi (= Trudy Margianskoj arheologičeskoj èkspedicii 3) / On the Track of Uncovering a Civilization. A volume in Honor of the 80th Anniversary of Victor Sarianidi (= Transactions of Margiana Archaeological Expedition 3)*, St. Petersburg, 513–535.

Bendezu-Sarmiento, J.
2013: Archéologie funéraire et bio-anthropologie à Ulug dépé et Dzharkutan. Âge du bronze au Turkménistan et en Ouzbékistan, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 501-532.

in press: *Tributo a Viktor Ivanovich Sarianidi y sus descubrimientos en Bactriana y la Margiana: evolución y morfología de los centros urbanos en Asia central a la edad de Bronce (III–II milenios a.d. C.)*, in: From Archaeology to History. The Advent of the Iron Age in Central Asia and Other Regions of the East (= ISIMU 17), Madrid.

Bendezu-Sarmiento, J./Lhuillier, J.
2015: Sine Sepulchro Cultural Complex of Transoxiana (between 1500 and the Middle of the 1st Millennium BC). Funerary Practices of the Iron Age in Southern Central Asia: Recent Work, Old Data, and New Hypotheses, *Archäologische Mitteilungen aus Iran und Turan* 45, 281–317.

2016: Some more exceptional discoveries at Ulug-depe, in: Dubova, N.A. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi (Transactions of Margiana archaeological expedition. Volume 6. To the Memory of Professor Victor Sarianidi)*, Moscow, 522–528.

Bendezu-Sarmiento, J./Lhuillier, J./Luneau, E.
2013: Les différentes formes de richesse dans les sociétés d'Asie centrale aux âges du bronze et du fer (IIIe–Ier millénaires av. J.-C.), in: Baroin, C./Michel, C. (ed.), *Richesse et sociétés* (= Colloques de la Maison René-Ginouvès 9), Paris, 253–263.

Bendezu-Sarm'ento, H. (= Bendezu-Sarmiento, J.)/Mustafakulov, S.
2008: Arheo-antropologičeskie issledovaniâ na mogil'nike Džarkutan, *Istoriâ material'noj kultury Uzbekistana* 36, 56–60.

Bendezu-Sarmiento, J./Mustafakulov, S.
2013: Le site protohistorique de Dzharkutan durant les âges du bronze et du fer. Recherches de la Mission archéologique franco-ouzbèke-Protohistoire, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 207–236.

Besenval, R./Francfort, H.-P.
1994: The Nad-i Ali 'Surkh Dagh': A Bronze Age monumental platform in Central Asia? in: Kenoyer, J.M. (ed.), *From Sumer to Melluha: contributions to the Archaeology of South and West Asia in Memory of George F. Dales, Jr.* (= Wisconsin Archaeological Reports 3), 3–14.

Casal, J.-M.
1961: *Fouilles de Mundigak*, 2 vols. (= Mémoires de la délégation archéologique française en Afghanistan 17), Paris.

Deshayes, J.
1975: Les fouilles récentes de Tureng Tépé: la terrasse haute de la fin du IIIème millénaire, *Comptes-rendus de l'Académie des Inscriptions et Belles Lettres* 119, 522–530.

Dales, G.F.
1977: *New excavations at Nad-i Ali (Sorkh Dagh), Afghanistan*, Berkeley.

Dupont-Delaleuf, A.
2016: Ceramic Production at Ulug Depe (Turkmenistan) from the Late Chalcolithic to the Early Bronze Age: Technical Traditions, in: Lefèvre, V./Didier, A./Mutin, B. (ed.), *Man and Environment in Prehistoric and Protohistoric South Asia: New Perspectives* (= South Asian Archaeology and Art 2012/1), Turnhout, 81–97.

Francfort, H.-P.
1992: Dungeons and Dragons: Reflections on the System of Iconography in Protohistoric Bactria and Margiana, in: Possehl, G.L. (ed.), *South Asian Archaeology Studies*, New Delhi/Bombay/Calcutta, 179–208.

2009: L'âge du bronze en Asie centrale. La civilisation de l'Oxus, *Anthropology of the Middle East* 4/1, 91–111.

Francfort, H.-P./Lecomte, O.
2002: Irrigation et société en Asie centrale des origines à l'époque achéménide, *Annales. Histoire, Sciences Sociales* 57, 625–663.

Francfort, H.-P./Vahdati, A./Bendezu-Sarmiento, J./Lhuillier, J./Fouache, E./Tengberg, M./Mashkour, M./Shirazi, Z.
2014: Preliminary Report on the Soundings at Tepe Damghani Sabzevar, Spring 2008, *Iranica Antiqua* 49, 111–158.

Gentelle, P.
1988: Milieu naturel et techniques d'irrigation en Asie centrale aux âge du bronze et du fer: problèmes nouveaux?, in: Gardin, J.-C. (ed.), *L'Asie centrale et ses rapports avec les civilisations orien-*

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tales des origines à l'âge du fer. Actes du colloque franco-soviétique, 19–26 novembre 1985 (= Mémoires de la Mission Archéologique Française en Asie centrale 1), Paris, 223–228.

Görsdorf, J./Huff, D.
2001: C^{14}-Datierungen von Materialien aus der Grabung Dzarkutan, Uzbekistan, *Archäologische Mitteilungen aus Iran und Turan* 33, 75–87.

Götzelt, T.
1996: *Ansichten der Archäologie Süd-Turkmenistans bei der Erforschung der 'mittleren Bronzezeit' ('Periode' 'Namazga V')* (= Archäologie in Eurasien 2), Espelkamp.

Ghirshman, R.
1939–1942: Fouilles de Nad-i Ali dans le Seistan Afghan, *Revue des Arts asiatiques* 13, 10–22.

Hiebert, F.T.
1994: *Origins of the Bronze Age Oasis Civilization in Central Asia* (= American School of Prehistoric Research. Bulletin 42), Cambridge, MA.

Huff, D.
2000a: Djarkutan Archaeological Research on Tepe VI, *Istoriâ material'noj kul'tury Uzbekistana* 31, 58–69.

2000b: Tempel oder Palast? Dscharkutan – Monumentalbauten und Siedlung im bronzezeitlichen Baktrien, in: Rheidt, K./Schöne-Denkinger, A./Nünnerich-Asmus, A. (ed.), *Archäologische Entdeckungen. Die Forschungen des Deutschen Archäologischen Instituts im 20. Jahrhundert*, 115–118.

2001: Džarkutan, *Arheologičeskie issledovaniâ v Uzbekistane* 2000, Taškent, 68–72.

Huff, D./Pidaev, C./Chaydoullaev, C.
2001: Uzbek-German Archaeological Researches in the Surkhan Darya Region, in: Leriche, P. et al. (ed.), *La Bactriane au carrefour des routes et des civilisations de l'Asie centrale. Termez et les villes de Bactriane-Tokharestan. Actes du colloque de Termez 1997* (= Bibliothèque de l'Asie centrale 1), Paris, 219–233.

Huff, D./Šajdullaev, Š.B.
1999: Nekotorye rezul'taty rabot uzbekskogermanskoj èkspedicii na gorodiše Džarkutan, *Istoriâ material'noj kultury Uzbekistana* 30, 19–26.

Kaniuth, K.
2006: *Metallobjekte der Bronzezeit aus Nordbaktrien* (= Archäologie in Iran und Turan 6), Mainz.

Kohl, P.L.
1984: *Central Asia: Paleolithic Beginnings to the Iron Age* (= Editions Recherche sur les civilisations. Synthèse 14), Paris.

Lecomte, O.
2013: Activités archéologiques françaises au Turkménistan, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 165–190.

Lhuillier, J.
2013: *Les cultures à céramique modelée peinte en Asie centrale méridionale. Dynamiques socio-culturelles à l'âge du fer ancien (1500–1000 av. n.è)* (= Mémoires de la Mission Archéologique Française en Asie Centrale 13), Paris.

2016: Ulug-depe and the Transition Period from Bronze Age to Iron Age in Central Asia. A Tribute to V.I. Sarianidi, in: Dubova, N. A. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi (Transactions of Margiana Archaeological Expedition. Volume 6. To the memory of Professor Viktor Sarianidi)*, Moscow, 509–521.

Lhuillier, J./Bendezu-Sarmiento, J.
2018: Central Asia and the Interaction between the Iranian Plateau and the Steppes in Late First Millennium BC: Case Study from Ulug-depe in Turkmenistan, in: Minardi, M./Ivantchik, A. (ed.), *Ancient Chorasmia, Central Asia and the Steppes. Cultural Relations and Exchanges from the Achaemenids to the Arabs. Proceedings of the International Conference Held in Bordeaux, France, 17–18 October 2016* (= Ancient Civilizations from Scythia to Siberia 24/1–2, Special Volume), 331–353.

Lhuillier, J./Bendezu-Sarmiento, J./Mustafakulov, S.
2018: Excavation at Džarkutan (Uzbekistan): A Settlement of the Early Iron Age in Southern Central Asia, in: Lhuillier, J./Boroffka, N. (ed.), *A Millennium of History: The Iron Age in Southern Central Asia (2nd and 1st Millennia BC), Dedicated to the Memory of Viktor Ivanovič Sarianidi. Proceedings of the Conference Held in Berlin (June 23–25, 2014)* (= Archäologie in Iran und Turan 17 = Mémoires de la Délégation archéologique française en Afganistan 35), Berlin.

Lisicyna, G.N.
1978: *Stanovlenie i razvitie orošaemogo zemledeliâ v Užnoj Turkmenii*, Moscow.

Luneau, É.
2008: Tombes féminines et pratiques funéraires en Asie centrale protohistorique. Quelques réflexions sur le "statut social" des femmes de la civilisation de l'Oxus, *Paléorient* 34/1, 131–157.

2014a: Identifier le prestige: éléments de controverse à propos de quelques objets singuliers de la Civilisation de l'Oxus (Asie centrale, âge du bronze), in: Hurlet, F./Rivoal, I./Sidéra, I. (ed.), *Le Prestige. Autour des formes de la différenciation sociale* (= Colloques de la MAE, René-Ginouvès 10), 147–160.

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2014b: *La fin de la civilisation de l'Oxus. Transformations et recompositions des sociétés de l'âge du bronze final en Asie centrale méridionale (1800–1500/1400 av. n.è.)* (= Mémoires des Missions Archéologiques Françaises en Asie centrale et en Asie moyenne 16), Paris.

2014c: Les dépôts funéraires animaliers de la civilisation de l'Oxus: diversité et singularité du rapport entre l'animal et la mort en Asie centrale méridionale à l'âge du bronze (2300–1500 avant n.è.), in: Bede, I./Detante, M. (ed.), *Rencontres autour de l'animal en contexte funéraire, Actes de la rencontre de Saint-Germain-en-Laye des 30 et 31 mars 2012*, Paris, 195–209.

2015: Les relations de genre en Asie centrale protohistorique: redéfinition et discussion, *Les nouvelles de l'archéologie* 140, 28–34.

Luneau, E./Bendezu-Sarmiento, J.
2013: Étude des céramiques de l'âge du bronze de la nécropole 3 de Dzharkutan (Ouzbékistan): nouvelle approche typo-chronologique, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 283–315.

Lûno, È. (= Luneau, E.)/Bendezu-Sarmiento, J./Mustafakulov, S.
2013: Vahšskaâ kult'tura na Džarkutane (Uzbekistan, bronzovyj vek): novoe osvoenie?, in: Kolganova, G.Û./Petrova, A.A./Kullanda, S.V. (ed.), *Poslednij ènciklopedist. K ûbileû B. A. Litvinskogo. (The Last encyclopedist. The Issue in Honor of the 90-Anniversary of Boris Litvinsky)*, Moscow, 253–263.

Luneau, E./Bendezu-Sarmiento, J./Mustafakulov, S.
2014: Ceramics and Chronology at Dzharkutan: A Revision of the Periodization of the Sapalli Culture (Uzbekistan, c. 2100–1500 BC), in: Bieliński, P. et al. (ed.), *Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East, 30 April–4 May 2012, University of Warsaw*, Wiesbaden, 529–542.

Masson, V.M.
1981: *Altyn-depe* (= Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii 18), Leningrad.

Mashkour, M.
2013: Sociétés pastorales et économies de subsistance au nord-est de l'Iran et au sud du Turkménistan, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 533–544.

Mustafakulov, S./Bendezu-Sarmiento, J./Rahmanov, U./Lhuillier, J./Hasanov, M./Luneau, E.
2012: Polevye raboty Uzbeksko-francuzkoj (MAFOuz) èkspedicii v Džarkutane v 2009–2011, *Arheologičeskie issledovaniâ v Uzbekistane* 8, 203–213.

Mustafakulov, S./Bendezu-Sarmiento, J./ Rahmanov, U./Lhuillier, J./Iskanderova, A./Rahimov, K./ Sarmiento, D.
2013: Rezul'taty rabot na pamâtnike Džarkutan v 2012 godu, *Arheologičeskie issledovaniâ v Uzbekistane* 9, 137–144.

Pyankova, L.T.
2002: South Tajikistan: Synthesis of Settled and Steppe Cultures at the End of the Bronze Age, in: Jones-Bley, K./Zdanovich, D.G. (ed.), *Complex Societies of Central Eurasia from the 3rd to the 1st Millenium BC* (= Journal of Indo-European Studies. Monograph 46 = Regional Specifis in Light of Global Models 2), Washington, DC, 558–573.

P'ânkova, L.T.
2003: Raskopki pogrebenij vahšskoj kul'tury v mogil'nike Obkuh (Moskovskij rajon) v 2002 godu, *Arheologičeskie rabot y v Tadžikistane* 28, 194–228.

Pottier, M.-H.
1984: *Matériel funéraire de la Bactriane méridionale de l'âge du bronze* (= Recherche sur les civilisations. Mémoire 36), Paris.

Rahmanov, U.
1987: *Keramičeskoe proizvodstvo èpohi bronzy ûžnogo Uzbekistana. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata istoričeskih nauk*, Institut Arheologii, Akademia Nauk Uzbekskoj SSR, Samarkand, unpublished.

Rouse, L.M./Cerasetti, B.
2014: Ojakly: A Late Bronze Age Mobile Pastoralist Site in the Murghab Region, Turkmenistan, *Journal of Field Archaeology* 39, 32–50.

2017: Micro-Dynamics and Macro-Patterns: Exploring New Archaeological Data for the Late Holocene Human-Water Relationship in the Murghab Alluvial Fan, Turkmenistan, *Quaternary International* 437/B, 20–34.

Salvatori, S.
2016: Bactria-Margiana Archaeological Complex: How Terminology Hides Historical Processes, in: Dubova, N.A. et al. (ed.), *Trudy Margianskoj arheologičeskoj èkspedicii. Tom 6. Pamâti Viktora Ivanoviča Sarianidi (Transactions of Margiana archaeological expedition. Volume 6. To the Memory of Professor Victor Sarianidi)*, Moscow, 449–460.

Sarianidi, V.I.
1969: Prodolženie rabot na Ulug-Depe, *Arheologičeskie otkrytiâ* 1968, 434–345.

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1971: Issledovanie sloev ranneželeznogo veka na Ulug-Depe, *Arheologičeskie otkrytiâ* 1970, 433–434.

1972: Raskopki 1970 g. na Ulug-Depe, in: Akademiâ nauk SSSR. Institut arheologii (ed.), *Naučnyj sovet po problemam arheologii Srednej Azii i Kazahstana. Uspehi sredneaziatskoj arheologii. Vypusk 1*, 53–55.

1977: *Drevnie zemledel'sy Afganistana.* Materialy Sovetsko-Afganskoj èkspedicii 1969–1974 gg., Moscow.

1987: South-West Asia: Migrations, the Aryans and Zoroastrians, *Informacionnyj bûlleten' Meždunarodnoj associacii po izučeniû kul'tur Central'noj Azii (International Association for the Study of the Culture of Central Asia, Information Bulletin)* 13, 44–56.

1990: *Drevnosti strany Marguš*, Ashgabat.

2002: *Marguš. Drevnevostočnoe carstvo v staroj del'te reki Murgab (Margush. Ancient Oriental Kingdom in the Old Delta of Murgab River)*, Ashgabat.

2007: *Necropolis of Gonur-depe*, Athens.

Sarianidi, V.I./Dubova, N.A.
2010: Nouvelles sépultures sur le territoire de la "nécropole royale" de Gonur Dépé, *Arts Asiatiques* 65, 5–26.

Sarianidi, V.I./Kačuris, K.A.
1968: Raskopki na Ulug-depe, *Arheologičeskie otkrytiâ* 1967, 342–345.

Shirinov, T.S./Baratov, S.
1997: Bronzezeitliche Grabstätten der Nekropole Džarkutan 4c (Süd-Uzbekistan), *Archäologische Mitteilungen aus Iran und Turan* 29, 65–120.

Teufer, M.
2005: The Late Bronze Age Chronology of Southern Uzbekistan. A Reanalysis of the Funerary Evidence, in: Franke-Vogt, U./Weisshaar, H.-J. (ed.), *South Asian Archaeology 2003. Proceedings of the Seventeenth International Conference of the European Association of South Asian Archaeologists, 7–11 July 2003, Bonn*, Aachen, 199–209.

2015: *Spätbronzezeitliche Grabfunde aus Nordbaktrien und benachbarten Regionen: Studien zur Chronologie zwischen Aralsee und Persischem Golf* (= Archäologie in Iran und Turan 13), Berlin.

Tengberg, M.
2013: Economies végétales et environnements en Asie centrale du Néolithique à l'époque sassanide: la contribution des disciplines archéobotaniques, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 545–558.

Vahdati, A./Biscione, R.
2015: *Preliminary Report on the 3rd Season of Joint Irano-Italian Archaeological Expedition at Tepe Chalow, Sankhast. Fall 2014,* Bojnord.

Vidale M.
2017: *Treasures from the Oxus: The Art and Civilisation of Central Asia*, London.

Vinogradova, N.M./Kuzmina, E.E.
1996: *Contacts between the Steppe and Agricultural Tribes of Central Asia in the Bronze Age*, Anthropology and Archaeology of Eurasia 34/4, 29–54.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

The Settlement Pattern in Central Asia during the Early Iron Age

Johanna Lhuillier

Abstract: Around 1500 BCE, a major cultural, economic and ideological shift occurred in southern Central Asia, leading to the disappearance of the Bactria-Margiana Archaeological Complex (BMAC) and to the emergence of the Iron Age. One of its most impressive consequences was a radical transformation of the settlement pattern, with settlements fragmenting, small villages replacing large proto-urban sites and spreading to new areas. Due to the history of research in southern Central Asia, only a few Iron Age settlements have been excavated, but three ongoing digs are shedding new light on this period: those at Dzharkutan and Burgut Kurgan, both in Uzbekistan, and at Ulug-depe in Turkmenistan. Based on these examples, this paper aims to characterise the Early Iron Age settlement pattern, and to improve our understanding of this transformation, especially in relation to the stratigraphy and the evolution of the economy.

Keywords: Central Asia, Iron Age, Handmade Painted Ware Cultures, Yaz, settlement pattern, architecture.

Резюме: Около 1500 г. до н. э. в южной части Центральной Азии произошел крупный культурный, экономический и идеологический сдвиг, приведший к исчезновению Бактрийско-Маргианского археологического комплекса и ознаменовавший начало Железного века. Одним из главных последствий этого процесса стала радикальная трансформация сложившейся структуры расселения, что свидетельствует о деградации населенных пунктов до маленьких деревень, заменяющих крупные протогородские поселения, а также их распространение на новые территории. В ходе исследований на юге Средней Азии были раскопаны лишь несколько поселений Железного века, поэтому текущие раскопки трех памятников позволяют пролить новый свет на этот период. Это Джаркутан и Бургут Курган в Узбекистане, а также Улуг-депе в Туркменистане. Базируясь на этих материалах, данная статья рассматривает тенденции расселения в эпоху Раннего Железного Века, чтобы лучше понять причины этой трансформации, особенно в отношении стратиграфии и эволюции экономики.

Ключевые слова: Центральная Азия, Железный Век, Культуры лепной расписной керамики, Яз, система расселения, архитектура.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



Fig. 1: Map showing the extension of the two main groups of archaeological cultures of the Early Iron Age in southern Central Asia, the Handmade Painted Ware Cultures (in grey) and the Archaic Dehistan Culture (in purple), with the location of the sites (© J. Lhuillier).

Between ca. 1800 and 1500 BCE, the Bronze Age Civilisation of southern Central Asia, namely the Oxus Civilisation, or Bactria-Margiana Archaeological Complex (BMAC), underwent major transformations: long-distance trade with the neighbouring cultures of the Iranian Plateau and the Indo-Pakistani borderlands declined, while contacts with the steppe cultures intensified; large fortified proto-urban cities were replaced by smaller settlements; the quality of material production decreased slightly, though it remains typologically comparable; new mortuary practices, like cremation, appeared, but they remained marginal in comparison to inhumation, and fewer funerary gifts are found in the burials (for a global overview of this period, see Luneau 2014). Around 1500–1400 BCE, the Oxus Civilisation disappeared, leading to the formation of the Iron Age Sine Sepulchro Cultural Complex of Transoxiana.[1] During its first stage, at the beginning of the Early Iron Age, it was characterised by the emergence of the Handmade Painted Ware Cultures, or Yaz I cultures (**Fig. 1**), which occupied southern Central Asia, with some regional variants, until ca. 1000–900 BCE (Lhuillier 2013). Material culture changed markedly, the rich archaeological complex of the Oxus Civilisation being replaced by utilitarian artefacts: stone and metal tools, and pottery, which was now mostly handmade and sometimes ornamented with monochrome painting. This period has thus been often wrongly considered one of pronounced material, socio-economic, and cultural decline.[2] It is better understood, however, as an evolutionary adaptation to new conditions, a continuation of the processes that started during the Late/Final Bronze Age. The transition between these two periods happened quite quickly, step by step, and without any sign of deep rupture (Lhuillier 2016a). It is also – or mainly (?) – linked to a shift in religious beliefs, mirrored in the disappearance of the religious iconography and temples of the Oxus Civilisation, a process that can be best observed through the transformation of the mortuary prac-

1 We use this term to refer to the successive cultures of the Early, Middle, and Late Iron Age (Yaz I, II, III, between the mid 2nd millennium BCE and 329 BCE) in southern Central Asia, which all display similar mortuary practices based on the lack of burials, though their cultural assemblages differ strongly (for a detailed presentation of these features, see Bendezu-Sarmiento/Lhuillier 2015a).

2 H. Schmidt, the first researcher who discovered layers of this period at Anau, spoke of an "occupation by barbarians following upon the end of the copper culture" (Schmidt 1908: 49). This idea of a "barbarian occupation epoch" was then adopted by numerous scholars (Kuzmina 2008; Masson 1966; Tolstov/Itina 1960).

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tices: burials disappeared, with a few exceptions, to be replaced by the open-air exposure and the excarnation of bodies (Bendezu-Sarmiento/Lhuillier 2015a). The reasons for these deep shifts are still a subject of research. They are likely due to a combination of several causes, involving the internal weakening of the Oxus Civilisation during the end of the Bronze Age, the intensification of the contacts with the steppe cultures, and perhaps some local environmental changes.[3]

1 The fragmentation and extension of settlements

The process of the regionalisation of the Oxus Civilisation that started during the Late Bronze Age,[4] though it was still characterised by a very homogenised and standardised material culture, became more pronounced during the Early Iron Age: the Handmade Painted Ware Cultures were a community that acquired some differentiated material and cultural regional variants.[5] This may provide evidence of the formation of small polities centred on their own territory, instead of a few centres of the strong, centralised power that characterised the Oxus Civilisation.

In the areas occupied by the Handmade Painted Ware Cultures, the settlement pattern is twofold, involving a superimposition of the settled areas on Bronze Age settlements, as well as an extension. In the areas previously occupied by the Oxus Civilisation, settlements are found in the same oasis, though most of the Early Iron Age sites were newly settled and located at a little distance from Bronze Age sites. This shifting of settlement may be observed even when it cannot be directly related to some local environmental constraints, as is the case in the Murghab delta. There, the increasing aridity due to the progression of the sand dunes in the northern part of the delta led to the concentration of the Early Iron Age sites in the still actives branches of the central and southern parts of the delta (Salvatori 2008: 67). But on a regional scale, the Early Iron Age also witnessed a strong extension of the settled area: a comparison between a repartition map of the Final Bronze Age sites (see Luneau 2014: Pl. 2) and a repartition map of the Early Iron Age sites (see Lhuillier 2013: Pl. 1) shows that several areas of the steppe fringes that used to belong to the influence zone of the steppe cultures during the Bronze Age were now occupied by the Handmade Painted Ware Cultures; it includes northern Sogdia around Samarkand, Čač around Tashkent, and the Fergana Valley in Uzbekistan and Kirghizstan (**Fig. 1**). In parallel to this extension, the number of settlements increases: the number of Final Bronze Age sites can be estimated to over 100,[6] while about 300 Early Iron Age settlements are known so far,[7] which is likely linked to a more extensive occupation of a large territory by dispersed small communities. At the same time, the average size of the settlements seems to decrease: the largest settlements reach about 15 ha, while most of the sites do not exceed 1–2 ha. Settlement fragmentation is thus probably not linked to a population decrease – as far as it can be deduced from the number of settlements and the extension of the settled area, since the lack of bodies due to the practice of excarnation does not allow an estimation of population by other means.

3 Environmental and geomorphological studies of protohistoric Central Asia are scarce, and they logically confirm the correlation between the location of the settlements and the hydraulic resources (Cremaschi 1998; Fouache et al. 2012; Buławka 2017). The work of a joint Italian-Turkmen team in the Murghab delta in Turkmenistan showed the impact of the climatic and environmental conditions on the settlement pattern (Marcolongo/Mozzi 1998; Cremaschi 1998), though this impact remains minor in comparison to institutional causes (Salvatori 2008: 71), and the transformation of the environment may also have been caused by the irrigation practices (Francfort/Lecomte 2002: 645). Furthermore, these local evolutions cannot be extended to the overall territory of Central Asia.

4 Salvatori (1998: 58) observed that during Late Bronze Age in the Murghab delta, the territory was "not integrated in any central political and administrative system". This period also witnesses a change in the use of the landscape, some steppe-related pastoralists beginning to live next to the agriculturalists of the Oxus Civilisation (Salvatori 2008: Fig. 5.7; Rouse/Cerasetti 2014).

5 In the current state of researches, 13 Handmade Painted Ware Cultures have been identified so far (Lhuillier 2013): in Turkmenistan, in Margiana, in the foothills of the Kopet Dagh, and in the Turkmenabad oasis; in Iran, in the north-eastern region of Khorasan; in Afghanistan, in southern Bactria; in south-eastern Tajikistan, in north-eastern Bactria; in Uzbekistan, in north-western Bactria, in southern and in northern Sogdia, in Čač, and in Ustrušana (two cultural variants); and finally in the Fergana valley, between Uzbekistan and Kirgizstan.

6 Ninety-five Final Bronze Age sites have been inventoried in all southern Central Asia in a comprehensive recent study by E. Luneau (2014); 12 more sites are listed in the Murghab delta in Turkmenistan by L. Rouse/B. Cerasetti (2017).

7 This rough estimation includes about 250 sites listed recently in a regional study (Lhuillier 2013), 8 sites discovered in 2014–2015 in the Paškurt Valley in southern Uzbekistan (Stančo 2016), 2 sites explored by the Polish Archaeological Mission since 2007 in Serakhs Oasis in southern Turkmenistan (Wagner 2014; Bulawka 2017), 17 sites in the Esfarāyen plain in north-western Khorasan (Vahdati 2018a), and an undermined number of sites discovered between 2006 and 2009 in the Murghab delta (Rouse/Cerasetti 2017).

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2 Early Iron Age settlement pattern and sociocultural organisation

The nature of the settlement also evolved small villages replacing proto-urban cities. Architecture comprised mostly domestic buildings, with the only exception being some large buildings found in less than a dozen settlements in Turkmenistan, Afghanistan, and southern Uzbekistan (**Fig. 1**). These buildings, which are labelled as "citadels" in the Soviet/Russian literature, display common features: they are built on a mud-brick platform several metres high, and they are surrounded by a perimeter wall and sometimes by a ditch. But the planning strongly differs in each site. Only three citadels have been excavated yet, at Jaz-depe (Turkmenistan), Tillâ-Tepe (Afghanistan), and Kučuk-tepe (Uzbekistan). According to the topography and to some small soundings, other citadels are likely present at Tahirbaj I (Cattani 1998), El'ken-depe (Kačuris 1967), and Aravali-depe (Masson 1959) in Turkmenistan, and Majdatepa in Uzbekistan (Rtveladze 2007). Similar buildings are known in the Archaic Dehistan Culture, a culture located in south-western Turkmenistan (Masson 1956; Lecomte 2005; Córdoba/Mamedov 2016) and northern Iran (Vahdati 2018a; 2018b) during the second half of the 2nd millennium and the first half of the 1st millennium BCE, at Tangsykyl'dža, Čialyk-depe, Madau-depe, and Izat-Kuli.

The function of these buildings is problematic, since, contrary to what their name implies, there is no indication of any military or defensive role. The platform was more likely designed to elevate the building in order to emphasise its verticality and so make it visible from a long distance. The presence of the citadels in itself makes them different from other contemporaneous settlements (Biscione 1981), though they are usually found in settlements that are not larger, or do not differ in their planning, and the artefacts discovered inside do not differ from those found in other places in the settlements. Most researchers thus agree to consider these citadels elite residential places or temples, and settlements with citadels as administrative or cultural centres inside the oasis (Zadneprovskij 1995), sometimes linked with the formation of a new elite whose power was based on the development of a proto-state society (Cattani 2004).

But we could also consider another hypothesis, similar to that suggested by O. Lecomte for the Archaic Dehistan Culture (**Fig. 1**). There, three sites with a citadel (Madaudepe, Tangsykyl'dža, and Izat Kuli) are located at a dozen kilometres from one another, which is not consistent with an interpretation as power centres. On the contrary, it may suggest a non-centralised power that developed in the frame of a "tribal confederation" based on the construction and common management of irrigation networks (Lecomte 2010). Indeed, a genuine policy of enhancing the territory through the construction of a complex system of large canals – in a region where agriculture is otherwise impossible – reflects a desire to take control of a hostile space. Regarding the Handmade Painted Ware Cultures, the cross-study of the environmental dynamics and the archaeological data in the Murghab alluvial fan concluded that Early Iron Age sites are located at a greater distance from the paleo-channels than during the Late Bronze Age, which indicates "shifts in the organisation of the agricultural system and the use of more advanced hydraulic technology" (Rouse/Cerasetti 2017). Among the Handmade Painted Ware Cultures as well, the settlement pattern provides evidence of "soft hierarchies" that could adopt a collective form of territory management in which the power of the élite was likely based, at least in part, on water management and the control of agro-pastoral territory. The lack of prestige goods may also be understood in this context, the power and wealth of an individual and, even more, of his group, being expressed by the extent or the quality of the territory under control, and, probably, by the number of livestock owned (Bendezu-Sarmiento/Lhuillier/Luneau 2013).

If we agree to take the management of architecture and territory as indirect evidence of the social organisation, we have to consider the repartition area of the citadels. They are totally lacking in the northernmost part of the territory occupied by the Handmade Painted Ware Cultures, i.e. in the area occupied by steppe-related cultures during the Bronze Age, thus defining two main socio-cultural areas.

It is extremely difficult to be precise about how this territory management was reflected on the local scale of the Early Iron Age cultures. Indeed, for some reasons linked to the history of research in Central Asia, only a few villages of this period are well known, but recent work at several sites is shedding a new light on this period. This paper will present the results of research at two of them, Dzharkutan in southern Uzbekistan and Ulug-depe in Turkmenistan, together with a first glimpse of a third settlement, Burgut Kurgan in Uzbekistan. Other Early Iron Age settlements have been partly excavated, but these three sites are of particular interest since Dzharkutan and Ulug-depe are among the very few sites occupied without interruption between the Bronze Age and the Iron Age; Burgut Kurgan was occupied during the Early Iron Age only, while most of the sites were newly settled at the beginning of the Iron Age, usually until its end. These three sites thus display clear stratigraphy and provide a good opportunity to characterise the Early Iron Age settlement pattern.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

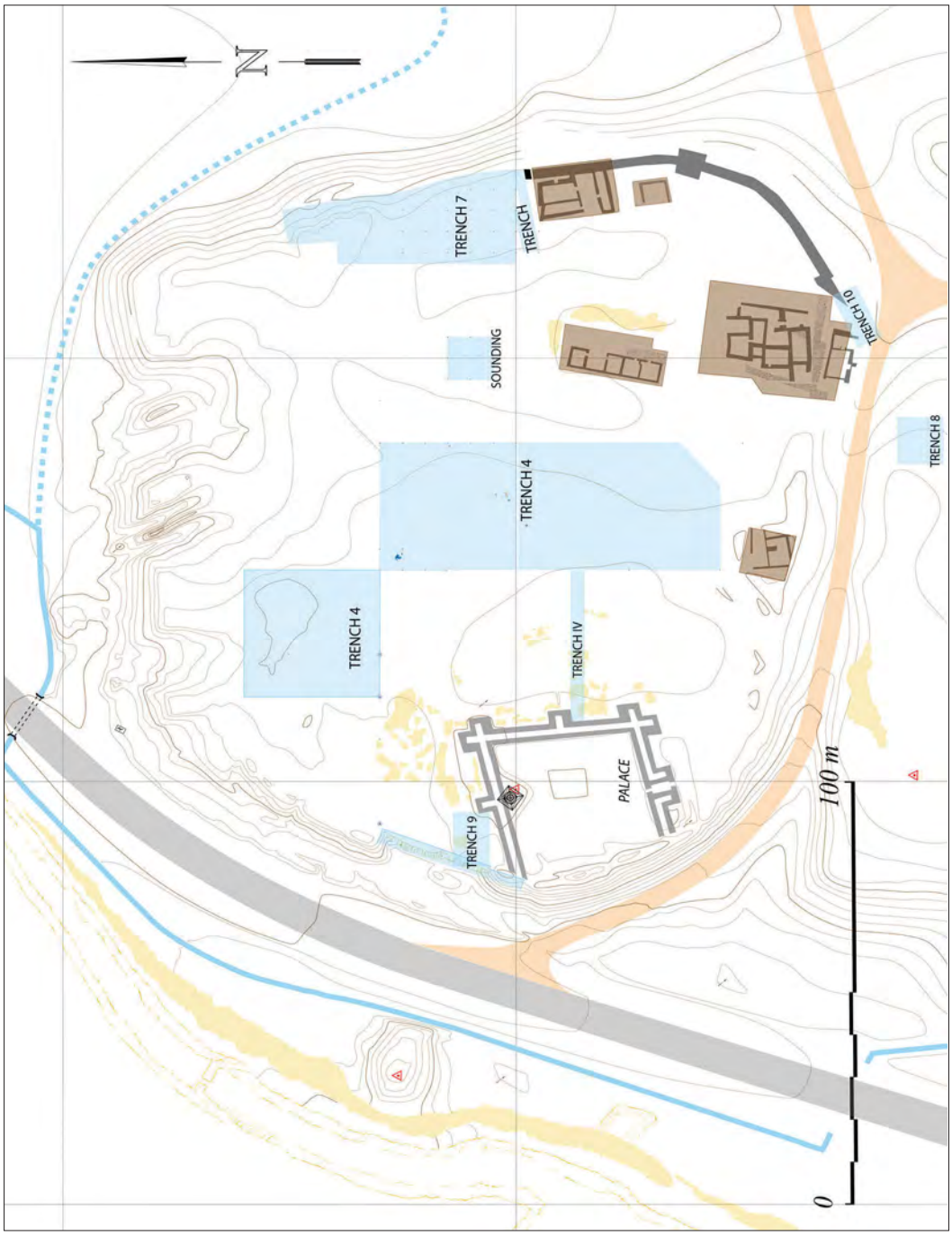


Fig. 2: Map of the Citadel area at Dzharkutan, with the location of the trenches opened by the French-Uzbek Mission (© MAFOuz-Protohistoire).

3 Early Iron Age settlements: Case study 1: Dzharkutan

Dzharkutan is located in the Šerabad Valley in Surhan-darâ province, southern Uzbekistan (**Fig. 1**). It is one of the largest sites of the Sapalli Culture, the Uzbek variant of the Oxus Civilisation. During the Bronze Age, the site consisted of two main parts, the settlement and the necropolis, nowadays preserved on an area of about 50 ha. During the Early Iron Age, the occupied area was reduced to the northernmost part of the site, corresponding to the highest part of the Bronze Age settlement called the Citadel.

The site has been excavated by Uzbek and Uzbek-German teams since 1973. Between 2009 and 2013, new excavations were led by a joint French-Uzbek expedition directed by J. Bendezu-Sarmiento and S. Mustafakulov, which made a considerable contribution to our knowledge of the transition

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Fig. 3: A pit-house at Dzharkutan (© MAFOuz-Protohistoire).

between Bronze Age and Iron Age in that area (for a synthesis of the work, see Bendezu-Sarmiento/Mustafakulov 2013). The conditions for studying the planning of an Early Iron Age village are good at Dzharkutan, since the corresponding layers are located just under the modern surface. For this reason, too, architectural remains are low but their plan clearly visible.

The Citadel area was surrounded by a fortification wall built during the Middle Bronze Age, which was still adequately preserved at the beginning of the early Iron Age, probably explaining in part why the Iron Age population choose this area to settle. In some places where it had partly collapsed, the wall was rebuilt during the Early Iron Age with a different size of mud brick.

All the area within the wall was occupied during the Early Iron Age, as well as a small part south of the fortification wall, the settlement covering an area of about 2.5 ha, which makes it one of the largest Early Iron Age settlements excavated in Central Asia (**Fig. 2**). This settlement was well organised and comprised different kind of buildings, some domestic structures, and even some burials (Lhuillier/Bendezu-Sarmiento/Mustafakulov 2018).

Most of the houses are pit-houses, i.e. semi-subterranean dwellings. They can be attributed to two main occupation stages. During the first stage, shortly after the end of the Bronze Age, the location of pit-houses and some associated structures like storage pits depended on the planning of the Bronze Age settlement; some are located at the centre of the large rooms of the storage building located in the middle of the Citadel (see Bendezu-Sarmiento/Lhuillier in this volume). We may assume that this large building's relatively good condition at the beginning of the Early Iron Age made it a favourable place for opportunistic occupation. During the second stage, the settled area extended as far as the border of the settled area, in places previously dedicated to dump pits. If we compare this with what is known at a contemporaneous settlement like Koktepe (Rapin/Isamiddinov 2013; Lhuillier/Rapin 2013), some houses built with mud brick may have coexisted with the pit-houses.

At Dzharkutan, the most common pit-houses are round, oval, or rectangular, ca. 2–2.5 × 2 m, though we also excavated an 8-shaped pit-house (**Fig. 3**). There is usually an oven against one wall or in the centre. Some small post-holes located all around supported a wooden superstructure for the roof and wattle-and-daub walls. Both the floor and the base of the walls could have been covered by a coat of mud. In all of these pit-houses, several successive floors, as well as rebuilt walls and ovens, indicates quite a long period of occupation. Other ovens, oval-shaped and built with a high slab of clay, are usually located close to the houses.

Near the pit-houses, we found some paths, paved with small regular pebbles, that were probably used both as pathways for moving around the settlement, and as a means of sanitation to take away the rain-

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waters by percolation, thanks to some pits located inside these pebble structures.

Two kinds of structures are associated with the houses. First, some grain silos, found inside or outside them. They are usually round, or rectangular with round corners, and were closed by a mud-brick cover. Second, more than 100 pits, sometimes located very close to each other, occupied the entire excavated surface of the village. They are round, oval, or amorphous, and from ca. 50 cm to 5 m in diameter. Sometimes "pits" are really only surface accumulations of pottery and stones, which could also be found on the top of pit-houses. Most of them had a very compact filling, including many Bronze Age and Iron Age sherds, many stones, and a few animal bones. The large number of stones included some fragments of grinding tools, but mostly shapeless pebbles, an important number of which had been heated until they broke. In many of these pits, there were also some silted layers, which indicates that they were open. These two elements suggest that they might have been heating or cooking structures.

During the Early Iron Age, some human skeletal remains were dropped into some of these pits and in some abandoned grain silos, together with animal bones, sherds, and stones. They are usually fragments of long bones, some vertebrae, and some mandibles, belonging mostly to adults (Bendezu-Sarmiento/Lhuillier 2015b). Were they thrown away there as refuse, or were they purposely put in some ossuary-pits inside the settlement? As the first ossuaries appeared in Central Asia more than one millennium later, it is difficult to understand the status of these human remains. However, one of these pits was found in the exact centre of the western part of the 8-shaped pit-house. The pit was located under several floors linked to the occupation of the house, and it was lined up with the central post-hole, which may indicate a memorial link between the livings and the dead inside the settled area.

In two other silos, we found some multiple burials, where human bones were mixed with animal bones, stones, and sherds. They gathered together four and eight individuals respectively, including adults and children. They were secondary burials, with only parts of corpses being brought from the place where the bodies started their decomposition (Bendezu-Sarmiento et al. 2015; Sellier/Bendezu-Sarmiento 2013). As for the scattered bones, it is difficult to understand why these particular individuals were buried, but it seems to confirm the existence of a link between burials and reused silos located in the settlement, maybe due to the belief in a protective power of the dead on the crops, as it is known in protohistoric Europe.

The preliminary study of the faunal remains indicates a significant increase in equid remains during the Iron Age, a fact that Dr Mashkour relates to the growing importance of the horse. Indeed, bones of wild and domestic equid species were found, including diagnostic bones of horse and donkey on one hand, and the bones and teeth of hemiones on the other. This fact, together with the parallel increase in the number of sheep and goats, more adapted to a pastoralist economy, may be taken as an indicator of a modification of the local subsistence economy. Considering the nature of the settlement (the apparently opportunistic occupation of Dzharkutan at the beginning of the Iron Age, and the long occupation of the village), it may suggest an economy based on a seasonal pastoralism, a part of the population staying in the village the whole year, with another part moving seasonally, though in a way that has still to be investigated.

4 Early Iron Age settlements: Case study 2: Kayrit sites and Burgut Kurgan

The recent discovery of a group of Early Iron Age sites in the mountains facing the Šerabad Valley may shed a new light on this point. It includes six sites, called Kayrit (Kajrit) sites, discovered during surveys in 2014–2015 in Paškurt Valley, in the area between the villages of Zarabag, Karabag, and Kayrit in the foothills of the Kugitang Tau Mountains (Stančo et al. 2016; Stančo 2016). Until then, all the Early Iron Age sites that have been listed were located in the plains and valleys of low altitude (see maps in Lhuillier 2013).[8] Kayrit sites are located at an altitude of around 850 m, some 20 km from Dzharkutan as the crow flies. This mountainous area seems to have been well settled during the Early Iron Age, according to the pottery collected during the surveys (Lhuillier 2016b), and is also an area of interaction with steppe-related populations, as shown by the discovery of a group of petroglyphs dated to the Late Bronze Age/Early Iron Age (Augustinová/Stančo 2016).

First excavations at one of these sites, a small hamlet called Burgut Kurgan (**Fig. 1**), was led in October 2015 by a joint Czech-Uzbek team directed by Ladislav Stančo and Sh. Ŝajdullaev, followed since then by further research, which are conducted since 2018 by a joint French-Uzbek team (dir. J. Lhuillier and Sh. Ŝajdullaev). The site is located on a small promontory overlooking the surrounding area. The excavations at Burgut Kurgan found a surrounding stone wall that enclosed an oval area about 70 × 55 m. The wall probably originally mixed some boulder

8 The only exception being Sar-tepe, also in the Surhan-Darâ province, on a left bank terrace of the Vahŝuvar-saj in the Bajsun-Tau foothills (Rtveladze 1981). There, the Early Iron Age layers are deeply buried under Middle Age levels.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



Fig. 4: Stone and mud-brick architecture at Burgut Kurgan (© Czech-French-Uzbek mission).

courses and some mud-brick courses in the upper part, as at some protohistoric sites in the Vahš Valley in north-western Tadjikistan (for example at Karim-Berdy; see P'ÂNKOVA 2001) or still today in the villages of the Paškurt Valley. Architectural remains are concentrated against this wall; they consist of small adjacent rooms separated by mud-brick walls (**Fig. 4**). Inside the rooms, we excavated low structures built with large boulders, like benches, which is extremely unusual for the Handmade Painted Ware Cultures, and some fireplaces, the wall of which is built with a slab of clay very similar to those excavated at Dzharkutan. One room was paved with potsherds lying next to each other, which is still difficult to interpret. The nature of the site itself also remains uncertain: permanent or seasonal settlement, ordinary settlement in this area, refuge site, or something else?

A large number of grinding stones and pestles have been found in the settlement, indicating the important role of agriculture in the local economy. Surprisingly, almost no animal bones were discovered. One possible explanation may be that pasture as well as butchering areas were located at some distance from the site. The Paškurt Valley is well suited to agro-pastoralism, mainly thanks to a good water supply, as has recently been shown for the Bronze Age at Tillâ-Bulak (KANIUTH 2016). Considering the hypothesis of a seasonal mobility of a part of the population, Burgut Kurgan and the neighbouring sites appear as a unique opportunity to study both the economy and the settlement patterns of the Iron Age people in the perspective of a vertical pastoralism, and their interaction with the steppe-related cultures (**Fig. 5**).

5 Early Iron Age settlements: Case study 3: Ulug-depe

Urbanism seems to differ during the Early Iron Age in Turkmenistan, though the material culture remains very similar. Few settlements of this period have been excavated yet, but we may observe the coexistence of at least three types of site: those with a citadel, like Yaz-depe (MASSON 1959), small manor-like settlements, like Dašli-30 (PILIPKO 1986), and small villages. Ulug-depe, which likely belongs to this last type, is located in the foothills of the Kopet Dagh, in an area watered by small streams from the mountains (**Fig. 1**). It was first excavated by V.I. Sarianidi in the 1960s (SARIANIDI 1972), and since 2001 by a joint French-Turkmen team directed by O. Lecomte followed by J. Bendezu-Sarmiento and M. Mamedow (for a synthesis of the work up to 2012, see LECOMTE 2013).

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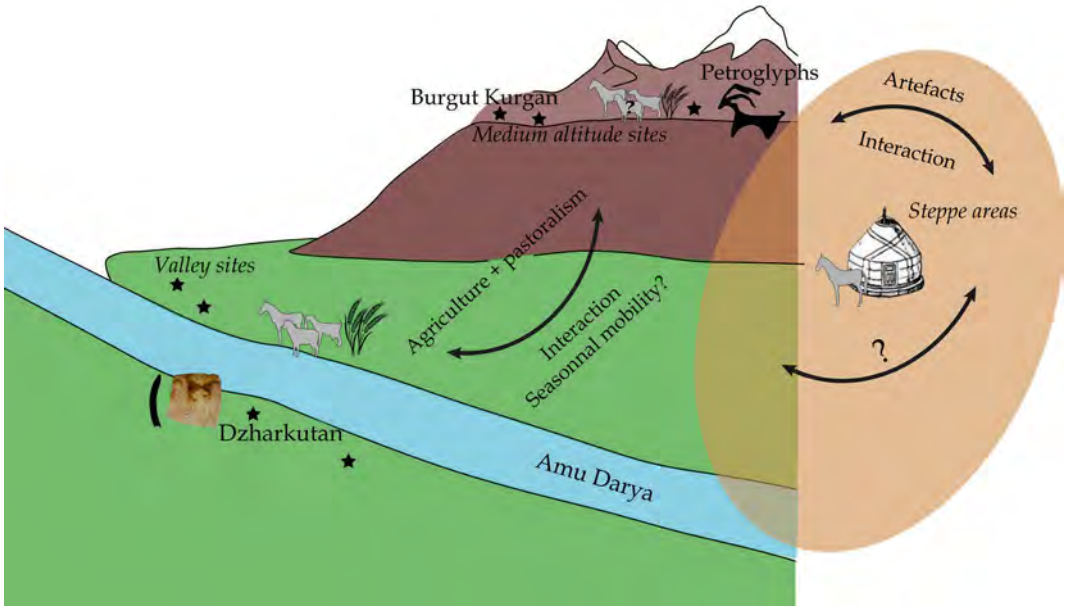


Fig. 5: Schematic representation of the hypothetical relationships between valley and medium-altitude settlements (© J. Lhuillier).

Early Iron Age remains may be attributed to three or four occupation stages. Each time we reached the Bronze Age layers underneath, it appeared that there is no hiatus between the end of the Bronze Age and the beginning of the Early Iron Age, and that only a steady but quite rapid change in the ceramics types evidence the cultural evolution (Lhuillier/Bendezu-Sarmiento/Lecomte 2015; Lhuillier 2016a).

Up to now, all the areas excavated appear to have been domestic. Houses and other architectural structures are built with mud bricks. We cannot exclude the presence of a citadel or another kind of large building in the Early Iron Age layers. Indeed, we discovered a thick wall under a large building of the Middle Iron Age era, the presence of which prevents any excavation of the deepest levels. V.I. Sarianidi (1968) excavated a structure 40 cm thick he interpreted as the foundation of a structure which has not been preserved, or as a platform. Mud-brick walls have been excavated in several places at the site (Sarianidi 1968; Lhuillier/Bendezu-Sarmiento/Lecomte 2015), but no complete building has been uncovered, for the Early Iron Age levels are buried deep under the Middle Iron Age levels; thus, we have only a limited view of the plan of the site. At best, two or three adjacent rooms have been excavated. We also identified some post-holes that indicate some ancient structures supported by poles, the plan of which is not clear. Fireplaces with a clay wall are found in the same areas.

The architectural remains do not differ significantly from one side of the site to the other. This is not the case with the material finds discovered inside these structures, however, and the distribution of the material assemblages is evidence of spatial variants (**Fig. 6**). In the central and western parts of the site, the general quality of the pottery complex is good. S-rimmed bowls or small pots are common, most of which are wheel-fashioned.[9] They often display some intricate ornaments consisting of triangles. By contrast, cooking pots and storage vessels are rare. In the northern and eastern borders of the site, the pottery complex is coarser. Cooking pots are numerous, while bowls or pots with an S-rim are rare. Instead, tableware includes mostly some modelled, uneven small bowls painted with slanted rows of dots. Storage jars are also more common, with a larger variety of shapes, including a specific type with an everted flattened rim, which is found only in this area.

This difference in the spatial distribution of the different pottery types highlights some variations among the various areas of the early Iron Age village, which may be evidence of some differentiated quarters. Keeping in mind that the urbanism of Ulug-depe seems very homogenous, that no status marker was discovered inside the houses, and especially that no prestige goods have ever been discovered at Ulug-depe, as in any other Early Iron Age settlements, this may suggest that pottery might be an indicator of the social distinction among the inhabitants of the settlements.

9 Which means that the pottery was manufactured with coil-building and wheel-throwing techniques combined into the same *chaîne opératoire* (see the work of A. Dupont-Delaleuf, for example, in Lhuillier et al. 2013).

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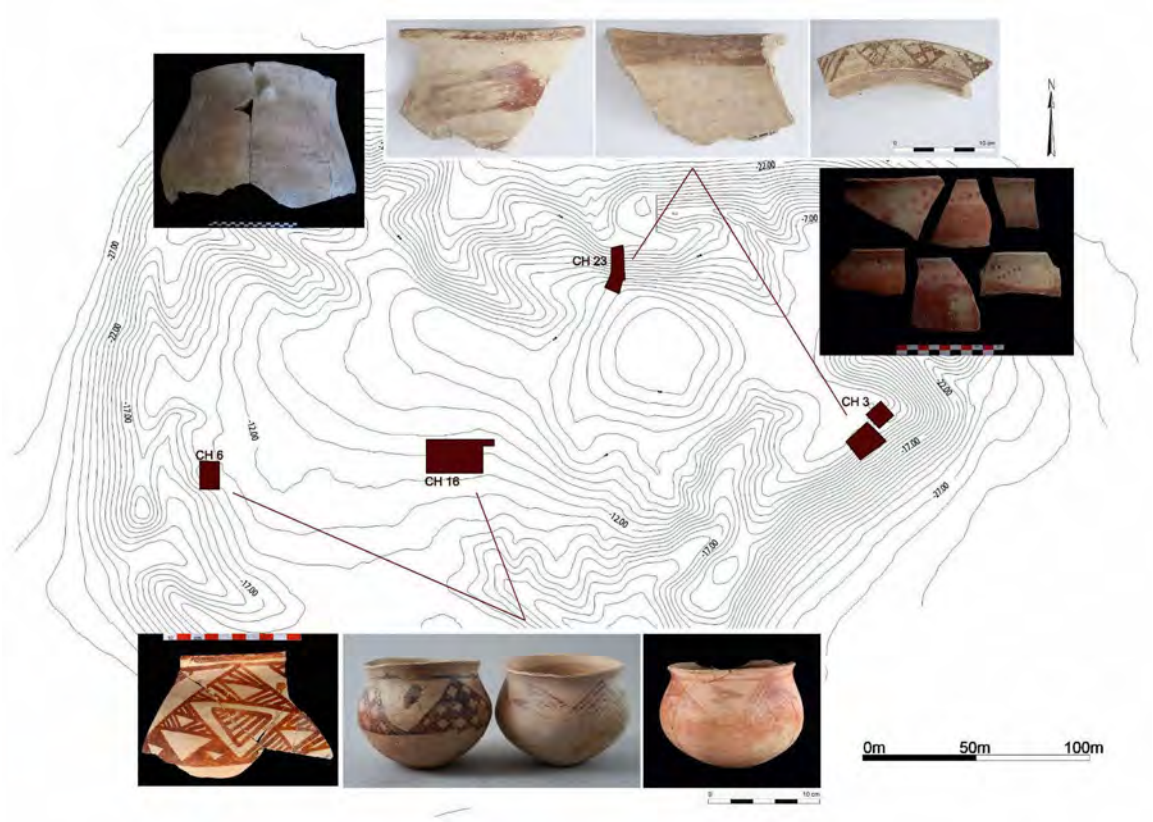


Fig. 6: Map of Ulug-depe with the location of the two different pottery complexes (© J. Lhuillier/MAFTur).

6 Conclusions

To conclude, this glimpse of the Early Iron Age settlement pattern, far from being complete, demonstrates that the control over the territory was not weaker, but different, than during the Bronze Age. The settlement pattern and urbanism evolved from the Bronze Age to the Iron Age, a fragmentation of the large proto-urban cities leading to the formation of smaller settlements which nevertheless evolved as part of a continuity. Simultaneously, the territory under control extended, demonstrating the ability of Iron Age polities to exploit a large variety of ecotones. The coexistence of several polities, as may be inferred from the study of the material culture, is reflected in the settlement pattern, and we observe at Dzharkutan, Burgut Kurgan, and Ulug-depe cultural groups sharing a similar material culture and similar religious beliefs, but displaying a different settlement planning.

The examples of Dzharkutan and Burgut Kurgan highlight the (seasonal?) mobility of Iron Age populations in a way that has to be further explored: the discovery of ceramics almost identical in both sites points to direct contacts, while some local particularities clearly illustrate the two communities were independent. Of course, the question of the peripheral position and the rural nature of the middle mountains sites in relation to the valley sites has to be addressed. The detailed study of the subsistence economies, put into the context of the local environment, might be a key towards the understanding of these complex, entangled relationships.[10] The steppe-related cultures are also an important component in this manifold territorial management. The partial territorial overlapping of the petroglyph sites with the Kayrit sites clearly sheds a new light on the connection between the Handmade Painted Ware community and the steppe-related creators of the rock art. Valley sites were also involved in these multidirectional contacts: a painted potsherd discovered at Dzharkutan which features all the typological and technological components of a local production represents a caprine, the bi-triangular body of which may be compared with some petroglyphs discovered in the vicinity of Burgut Kurgan (**Fig. 5**).

In this context, the existence of large buildings like the "citadels" does not indicate, in our opinion, a strong control on the territory by a centralised

10 A recent study of archaeozoological data, based on extant data and recent data from Turkmen and Uzbek sites, concludes that the subsistence economies of the Sine Sepulchro Cultural Complex of Transoxiana (from the Early to the Late Iron Age) evolved locally and seem to have been more closely linked to local cultural choices, maybe linked to the available environmental resources, than to successive material, cultural and political evolutions (Lhuillier/Mashkour 2017).

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power, but rather an extensive regional coverage by "tribal like", sometimes mobile, polities that were able to control and manage natural resources collectively. In addition, the example of Ulug-depe illustrates the difficulty of basing sociocultural interpretations on urbanism only. In this particular case, the architecture does not give any clue regarding the status of the inhabitants, and the mapping of the material assemblages based on the stratigraphy still offers the only indicators in this regard.

Acknowledgments: I want to express my deepest gratitude to the people who made this research possible, especially the directors of archaeological missions in Central Asia working at the three sites mentioned in this study: Julio Bendezu-Sarmiento (DAFA-CNRS), Olivier Lecomte (CNRS), Mokhamed Mamedow (Department for the Protection, Study and Restoration of Historical and Cultural Monuments of Turkmenistan), Samariddin Mustafakulov (Afrasiab Museum), Ladislav Stančo (Charles University), and Shapulat Shajdullaev (Termez State University).

Bibliography

Augustinová, A./Stančo, L.
2016: The Petroglyphs of Pashkhurt Valley in the Surkhan Darya Province (South Uzbekistan) – Preliminary Report, *Studia Hercynia* 20/2, 122–138.

Bendezu-Sarmiento, J./Mustafakulov, S.
2013: Le site proto-urbain de Dzharkutan durant les âges du bronze et du fer. Recherches de la Mission archéologique franco-ouzbèke-Protohistoire, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 207–236.

Bendezu-Sarmiento, J./Lhuillier, J.
2015a: Sine Sepulchro Cultural Complex of Transoxiana (between 1500 and the Middle of the 1st Millennium BC). Funerary Practices of the Iron Age in Southern Central Asia: Recent Work, Old Data, and New Hypotheses, *Archäologische Mitteilungen aus Iran und Turan* 45, 281–317.

2015b: Les "silos funéraires" de l'âge du fer en Asie centrale: dépotoir, ossuaire ou monument de mémoire?, in: Delaplace, G./Valentin, F. (ed.), *Le Funéraire. Mémoire, protocoles, monuments* (= Colloques de la Maison René-Ginouvès 11), Paris, 93–103.

Bendezu-Sarmiento, J./Lhuillier, J./Luneau, E.
2013: Les différentes formes de richesse dans les sociétés d'Asie centrale aux âges du bronze et du fer (IIIe-Ier millénaires av. J.-C.), in: Baroin, C./Michel, C. (ed.), *Richesse et sociétés* (= Colloques de la Maison René-Ginouvès 9), Paris, 253–263.

Bendezu-Sarmiento, J./Lhuillier, J./Mustafakulov, S./Rakhimov, K.
2015: The Mortuary Practices of the Early Iron Age Populations: Recent Discoveries at Dzharkutan in Northern Bactria, *Bulletin of International Institute of Central Asian Studies* 22, 26–45.

Biscione, R.
1981: Centre and Periphery in Late Protohistoric Turan: The Settlement Pattern, in: Härtel, H. (ed.), *South Asian Archaeology 1979. Papers from the Fifth International Conference of the Association of South Asian Archaeologists in Western Europe Held in the Museum für Indische Kunst der Staatlichen Museen Preussischer Kulturbesitz, Berlin*, Berlin, 113–127.

Buławka, N.
2017: The Yaz I–III Settlement Pattern in the Serakhs Oasis, Southern Turkmenistan, *Iran* 55, 143–170.

Cattani, M.
1998: Excavations at Takhirbaj tepe (THR-1) (1992–1993). Preliminary notes, in: Gubaev, A./Koshelenko, G./Tosi M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 97–104.

2004: Margiana at the End of the Bronze Age and Beginning of Iron Age, in: Kosarev, M.F./Kozhin, L.M./Dubova, N.A. (ed.), *U istokov civilizacii. Sbornik statej k 75-letiû Viktora Ivanoviča Sarianidi*, Moscow, 303–315.

Córdoba, J.M./Mamedov, M.
2016: L'âge du fer au Dehistan. Nouvelles recherches archéologiques turkmènes et espagnoles sur les sites de Geoktchik Depe et Izat Kuli (Province de Balkan, Turkménistan), in: Stucky, R.A./Kaelin, O./Mathys, H.-P. (ed.), *Proceedings of the 9th International Congress on the Archaeology of the Ancient Near East, June 9–13, 2014, University of Basel. Volume 3. Reports*, Wiesbaden, 601–615.

Cremaschi, M.
1998: Palaeohydrography and Middle Holocene Desertification in the Northern Fringe of the Murghab Delta, in: Gubaev, A./Koshelenko,

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

G./Tosi M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 15–25.

Fouache, E./Besenval, R./Cosandey, C./Coussot, C./Ghilardi, M./Huot, S./Lamothe, M.
2012: Palaeochannels of the Balkh River (Northern Afghanistan) and Human Occupation Since the Bronze Age Period, *Journal of Archaeological Science* 39, 3415–3427.

Kačuris, K.
1967: Raskopki na El'ken-Depe v ûzhnoj Turkmenii, *Arheologičeskie Otkrytiâ* 1966, 335–336.

Kaniuth, K.
2016: The Late Bronze Age Settlement of Tilla Bulak (Uzbekistan): A Summary of Four Years' Work, in: Lefèvre, V./Didier, A./Mutin, B. (ed.), *South Asian Archaeology and Art 2012. Volume 1. Man and Environment in Prehistoric and Protohistoric South Asia: New Perspectives*, Turnhout, 117–128.

Kuzmina, E.E.
2008: *The Prehistory of the Silk Road (Encounters with Asia). Edited by Victor H. Mair*, Philadelphia.

Lecomte, O.
2005: The Iron Age of Northern Hyrcania, *Iranica Antiqua* 40, 461–478.

2009: Origine des cultures agricoles du Dehistan (Sud-Ouest Turkménistan), Mise en œuvre et gestion de l'irrigation de l'âge du fer à la période islamique, in: Al-Dbiyat, M./Mouton, M. (ed.), *Stratégies d'acquisition de l'eau et société au Moyen-Orient depuis l'Antiquité*, Beyrouth, 69–77.

2013: Activités archéologiques françaises au Turkménistan, in: Bendezu-Sarmiento, J. (ed.), *L'Archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 165–190.

Lhuillier, J.
2013: *Les cultures à céramique modelée peinte en Asie centrale méridionale. Dynamiques socio-culturelles à l'âge du fer ancien (1500–1000 av. n.è)* (= Mémoires de la Mission Archéologique Française en Asie Centrale 13), Paris.

2016a: Ulug-depe and the Transition Period from Bronze Age to Iron Age in Central Asia. A Tribute to V.I. Sarianidi, in: Dubova, N.A. et al. (ed.), *Transactions of Margiana Archaeological Expedition. Volume 6. To the memory of Professor Viktor Sarianidi*, Moscow, 509–521.

2016b: Pottery from Burgut Kurgan and Kayrit Oasis, Preliminary Report for Season 2015, *Studia Hercynia* 20/2, 112–121.

Lhuillier, J./Bendezu-Sarmiento, J./Lecomte, O.
2015: Ulug-depe and an Overview of the Iron Age in Turkmenistan, *Journal of Iranian Archaeology* 4 (2013), 78–89.

Lhuillier, J./Bendezu-Sarmiento, J./Mustafakulov, S. et coll.
2018: Excavation at Džarkutan (Uzbekistan): A Settlement of the Early Iron Age in Southern Central Asia, in: Lhuillier, J./Boroffka, N. (ed.), *A Millennium of History: The Iron Age in Southern Central Asia (2nd and 1st Millennia BC). Dedicated to the Memory of Viktor Ivanovič Sarianidi. Proceedings of the Conference Held in Berlin (June 23–25, 2014)* (= Archäologie in Iran und Turan 17 = Mémoires de la Délégation archéologique française en Afganistan 35), Berlin, 31–50.

Lhuillier, J./Dupont-Delaleuf, A./Lecomte, O./Bendezu-Sarmiento, J.
2013: The Middle Iron Age in Ulug-depe: A Preliminary Typo-Chronological and Technological Study of the Yaz II Ceramic Complex, in: Wagner, M. (ed.), *Pottery and Chronology of the Early Iron Age in Central Asia*, Warsaw, 9–28.

Lhuillier, J./Mashkour, M.
2017: Animal Exploitation in the Oases: An Archaeozoological Review of Iron Age Sites in Southern Central Asia, *Antiquity* 91, 655–673.

Lhuillier, J./Rapin, C.
2013: Handmade Painted Ware in Koktepe: Some Elements for the Chronology of Early Iron Age in Northern Sogdiana, in: Wagner, M. (ed.), *Pottery and Chronology of the Early Iron Age in Central Asia*, Warsaw, 29–48.

Luneau, E.
2014: *La fin de la civilisation de l'Oxus. Transformations et recompositions des sociétés de l'âge du bronze final en Asie centrale méridionale (1800–1500/1400 av. n.è.)* (= Mémoires des Missions Archéologiques Françaises en Asie centrale et en Asie moyenne 16), Paris.

Marcolongo, B./Mozzi, P.
1998: Outline of Recent Geological History of the Kopet Dagh Mountains and the Southern Kara-Kum, in: Gubaev, A./Koshelenko, G./Tosi M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 1–13.

Masson, V.M.
1956: Pamâtniki kul'tury arhaičeskogo Dahistana v ûgo-zapadnoj Turkmenii, in: Masson, M.E. (ed.), *Trudy Ûžno-Turkmenistanskoj arheologičeskoj kompleksnoj èkspedicii. Tom 7. Pamâtniki kul'tury kamennogo i bronzovogo veka Ûžnogo Turkmenistana*, Ashgabat, 385–458.

1959: *Drevnezemledel'českaâ kul'tura Margiany* (= Materialy i issledovanija po arheologii SSSR 73), Moscow/Leningrad.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

1966: *Srednââ Aziâ v epohu kamnâ i bronzy*, Moscow/Leningrad.

P'ÂNKOVA, L.T.
2001: Poseleniâ i žiliša predgornyh rajonov ûgozapadnogo Tadžikistana v èpohu bronzy, in: SEDOV, A.V. (ED.), *Drevnie civilizacii Evrazii. Istorija i kul'tura. Materialy meždunarodnoj naučnoj konferencii, posvâšennoj 75-letiû dejstvitel'nogo člena Akademii nauk Tadžikistana, akademika RAEN, doktora istoričeskih nauk, professora B.A. Litvinskogo (Moskva, 14–16 oktâbrâ 1998 g.)*, Moscow, 349–363.

PILIPKO, V.N.
1986: Rannij železnyj vek Èteka (Ûžnyj Turkmenistan), *Informacionnyj bûlleten' Meždunarodnoj associacii po izučeniû kul'tur Central'noj Azii* 11, 8–18.

RAPIN, C./ISAMIDDINOV, M.
2013: Entre sédentaires et nomades: les recherches de la Mission archéologique franco-ouzbèke (MAFOuz) de Sogdiane sur le site de Koktepe, in: BENDEZU-SARMIENTO, J. (ED.), *L'Archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 113–133.

ROUSE, L. M./CERASETTI, B.
2014: Ojakly: A Late Bronze Age Mobile Pastoralist Site in the Murghab Region, Turkmenistan, *Journal of Field Archaeology* 39, 32–50.

2017: Micro-Dynamics and Macro-Patterns: Exploring New Archaeological Data for the Late Holocene Human-Water Relationship in the Murghab Alluvial Fan, Turkmenistan, *Quaternary International* 437/B, 20-34.

RTVELADZE, E.V.
1981: Bronzovyj kinžal iz ûzhnogo Uzbekistana (Vahšuvar), *Sovetskaâ Arheologiâ* 1, 285–286.

2007: Arheologičeskie issledovaniâ v Bandyhane v 1974–1975 gg., *Trudy Bajsunskoj naučnoj èkspedicii. Vypusk 3*, 67–95.

SALVATORI, S.
1998: The Bronze Age in Margiana, in: GUBAEV, A./KOSHELENKO, G./TOSI M. (ED.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 47–55.

2008:The Margiana Settlement Pattern from the Middle Bronze Age to the Parthian-Sasanian Period: A Contribution to the Study of Complexity, in: SALVATORI, S./TOSI, M. (ED.), *The Bronze Age and Early Iron Age in the Margiana Lowlands: Facts and Methodological Proposals for a Redefinition of the Research Strategies* (= The Archaeological Map of the Murghab Delta. Studies and Reports 2 = British Archaeological Reports International Series 1806), Oxford, 57–74.

SARIANIDI, V.I.
1968: Otchet o rabotah Geoksûrskogo otrâda arheologičeskoj èkspedicii Instituta arheologii AN SSSR na poselenii Ulug depe v 1968 godu, Naučno-otraslevoj arhiv Instituta arheologii RAN, f.-1, R-1, d. 4354 (unpublished excavation report).

1972: Raskopki 1970 g. na Ulug-depe, in: MASSON, V.M. ET AL. (ED.), *Uspehi Sredneaziatskoj Arheologii. Vypusk 1*, Leningrad, 53–55.

SCHMIDT, H.
1908: The Archaeological Excavations in Anau and Old Merv, in: PUMPELLY, R. (ED.), *Explorations in Turkestan. Expedition of 1904. Prehistoric civilizations of Anau. Origins, Growth, and Influence of Environment* (= The Carnergie Institution of Washington. Publication 73), Washington, DC, 83–216.

SELLIER, P./BENDEZU-SARMIENTO, J.
2013: Différer la décomposition: le temps suspendu? Les signes d'une momification préalable, *Les Nouvelles de l'archéologie* 132, 30–36.

STANČO, L.
2016: Archaeological Survey in the Surroundings of Kayrit (South Uzbekistan), Preliminary Report for Season 2015, *Studia Hercynia* 20/2, 73–85.

STANČO, L./SHAYDULLAEV, SH./BENDEZU-SARMIENTO, J./PAŽOUT, A./VONDROVÁ, H.
2014: Kayrit Burial Site (South Uzbekistan): Preliminary Report for Season 2014, *Studia Hercynia* 18, 31–41.

STANČO, L./SHAYDULLAEV, SH./BENDEZU-SARMIENTO, J./LHUILLIER, J./KYSELA, J./SHAYDULLAEV, A./KHAMIDOV, O./HAVLÍK, J./TLUSTÁ, J.
2016: Preliminary Report on the Excavations at Burgut Kurgan in 2015, *Studia Hercynia* XX/2, 86–111.

TOLSTOV, S.P./ITINA, M.A.
1960: Problema suârganskoj kul'tury, *Sovetskaâ Arheologiâ* 1, 14–35.

VAHDATI, A.A.
2018a: Preliminary Report on the Archaeological Survey in Esfarāyen County, Northeastern, Iran, *Archäologische Mitteilungen aus Iran und Turan* 47 (2015), 255–287.

2018b: The Early Iron Age in Northern Khorāsān, in: LHUILLIER, J./BOROFFKA, N. (ED.), *A Millennium of History: The Iron Age in Southern Central Asia (2nd and 1st Millennia BC). Dedicated to the Memory of Viktor Ivanovič Sarianidi. Proceedings of the Conference held in Berlin (June 23–25, 2014)* (= Archäologie in Iran und Turan 17 = Mémoires de la Délégation archéologique française en Afganistan 35), Berlin, 51–66.

WAGNER, M.
2014: Yaz II Period on Topaz Gala Depe, Southern Turkmenistan, in: BIELIŃSKI, P. ET AL. (ED.),

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Proceedings of the 8th International Congress on the Archaeology of the Ancient Near East (30 April–4 May 2012, University of Warsaw). Volume 2: Excavation and Progress Reports, Posters, Wiesbaden, 519–528.

Zadneprovskij, Y.A.
1995: Early Urban Developments in Central Asia, *Iran* 33, 155–159.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

The Uzbek-Italian Excavations at Kojtepa (Samarkand Area) Uzbekistan

First results and work perspectives

Bruno Genito

Abstract: This paper summarises the work of the Joint Uzbek-Italian Archaeological Mission in Kojtepa in the district of Pastargom, Samarkand. The project is based on a collaboration between the Università di Napoli "L'Orientale", Napoli (UNO) and the Institute of Archaeology Uzbekistan Academy of Sciences, Samarkand (IAASU). The project began in 2008–2009, and after several excavations is on-going. Preliminary results have confirmed that the site – which consists of an almost conical central *tepe* surrounded by a quadrangular wall and beyond that an outer channel originally filled with water – is characterised by a form of agricultural settlement that played a role in controlling the near northern area frequently visited by pastoral nomads on the Karatyube piedmont chain. For the moment, the time span covered stretches from the late Hellenistic era to the Kushan period and beyond!

Keywords: Central Asia, archaeology, Samarkand, territory.

Резюме: Данная статья кратко подводит итог работы Объединенной археологической узбекско-итальянской миссии в Койтепа в районе Пастаргом (Самарканд). В основе проекта лежит соглашение об археологическом сотрудничестве между Университетом Неаполя "L'Orientale" и Институтом археологии Академии наук Узбекистана (Самарканд). Проект был начат в 2008-2009 годах и продолжается до сегодняшнего дня, после семи полевых сезонов. Предварительные результаты подтвердили, что памятник, состоящий из центрального "тепе" почти конической формы, окружающей его стены четырехугольной формы внешнего канала изначально заполненного водой, представляет собой поселение, жители которого занимались сельским хозяйством и которое играло свою роль в контроле над соседним северным регионом, где нередко появлялись скотоводы-кочевники из предгорий Каратюбе. На данный момент речь идет, по крайней мере, о временном интервале от эллинистической эпохи до кушанского периода!

Ключевые слова: Центральная Азия, археология, Самарканд, территория.

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1 Introduction

Since 2008, the joint Uzbek-Italian archaeological activities of the Institute of Archaeology of the Academy of Sciences of Uzbekistan, Samarkand (IAASU), and the Università di Napoli "L'Orientale" (UNO) have been carried out in the Pastdargom district in the Samarkand area.[1] The scientific aims of these activities are to analyse the archaeological consistency during the 6th–4th century BCE of an area recorded for the first time in the trilingual inscription of Darius the Great (522–486 BCE) in Bisutun. There, the old Persian ethnonym or toponym "Sogd/Sugd" is explicitly used, phonetically and most probably lexically connected with the Greek-Roman term "Sogdiana", an area much better known, in a detailed way, in early mediaeval times for its ethno-cultural and ethno-linguistic eastern-Iranian Sogdian background (4th–7th century CE) (de la Vaissière 2002; de la Vaissière/Trombert 2005).[2]

The joint field activities, financially supported by UNO, and in partnership with the Italian Ministry of Foreign Affairs,[3] provided the basis for an archaeological project which, starting from the topographic data collected by UsB (Università di Bologna, Alma Mater) (1999–2006), was basically aimed at investigating the archaeological horizons of the period in the Samarkand area, and possibly of the Achaemenid period as well.

The premises of the project by IAASU and UNO are strictly related to the methodological and fieldwork difficulties always encountered by scholars when attempting to define precisely any archaeological horizons of the Late Iron Age and of the Achaemenid Empire, and not only in Central Asia (Francfort 1988; 2005). In particular, the joint activities continued working in an area west of Samarkand with the aim of singling out cultures related to the periods of the earliest occupation, and of representing their differing related stages (Genito 1996; 1998a; 1988b).

In the 8th and 7th centuries BCE, scanty settlements with semi-huts clearly started to be replaced by large "sites", among them Koktepe (ca. 100 ha) along the Bulungur Canal, and Afrasiab (ca. 220 ha). The studies of these sites have demonstrated that the process of erecting walls and, in some cases, public buildings and/or shrines, also included large-scale earth works. According to a reasonable hypothesis, the irrigation canals in Sogdiana, which stretch for more than 100 km, were possibly built at about the same time as the sites, and, with some changes, they survive to the present day (Mantellini 2003a; 2003b; Mantellini/Rondelli 2004; Marconi et al. 2009; Mantellini (ed.) 2016).

A new stage in the cultural development in Sogdiana began in the 7th and the 6th centuries BCE. Some characteristics of the material culture, including ceramic production, in Bactria, Margiana, northern Parthia, and, somewhat later, in Chorasmia as well,[4] did not spread beyond the territories in north-east Sogdiana (Lyonnet 2013a; 2013b).

Cultural changes did not occur immediately after the territories of the future Bactria, Sogdiana, and Chorasmia provinces were probably conquered by Cyrus the Great and so became part of the Achaemenid Persian political-state formation in the second half of the 6th century BCE. Greek forms in the pottery, including "fish plates" and craters, appeared only in the 3rd century BCE, during the Seleucid's rule, not right after Alexander the Great's conquest of Sogdiana in 320 BCE. Different nomadic peoples conquered Sogdiana at the end of the 3rd century and the Greeks also may have returned to Sogdiana in the first half of the 2nd century; by mid-century, the nomads took over again. Ancient eastern elements prevail in the architecture of the Greek period, a typical example being the city walls at Afrāsīāb, which were built from large mud bricks of a type unknown in the Hellenistic culture on which the names of the makers are written in Greek letters.

1 These field activities located in a crucial part of the historical Sogdiana followed two years (2007–2008) of intensive contacts with the Uzbek colleagues, with the former director of IAASU Timur Shirinov, Shakirdjan Pidaev, the present Amriddin Berdimuradov and Italian colleagues already working there, and in particular Maurizio Tosi, Director of the Italian Archaeological Mission of Università di Bologna, Alma Mater (UsB) in Uzbekistan.

2 Sogdiana was in the Late Iron Age and early mediaeval period populated by peoples probably speaking and writing in an eastern Iranian language: Sogdian. According to Greek and Roman authors, the region was located between the territories formed by two rivers, the Oxus (Amu Darya) and Iaxartes (Syr Darya), with the southern border running along the Zeravshan mountain range. It is not clear, however, whether the Sogdians populated all the lands which Greek and Roman authors attribute to the region. It is possible that the sources referred only to the early administrative boundaries of the Achaemenid empire, without taking in consideration the real distribution of the villages, towns, regional walls, etc., and the real population in the area. Sogdiana would indicate, thus, the region, including the Zeravshan and Kashka Darya River basins, whose archaeological remains are generally dated to no earlier than the 1st millennium BCE, when the Sogdians seem to emerge at the historical level.

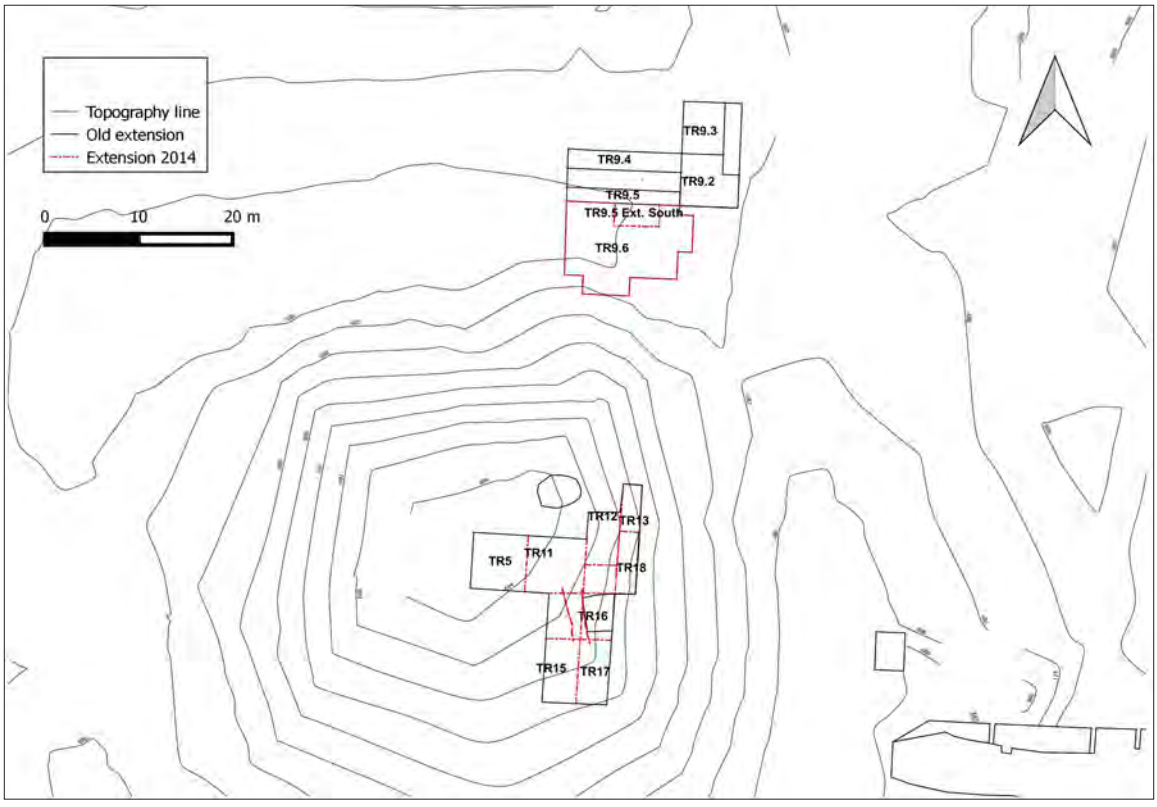
3 Since 2015, UNO-IAASU activities in Uzbekistan have received the support of the Attribuzione Riconoscimento Istituzionale per Missione Archeologica/Antropologica of the Ministero degli Affari Esteri e della Cooperazione Internazionale, which here are deeply thanked by the author.

4 For example, it is the case for cylinder-cone-shaped wheel-made pottery and large, rectangular, unbaked bricks.

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a



b

Fig. 1: Kojtepa. **a.** General view as seen as from the south-east (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito). **b.** General map (drawing by Enzo Cocca 2014).

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2 The Kojtepa project

The former joint Uzbek-Italian (IAASU and UsB) (1999–2006) topographic activities in the Pastdargom (Lower Dargom) district in the Samarkand region had drawn attention to different sites, preliminarily dated to the period from the Late Iron Age to the early mediaeval period, and possibly to the Achaemenid period as well.

The site jointly chosen in 2008 by IAASU and UNO[5] was Kojtepa,[6] a known and important settlement, constituted by a central truncated cone-shaped *tepe* 9 m high encircled by an earthen wall and moat. According to the topographic results, the city walls, though still not clearly identified, and partially cut through by modern agricultural activity, are similar to a well-known urban settlement pattern for sites and cities in the ancient Samarkand and Ustrushana areas, present also in the Karatyube range areas, in the historical and Hellenistic period.[7]

Kojtepa is located in the zone between agricultural lands and the steppe (**Fig. 1**). Today, the local population refer to the territory around Kojtepa as far as Chandyr village as *dasht* (steppe), though the whole area is cultivated, covered with orchards, fields of cotton and wheat, and so on. The information in the written sources is scattered and fragmentary. The most important sources about the period in the pre-Arab era are the Chinese authors who visited the area in connection with the establishment of more or less regular contacts with their western areas.

From the 5th century CE, reports on the territories of the Amu Darya and Syr Darya interfluve become more detailed, and start to provide more and more geographical names – an abundance of toponyms from the Syr Darya, Zeravshan, Kashka Darya and Amu Darya basins which are later confirmed in Arabic and Persian sources.[8]

5 Deepest thanks are due to the Director of IAASU, A. Berdymuradov. The realisation of the work has been possible thanks to the availability of the former Rector of UNO, Lida Viganoni, the present Rector Elda Morlicchio and her staff, in particular Marina Guidetti, Nicoletta De Dominicis and Ester Mezzone of the International Affairs Department. Financial support was given by UNO, through the Centro Interdipartimentale di Servizi per l'Archeologia (CISA), and heartfelt thanks are due for this to their former President, Rodolfo Fattovich, the present President Fabrizio Pesando, to Luigi Tartaglia, Antonella Sannino, Andrea D'Andrea of the Directive and Technical-Scientific Committee, Rosario Valentini of the Drafting Committee, and Irene Bragantini (former Vice President), and Roberto Bocchino (former Drafting Committee). Local support was possible thanks to the UsB and, in particular, special thanks are due to the Director, M. Tosi, the Deputy Director, D. Giorgetti, and to Simone Mantellini and Rita Dimartino. A particular thank is also due to Dmitry Khosthuskhin for his help as translator and for any other organizational type of support. For the scientific work thanks are due to Alexej Gricina (Co-director 2008–2009), to Rahimov Kamil both excellent and precious helper in the field work, Kazim Abdullaev (co-director 2011–2012), Mukhtar Pardaev (co-director 2013–2015) and Sherzod Pardaev, who was present in all our activities as scientific collaborator. Last but not least, gratitude is also due to: Fabiana Raiano (2008–2014), who devoted time to the pottery analyses and drawings, Francesco Spinelli (2009), Giulia Ciucci (2009), Francesco Franzese (2011–2012), Michele Maria Lamberti (2013), Edoardo Cefariello (2014–2015), Lucia Cerullo (2014), Andrea Montella (2015) of UNO, Maria Francesca Pullia (2014–2015), Natalia Valenzano (2014) of the Università of Pisa, Davide Lunelli (2012–2014), Enzo Cocca (2013–2015) (UNO), Li Yusheng (2011–2013) (Peking University), Luciano Rendina, archaeologist, topographer and draftsman of Lecce University (2008–2009), the workmen, the driver Rahmatullo Rasulov and Mr Davronbek Jurakulov for the precious help given in differing circumstances.

6 Kojtepa (Sheep Tepa), or Kendyk Tepa (Umbelicus Tepa) (Pas 588), is an area 175 m long × 150 m wide (2.62 ha), the difference in the level from the top to the bottom being 9.94 m. It is 697.30 m above sea level, and the geographic coordinates of the site are 42N 300099.77 m E, 4386573.90 m N (UTM); the geo-referencing system is WGS84 42N.

7 The decision to examine the site was suggested by the Italian Archaeological Mission (IAM) of the Università degli Studi di Bologna, Alma Mater (UNIBO), which had identified other sites of the period (Genito/Gricina 2009: 126-128; Genito/Abdullaev (ed.) 2014).

8 Archaeological research into the piedmont areas in Sazagan, Agalyk and Mirankul', i.e. in territories bordering the Dargom Steppe, have brought to light the existence of groups of burial mounds, which testify to the fact that this part of the steppe was also used as pasture land. In particular, the question of interaction between nomadic and settled cultures was one of the research topics on which Suharev worked (1935–1936). In connection with the historical topography, a short but extremely informative essay by Vjatkin (1902), written on the basis of an extremely thorough analysis of sources in *waqf* (charitable endowment under Islamic law) documents, is invaluable. Comparison of his data with old maps made by engineers and topographers before the 1917 Revolution may, at times, provide extremely fruitful results. Another important landmark in the study of nomadic sites in this contact zone was the excavation work carried out by Obel'čenko in the 1950s. He studied the burial-mounds of Sazagan to the south of Samarkand, which he dated to the post-classical era. In the piedmont zone adjoining the Dargom Canal, at a distance of 18 km south-west of Samarkand, a group of Mirankul' burial mounds was studied. The earliest of these burial mounds were dated by Obel'čenko to the 2nd century CE and the others were assigned to later dates in the Early Medieval period (Obel'čenko 1966: 66–81; 1969: 80–90). The earliest burial mounds were discovered along the Agalyksai River; some flat graves were dated to the 4th and 3rd centuries BCE (Obel'čenko 1972) on the basis of an analysis of grave goods. Attention should also be drawn to the work of Kabanov (1959: 154–174), who investigated the area where the Ankhor Canal was being built in the 1960s. Thanks to the work carried out to compile a comprehensive list of archaeological sites by teams from the Institute of Archaeology affiliated to the Academy of Sciences

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An important contribution to the study of the ancient culture of Sogdiana, and specifically its capital, Marakanda (the Greek name for Afrāsīāb), was made by the French-Uzbek expedition that began archaeological investigations on the Afrasiab site at the end of the 1980s. At the beginning, it was conducted by P. Bernard (1996) and M.K. Isamiddinov, and then by F. Grenet (Bernard et al. 1990; 1992).

A further contribution to the study of sites in Samarkand-Sogdiana, and in particular of the Pastdargom district, has been made by the joint Uzbek-Italian Expedition of UsB led by M. Tosi, the results of which have been published in various papers (Rondelli/Mantellini 2004; Rondelli/Tosi 2006; Shirinov/Tosi 2003; Tosi et al. 2007; Tosi et al. 2002). A comprehensive survey of these processes of urbanisation within the territory of ancient Sogdiana has been carried out by M.K. Isamiddinov (2002).

The walls of Kojtepa have survived only in its south, east and west sections, the northern side having been destroyed. According to information provided by local inhabitants, the destruction took place in the 1980s. It is possible that the levelled areas at this location resulted from the in-fill of the moat with earth from the destroyed wall; it is probable that the moat and the destroyed wall were levelled by a bulldozer. Another cause of major damage is the trench dug by a bulldozer along the eastern wall. The earth from the destroyed wall was shifted into the moat and used to form a barrier across the moat, serving at the same time as a boundary marker. As we succeeded in establishing, the base of the moat is currently marked out for individual plots where wheat, vines and other crops are grown.

For a period, the moat was also used as a reservoir into which water flowed from the fields surrounding the site. Silt deposits accumulated at the base of the "moat", which is now used for cultivating crops: these are most likely to have come with the water flowing off the surrounding fields. Yet the thick layer of reddish-yellow sand, which can be traced from outside the encircling walls, shows that this silt must have been deposited by mudflows. The colour and structure of the sand from the bed of the River Chilburdzhsai into which water flows from the streams coming off the mountains seems to support that argument. It can therefore be assumed that one of the ways in which the moat might have been filled in antiquity was by using the water brought down by mudflows.

It can clearly be seen in aerial photographs that all the walls encircling the site of Kojtepa were built as a single unit without any gaps, apart from the northern wall and, in particular, its north-east corner; there, if one moves a short distance away, to the left of the corner, a dark section can be seen which shows that there is a break in the northern wall at this point. It is possible that there was once an entrance there, or a space in front of a gate. This gap links with the pit of the moat, however, which suggests that the drawbridge of the wall had been set up at that spot.

Finally, there are several more details in the aerial photograph which indicate the special features of the site's layout. The first is the pale line linking the citadel and the north-east corner. The aerial photograph made it possible to "reconstruct" in part the lay-out of the wall, at least until the time of its subsequent major destruction. A similar site designated as No. 322 on the same aerial photograph (in the lower right-hand corner), very close to other sites (323 and 324), is square in plan and has a citadel at its centre. Along its western wall, there is a pale line (a wall or rampart), which could have been part of an irrigation system, such as a feeder canal: it then continues in a north-south direction, the beginning of this canal being linked to another winding irrigation canal (known locally as an *aryk* or *sai*).

In the topographical surveys conducted by UsB, and in the field by Simone Mantellini, around Kojtepa for a radius of 6 km, about 150 sites have been identified, which, apart from their good or poor state of preservation, give clear evidence of the extent to which the area immediately north of Karatyube was settled and inhabited; amongst those sites, there are many different sized *tepe*.[9]

On the archaeological map provided by O.N. Inevatkina (2010), sites with a lay-out of this kind are classified as "early medieval" and have Hellenistic layers at their base. As excavations at Kojtepa have shown, the upper levels of the site – to judge from the archaeological finds – date from the Late Classical period, i.e. to the 3rd or early 4th century CE. Apart from Kojtepa, other walled settlements located on the Dargom steppe are also classified as sites founded in the Hellenistic period. On a 1905 map, the sites nearest to Kojtepa were designated as the Abduvaitepa "Bugry" (or hillocks); they have survived to the present day, though they have suffered major destruction.

Archaeological excavations at the site have shown that the ancient population at Kojtepa was heavily engaged in agriculture. There are many signs of agricultural activity, the most numerous being different kinds of millstones. Despite the powerful walls of the settlement – two rows of defences, a moat, and an encircling wall – the economy played an important part in the life of the inhabitants. It was noted above that the whole territory adjoining the site was a border region between the steppes of the nomads and areas having a farming culture. The el-

of the Republic of Uzbekistan in the 1970s, it proved possible to piece together a general picture of the cultural development of the region over a long period.

9 Sites Pas nos. 540, 538, 530, 083 (Karaul), 082, 176 (Kara Tepa), 177 (Azliartepa), 511, 512, 519, 514, 513.

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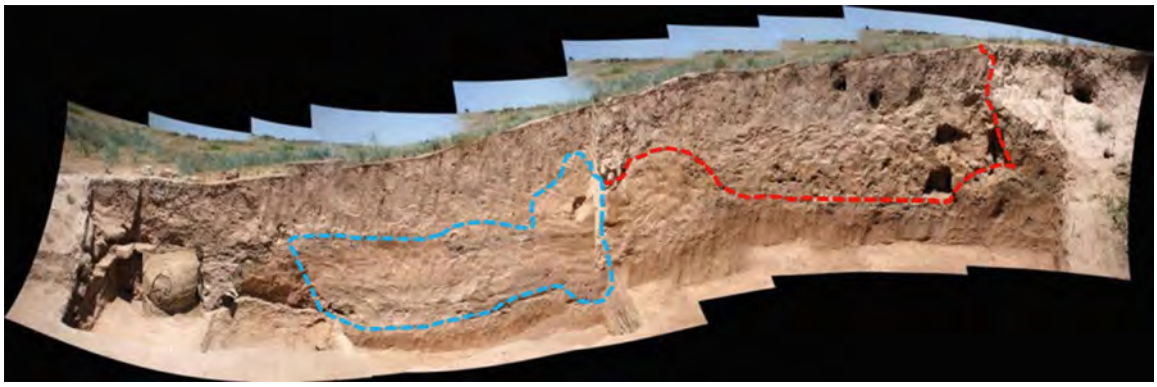


Fig. 2a: Sections 1 and 2 after the excavation; on the left are the cultural layers, and on the right, the remain of different clay blocks (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo and drawing by Luciano Rendina 2009).

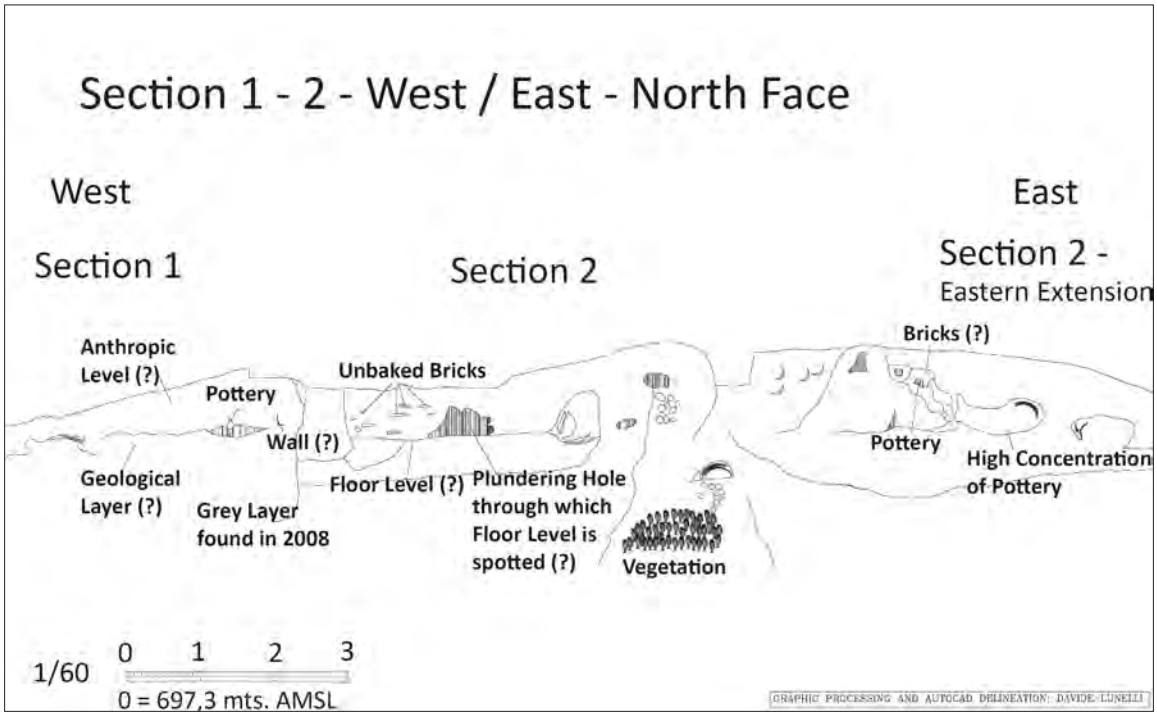


Fig. 2b: Sections 1 and 2, from west to east – North Face; after field activity in July 2009 (drawing by Luciano Rendina and Davide Lunelli).

evated position of Kojtepa, and the fairly even relief of the area around it, lent it a major strategic importance. From its vantage point, not only neighbouring settlements were clearly visible, but also distant places to the south, settlements situated in the main on mountain slopes. It should be remembered that in the settlement of Boisarytepa, founded in the Hellenistic period and located next to Sazagan, a Seleucus I tetradrachm was found during excavations by the Uzbek-Italian Expedition of UsB (Abdullaev/Franceschini/Raimkulov 2004).[10] The location of the site made it possible to survey from a high vantage point the whole Dargom Valley. Bearing in mind this feature of Kojtepa, one can assume that settlements of this kind could have been used as observation posts from which warnings of an enemy's approach could be sent out, but also as a means of

10 For other important coin finds in the area, see Zejmal'/Vafaev 1982; Abdullaev/Erkulov 2004; Abdullaev/Berdimuradov 2010.

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delimiting fields for intense agricultural activity. Small towers have also been identified during the survey, around the encircling wall, similar to those of Kafir Kala (Rondelli et al. 2003), even though on a smaller scale.

3 Archaeological work in 2008, 2009, and 2011–2015

All these activities have provided the basis for a better understanding of the site and its related historical and archaeological problems. The archaeological approach taken was to first single out a preliminary stratigraphic sequence, and then to collect as much dating material culture as possible in order to propose a typological and chronological span time in different parts of the site: alongside the encircling wall of the *tepe* (to the east): on sections 1 and 2 (in 2008) in its eastern (Trenches 1–4) (in 2009) and southern areas (Trench 6, and the related extensions), Trench 8[11] (in 2011–2012), Trench 10 (in 2011–2012); on the top of the *tepe*: Trench 5 (in 2011, 2012, 2013), Trenches 11–24) (2013–2015); in the flat area between the *tepe* and the eastern wall: Trench 7 (in 2011)[12] and the area between the main *tepe* and the north-eastern corner, Trench 9, with different successive extensions (in 2011–2015).[13]

11 This Trench was opened ca. 12 m west of Trench 6 in order to see if other parts of the area, possibly within the encircling earthen wall, were still standing or were re-settled later. The Trench was 63 m long (north to south) × 2 m wide (east to west). The first cut removed SUS (Stratigraphic Unit Surface) and SU1. At 15 cm in depth, wall SU38 was found.

12 Trench 7, 3 m wide × 4 m long, located on the surface between the central *tepe* and its eastern wall, was opened in order to gain a better understand of the archaeological consistence of this part of the site. There was no trace of any man-made phenomenon. In order to reach the basal soil of the area between the central *tepe* and the encircling wall, an area of 50 cm wide was excavated close to the northern wall, which was named Sector A. The northern side of Sector A is made up of four layers, their depth as follows: surface SU0, 6–12 cm; SU1 a stony, compacted texture in which grit is well-distributed, close to the western side, the thickness of the eastern half being 18–23 cm; SU2, 14–39 cm; basal sandy clay (virgin), dark yellow with a fine and pure texture. The excavation of SU (virgin) revealed a soft soil with well-distributed grit. At the end of the excavation, Sector A was 104–114 cm in depth. It was decided to enlarge sector A, whose width was increased from 50 to 70 cm. On the basis of the three layers already existing, SU (virgin) was divided approximately into two parts, because of the disappearance of fragments. Sector A is now 118–123 cm in depth. The depth reached in 2009 at a point between section No. 1 and section No. 2 was QP 692,15 and the basal clay soil here in Trench 7 is QT 691.54.

13 For the Kojtepa reports, see Abdullaev/Dženito 2010–2011; 2011; 2012; Genito 2014; Genito/Gricina 2009; Genito/Gricina et al. 2010; Genito/Pardaev 2015; 2016. For the production of ceramics, see Genito/Raiano 2011; Raiano 2012; 2013; 2014. A first monography on the excavation was published in 2014: Abdullaev/Genito (ed.) 2014. For the most important Italian recent MA and PhD dissertations written on the Sogdiana archaeology from Bologna and Naples candidates, see Franceschini 2007; Mantellini 2009; Di Martino 2011; Raiano 2011; 2014.

4 Work on the eastern part of the encircling wall in 2008 and 2009

In sections Nos. 1 and 2 (**Fig. 2**) were found walls of notable thickness, in bricks and blocks, that had probably belonged either to the original system of the wall compound or to the re-utilisation of a later period. On the western side of section No. 1, the recovery of a notable quantity of ceramics, fragments of millstones, and the remains in situ of a large container for commodities (widest diameter in excess of 30 cm) very close to large bricks located just to the south has allowed us to hypothesise that this area beyond the limits of the sections was also settled.

The opening of trenches, starting in the area between the *tepe* and the encircling wall, has shown a complex stratigraphic situation, the effect of a reuse of the area which, partially having lost its original function, came to have rooms or spaces meant for different activities.

In the central part of the excavated section, traces of walls are clearly visible, made of raw bricks held by clay blocks. On the inner side, toward the *tepe*, the presence of an almost complete jar embedded in a clay bench allows us to hypothesise that structures were built close to the wall.

The four trenches opened in 2009 to the north of sections 1 and 2 – Nos. 1–4 – are progressively narrower according to the orientation of the line of the soil already present in those sections, and were aimed at regularising them. The excavation has allowed us to identify 33 different stratigraphic layers in order to link the materials collected and to read and interpret the different alignments of the architectural remains and walls. In those levels, different kinds of finds, and in particularly two rooms, I and II, with clear, soft and clean floors with different holes for domestic activities, were found.

5 Work on the southern part of the encircling wall in 2011, 2012, and 2013

Trench 6 (4 m long × 4 m wide) over the southern encircling earthen wall yielded a large number of potsherds, stones, bones, ceramic waste, and millstones. The surprising character of this discovery is related

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Fig. 3: Trench 6 2011: jar in situ SU74 (Object inv. no. 0020) (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito).



Fig. 4: Trench 6, EH, the enlargement to remove the jar Pythos SU84 in SU85 (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2012).

to the nature and historical development of the encircling earthen wall. It is evident, in fact, that the presence of such large amounts of pottery typologically and technologically similar to that found alongside sections 1 and 2 would mean that the area of the wall here, and there as well, was occupied by other later structural elements (pits, working activities areas, etc.).

On the northern side, a large amount of clay plaster, over-fired concretions, and ceramic waste has continuously been collected; in the southern part, by contrast, there was a high concentration of potsherds widespread within a dark and greyish, softer soil: fragments of gypsum plaster, goblets, a terracotta female figurine with one arm longitudinal to the body, the other folded. Two fragments of framed sculpted terracotta, small bricks and a simple terracotta fragmented figurine also came to light.[14]

In the area full of sand (SU52) in its northern part, about 140 cm away from the western side and 135 cm from the southern side of the trench, small objects made of mud clay, including loom weights, a sketchy figurine, and a large inverted jar were found (**Fig. 3**). Very rare materials were found on the floor, which was made of a pure yellow/brownish soil.

At the same time, a new area was opened, Trench 6 Extension South, at the south of the trench (6.13 m long × 2 m wide), whose southernmost points were located ca. 96 m from the

14 Stylistically, the item recalls the so-called Venus/Anahita type. For this item and the following figurines, see Abdullaev 2014: 359–382, for a long chronological and typological discussion. For the general issue of the terracotta figurine production, see Meškeris 1965; 1977; Abdullaev/Badanova 1998; Abdullaev 2002; 2013.

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Fig. 5: Trench 10, inner contents of the large fragmented jar found along the southern border, SU164 (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito).

Station 1, the basic topographic point on the top of the *tepe*. On the north-western side at ca. 70 cm from the northern side of the trench, large fragments of the upper parts of two jars in situ came to light: the first, to the west, was 70 cm in diameter, the second, 10 cm to the south-west, 45 cm in diameter. In the western jar SU47, a small piece of bronze (a rattle with two hole) was found.

Another small trench, 2 m long (east-west) × 13 m wide (north-south), was opened, Trench 6 Extension North. Just below, the soil appears hard and compact and of a light greyish colour. It is definitely identified with the earthen encircling wall SU38 over the whole area.

The eastern half of Trench 6 was also excavated. An interesting fragment of a black-painted and engraved rim of a jar, possible under Kušan influence, was collected. The soil in the southern side is greyish, with gypsum remains inside and around the jar. To the north, a base of an inverted, middle-sized jar was discovered, and, immediately to the east, the edge of a new jar (SU84). It is clear that it is an un-necked *pythos* which goes very deep; basically, the broken rim extends far beyond the eastern border of the trench, and to the west (SU85; **Fig. 4**). Inside SU86, there was a large amount of material, including the stem of a goblet, a wall, the base of a vessel and some terracotta loom weights. Two matching fragments of blackish-painted pottery, considered possibly 4th- or 2nd-century Hellenistic, came from SU85 and SU86.

In order to clarify a possible relationship between the bottom of jar SU74 and jar SU79, found in the eastern half of Trench 6, we again tried to reach the floor of SU73 in the western half. A section of this sandy floor was reached and revealed the square cut made for the removal of jar SU74. Reaching the floor is still an operation intended to clear the excavated area. To the south and north, there are three small holes, in one of which (No. 1), the smallest (10 cm wide), is an ellipsoidal and fragmented (two parts) mud-clay projectile. Other holes, located to the north of SU81, are 15 cm and 20 cm in size. The eastern limit of this activity is SU81, more or less very close to the border left un-excavated, and more westward. Floor SU73, which is being continuously uncovered to the west, looks very sandy.

In the meantime, three other small holes appeared, No. 4 (13 cm wide), No. 5 (15 cm wide), and No. 6 (8 cm wide), very close to No. 1; these holes, like the ones which have already appeared, are located in this very thin layer of clay, which covers the same layer of sandy pebbles.

Trench 10 (4 × 4 m) was opened in 2013 not very far from Trench 6. To the south there is a mostly soft terrain; to the north it is harder. To the west, and deeper, there is a burnt reddish area approximately 20–30 cm wide. In the middle, there were large pottery fragments and grey-brownish terrain; no alignment and no other structural elements are visible at the moment. In the same level, SU120, the head of a figurine and a terracotta tile with a figurine in Hellenistic style, have appeared.

On the southern border, the fragments of the lower part of a large jar were found, the rest of which is still in the soil. The vessel is designated SU134, the internal part SU164 (**Fig. 5**). Around the vessel, a flat area is almost recognisable, SU165, where pottery

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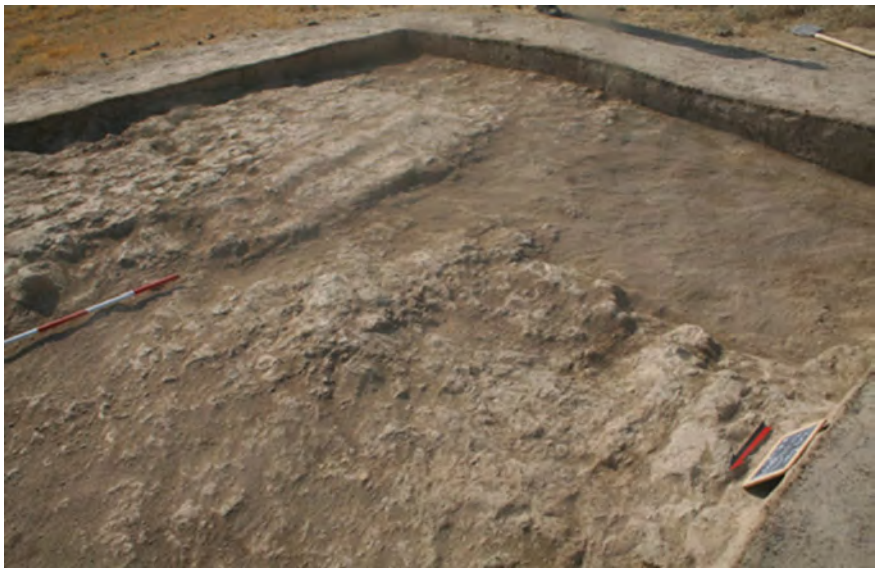


Fig. 6: Trench 11, SU101, 95 (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2014).

fragments are located in situ. The area is clear and the distribution of the pottery fragments is more or less regular, even if at different heights. In the northern section, the reddish line identified seems to indicate a level (the bottom of SU120). The plane is SU167. All the pottery fragments, stones, and some animal bones are grouped into 24 numbered items.

A further enlargement 3 m long (south-north) and 1.38 m wide along the eastern border of the trench was opened in order to understand the alignments of mud blocks oriented north-east to south-west, which from one side could be interpreted as belonging to the encircling wall of the *tepe*, from the other side as a small wall built in connection with the location of the vessel indicated as SU134. One goes down for more centimetres and most probably the line of wall SU170 seems to go down as well, even a little bit at the north-eastern corner, where the line seems to disappear. A small rectangular area 60 × 35 cm was extended on the external southern border of the trench in front of vessel SU134 in order to remove its fragments completely.

The outline of an oval pit (SU172) appeared and was excavated, to the detriment of the scarce amount of material, and the bottom was reached at 35/40 cm from the top. The border and the bottom are difficult to clearly identify. Another extension was made to the west, 50 cm wide (west to east) × 5 m long (north to south).

6 Work on top of the *tepe* in 2011, 2012, 2013

On the top of the central *tepe*, several trenches have been opened in order to investigate possibly the earliest periods in the most elevated archaeological deposit (ca. 9 m higher than the plain) of the site. In Trench 5, the alignment of walls probably different in chronology, SU35, running north-east to south-west, and perpendicular to possibly another wall, SU41, have been identified. To the south, a female terracotta figurine (in the style of the so-called *Venus pudica*) was found (Abdullaev 2014*:* 359–364, 377, Fig. 1). Different mud remains and floors appeared to the west of the two walls and between them to the north.

Continuing the excavation, a row of two large mud bricks was located on a fragment of the original corner of a wall, which probably goes in the direction of wall SU35. The eastern and northern faces of wall SU58 have been uncovered. Along the eastern border, SU115 is constituted on the top by two big mud blocks delimitating a kind of structure.

Whilst excavating SU116 and removing part of SU106, we discovered pottery fragments that belong to the same handled vessels still in situ, partially decorated by incised wavy lines and partially painted with parallel narrow red lines; these fragments can be pieced together. In the north-east quadrant, SU106 is being cleaned and recorded. However, lumps of mud clay and sporadic pottery fragments aligned vertically have been found. The sections in the north-west quadrant clearly identify SU63, SU113, SU41, and SU118. A single pottery fragment (the painted disc-shaped base of a goblet) (Tall-i Barzu type)[15] has been found in situ on the top of the floor.

15 This base type has been considered, and is still, a fossil guide for the chronology of the pottery production in Sogdiana, see Grigor'ev 1940; 1946.

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Fig. 7: Head of a terracotta figurine, gender unclear (Inv_Object no 61, Trench 11, SU95 (after Abdullaev/Genito (ed.) 2014; photo by Kazom Abdullaev).



Fig. 8: Trench 11, SU119, post-holes (MAI, IMG_5306) (Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2014).

In 2013, Trench 11 (5 m north to south, 5 m east to west) was opened just to the east of Trench 5. Structural remains running north-south all along the trench in its mid-eastern sector were designated SU94; they occupy all the western half of Trench SU93 and run from the eastern limit of SU94 to the eastern limit of the trench; it should be an empty area (**Fig. 6**).

In SU95, the head of a terracotta figurine was discovered (**Fig. 7**).[16] In the process, SU104 was cleaned again, with some softer terrain still present between the clay agglomerates. We continued to remove SU102 and finally reached SU104. Under three pot fragments, on the same SU112, fragments of horse teeth and painted pottery were found together; in the same context, there was also a biconical spindle-whorl in black pottery. Another find was a squared pottery piece with a hole in the middle and possibly incised marks on one face (seal).[17]

The thin layer of clay in the northern part of SU110 and SU156 in the north present the same mixed terrain, brownish, quite soft, grey, and harder, more compact.

There is a continuation of SU106 in Trench 5, with large, medium and small irregular mud blocks which seem to be located over a plane. The big stone, surrounded by potsherds, in the north-western corner of former SU168 is still embedded in the ground. The final operation is to remove SU162 in the south-west corner of Trench 11. The bottom that was reached in the southern area of SU is possibly the extension towards the west of SU111; in the northern area, the reddish terrain remains. Anyway, the nature of this particular SU and its relations with the surrounding area are still difficult to interpret, requiring further examinations and the complete removal of SU.

Work continued in Trench 11 in 2014 to remove SU106, located on the north-western side of the trench. This SU was first recognised in Trench 5 when Trench 11 was not yet opened. This SU is a cultural level composed of irregular mud elements

16 At a first glance, it seems quite peculiar: it displays both Hellenistic features (mainly the mouth and vicinity to the nose) and Central Asian ones (such as the elongated eyes and the strange hat, which looks like both the "Scythian beret" as seen in the Achaemenid representation, and a helmet.

17 It could be a spindle-whorl, but the identification is problematic due to the square shape (most probably used as amulet).

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Fig. 9: Trench 13, SU176: mud blocks of a greyish clay (MAI, IMG_6314) (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2014).

of dimensions ranging from small to quite a few centimetres, located on the north-eastern side of Trench 5. It is also characterised by a series of hard mud "blocks"; within them, there is a softer, dark, grey-brownish soil.

Removing SU178 (filling SU177), we found one pottery disc, one small stone, and one mud-clay lump. SU178 had an irregular shape, 55 × 17 cm maximum dimensions, 21 × 7 cm minimum. In the three corners, there were different elements that came from the excavation of SU177. During the cleaning operation, this particular soil continued below SU119; the layer is designated SU184.[18] SU119 is not completely removed because, after a deep cleaning operation, some small holes were found, widespread over the plain and ranging from ca. 5 to 1 cm in diameter; they appeared in the central part of SU119.

One hole is in the corner between Trench 11 and Trench 5. There are two more holes on the southern side of Trench 5. All of them are interpreted as "post-holes", and SU119 is cut by all the SU represented by the holes. All these holes are circular and have different dimensions (**Fig. 8**).

A new area, Trench 12, was opened in 2014 on the top of the *tepe* to gain a better understanding of a possibly massive piece of architecture on the elevated part of the site, following the jump of altitude. This trench extends for 5 m north to south, and 3 m east to west, starting from the middle of Trench 11. Close to the western side of the trench, adjacent to SU94, big fragments of large jars and some limestone in medium dimensions (about 20 cm) were discovered.

There are some fragments of ceramics located vertically, a pottery disc, and, possibly in connection with it, a very large granite millstone and a small grinding-stone.

18 In the south-eastern border, an object difficult to interpret has been found: it is made of terracotta, prismatic in shape with a narrower top, and its dimensions are: max. length 25 cm, height 7 cm, max. width 14 cm, minimum 7 cm. In the top there is a small concave depression. The object has a fracture line in the middle.

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In SU176 during the cutting of a layer in the southern half, near to the eastern wall of SU94, one terracotta tile with the representation in relief of a fragmented figure (male or woman) touching with both hands a probable musical instrument was found.

On the north-western side of SU270, one stem on a flat base (goblet), one pottery disc, charcoal fragments, and a few animal bones have been found. Trench 12 was extended for another 2.5 m to the south (Trench 12.1). One spindle-whorl, one piece of pottery slag, and some pottery fragments were collected. In SU181, some mud blocks, one aligned on an east-west orientation, were found.

Trench 13 was opened in 2014 along the eastern side of Trench 12; it is 5 m long and 2 m wide. During this excavation, on the northern side along the western wall, mud blocks of greyish clay were found, constituting a new layer (SU317), separated by six channels (north-south: SU318–323) (**Fig. 9**).

Trench 14, located on the south-eastern side of the *tepe*, and continuing to the southern side of Trench 11, is 5 m long north to south, and 3 m wide east to west. A large number of potsherds, three pottery discs, and a ceramic filter were discovered. In the southern section, a large area reddish in colour – SU265, a kiln – has been found, with two or three compacted bricks. SU265 (from north to south: 1.28 m north to south, 0.75 m east to west) and SU342, located in the north-western corner of the structure, are being revealed.

Trench 15, which is located to the south of Trench 14, is 3 m wide east to west and 5 m long north to south. At this point, the excavation of SU268 has suggested that this is a fireplace/kiln. The reddish colour appears in particular at the southern limits of SU290. On the north-western side, there is some baked clay, arranged in a linear fashion, while on the western side there is another clay block, greyish coloured, that is on an upper level with respect to the southern limit. Maybe this area was originally bigger than now and the southern limit was lost during the former excavation. Clay elements located in SU330 and SU268 are of different sizes and shapes, but two of them, in the lower face, are wavy. The larger is around 16 × 23 × 13 cm. No other finds, such as bones or charcoal, were discovered. On the south-eastern border between SU326 and SU268, one piece of clay slag was found.

From Trench 16, one pottery disc came up in SU306. Oriented west-east are a series of alignments which probably constitute SU314, under which there seems to be compact clay soil of a greenish colour.

A few baked clay, and very few pottery, fragments came out; one animal bone and one pottery disc with a hole were found in SU332. The outline of wall SU314 is becoming clearer. A third cut was made in the same SU329 and two pottery bases (one of the Tall-i Barzu type), and one stone spindle whorl with incised signs, have been found.

In Trench 17, which is contiguous with Trench 16 to the south, a very large number of pottery fragments were discovered, including pottery discs. On the northern border, denominated SU307, one pottery disc was found, the southernmost SU315. During the removal of SU290 in the eastern part of the trench, a new layer, denominated SU325, came to light.

In the area common to the three former trenches (14, 15, 16 to the south), on a sloping edge, the soil is very hard and compact, suggesting it may be the dissolution of structural remains. Along the eastern border, there is subsidence just where there is a change of altitude. All the area around SU265 (furnace/kiln?) is very hard and compact along the western border. Between the former Trenches 14 and 16, there is no evidence of the continuation of SU94; the soil is whitish; south of SU265, it is still reddish.

When the soil was being removed, three main areas were found: SU94 (old), SU291, and SU265. SU94 was localised clearly in the north and east; it presents mud-clay blocks. In the northern section, these blocks are rather regular, but to the south the situation is quite different because the blocks are mostly eroded. There are burnt clay elements (bricks, potsherds) and pottery still in situ, all close to SU265, in the centre of the trench. It is a very compact and well-burnt area, with some mud bricks with a reddish colour. The situation is similar in the western section of the trench.

The excavation of trench 15/17 on SU290 revealed the hardness and consistency of the soil, even if some areas are soft. During the removal of SU290, some areas of a different, reddish and grey colour, have been found.

Trench 18 is located to the south of Trench 13 and measures 5 × 3 m. The soil is brownish in colour, darker, and has roots. During the excavation, a few potsherds were found. Work continues on SU317, which extends to the southern end of Trench 18, and the end section of the trench are badly preserved.

We started with the general cleaning of the two sectors 13 and 18. The SU which connects to the east has been denominated SU288, a sort of washout layer, covered by SU156 and connected to SU317. It is a not very compact yellowish-brown coloured clay matrix. On the inner side, there are no inclusions, but sporadic pottery fragments and some uniform mud-block clay.

On the top of the *tepe*, a new area of excavation, Trench 19, was opened in 2015, east of Trench 12; it measures 7 × 3 m.

SU400 was removed, where we discovered Tall-i Barzu type bases, and another probable rim with an sort of decoration with grooves (Inv. Object 0250). SU402 is the continuous section of SU317, and con-

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Fig. 10: Trench 24 SU452, Dep. Neg. IMG_3920 (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2015).

sist of mud bricks measuring 40 × 30 cm. Its entire width is 1.2 m and on the western side consists of baked soil. Situated on the western side of the trench, and consisting of grey mud bricks, SU403 is possibly a wall.

Jar fragments were also removed. In order to remove the pottery fragments, it was decided to go down 20 cm. Of note among the finds in SU401 are a small bronze pin (Inv. Object 0245), two Tall-i Barzu-type bases of vessel, of which one is complete (Inv. Object 0233, 0234), and one pottery disc.

The western side of structure SU402 consists of baked plaster – in a poor state of preservation – and large pottery fragments set in the northern side of SU401. In the middle section of SU402, an elongated stone, as well as four other stones, are arranged in a horizontal line, probably inserted beneath SU401 pottery fragments placed vertically. Moreover, its eastern side (Trenches 13–18, SU308–317) was removed to reveal only the lower part of the wall. In the north-eastern corner of SU451, there is a hole in the wall, probably a drainage pipe that passes through the wall in order to reach the outside. The mud bricks measure 38 × 38 × 12 cm, just like the mud bricks in SU445.

Trench 20, which is open on the northern side of Trench 19, measures 3 × 3 m. SU402 seems to end about 1 m from the southern side, and the remaining part seems to be SU401. We started to remove it so as to reach the pottery fragments in SU401 of Trench 19.

During the excavation of Trench 19/20, SU401 pottery fragments, including another Tall-i Barzu-type or pottery disc (Inv. Object 0235), were discovered.

In the southern part of Trench 19, a layer consisting of potsherds was designated SU417. It should be noted that on the eastern side of Trench 19, near SU402 and 409, there is a pit, SU428–429 (cut and filling). The latter, SU429, consists of a loose clay matrix soil of greyish colour and is 20 cm in diameter. A small pottery disc was found there. Trench 21 was opened near the north-western side of Trench 20, on the eastern side of Trench 20, and on the northern side of Trench 13, measuring 5 × 2 m. In the southern section of SU436, a painted neck of a vessel was found.

At the western limit, a small hole was found (SU431), with a diameter of ca. 10 cm. After cleaning, a new layer was discovered, SU436. Inside, some pottery fragments and one white stone pendant were found. In the eastern section of Trench 21, some fragments of a big *dolium* (SU438) were discovered, as well as a pottery disc in SU438. As SU436 was removed, a small oval-shaped stone with a hole in its middle (Inv. Object 0247) was discovered. In the south-east section of SU450, there was a black stone object on which different sized circles were incised.[19] During the cleaning operation, two potsherds (two possible covers) and another pottery disc came to the light in north-east side of the trench.

New Trench 22, 5 m (north to south) × 2 m (east to west), strongly sloping to the west and contiguous to Trench 19/20, was open on the eastern side.

19 In one of the tombs at Filippovka (Orenburg district, Russia), for the first time a complete set of implements for tattooing was found, and among the objects there was also a stone palette to mix colours, very similar to the object discovered here.

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Fig. 11: The area of Trench 9 before the excavation, the gentle slopes to north and south, with an almost circular perimeter (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2015).

The space between SU419 (wall) and wall SU402 was excavated. These fragments of soil, the results of a few cuts, do not have any real consistency.

The sloping edge of Trench 22 allows one to follow the external area of wall SU402, which in its limits and faces is not very clear, even if it is more than 1 m wide. The northern face of the wall is made of compact hard clay and not from brick and/or *pakhsa*. Along SU402, it becomes a hard and compact grey around SU455, and this probably contributes to our understanding of the wall (one polisher and one pottery disc were found). In Trench 22, SU443 was cleaned, starting along wall SU402. A new layer along the eastern side of SU402, named SU455, was noted. It consists of a compact clay matrix soil with some light-grey potsherds. It has been defined as SU463, in the space between SU419 and SU402. When starting to remove SU463, two stones, two pottery fragments, and two pottery discs were found.

Trench 23 was set up ca. 20 m to the west of Trench 21. In terms of stratigraphy, it is possible to identify a deposit because some ruined structures on the *tepe* were discovered. In fact, one can notice some brownish mud bricks. SU444 was excavated down for about 20 cm along the whole trench. In the north-west corner, a turtle's shell of medium size was found, while in the south-east corner, part of a circular pseudo-structure constituted by grey mud bricks was identified (SU452). A new layer, SU454, consists of a compact clay matrix soil with remains of mud bricks. SU454 is covered by SU444 and covers SU452.

Trench 24 was opened near Trench 23 in order to reveal more of the continuous section of the structure found in Trench 23 and named SU452. In this layer, the fragments of the base of a vessel were found, as well as two stone objects. Along the eastern and the southern sections, a group of small mud bricks was located ca. 20–30 cm from the surface of the layer belonging to a previous structure different from SU452. As SU494 was excavated, and after a detailed cleaning with trowels, 15 new mud bricks oriented south-west to north-east and 38 cm wide × 38 cm long were found (**Fig. 10**).

7 Trench 9

Trench 9 close to the encircling wall was first opened in 2011 in the inner space between the wall and the central *tepe* towards the north-east corner of the site. This area provided evidence of the only slightly elevated mound (**Fig. 11**). It could be interpreted either as a structure, a late deposit of the wall's collapse, or as a barrier (made by the collapse of the encircling wall) against the moat. The hillock slopes gently to the north and south and has an almost circular perimeter of ca. 20 m. After a careful excavation, fragments of mud brick have been found, meeting at right angles, one oriented north-west to south-east and 70 cm wide, the other oriented west-east and ca. about 90 cm wide (bricks: 40 × 40 cm, and 20 × 20 cm). In the extensions of Trench 9, different alignments of mud bricks have been found, which have given evidence of complex structural re-

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Fig. 12: Trench 9, new alignments in the new trench as seen from the north-west (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); photo by Bruno Genito 2011).

mains (SU75):[20] south to west extension (in 2012), west extensions 2 and 3 (in 2012), west extension 4 and 5 (in 2013), extension 6 (in 2014), and east extension (in 2015). These finds are still difficult to completely analyse and interpret.[21]

After many attempts, it was finally possible to confirm that the mud-brick platform SU75 extends to Trench 9 (east-west), while only a few tracks were found, especially in the eastern part. The southern border was full of collapsed mud bricks of broken irregular shape and order.

Mud bricks arranged vertically have been identified, their width 8–13 cm, the gap between them ca. 2–5 cm. To the north, the situation is much the same: approximately 20 mud bricks in a vertical arrangement, their length a little shorter. Along the line of the vertical bricks, two new bricks were found, their width ca. 23–25 cm.

The decision to excavate SU75 was based on the following aims: to find the edge in both the southern and northern sections; and to follow its spread along the slope in the western section, the position of which is Trench 9 Extension 5, and to the east Trench 9 Extension 6. To the north, though the existence of vertical bricks showed some analogies with the southern part, the border is still unclear. Two mud bricks were recognised distributed along the slope; they have more or less the same orientation as the ones on the top. To establish the bricks' layout in the eastern part, several cuts were made.

The work focuses on distinguishing mud bricks from the other part in Trench 9 Extension 5; as a result, about six lines of bricks were recognised. Although there is still a gap between bricks on the top and the later ones, their orientation could have been the same. Like those on the top, bricks along the slope also have different sizes, and can basically be divided into two kinds: most are more or less square, while there are others are rectangular, both of them approximately 40 cm wide. In terms of texture, there are also two types: one is off-white, compact and sandy, and the other is greenish and more fragile. More details, such as their distribution up and down the slope, should be noted, also their joining the bricks in Trench 9 Extension 3–4. There is a hard block to the east of the vertical bricks already recognised, and some collapsed bricks with compact texture distributed between the two areas of vertical bricks. In Trench 9 Extension 5, along the bricks on the slope already noted, eight mud bricks were found, six of them forming the same horizontal line. Not all of the bricks have the same size; the biggest, located at a lower level, is ca. 47 × 39 cm (**Fig. 12**). According to the distribution of newly found ones, it is quite clear that there are also bricks in the southern part of Trench 9 Extension 5.

Several cuts have been made in an attempt to find new bricks at the end of the slope, in the area close to the flat ground, in Trench 9 Extension 5. As a result, the situation of this area could probably be divided into two parts. In the southern area, the texture has always been very hard and compact since

20 SU75: a hard and compact platform made of mud bricks and its following extensions.

21 The structure found consists of square mud bricks mostly measuring 37 × 35–37 cm and 40 × 40 cm. It should be noted that the bricks measuring 40 × 40 cm are typical for the Early Hellenistic period and possibly, in this particular case, they could have come from earlier levels and have been reused.

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the beginning of the excavation; the colour is off-white, and there are fewer insect holes in it. In the northern part, which is of a brownish colour, the texture is less compact and there are more insect holes; most of the potsherds were found in this area. In the upper part along the slope, two cuts were made in order to find more bricks, but only two lines, which formed a more or less rectangular shape, were discovered. Its relationship with the area of Trench 9 Extension 1–2 and the newly found bricks of Extension 5 still needs careful consideration.

Several bricks were identified, quite different in orientation and size from the ones located to the north, which were formed in lines. Although details of the bricks still need to be confirmed, their arrangement could not be explained as a common accumulation of collapsed bricks, especially considering the position of this area, between the two areas where bricks have been found. The different size and orientation may indicate some reuse during the later period, and the breaks between different bricks also support this. Work still focuses on the details of the area not clear in Trench 9 Extension 5, especially the area close to bricks put in order. After two cuts, two more bricks were recognised; their size too is different from that of the regular ones. In other parts along the regular line, no obvious traces of bricks were found, while in the upper part along the slope, several bricks different in size and orientation were found, some of them difficult to recognise, with only one side being confirmed. The soil among the irregular bricks is brownish and very soft, and it was here that most of the potsherds were found. Some of the bricks in the southern part were covered in a thin, very hard and off-white layer full of compact sand.

The situation is also not clear in Trench 9 Extension 3–4, which was full of irregular bricks, even in the lower part. There are at least five layers of bricks from the top to the bottom.

Close to the flat inside surface of Kojtepa, there are still fragments of bricks in this area. As mentioned, at least five layers of bricks can now be identified, and the surface of the bottom layer was found. Of all the objects (potsherds, stones, sinter) unearthed in this area, a fragment of pottery is particularly important. In the meantime, another new cut was also carried out in the lower part of Trench 9 Extension 5. The thickness of the five layers of bricks is about 48 cm; the deepest part of Trench 9 is along the northern side of Extension 3–4, ca. 50 cm, while the shallowest part is along the western side of Extension 3–5, ca. 10 cm.

In order to understand the distribution of bricks along the slope, another excavation was carried out in the lower part of Trench 9 Extension 4–5. Fragments of a big jar and bricks, as well as pieces of plaster, were found. Considering the slope and its loose texture, excavation in this area should be continued in the future.

In the meantime, a new cut, named Trench 9 Extension 6, was begun. The size of the new extension, which was opened along the southern side of Extension 5, is about 2 × 5 m, and 1.5 m away from the western line of Extension 5. The same work was continued in 2014 in Trench 9 Extension 6. As a result, approximately eight rows of bricks were found, spread over almost all of Extension 6 along the slope; only the area on three sides (west, east, south) was not cleared. Considering the situation in Extension 5, which has proved to be full of irregular collapsed bricks, the area around the east and west sides especially may be in the same condition as Extension 6. Close to the west side, the same kind of texture, which is soft, brownish, full of insect holes, was extended, but finally stopped by a hard, off-white texture. In terms of size, there seems to be a special kind of brick, the big rectangular one, not only in Extension 6, but also in Extension 5.

A very thin cut was made close to the eastern and southern sides of Trench 9 Extension 6 in order to see if there are any bricks. As a result, about three alignments of bricks, arranged in eight rows, were found. Four of the rows have an orientation that matched that of the rows in Extension 5, though because of this the southern line of bricks partly disappeared in the southern side of the Extension 6, which means the bricks extend to the south along the slope. In terms of size, one is most irregular, another one ca. 41–44 cm square. But there is still another kind, which has already been mentioned, namely three large rectangular ones. After several attempts, it was still hard to find if there is a line of them inside. On the lower part of the slope, after the off-white, compact soil was removed, traces of bricks were identified, which should be the second layer of bricks under the surface one. On the eastern side a 6 × 5 m trench was opened on the top part in order to clarify the extension and the vertical structural continuity of wall/platform SU75.[22] Excavation confirmed the presence of lines of 40 × 40 cm mud bricks north and south of this cut, and also some smaller and rectangular mud bricks (10 × 50 × 50 cm).

To the north, a new unit, SU407, was found in 2015; looking like a small pit, it contained some burnt potsherds, including a fragmented painted high-necked jar (Inv. Object 0248, no. 2), and two other fragmentary vessels one above the other. The reason for such a concentration of pottery fragments is still not clear, a situation unique in the whole of Trench 9 and all its extensions.

After SU406 was cleaned, a terracotta figurine was found in the east, not far from the segmented

22 SU75: hard and compact wall or platform made of mud bricks in Trench 9 and its following extensions.

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profile of the mud-brick structure, a representation of a *Venus pudica* (Inv. Object 0236). In SU420, a pottery disc was found (Inv. Object 0243), and it could easily be related to a kiln that it will be interesting to relate to SU75. This "kiln" has been excavated. On the inner side of SU426 is a quadrangular structure measuring ca. 80 × 70 cm. Its walls are reddish due to the thermic alteration. When SU427 was removed, a structural element with a diameter of 13 cm was discovered, interpreted as a pillar and named SU433. At the base of SU433, a cooking surface formed by terracotta ca. 2 cm thick was also found. The central part of the trench has been confirmed to be a sort of platform or the remains of a large structure, possibly identifiable with an ideological space (*hram* and/or *dakhma*), a tomb, or even a functional space, intended to reinforce the encircling wall of the *tepe* to the east.[23]

8 Trench 9.6

The concentration of very hard and compact soil regularly cut as bricks constitutes SU75, while SU8 represents the collapse and erosion of those structural remains. The depth of SU8 varies from 3 and 6 cm.

This part of SU75, previously covered by SU8, measures ca. 2.50 × 1.50 m, with bricks of different size ranging from 60 × 40 cm, and from 15 × 30 cm.

In Trench 9.6, cuts were extended in two different direction. The first was to the south and measured 1.50 × 3.60 m. This cut, SU0, removed ca. 5 cm horizontally from north to south; the soil is of a brown colour, friable, and with some roots and potsherds. The situation of mud bricks in this area is not yet clear because there has probably been some partial erosion. A second cut was opened in the eastern area of the trench, measuring 3.90 × 1.50 m.

In 2015 a new extension in Trench 9, 1 × 5 m, was opened to the east, focusing on digging SU411, to south of which SU412 was identified and excavated; walls 441 and 442 were identified. SU412 was extended a little (50 cm) to the west. The east-west line of mud brick (continuing the lines of SU75) is continuously evidenced and the line facing south keeps on going deeper (10 cm); digging SU423, an-

23 The first two hypotheses at the present state of excavation are not based on sufficient evidence. As far as the third possibility is concerned, it is important to point out some of the following points related to that particular ritual installations. A *dakhma* is generally a circular, raised structure used by Zoroastrians for the exposure of the dead, particularly to scavenging birds, for the purposes of excarnation. The common *dakhma* or *dokhma* (from Middle Persian *dakhmag*) originally denoted any place for the dead. Zoroastrian tradition considers a dead body – in addition to cut hair and nail parings – to be *nasu*, unclean, i.e. potential pollutants. Specifically, the corpse demon was believed to rush into the body and contaminate everything it came into contact with, hence the Vendidad has rules for disposing of the dead as "safely" as possible. Scholars generally accept that prior to using religious buildings, Zoroastrians usually performed rituals on open-air platforms, which are usually located on high places (Boyce 1992). Such platforms, made of mud bricks, have recently been discovered by an Uzbek-French team at Koktepe, near to and north of Samarkand, and at Sangirtepe near Shahr-i Sabz in the Surkhan Darya Valley. The recent Uzbek-German mission at Kindyk-tepe, in the Bandikhan region of the Surkhan Darya Valley, yielded a religious structure, so far the earliest and best candidate for a Zoroastrian fire temple in Central Asia. The excavation of the Délégation Archéologique Française en Afghanistan (DAFA) at Chashma Shafā, 20 km south of Balkh, in northern Afghanistan, yielded a limestone altar which is one of the earliest fire altars found in Central Asia. Although Greco-Bactrian kings worshipped Greek gods, as shown by the images of Greek deities on their coins, many of the local population may have followed Zoroaster's teachings. Excavations at Sogdian sites, such as Afrasiab in Uzbekistan and especially Panjikent in north-western Tajikistan, yielded buildings religious in character, and sumptuous houses of wealthy merchants, richly decorated with elaborate wall paintings, wooden sculptures and ornamental carvings, many of which contain Zoroastrian-themed imagery. In fact, the Sogdians created the richest set of religious images ever produced in a Zoroastrian context. In contrast with Bactria, where images of deities are often represented in a Greek fashion, the divine images produced in Sogdiana do not betray strong Greek influences. Rather, they seem to follow closely the Indian models and show a strong tendency to assimilate Iranian gods with their Hindu counterparts. During their heyday, many Sogdians moved to China and lived in trading colonies or urban centres along the Silk Roads. Sogdian immigrants brought Zoroastrianism to China. Principal cities, such as Chang'an (today's Xian), the Tang Empire's capital, and Luoyang had Zoroastrian temples: at least five in Chang'an and four in Luoyang, usually in or around markets. In Central Asia, the funeral practice was to expose the dead to vultures or dogs. After the flesh of the corpses was removed, the disarticulated bones were collected and stored in a special ceramic ossuary. Many of these ossuaries are decorated with stamped images of Zoroastrian iconographies, such as temple, fire altar, deities, priests, funerary and other scenes. An ossuary from Shahr-i Sabz, for example, shows the scene of the soul's judgment at the Chinvat Bridge and its admission into Paradise. Two types of *dakhma* were used by Zoroastrian communities in Iran and other places: the first is a round, man-made stone or mud-brick tower-like structure having a platform on the top for exposing the corpses, with a central well that reaches to the ground, used to contain bleached bones; the second is a natural mountain ridge or rocky spur encircled by mud brick walls. The *dakhma* discovered in Durmen-tepe near Samarkand is a variant of the first type. The most famous *dakhma* is at Chil'pyk in Chorasmia in north-western Uzbekistan, used perhaps during the 4th to 8th centuries CE. This spectacular site is a natural rocky mount near the Amu Darya River, along which the corpses could be easily transported from far away. Rising high above the surrounding plain, the site can be seen from a long way off. The *dakhma* contains a monumental staircase, high mud-brick walls and compartments for depositing corpses (*pāvis*). Associated with it was also a fire chamber (*sāgris*). – *Hram* comes from Arabic and means sacred, but also forbidden.

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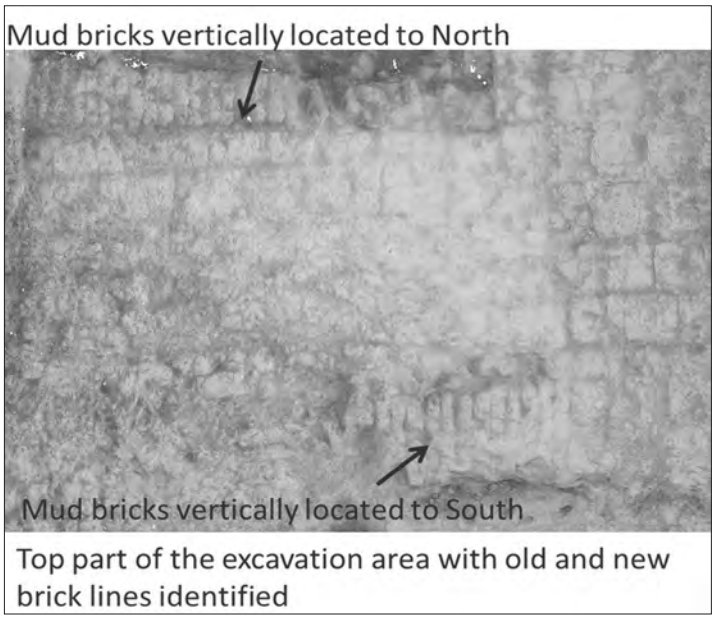


Fig. 13: Trench 9: the condition of the trench at the end of the 2015 season (after Missione Archeologica Italiana (MAI), Università di Napoli "L'Orientale" (UNO); by Bruno Genito 2015).

other part of the mud-brick line facing north was revealed; this face is composed of a very irregular line. A new line of mud bricks was identified, denominated SU442 (west of SU412), perpendicular to SU441 and oriented east-west and on the same level as SU75. North of SU423, there is another mud-brick wall (SU440) oriented east-west (**Fig. 13**).

9 Conclusions

The first seasons of excavation at Kojtepa have clearly established the importance of the site in the history and topography of the area. Its position, between the agricultural area to the north created by the extension of the Dargom Canal, and to the south the piedmont slopes of the Kara Tyube chain, make it one of the most important sites in the region in terms of the relationship between nomadic and agricultural ways of life.

The architectural remains so far unearthed have revealed traces of important fortification walls on top of the tepe, and a clear re-use of the northern and eastern encircling walls dating back to the early and late Hellenistic periods. Future excavations will focus on a still enigmatic mud-brick structure located in the north-eastern corner between the encircling wall and the *tepe*. The material culture collected indicates that there were several distinct phases of occupation, stretching from the 3rd century BCE to the 3rd century CE and beyond.

Bibliography

Ancient Sources:

Arriano, F.
2001: *Anabasi di Alessandro. A cura di Francesco Sisti. Vol. I*, Milan.
2004: *Anabasi di Alessandro. A cura di Francesco Sisti e Andrea Zambrini. Vol. II*, Milan.

Christensen, A.
1943: *Le premier chapitre du Vendidad*, Copenhagen.

Curzio Rufo, Q.
2000: *Storie di Alessandro Magno. A cura di John E. Atkinson. Traduzione di Tristano Gargiulo. Vol. II*, Milan.

Erodoto
1984a: *Storie. A cura di Daniela Fausti. Tradizione di Augusta Izzo d'Accini. Vol. III. Libri V–VII*, Milan.
1984b: *Storie. A cura di Daniela Fausti. Tradizione di Augusta Izzo d'Accini. Vol. II. Libri III–IV*, Milan.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Ruscelli, G. (trans. and ed.)
1561: *La Geografia di Claudio Tolomeo Alessandrino*, Venice.

Darmesteter, J.
1898: *The Zend-Avesta. Part I: The Vendidad. Part II: The Sirozahs, Yasts ans Nyayis* (= Sacred Books of the East 31), New York.

Strabo
1924: *The Geography of Strabo. With an English Translation by Horace Leonard Jones, Ph.D., LL.D. Vol. III*, Cambridge, MA/London.

Islamic Sources:

Abū al-Qāsim Ubaid Allah Ibn Ḫordādbeh
1967²: *Kitāb al Masālik w'al-Mamālik, quae cum versione gallica edidit, indicibus et glossario instruxit M.J. de Goeje* (= Bibliotheca geographorum arabicorum 6), Leiden.

Abū l-ʿAbbās Ahmad ibn Ishāq ibn Wādih al-Yaʿqūbī
1973: Tārīkh al-Yaʿqūbī Aḥmad ibn Abī Yaʿqūb Yaʿqūbī al-Ṭabʿah 4. taʾlīf Aḥmad ibn Abī Yaʿqūb ibn Jaʿfar ibn Wahhab al-Kātib al-maʿrūf bi-ibn Wāḍih al-Akhbārī; qaddama lahu wa-ʿallaqa ʿalayhi Muḥammad Ṣādiq Baḥr al-ʿUlūm, published by al-Maktabah al-Ḥaydarīyah al-Najaf.

Al-Balāḍurī, Aḥmad Ibn Yaḥyā
1916–1924: *The Origins of the Islamic State: Being a Translation from the Arabic Accompanied with Annotations, Geographic and Historic Notes of the Kitab Futuh al-Buldan of al-Imam abu l-Abbas Ahmad ibn Yabir al-Baladhuri by Philip Khuri Hitti and Francis Clark Murgotten*, 2 Vol., New York.

Atalay, B.
2006: *Divanü Lügati't Türk (Mahmud al-Kashgari, Dīwān loḡ āt al-Tork)*, Ankara.

aṭ-Ṭabarī, ibn Ǧarīr
1988–2007: *Muḫtaṣar tāʾrīḫ ar-rusul waʾl-mulūk waʾl-ḫulafāʾ (Tarikh al-Tabari), ser. II*, New York.

Ibn al-Fakih, al-Hamdānī
1967²: *Compendium libri Kitāb al-Boldan auctore Ibn al-Fakih al-Hamadani, quod edidit, indicibus et glossario instruxit M.J. de Goeje* (= Bibliotheca geographorum arabicorum 5), Leiden.

Isṭaḫrī, Ibrāhīm ibn Muḥammad
1800: *The Oriental Geography of Ebn Haukal, an Arabian Traveller of the Tenth Century. Translated from a Manuscript in his own Possession, collated with one preserved in the Library of Eton College, by Sir William Ouseley, Knt. LL. D.*, London.

Minorsky, V. (ed.)
1937: *Hudud al-Alam. The Regions of the World: A Persian Geography, 372 A.H. – 982 A.D. Translated and annotated by V. Minorsky. Preface by V.V. Barthold*, London.

Kojtepa Reports:

Abdullaev, K./Dženito, B.
2010–2011: Arheologičeskie raboty na Kojtepa (Pastdargomskij rajon Samarkandskoj oblasti, iûn'-iûl' 2011 g.), in: Berdimurodov, A.È. et al. (ed.), *Arheologičeskie issledovanija v Uzbekistane. 2010–2011 gody. Vypusk 8*, Samarkand, 9–22.

Abdullaev, K./Genito, B.
2011: Trial Trenches at Koj Tepa, Samarkand Area (Sogdiana) (Third Interim Report 2011). With Contributions by Fabiana Raiano and Davide Lunelli, *Newsletter di Archeologia CISA* 2, 7–72.

2012: Trial Trenches at Koj Tepa, Samarkand Area (Sogdiana), (Fourth Interim Report 2012). With contributions by Francesco Franzese, Davide Lunelli, Sherzod Pardaev, Fabiana Raiano, Li Yusheng, *Newsletter Archeologia CISA* 3, 9–85.

Genito, B.
2014: Trial Trenches at Kojtepa, Samarkand Area (Sogdiana) (Fifth Interim Report 2013), *Newsletter di Archeologia CISA* 5, 197–317.

Genito, B./Gricina, A.
2009: The Achaemenid Period in the Samarkand Area (Sogdiana). With contributions by Luciano Rendina, Maria D'Angelo, *Newsletter di Archeologia CISA* 0, 122–141.

Genito, B./Gricina, A. et al.
2010: The Achaemenid Period in the Samarkand Area (Sogdiana): Trial Trenches at Koj Tepa, 2009 Campaign. With contributions by: Rahimov Kamill and Luciano Rendina, *Newsletter di Archeologia CISA* 1, 113–161.

Genito, B./Pardaev, M.
2015: Trial Trenches at Kojtepa, Samarkand Area (Sogdiana) (Sixth Interim Report 2014), *Newsletter di Archeologia CISA* 6, 195–210.

2016: Trial Trenches at Kojtepa, Samarkand Area (Sodgiana) (Seventh Interim Report 2015), *Newsletter di Archeologia CISA* 7, 153–172.

Genito, B./Raiano, F.
2011: Ceramics from Koj Tepa (Samarkand Area Uzbekistan): A Preliminary Study Report (2009–10), *Newsletter di Archeologia CISA* 2, 103–177.

Raiano, F.
2012: Ceramics from Koj Tepa (Samarkand Area – Uzbekistan): Second Interim Report – 2011, *Newsletter di Archeologia CISA* 3, 337–373.

2013: Ceramics from Koj Tepa (Samarkand Area – Uzbekistan): Third Interim Report – 2012, *Newsletter di Archeologia CISA* 4, 330–340.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

2014: Hellenistic and Post-Hellenistic Pottery from Kojtepa, *Newsletter di Archeologia CISA* 5, 455–477.

Monographs:

Abdullaev, K./Genito, B. (ed.)
2014: *The Archaeological Project in the Samarkand Area (Sogdiana): Excavations at Kojtepa (2008–2012)*, Samarkand/Naples.

Italian MA and PhD Dissertations relating to the area:

Franceschini, F.
2007: *I nomadi della Media Valle dello Zeravshan: territorio e identità culturale attraverso i tumuli funerari,* Alma Mater Studiorum, Università di Bologna, Dipartimento di Archeologia. Dottorato di Ricerca in Archeologia XIX ciclo L-ANT/01.

Mantellini, S.
2009: *La gestione dell'acqua come oggetto d'indagine per la ricostruzione delle dinamiche insediamentali e delle trasformazioni del territorio. Il caso di Samarcanda nella Media Valle dello Zeravshan (Uzbekistan) (Settlement Dynamics and Water Management for the Reconstruction of the Landscape Transformations: A Case Study form the Middle Zeravshan Valley (Samarkand, Uzbekistan)).* Alma Mater Studiorum – Università di Bologna. Dottorato di Ricerca in Archeologia. Ciclo XXI Settore/i scientifico disciplinari di afferenza: Area 10, L-ANT/10, Ravenna.

Di Martino, R.
2011: *Studio analitico della cultura materiale fra VII e IX secolo d.C. nella Regione di Samarcanda (Uzbekistan): analisi morfo-tipologica, produzione e commercio della ceramica di Kafir Kala,* Tesi di Dottorato (inedita) in Bisanzio ed Eurasia, XXIII Ciclo, Università di Bologna.

Raiano, F.
2011: *L'attività archeologica Italiana nell'antica Sogdiana (area di Samarkanda). Scavi e produzione ceramica a Koj Tepa nel contesto storico-archeologico dell'Asia Centrale.* Università degli Studi di Napoli, L'Orientale, unpublished MA Thesis, Naples.

2014: *La Sogdiana tra il periodo ellenistico (III sec. a.C.) e le "invasioni nomadiche" (II sec. a.C.–VI sec. d.C.) L'evidenza archeologica di Kojtepa (area di Samarcanda – Uzbekistan), vol. I, Testo, vol. II Tavole*, Università degli Studi di Napoli "L' Orientale", Dipartimento Asia, Africa, Mediterraneo, Dottorato di Ricerca in Turchia, Iran e asia Centrale, XI ciclo N.S. in cotutela con École Pratique des Hautes Études, Paris.

Articles and Contributions:

Abdullaev, K.
2002: Transformacia grečeskih obrazov v terracote Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj Èxpedicii. Vypusk 3. Arheologičeskie issledovaniâ Kampyrtepa*, Tashkent, 27–36.

2013: Afrodita ili povelitel'nica zverej? Ikonografičeskaâ transformacija v iskusstve Baktrii ellinističeskoj epohi, in: Mustafaev, Š. et al. (ed.), *Kul'turnyj transfer na perekrestkah Central'noj Azii: do, vo vremâ i posle velikogo šelkovogo puti (Cultural Transfers in Central Asia: before, during and after Silk Road)*, Paris/Samarkand, 66–74.

Abdullaev, K./Badanova, E.
1998: Bactrian Dress of Achaemenid Period, *Mesopotamia* 33, 189–218.

Abdullaev, K./Berdimuradov, A.
2010: Moneta Diodota iz Muminabada (Urgutskij rajon Samarkandskoj oblasti) (The Coin of Diodotus from Muminabad (Urgut District, Samarkand Region)), in: Abdullaev, K. (ed.), *Tradicii Vostoka i Zapada v antičnoj kul'ture Srednej Azii. Sbornik statej v čest' Polâ Bernara (The Traditions of East and West in the Antique Cultures of Central Asia. Papers in Honor of Paul Bernard)*, Tashkent, 45–52.

Abdullaev, K./Erkulov, A.
2004: Tetradrahma Geliokla iz Džama, in: Širinov, T.Š. (ed.), *Arheologičeskie issledovanja v Uzbekistane – 2003 god. Vypusk 4*, Tashkent, 15–19.

Abdullaev, K./Franceschini, F./Raimkulov, A.
2004: The Tetradrachm of Seleucos I from the Sazagan Region of Uzbekistan, *Circle of Inner Asian Art and Archaeology Newsletter* 19, 10–13.

Bernard, P.
1996: Maracanda-Afrasiab, colonie grecque, in: Accademia Nazionale dei Lincei (ed.), *La Persia e l'Asia centrale da Alessandro al X secolo* (= Atti dei convegni Lincei 127), Rome, 331–365.

Bernard, P. et al.
1990: Fouilles de la mission franco-soviétique à l'ancienne Samarkand (Afrasiab): première campagne, 1989, *Comptes rendus des séances de l'Académie des inscriptions et belles-lettres* 134, 356–380.

1992: Fouilles de la mission franco-ouzbèke à l'ancienne Samarkand (Afrasiab): deuxième et troisième campagnes (1990–1991), *Comptes rendus des séances de l'Académie des inscriptions et belles-lettres* 136, 275–311.

Boyce, M.
1992: *Zoroastrianism: Its Antiquity and Constant Vigour* (= Columbia Lectures on Iranian Studies 7), Costa Mesa/New York.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

de la Vaissière, É.
2002: *Histoire des marchands sogdiens* (= Bibliothèque de l'Institut des Hautes études chinoises 32), Paris.

de la Vaissière, É./Trombert, É. (ed.)
2005: *Les Sogdiens en Chine* (= Études thématiques 17), Paris.

Francfort, H.P.
1988: Central Asia and Eastern Iran, in: Boardman, J. et al., *The Cambridge Ancient History. Volume IV. Persia, Greece and the Western Mediterranean c. 525 to 479 B. C.*, Cambridge, 165–193.

2005: Asie Centrale, in: Briant, P./Boucharlat, R. (ed.), *L'archéologie de l'empire achéménide. Nouvelles recherches. Actes du Colloque organisé au Collège de France par le "Reseau International d'études et des recherches achéménides", (GDR 2538 CNRS), 21–22 novembre 2003* (= Persika 6), Paris, 313–352.

Genito, B.
1996: The Iranian Empires and Central Asia: An Archaeological Perspective, in: Accademia Nazionale dei Lincei (ed.), *La Persia e l'Asia centrale da Alessandro al X secolo* (= Atti dei convegni Lincei 127), Rome, 401–421.

1998a: The Achaemenids in the History of Central Asia, in: Gubaev, A./Koshelenko, G./Tosi, M. (ed.), *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 149–158.

1988b: The Iron Age in Merv Oasis, in: Gubaev, A./Koshelenko, G./Tosi, M. (ed.) *The Archaeological Map of the Murghab Delta. Preliminary Reports 1990–1995* (= Reports and Memoirs. Series Minor 3), Rome, 89–95.

Grigor'ev, G.V.
1940: Gorodiŝe Tali Barzu. Kratkij očerk, in: Lur'e, I.M./Âkubovskij, A.Â (ed.), *Trudy otdela Vostoka Gosudarstvennogo Èrmitaža. Vypusk 2*, Leningrad, 87–104.

1946: Tali Barzu kak pamâtnik domusul'manskogo Sogda, *Kratkie Soobŝeniâ Instituta Istorii Material'noj Kul'tury* 13, 150–153.

Inevatkina, O.N.
2010: Načal'nye ètapy urbanizacii Samarkandskogo Sogda i ego zapadnye predely, in: Noskova, L.M. (ed.), *Material'naâ kul'tura Vostoka. Vypusk 5*, Moscow, 6–26.

Isamiddinov, M.H.
2002: *Istoki gorodskoj kul'tury Samarkandskogo Sogda (problemy vzaimodejstvij kul'turnyh tradicij v èpohu ranneželeznogo veka i period antičnosti)*, Tashkent.

Kabanov, S.K.
1959: Arheologičeskie nablûdeniâ na stroitel'stve Iski-Angarskogo kanala, *Istorija Material'noj Kul'tury Uzbekistana* 1, 154–175.

Lyonnet, B.
2013a: La céramique de la maison du quartier sud-ouest d'Aï Khanoum, in: Lecuyot, G. (ed.), *Fouilles d'Aï Khanoum. Tome IX. L'habitat* (= Mémoires de la délégation archéologique française en Afghanistan 34), Paris, 179–192.

2013b: La céramique hellénistique en Asie Centrale, in: Fenn, N./Römer-Strehl, C. (ed.), *Networks in the Hellenistic World: According to the Pottery in the Eastern Mediterranean and beyond*, Oxford, 351–368.

Mantellini, S.
2003a: The Dargom Canal and the Early Settlement of the Middle Zeravshan Valley, in: Pagani, S. (ed.), *Italo-Uzbek Scientific Co-operation in Archaeology and Islamic Studies: An Overview,* Rome, 41–48.

2003b: Studio del Kanal Dargom e dell'antica rete idrografica della Media Valle dello Zeravshan, *Ocnus Quaderni della Scuola di Specializzazione in Archeologia* 11, 41–50.

Mantellini, S. (ed.)
2016: *Ancient Irrigation Systems of the Aral Sea Area. The History, Origin, and Development of Irrigated Agriculture. By Boris V. Andrianov*, Oxford/Philadelphia.

Marconi, V./Mantellini, S./Picotti, V./Gabbianelli, G./Tosi, M.
2009: *The Origin of the Dargom Canal in the Oasis of Samarkand (Uzbekistan): A New Scenario from Geo-Archaeological Data* (Conference Paper), EGU General Assembly 2009, held 19–24 April, 2009, Vienna.

Meškeris, V.A.
1965: Rannie terrakoty Sogda (k voprosy ob istokah sogdijskoj koroplastiki), in: Nurdžanov, N.H. (ed.), *Iskusstvo Tadžikskogo Tadžhik Naroda. Vypusk 3*, Dushanbe, 10–29.

1977: *Koropolastika Sogda*, Dushanbe.

Obel'čenko, O.V.
1966: Sazaganskie kurgany, *Istoriâ Material'noj Kul'tury Uzbekistana* 7, 66–81.

1969: Mirankul'skie kurgany, *Istoriâ Material'noj Kul'tury Uzbekistana* 8, 80–90.

1972: Agalyksajskie kurgany, *Istoriâ Material'noj Kul'tury Uzbekistana* 9, 56–72.

Rondelli, B./Mantellini, S.
2004: Methods and Perspectives for Ancient Settlement Studies in the Middle Zeravshan Valley, *The Silk Road Foundation Newsletter* 2/2, 35–38.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Rondelli, B./Tosi, M.
2006: GIS and Silk Road Studies. Monitoring Landscape and Population Change at Samarkand and in the Middle Zeravshan Valley, in: Uno, T. (ed.), *Reading Historical Spatial Information from Around the World. Studies of Culture and Civilization Based on Geographical Information Systems Data. Kyoto 7–11 February 2005*, Kyoto, 459–489.

Rondelli, B./Mantellini, S./Bonora, G.L./Franceschini, F.
2003: Carta Archeologica della Media Valle dello Zeravshan: aspetti diversificati per una comprensione diacronica del popolamento antico - Missione Archeologica italo-uzbeka a Samarcanda: campagna 2002, *Ocnus, Quaderni della Scuola di Specializzazione in Archeologia* 11, 35–63.

Shirinov, T./Tosi, M.
2003: Land behind Samarkand. The Archaeological Map of the Middle Zeravshan Valley: Perspectives and Geographical Repartitions, in: Pagani, S. (ed.), *Italo-Uzbek Scientific Co-operation in Archaeology and Islamic Studies: An Overview*, Rome, 13–40.

Suharev, I.A.
1935–1936: Otčet ob arheologičeskoj razvedke v Samarkandskoj gruppe rajonov (1935–1936), *Rukopis' Muzeâ istorii kul'tury v Samarkande, inv. № 252*, Samarkand, 71–73.

Tosi, M. et al.
2007: La carta archeologica della Media Valle dello Zeravshan: strategie e metodi per la storia del popolamento nella regione di Samarcanda, in: Shirinov, T.Sh./Pidayev, Sh.R. (ed.), *The Role of Samarkand in the History of World Civilization (Material of the International Scientific Symposium Devoted to the 2750th Anniversary of the City of Samarkand, Samarkand, 24–26 May 2007)*, Tashkent, 68–73.

Tosi, M./Rondelli, B./Menghi, E./Mantellini, S.
2002: Interventi archeologici in Uzbekistan, *Ocnus, Quaderni della Scuola di Specializzazione in Archeologia* 9–10, 343–351.

Vâtkin, V.L.
1902: Materialy po istoričeskoj geografii Samarkandskogo vilaeta, in: Virskij, M. (ed.), *Spravočnaâ knižka Samarkandskoj oblasti. Vypusk 7*, Samarkand, 1–83.

Zejmal', E.V./Vafaev, G.
1982: Tetradrahma Demetriâ iz doliny Zeravšana, *Obŝestvennye nauki v Uzbekistane* 5, 38–42.

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The Hellenistic Fortress of Uzundara

Nigora D. Dvurechenskaya

Abstract: Archaeological research was conducted on the Bactrian Fortress of Uzundara from 2013 to 2015. Located in the Baysun Mountains near the top of Susiztag, this monument blocked passage from Sogd territory through the Uzundara Gorge to Bactria. The powerful fortification and its location indicate the importance of the military-strategic value of Uzundara. The fortress, which had a garrison, apparently represents one of the components of a network of the border fortification constructions, including the "Bactrian wall" located 7 km to the north from Uzundara around the Iron Gate, the defile between Balkh and Samarkand. Uzundara Fortress, which is diamond-shaped in plan and has an almost triangular citadel, external sections of additional walls and 13 towers, is built of stone on clay mortar and covers an area of more than 2 ha. The material discovered allows us to determine that the monument belongs to the Hellenistic period. The greater part of this is dated to the 3rd century BCE. The integrity of the monument and the material discovered during investigation demonstrated exceptional prospects for the further research of Uzundara Fortress in the context of the study of Bactrian material culture of the Hellenistic period.

Keywords: Uzundara Fortress, Hellenism, Bactria, boundary system of fortification, Antiochus I, Euthydemos I.

Резюме: В 2013–2015 году были проведены археологические исследования на бактрийской крепости Узундара. Памятник расположен в горах Байсуна на вершине Сусизтага и перекрывает возможный проход с территории Согда через ущелье Узун-дара в Бактрию. О важном военно-стратегическом назначении Узундары свидетельствует мощная фортификация и само место расположения. Крепость, по всей видимости, представляла собой один из компонентов сети приграничных фортификационных сооружений, включая Бактрийскую стену, расположенную в 7 км к северу от Узундарыв районе Железных ворот.

Крепость Узундара — ромбовидная в плане с подтреугольной в плане цитаделью и с выносными отрезками дополнительных стен. Она имеет тринадцать башен. Крепость возведена из камня на глиняном растворе, имеет площадь более 2 га. Полученный в ходе работ материал позволил определить, что памятник относится к эллинистической эпохе. Основная часть материалов датируется III в. до н.э. Сохранность памятника и материалы раскопок продемонстрировали исключительную перспективность дальнейших исследований крепости Узундара в рамках изучения материальной культуры Бактрии эпохи эллинизма.

Ключевые слова: Ключевые слова: Крепость Узундара, эллинизм, Бактрия, пограничная системафортификации, Антиох I, Евтидем I.

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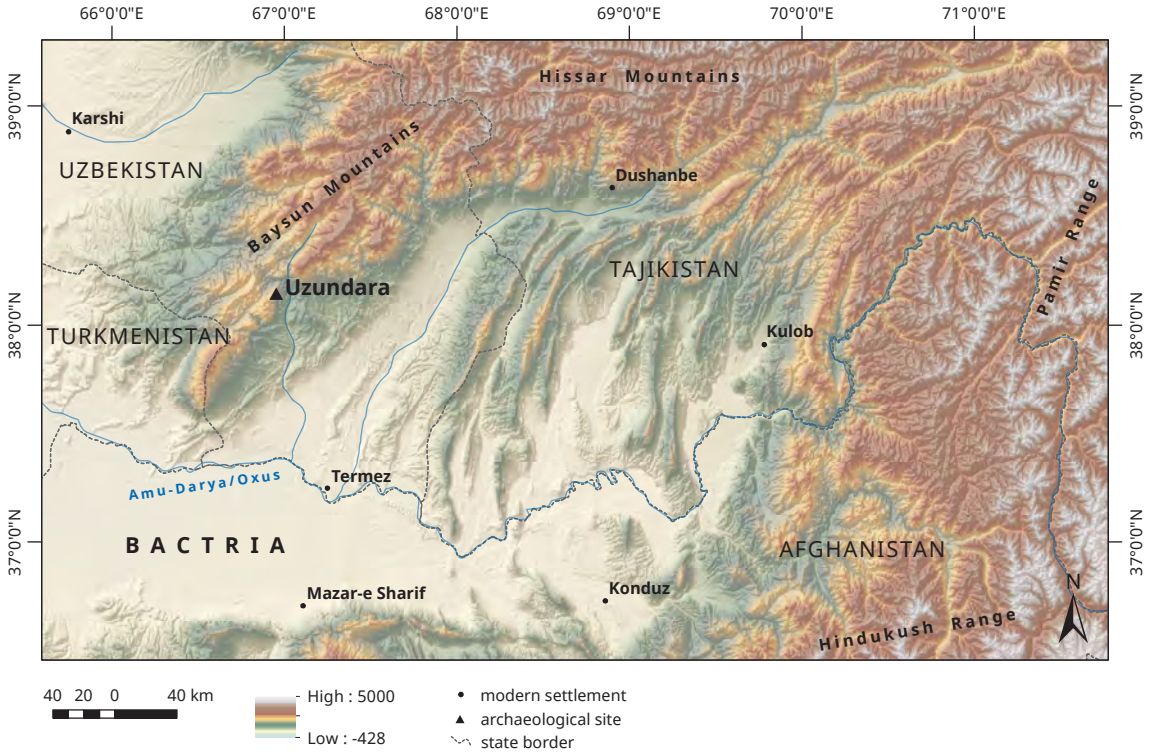


Fig. 1: Map of Bactria (elaborated by N.D. Dvurechenskaya and S. Rutishauser, © IAW, University of Bern).

There are two main problems in the archaeology of the Hellenistic Bactria that need to be dealt with before it's possible to determine the entire historical development of this region. The first is the demarcation of the northern borders of Bactria. The second is the absence of fractional periodisation for the material culture of the Hellenistic period (**Fig. 1**). In our opinion, the study of Uzundara Fortress will help us to make considerable progress in finding solutions to these two problems.

The monument was discovered during the archaeological reconnaissance undertaken by an Uzbek expedition led by E.V. Rtveladze in 1991 in the north-east of the Surkhandaryan oblast of the Uzbekistan Republic in the Baysun Mountains, near the top of Susiztag Mountain (Rtveladze 2002: 103). Earlier, in an area just 7 km to the north, researchers from the same group also discovered a wall 2 km long crossing the whole valley, from the northern slope of Susiztag Mountain to the southern slopes of the Sarymas Mountain. This grand structure is called "The Wall of Darband-Bactria" and has been interpreted by Rtveladze as a border between Sogdiana and Bactria (Rtveladze 1986: 34–39; 1990: 139; 2002: 97, 98, 100, 104).

The suggestion that there was a fortification system spread over many kilometres in this region has been expressed since 1986 on the basis of the analysis of written sources by Xuanzang (ca. 630 CE) and Ruy González de Clavijo (1404 CE) to the first Russian researches of the 19th century, namely those of N.A. Maev, I.V. Mushketov, O.I. Poslavskaya, and D.N. Lagofet (Rtveladze 1986: 34–39).

In the spring and autumn of 2013, the Bactrian group of the Middle Asian Archaeological expedition of the Institute of Archaeology RAS (Russian Academy of Sciences), headed by N.V. Dvurechenskaya, and the Tokharistan archaeological expedition of the Institute of Art Studies UzRAS (Uzbekistan Republic Academy of Sciences), headed by E.V. Rtveladze, initiated stationary archaeological excavations of the Uzundara Fortress.

The monument is located near the pass through the gorge of the same name through which passage into the Surkhan Darya Valley was possible. At the present time, there is no doubt that the fortress was one of the links in the fortification system controlling all possible mountain access into the Surkhan Darya Valley from the steppe regions of Asia (**Fig. 2**).

The fortress is set in a very complicated mountain landscape. It blocks all passage from the Kara-Kamar tract in the north to the Uzundara Gorge in the south. The walls of the Kara-Kamar tract and of the Uzundara Gorge are 50 and 100 m high respectively.

The fortress is diamond-shaped, with addition sections of external walls towards the north-west, and has a triangular-shaped citadel. The total extent of the fortress walls is 908 m (**Fig. 3**). There are 13 rectangular towers in the fortress, the north-western and south-western being the largest. Around the fortress there are outside towers which controlled the approaches to the walls. Additionally, as a result

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Fig. 2: Uzundara Fortress. **a**: Location of Uzundara Fortress. View from the north; **b**: Location of Uzundara Fortress. View from the east (satellite pictures; elaborated by N.D. Dvurechenskaya and A. Akulov).

of reconnaissance on Susiztag Mountain, a series of walls was also discovered. They blocked the passage to other gorges and slopes.

The fortress walls are now large disintegrations of broken stones, as a rule scattered on both sides. The most significantly readable section is a fragment of the southern wall of the main rectangle of the fortress and citadel.

Near the north-eastern tower, the construction of the western fortress wall was excavated and studied from the internal side to a length of 10 m; it has survived to a height of 3 m (**Fig. 4a**). Archaeological excavation and geo-radar research on other areas of the fortress helped to establish that all the walls of the fortress are of the same construction (**Fig. 4b**). The fact that they are 3.5 m thick was confirmed after work on three areas of excavation. They are built in combined technique in which each side consist of a 1-m-thick mix of stone bricks on clay mortar, with a dense infill of rubblework with gravel and clay (**Fig. 4c**). On the internal side to a distance of 1.8 m, the wall is of worse quality but is also 3 m thick; this was probably a retaining wall. Geo-radar data indicates that such retaining walls are found in different locations at the fortress. In terms of the masonry, the nearest analogy is the bordering wall of Darband and of the wall on Susiztag Mountain (Rtveladze 1986: Figs. 1–3; Rapèn et al. 2006: Fig. 3; Rapin 2007: Fig. 7[1]).

In the centre of the citadel near its southern tower, there is a chamber wholly carved out of the rock foundation (room 1) (**Fig. 5**). It is 10 × 5 m, and 4 m deep. The walls of the construction had vertical and horizontal gutters up to 20 cm wide and 15 cm deep. They divided the surface of the walls into three hor-

1 In a paper by K. Rapen, the cut of the wall is present on the image. In front, there is a wall made of sun-dried earth bricks dated to the Hellenistic period, and at the back there is a wall made of broken stones on clay mortar. There is a mistake in the caption under the picture in the publication: the view is from the west, not from the south. The walls of Uzundara Fortress are close in character to the masonry wall of Darband-Bactrian, which is still dated to the Kushan period.

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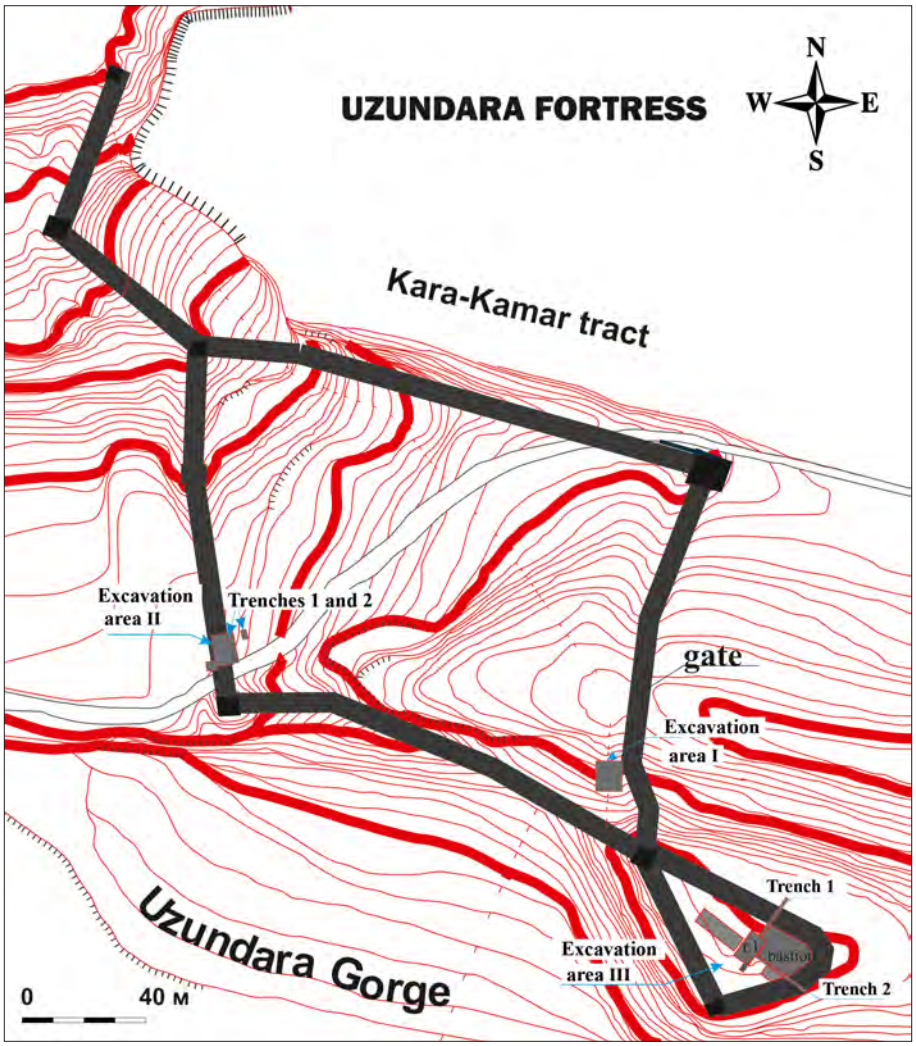


Fig. 3: The topographical plan of Uzundara Fortress with archaeological excavations (elaborated by G.P. Ivanov, processed by N.D. Dvurechenskaya).

izontal rectangular compartments which measure 1.4–1.6 × 0.8–1 m. There are also gutters of differing depth at the bottom of this construction, dividing the floor into 14 compartments (**Fig. 6**, **Fig. 7**), as well as a water-collecting square in the plan with an additional hollow on the south-eastern side. In the corners of this water collector, there were square hollows in which retaining columns might have stood. On the whole, the floor of this room slanted 0.5 m towards the water collector.

In the filling mix and near the construction, hundreds of bronze nails, lead rivets, and lead plates were found, the maximum size of which is 0.7 × 0.7 m. In addition, these plates had neat rounded edges. They overlapped each other and were fastened together with bronze nails 5 cm long. At the sides, they were held together with lead rivets. Under the line of nails there was an additional narrow strip of metal. On the reverse, the plates were covered with a layer of bitumen-like mixture 5 mm thick. In order to be transported, lead plates were taken down and crushed or folded several times. They are the most common finds on the site. Of especial interest was the concentration of finds in this rock-cut structure, and also the finding in situ of actual fragments nailed to the wooden planks preserved in the gutters on the very bottom.

The complete excavation allowed us to determine two periods in the functioning of this structure. While being cleared, the bottom of all the gutters were found to contain wooden planks with bronze nails and fragments of leaden plates. Which means that initially the room was completely covered with lead plates supported by wooden planks set in gutters. Later these plates were taken down. The second stage began when the walls were plastered over, as was the floor, which was also levelled at the same time.

We interpret this construction as a large food store for the fortress. This is shown by the use of lead, which is a good hydro-isolator. It made it possible to maintain the temperature and humidity

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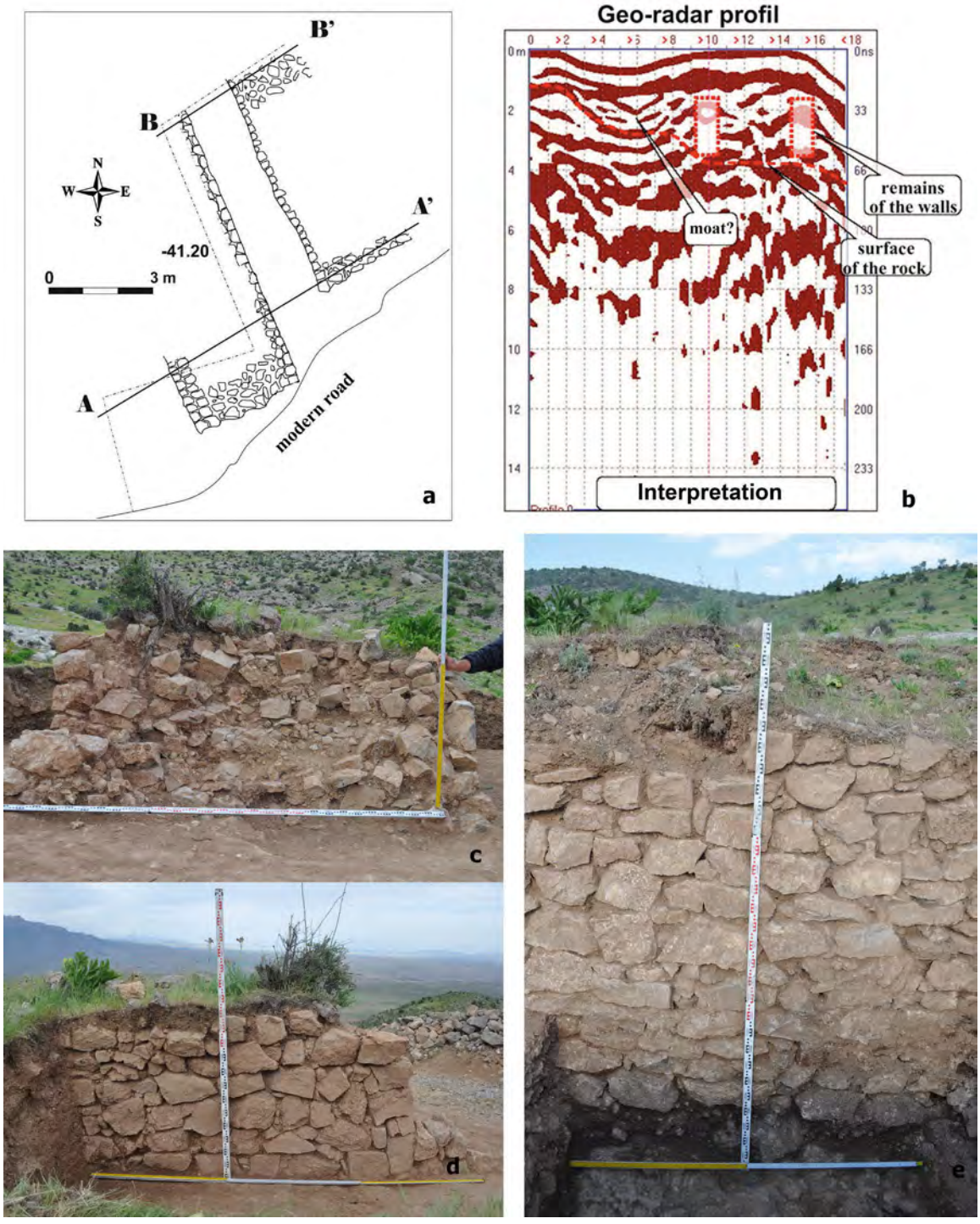


Fig. 4: Excavation I. **a**: The topographical plan; **b**: Geo-radar profile; **c**: Section of the western fortified wall; **d**: External face of the western fortified wall; **e**: Internal face of the western fortified wall (drawings and photos by N.D. Dvurechenskaya).

levels required for the long-term storage of food in the rock chamber. Along the perimeter of the construction, we excavated *humkhans*, rooms with large ceramic vessels used for food storage.

In order to collect the condensation in a chamber with a volume of up to 200 cubic m, an additional water collector was used. For the same reason, the depth of the gutters was different (the perimeter and central longitudinal gutter are several centimetres deeper than the others).

On the east and west of this chamber, we excavated a series of constructions, a corner bastion being researched completely. Its internal area was 40 sq m; the walls were up to 1.5 m high and from

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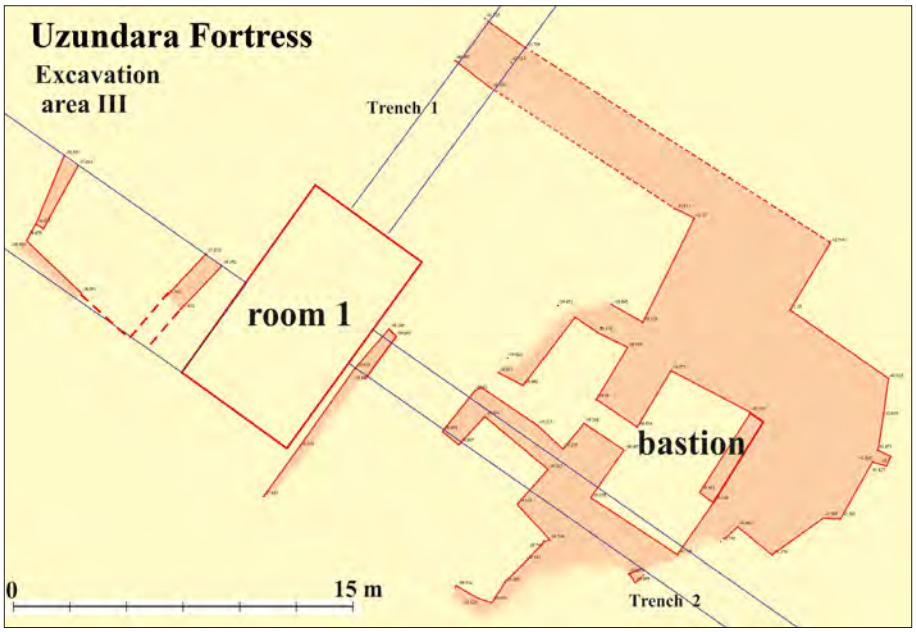


Fig. 5: Plan of Excavation III on the citadel of Uzundara Fortress (elaborated by N.D. Dvurechenskaya and A. Akulov).



Fig. 6: Room 1 on the citadel of Uzundara Fortress. Overhead view from the south (photo by N.D. Dvurechenskaya).

1 to 6 m thick. In general, the stratigraphy was good and rich in finds. In particular, more than 2 tons of ceramics were found, including numerous series of the entire archaeological forms. There were also good numismatic finds, as well as an arsenal of rock balls for slings, numerous arrowheads, fragments of darts, knives, field water flasks, etc. Furthermore, fragments of architectural decorations were found in the form of terracotta panels, separate carved elements, and fragments of ceramic tiles.

All this allowed us to define the main chronological stages of the bastion quite accurately and to limit them to a period from not later than Antiochus I (r. 281–261 BCE) to Eucratides (r. ca. 171–143 BCE) (**Fig. 8**). The period of Euthydemos I (r. 230–200/195 BCE), when the entire fortress was renovated, was the brightest. At that time, the rock chamber was completely strewn with waste materials in the form of a burnt layer and a lot of ceramics, which was used to level the floor (**Fig. 9**). Other rooms were kept in complete order and were

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Fig. 7: Room 1 on the citadel of Uzundara Fortress. View of the western wall from the east (photo by N.D. Dvurechenskaya).

excavated down to the basic floor. In the past, the garbage was thrown behind the fortress walls, and it was there that the earliest chronological layers were found, including the fragment of a ceramic vessel with painted decoration. The ornament is widely distributed in continental Greece, mainly in the period from the 6th to the 4th centuries BCE; known as "West Slope", it features a creeper with ivy leafs and bunches of grapes.

To the west to the rock chamber, two connected basements not less than 7 × 7 m and up to 2.6 m deep were discovered. According to the stratigraphy and the numismatic finds, this area dates to the same period as rock chamber 1.

We can note that from three stratigraphic excavations in different parts of the fortress, only materials from Hellenistic times were obtained. While planned grid walking of the whole site and of the nearest fields, we obtained a series of finds apparently of an earlier time. In particular, these are arrow tips of an archaic style, ceramics of Achaemenid type with struts, etc.

Today, the materials obtained as a result of our research allow us to conclude that the fortress started functioning no later than the time of Antiochus I. At this time, it was already part of the system of one-type fortification constructions that stretched for many kilometres from south to north.

In this context, it is worth returning to the first problem stated in this paper – the northern border of Bactria. It is well known that contradictory written sources still cause active discussion about the borders of the region. Some researchers, following the antique tradition, locate the border along the River Oxus, considering territories to the north to belong to Sogdiana. Others locate the Bactrian border along the Hissar Range, thus including Surkhan Darya Valley in northern Bactria. The most complete bibliography on this question is presented in the extensive source research of I.V. Pyankov (P'ÂNKOV 2013: 203–204, 224–238).

For many years, archaeological research, including work by the Institute of Archaeology RAS in particular, by the Soviet–Afghan expedition of the Institute of Art Studies from the Republic of Uzbekistan, as well as that by our Bactrian group, the MAE (Margiana Archaeological Expedition) has noted the very close proximity of the material culture of monuments on both sides of this river.

Now, when the location of an extensive system of fortification constructions along the Baysun Range has been established, and it is known that there were military garrison which used to receive their salary in the coins of Diadoch,[2] Seleucids (Antiochus I) and Greco-Bactrian kings (Diodotus, Euthydemos I, Demetrius, Euthydemos II, Eucratidis), the question about the border is, in our opinion, resolved.

Having defined the northern border of Bactria, we can turn to the second problem – the absence of fractional periodisation for the material culture of the Hellenistic period. Among the many researchers who work on the Hellenistic period, the general opinion is that a homogeneity can be observed.

In our view, the lack of fractional chronology is due to a range of factors. For a long time only one

2 Two silver Alexander III drachmas have been found during the excavation of 2016. Alexander the Great in a lion's skin is represented on the obverse, Zeus sitting on a throne on the reverse. Room 1 has a depth of 4.5 m. The coin was discovered at a depth of -3.1 m from the surface.

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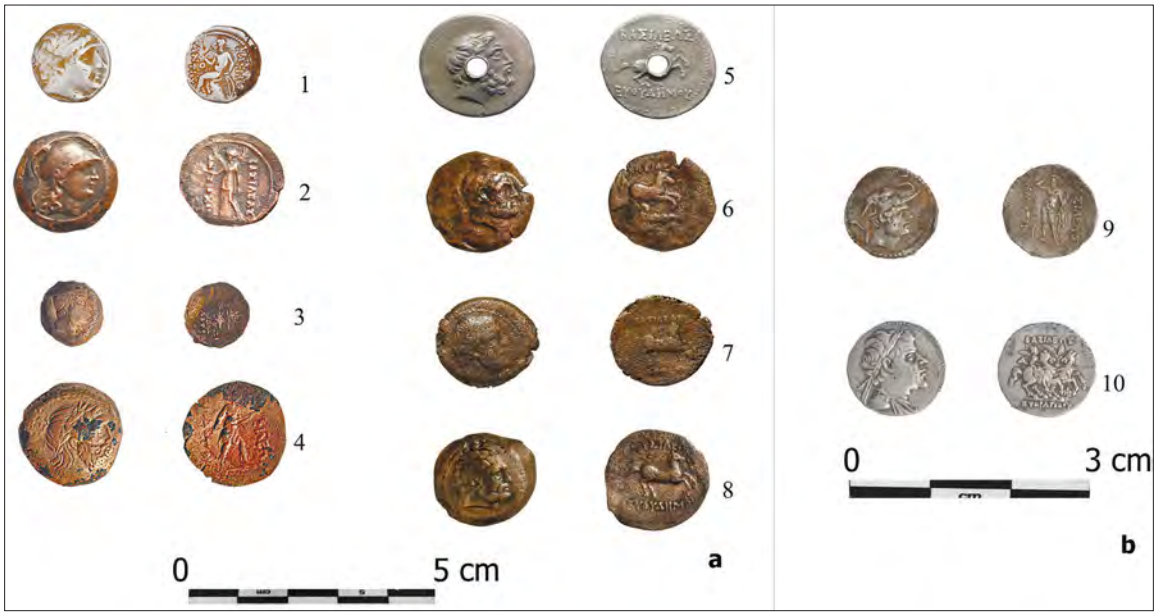


Fig. 8: Coins: **1**: Antiochus I drachma; **2**: Antiochus I dichalkus; **3**: Diodotus hemichalkus; **4**: Diodotus dichalkus; **5–8**: Euthydemos dichalkuses; **9**: Demetrius obol; **10**: Eucratides obol (photos by N.D. Dvurechenskaya, A. Gorin, Dg. Ilyasov).



Fig. 9: Ceramics. **a**: Goblet; **b**: Small jug; **c**: Small flask; **d**: Fish dish (photos by N.D. Dvurechenskaya and M. Tulnova).

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Greek city, Ai-Khanoum, gave us a pure Hellenistic complex**.** But the lack of developed typologies for separate kinds of material culture on the basis of archaeological context leaves us with incomplete knowledge of this.

Another factor is that there were not analogous monuments of that time available for excavations on a large area.

For the territory of North Bactria, the situation has begun to change with the start of extensive research of the Hellenistic building of the Kampyrtepa Fortress and the discovery and complete research of the Kurganzol Fortress (Rtveladze 2001**:** 3–11; Bolelov 2001: 15–31; 2011, 48–79; Sverčkov/Voskovsky 2006: 21–42; Dvurečenskaâ 2006: 110–136; 2011, 59–64; 2012, 69–80; Sverčkov: 2013). This research substantially broadens our idea of the period of early Hellenisation of Bactria. Uzundara Fortress, with its rich archaeological complexes and its stratigraphy of architectural buildings, strengthened by numismatic finds, has already provided stratified material that allows us to develop a typology and evolution of the material culture during the Hellenistic period.

During research, a range of typologies of the material culture of Hellenistic Bactria have been developed. To date, for example, developed typologies of terracotta plastics of the Hellenistic period (Dvurečenskaâ 2016: 134–143, 199–213)**,** of arrow tips (Dvurečenskij 2017), of rock balls for the sling (Dvurečenskaâ 2013: 92–95), and a preliminary typology of ceramics (Dvurečenskaâ 2015: 195–224) have been created. But these are in part preliminary. We hope that the rich complex of material culture found at the Uzundara complex will soon allow the creation of a complete fractional chronology, and of a typology of the items of the Bactrian material culture of Hellenistic period.

Bibliography

Bolelov, S.B.

2001: Gončarnaâ masterskaâ III–II vekov do n.è. na Kampyrtepa. K voprosu o keramičeskom proizvodstve i organizacii remesla v Severnoj Batkrii èpohi èllinizma, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 2. Arheologičeskie issledovaniâ Kampyrtepa*, Tashkent, 15–30.

2011: Proizvodstvennyj centr èpohi èllinizma na citadeli Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 8*, Elets, 48–79.

Dvurečenskaâ, N.D.

2006: Itogi arheologičeskih rabot 2004–2005 gg. v žilom kvartale-bloke 5 v severo-zapadnoj časti Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 6*, Elets, 110–136.

2012: Masštabnoe sooruženie ranneèllinističeskogo perioda na Kampyrtepa, *Problemy istorii, filologii, kul'tury* 4, 69–80.

2015: K voprosu o ranneèllinističeskoj keramike Baktrii (na osnove zakrytogo kompleksa terrasnogo doma Kampyrtepa), in: Nikonorov, V.P./Alëkšin, V.A. (ed.), *Akademičeskoe vostokovedenie v Rossii i stranah bližnego zarubež'â (2007–2015). Arheologiâ, istoriâ, kul'tura* (= Trudy Instituta Istorii Material'noj Kul'tury RAN 45 = Zapiski Vostočnogo otdeleniâ Rossijskogo Arheologičeskogo Obŝestva. Novaâ seriâ 3/28) (*Academic Oriental Studies in Russia and the Near Abroad Countries (2007–2015). Archaeology, history, culture* (= Proceedings of the Institute for the History of material culture of the Russian Academy of Sciences 45 = Memoirs of the Oriental Department of the Russian Archaeological Society. New Series 3/28)), St. Petersburg, 195–225.

2016: *Terrakotavaâ plastika drevnejših gosudarstv Srednej Asii IV v. do n. è.–IV v. n. è. (arheologičeskij aspekt)*, St. Petersburg.

Dvurečenskaâ, N.D./Dvurečenskij, O.V.

2013: Glinânye âdra s gorodiŝa Kampyrtepa, *Rossijskaâ arheologiâ* 2, 92–95.

Dvurečenskij, O.V.

2017: Bronzovye nakonečniki strel kreposti Uzundara, *Kratkie soobŝeniâ Instituta arheologii (KSIA)* 248, 207–219

P'ânkov, I.V.

2013: *Srednââ Aziâ i evrazijskaâ step' v drevnosti*, St. Petersburg.

Rapèn, K./Bo, È./Grene, F./Rahmanov, Š.

2006: Issledovaniâ v rajone "Železnyh vorot": kratkoe sostoânie problemy v 2005 g., *Istoriâ material'noj kul'tury Uzbekistana* 35, 91–101.

Rapin, C.

2007: Nomads and the Shaping of Central Asia: From the Early Iron Age to the Kushan Period, in: Cribb, J./Herrmann, G. (ed.), *After Alexander: Central Asia before Islam* (= Proceedings of the British Academy 133), Oxford, 29–72.

Rtveladze, È.V.

1986: Stena Darbanda Baktrijskogo, *Obŝestvennye nauki Uzbekistana* 12, 34–39.

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1990: Iz nedavnih otkrytij Uzbekistanskoj iskusstvovedčeskoj èkspedicii (UzIskÈ) v Severnoj Baktrii – Toharistane, *Vestnik drevnej istorii* 195, 135–145.

2001: K itogam arheologičeskih issledovanij Kampyrtepa v 2000 godu, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 2. Arheologičeskie issledovaniâ Kampyrtepa*, Tashkent, 3–14.

2002: *Aleksandr Makedonskij v Baktrii i Sogdiane. Istoriko-geografičeskie očerki*, Tashkent.

Sverčkov, L.M.

2013: *Kurganzol – krepost' Aleksandra na ûge Uzbekistana*, Tashkent.

Sverčkov, L.M./Voskovskij, A.A.

2006: Stratigrafiâ, periodizaciâ i hronologiâ nižnih sloev Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 5*, Tashkent, 21–46.

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Urbanism in Antique Sogdiana?

A view from the Bukhara oasis

Fiona Kidd and Sören Stark

Abstract: The study of urbanism in the oases of pre-Islamic south-western Central Asia remains a critical issue. However, modern perspectives are typically shaped by the iconic image of cities as densely populated commercial centres of intensively farmed oasis hinterlands, characteristic for the region during the pre-Islamic and Islamic Middle Ages. Yet for Sogdiana during antiquity, such a picture is problematic. At least for Bukharan Sogdiana – the focus of this study – there is no evidence for genuine urban centres before the 4th or 5th century CE.

It is not easy to address questions concerning the character of settlements in the Bukhara oasis during antiquity. Certainly, part of the issue lies in the fact that Antique-period levels have not been extensively excavated inside the oasis, mostly due to the presence of massive later medieval occupation levels. Only at the fringes of the oasis – in areas outside the present-day and the medieval irrigated oasis – can we hope to get a more systematic insight into the question of how settlements and their patterns in the region looked during antiquity. In this paper we focus on the Antique site of Bashtepa and its surrounds, lying at the interface of the Bukhara oasis and the Kyzyl-kum Desert, in order to explore an example of a Central Asian oasis without cities.

Keywords: antiquity, Bukhara oasis, Bashtepa settlement cluster, agro-pastoral communities.

Резюме: Изучение урбанизма в оазисах Средней Азии доисламского периода остается важнейшим вопросом. Как правило, современные представления о “городе” в Средней Азии как о густонаселенном торговом центре земледельческого оазиса основаны на примере города Средней Азии доисламского и исламского средневековья. Однако для античной Согдианы такая картина оказывается проблематичной. По крайней мере для Бухарского Согда, который находится в центре нашего исследования, нет доказательств существования подлинных городских центров до IV или V вв. н.э.

Вопросы о характере поселений в Бухарском оазисе в древности нелегко поддаются исследованию. Проблема частично заключается в том, раскопки древних слоев на городищах оазиса велись недостаточно интенсивно — во многом из-за наличия более поздних массивных средневековых слоев. Только на окраинах оазиса — в районах за пределами современной и средневековой орошаемой зоны — можно надеяться получить более систематическое представление о том, как поселения региона и их структура выглядели в античный период. В этой статье мы приводим результаты наших исследований на античном городище Баштепа и в его округе — территории, расположенной на границе Бухарского оазиса с пустыней Кызылкум, — рассматривая, таким образом, пример центральноазиатского оазиса без городов.

Ключевые слова: античность, Бухарский оазис, Баштепинская группа поселений, агропастбищные группы.

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1 Introduction

The study of urbanism in the oases of pre-Islamic south-western Central Asia (Bactria, Margiana, Sogdiana, and Choresmia) has long been and remains a critical issue in the scholarship of the wider region. However, it is worth pointing out that our modern perspective on urbanism in Central Asia is very much shaped by the iconic image of cities in this region as densely populated and bustling commercial centres of intensively farmed oasis hinterlands, that is so very characteristic for the region during the pre-Islamic and Islamic Middle Ages. Indeed, most studies on urbanism in south-western Central Asia are actually concerned with the medieval period, and it is only for this period – that is from around the 4th/5th CE century onwards – that there exist substantial scholarly contributions concerned with conceptualising the term "urbanism".[1] Unfortunately, for the preceding period of "antiquity" – that is, the periods of Achaemenid, Greek-Macedonian, and (in Bactria) Kushan rule, roughly between the 6th century BCE and the 3rd century CE, much less methodological and terminological rigour has been spent with regard to the application of terms like "city" and "urbanism", although both terms figure quite frequently in the archaeological discussion – and often this period is even explicitly described as a phase of especially dynamic urban development in the wider region.[2] To no small degree this perception is founded on the proverbial notion of Bactria as a land of a "thousand cities" (Just. Prol. 41.1.8: *opulentissimum illud mille urbium Bactrianum imperium*; Justin 41.4.5: *mille urbium Bactrianarum*). For historians like W.W. Tarn, there was no doubt that this was the direct consequence of Greek-Macedonian rule that had turned "a land of open villages" into a "land of walled towns" (Tarn 1951[2]: 118).[3] In other words, although we frequently read of "cities" and "urbanism" in south-western Central Asia during antiquity in the scholarly literature, scholars don't specify what they mean by these terms. Often, it seems, the medieval situation is simply projected backwards onto the pre-Medieval periods.

In this short contribution we cannot discuss in detail the vexed question "What is a city?", not even within a strictly south-western Central Asia context. Given the enormous diversity of urban traditions in different societies, definitions vary widely across time and space (Zuiderhoek 2017: 3–4). We only need to remind ourselves of Finley's famous statement when it comes to answering this question: "Neither geographers nor sociologists nor historians have succeeded in agreeing on a definition. Yet we all know sufficiently what we mean by the label, in general terms" (Finley 1981 5). However, Finley's "all" is potentially misleading: first and foremost, it seems to include those who deal with past societies in Europe, the Classical world, and in the Near East.[4] But if we leave this specific geographical and cultural context, and turn towards pre-modern Central Asia, the last part of Finley's statement seems no longer true. In fact, the often rather indiscriminate use of the terms "city" and "urbanism", in particular by archaeologists, has by now become very problematic. This is especially true for the use of the term "nomadic/pastoral/steppe city".[5]

Some degree of conceptualisation is therefore unavoidable before we can proceed with our case study. In a recent review of the problem from an archaeological and cross-cultural perspective, George L. Cowgill cautioned against too strong an essentialisation of categories and instead advocated a relatively broad (and thus somewhat vague) definition of a city – namely as "a permanent settlement within the larger territory occupied by a society considered home by a significant number of residents whose activities, roles, practices, experiences, identities, and attitudes differ significantly from those of other members of the society who identity mostly with "rural" lands outside such settlements […] Populations of at least a few thousand seem a necessary, if not sufficient, requirement for a settlement or a society to be urban" (Cowgill 2004: 526–527). Colin Renfrew put it more concisely, defining a city as "a substantial population centre offering specialised services to the wider society" (Renfrew 2008: 31). This concise yet relatively open definition provides a valid starting point for our inquiry.

But even such broad definitions consider a certain size of population as a necessary requirement for a given settlement to be called a "city". Unfortunately, we are notoriously ignorant of the demographics of Antique period settlements in south-western Central Asia, because for the entire period between the 6th century BCE and the 3rd/4th century CE, only very few settlements have been studied to the extent that allows more or less substantiated popula-

1 For the pre-Islamic Middle Ages see, for example, Belenickij et al. 1981; Raspopova 1990 and Semenov 2002. For the Islamic city in western Central Asia in general, see Belenickij et al. 1973, Raspopova 1979. Other important studies are, for instance, Raspopova 1970; 1979.

2 See, for instance, Masson 1979.

3 See the more cautious discussion in Leriche 2009 and Leriche 2014.

4 For this context, see the classic discussion in Weber 2000: 1–16.

5 This term often lumps together very different kinds of sites, such as the Ilkhanid "mausoleum city" of Sultaniya in north-western Iran (Haneda 1997), Chinggisid Karakorum (Bemmann et al. 2010), and large so-called "*qal'a*" enclosures in Ancient Choresmia (Negus Cleary 2013). Of course, this has also something to do with the ambiguity of the term "nomadic" in this pair of terms (what exactly is meant by "nomads", where these "cities" really inhabited by "nomads"?)

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tion estimates.[6] Thus, in most cases we are left only with the area size of settlements. Almost 40 years ago, H.-P. Francfort attempted such a size-based definition for Western Central Asia. He considered sites with a size of over 15 ha to be "urban" (Francfort 1979; 1988: 186). Others have set the "benchmark" more expansively, from 5 to 70 ha (Khozhaniyazov 2006: 76). However, this is a very tricky equation, especially in Central Asia, as size alone is not indicative of residential permanency and intensive domestic activities (Negus Cleary 2013: 82) – we will deal with this problem below.

Another significant and long-standing aspect in the urbanism discourse is water management and water control (Wittfogel 1957; Adams 1965; Francfort/Lecomte 2002; Wilkinson et al. 2012; Wilkinson/Rayne 2010; Tolstov 1948; Andrianov 1969; Muhamedžanov 1978). Since at least the late 1970s, the then dominant narrative of a centralised agrarian state controlling a "hydraulic" society has come under increasing criticism.[7] More specific to the region of our interest, recent research on the history of water management around Samarkand suggests that sites were located in proximity to natural water courses, and that the canals and other water management infrastructure necessary for irrigation were dug and maintained by local communities, ruled by an elite of nomadic origin rather than a centralised, sedentary state (Stride et al. 2009: 77–78; Mantellini 2014[2]a).

2 The problem of early urbanism in Sogdiana

If we operate on the number of 15 ha for site size suggested by Francfort (see above), only a surprisingly small number of sites in pre-Medieval Sogdiana (pre-4th/5th century CE) can potentially be characterised as "urban". Perhaps earliest in this list feature the sites of Koktepa in the Samarkand region and Yerkurgan in the Qarshi/Nakhshab region, both emerging before the Achaemenid period (Isamiddinov/Rapen 1999; Isamiddinov 2002; Rapin 2007; Rapin/Isamiddinov 2013; Isamiddinov/Sulejmanov 1984; Sulejmanov 1999; 2000). Slightly later, perhaps only with the Achaemenid period, the earliest fortified settlement on the site of Afrasiab/Old Samarkand was established (Shishkina 1996; Inevatkina 2002; 2010). Still at their beginnings are systematic investigations at the extensive site of Padaiataktepa, presumably the Achaemenid and post-Achaemenid site of Nautaca/Kesh (Lhuillier/Hasanov 2013). For the Hellenistic period, one has to add the sites of Durmen in the Past-Dargom area west of Samarkand (Najmark 1989; Grenet 1996; Inevatkina 2010; Šiškina/Inevatkina 2012), Kurgantepa north-east of Ishtikhan (Pugačenkova 1989; Najmark 1989; 2001), and Kalai-Zakhoki-Maron in the Qarshi oasis (Sulejmanov 2000: 26–28; Abdullaev 2007: 84–86). So currently only some seven sites are known from Sogdiana that would meet Francfort's requirement in terms of site size for the pre-medieval period.

Significantly, none of these sites is situated in the Bukhara oasis. As for the city of Bukhara itself, it's true that the size of the Antique period settlement at the site of the present-day city of Bukhara outside the citadel is essentially unknown. But there are no hints that it was already fortified (unlike the citadel).[8] Most likely, this was simply an open settlement at the eastern foot of an elevated fortification that was ca. 3 ha in size and later developed into the citadel of the city. The second largest site in the Bukhara area, Paikend, existed since the end of the 4th century BCE, but evidently only as a strong yet relatively small fortress (less than 1 ha in size).[9] The actual city of Paikend does not emerge before the second half of the 4th or the 5th century CE (Semenov 2002). Finally, Varakhsha – the third biggest

6 One such case is Aï Khanoum, where the capacity of the theatre has been estimated at ca. 6,000. However, as rightly remarked by Paul Bernard, this number must be used with utmost caution for demographic estimates: it probably served not only the adult Greek population of the urban centre, but also Greek colonists in the rural hinterland and perhaps in the entire province for which Aï Khanoum served as the administrative centre, as well as "Hellenised" locals. In addition, this might have been deliberately constructed on a larger scale than actually require by local demographics (Bernard 1978: 431–432). The only other settlement in south-western Central Asia dating between the 6th century BCE and the 3rd/4th centuries CE, where large portions of the residential area have been systematically excavated, is Kampyrtepa at the Amu Darya in southern Uzbekistan (Bolelov 2010; 2013; Rtweladse 2009).

7 For a critique of Wittvogel's "hydraulic" model, see, for example, Hunt 1988. Some of the critiques of Wittvogel's work seems, however, to be based on a simplistic reading of his 1957 study (see Price 1994).

8 Excavations in the area of the *shahristan* (or *šahr-i darūn*) have, because of the continuing occupation of the area by the present-day city and the relatively high groundwater table, been restricted to a total of 5 stratigraphic sondages, none of which reached virgin soil: Sondage 1 under the western wall of the Friday mosque (Masğid-i kalān), Sondage 2 along the northern wall of the Friday mosque and the Mīr-i ʿArab madrasa, Sondage 3 under the road between the Tāq-i Tīlpak-Furūšān and the Tīm-i ʿAbdullah-ḫān, Sondage 4 in the courtyard of the Chuqūr-madrasa, and Sondage 5 to the east of the Tāq-i Tīlpak-Furūšān, just to the south of the early-medieval *shahristan*. Cultural layers dating to the 2nd–1st century BCE were encountered in Sondage 1 under the early medieval city wall, and in Sondage 3, probably dating back to the 3rd century BCE – see Muhamedžanov et al. 1982; Nekrasova 2011: 457–463.

9 Perhaps it was from the very beginning guarding an important temple – which is, however, archaeologically only attested since the 3rd century CE (Semenov 1996: 35–57; Omel'chenko 2016).

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site in the oasis – seems to have existed since about the 3rd century BCE, but again only as a substantial (6–7 ha) fortified enclosure (Kabanov 1959; Šiškin 1963; Adylov 1987, Šiškina 1990) – too small to meet Francfort's requirement of 15 ha in size. In addition, this area might have been built up for the most part only in the centre of the site (Adylov 1990).

In fact, this latter point is a phenomenon we observe even at several of the seven "urban" (in terms of size) sites outside of Bukharan Sogdiana: most of the fortified territory of the plateau of Afrasiab lies outside its "acropolis" (ca. 180 ha) and might have served during antiquity as a refuge (Grenet 2004: 1054). Kalai-Zakhoki-Maron too, the second "super" site in terms of size, measuring ca. 220 ha (enclosed by its – admittedly badly documented – outer and 4th enclosure wall), was, apart from its central core, largely empty (Masson 1973: 20–24; Abdullaev 2007: 84). The (somewhat simplified) standard configuration seems to be a citadel-like inner fortress, usually well fortified and often elevated on an artificial platform, perhaps serving as some sort of seat of power, which was surrounded or joined by a large area with its own enclosure wall, but mostly devoid of permanent (i.e. mud-brick) buildings. We can clearly grasp this configuration also in Bactria and Margiana during the pre-Hellenistic period (Gardin 1995; Usmanova 1992).

Thus, during antiquity, Sogdiana – unlike Bactria – was devoid of actual cities. At any rate, it seems misleading to characterise Sogdian society during antiquity as highly "urbanised". In this respect, it was probably similar to Choresmia, from where similar sizeable but largely empty fortified sites are known (Khozhaniyazov 2006; Negus-Cleary 2008; Negus Cleary 2013). It is perhaps not by chance that during the second half of the 1st century BCE and most of the 1st century CE, both the various oasis principalities of Sogdiana and Choresmia were ruled by local/regional dynasties of nomadic origin, and stood under the suzerainty of the Kangju 康居 "confederacy" (which, in turn was centred in the Middle Syr Darya and the Chu and Talas regions).[10] It has been argued that at least some of these extensive "citadel plus enclosure" sites represent some sort of nomadic power centres (Abdullaev 2007; 2014). Indeed, similarities to the built environment of Inner Asian royal encampments are striking (Rogers et al. 2005; Rogers 2017). Perhaps the large empty spaces around the "citadels" were originally filled by light or even mobile installations (tents, carts, etc.) and housed the "Inner army"[11] (mostly heavily armoured cavalry) of the ruler.

10 On the still largely enigmatic Kangju, see Daffinà 1967; Ban, Gu (Hulsewé/Loewe 1979); Hill 2009; Poduškin 2013. On their ties with Sogdiana, see Bi forthcoming; on ties with Choresmia, see Minardi 2015: 58–59.

11 In the term of "Inner army" and its role on nomadic polity formation, see Paul 2004.

3 An oasis without cities: The case of Bukhara during antiquity

Medieval Bukhara is often adduced as a classical, almost "timeless" case of a "Silk-Road city".[12] However, such a "timeless" treatment of oasis urbanism bears the danger of leading to anachronistic conclusions. As we have seen, for the centuries of antiquity there is, so far, no evidence for any substantial, fortified settlement in the Bukhara oasis that might be rightfully labelled as a "city". In fact, it seems as if urbanism took off in Bukharan Sogdiana not before the 4th or early 5th century, probably in the context of an increasing commercialisation of Sogdiana in general that was brought about by the development of the Sogdian trading network towards China from the second half of the 3rd century CE (Stark forthcoming).[13]

Certainly, part of the issue in understanding Bukharan Sogdiana during this period lies in the fact that no Antique period levels have been extensively excavated inside the oasis, due to the presence of massive later medieval occupation levels and the relatively high groundwater table (which in the case of the city of Bukhara itself largely prevents the earliest strata from being reached). Only at the fringes of the oasis – in areas outside the present-day and the medieval irrigated oasis – can we hope to get a more systematic insight into the question of how the settlement pattern in the region looked during antiquity and how society operated in the oasis without a traditionally defined "centre".

12 See, for instance, the programmatic title of Muhamedžanov 1999.

13 It has also been argued by scholars that specific ecological and water-control issues were responsible for preventing the emergence of true urban centres (Adylov 1987: 144). It is true that the *Tārīḫ-i Buḫārā* says that "this place, which today is Bukhara, was (formerly) a swamp; part of it was a bed of reeds and part planted with trees and a meadow. Some places were such that no animal could find footing there, because the snows melted on the mountains of the districts about Samarqand and the water collected there" (*Tārīḫ-i Buḫārā* 7/trans. Frye 1954: 6). However, this environment was a critical challenge that continued to exist in later periods, when cities had long flourished in the area – see the account of al-Muqaddasī, referring to Bukhara in the second half of the 10th century CE: "The year I came there it flooded over many villages, so that people were impoverished. The elders went out to the dam, and the shaykh Abū al-ʿAbbās al-Yazdādī generously spent a large sum of money on it as a pious work" (al-Muqaddasī 332/trans. Collins 2001: 293).

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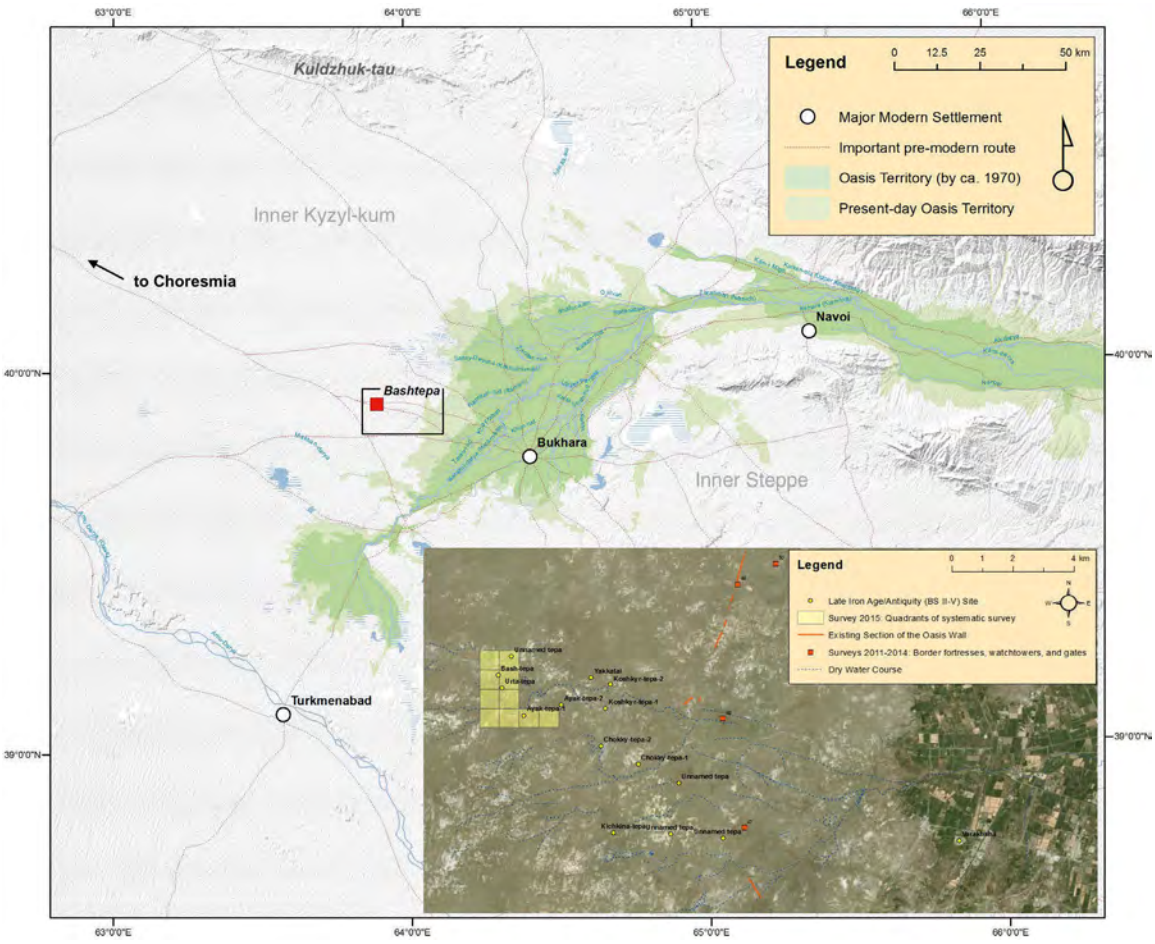


Fig. 1: Map showing the location of Bashtepa (elaborated by S. Stark).

4 Bashtepa at the desert-steppe/oasis interface

The Bashtepa site cluster, located at the interface of the Kyzyl-kum and the Bukhara oasis, outside the western fringes of the present-day and medieval oasis, provides us with such an opportunity. Having an area of ca. 32 sq km, it features a cluster of over a dozen of tell-type archaeological sites (including the site of Bashtepa), which during antiquity – that is, between the 3rd century BCE and the 1st/2nd century CE – were right at the western border of the river oasis formed by the Zeravshan River delta toward the desert-steppe of the central Kyzyl-kum (**Fig. 1**).[14] At 0.25 ha, the fortified site of Bashtepa is the second largest tell of the cluster (**Fig. 2**). It lies on the most direct route between the Bukhara oasis and Choresmia to the north.[15] To the South-west this artery connected with a route that became known as the "King's Road" in the medieval period (Inevatkina 2011: 134; 2014: 61–62). Access to Choresmia also provided an important conduit to the southern Urals and – farther on – to Eastern Europe.[16] Precious stone and ores from the turquoise and copper mines in the mountain ranges of the inner Kyzyl-kum to the north of the Bukhara oasis (such as the Tamdy-tau, Bukan-tau, and Kuldzhuk-tau),[17] were most likely also part of the region's economic exchange networks.

What is important for the archaeological potential of this seemingly peripheral area is that at the end of the 1st century CE, or the first half of the subsequent century, permanent agricultural occupation came to an end here. As the area was never again resettled, it remained uniquely undisturbed by medieval and modern land development. This created

14 One these dates, see also below. The absolute dates for the existence of the Bashtepa site cluster are based on a total of 16 C14 dates from our excavations at Bashtepa since 2016 (see Stark et al. forthcoming; Stark et al. in preparation). None of these post-date the end of the 1st/beginnings of the 2nd century CE.

15 Albeit not the only route connecting Choresmia and Bukhara – see Manylov 1991; Naymark 1996; Adylov 2004; 2014.

16 For links between Choresmia and the Urals during this period, see Bolelov 2012.

17 Sverchkov 2009; Manylov 1987; Adylov 2006; Manylov 1986; Pruger 1989; Vinogradov et al. 1965; Sverčkov 2006.

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Fig. 2: Bashtepa prior to the beginning of excavations (© S. Stark).

a perfectly preserved relict landscape dating to the centuries around the turn of our era, when this area formed the then border zone of the delta oasis of the Zeravshan River. This relict landscape offers a unique research arena to study the oasis landscape of Sogdiana during antiquity in contact with the neighbouring desert-steppes – an interface that has characterised Central Asia throughout history (Paul 2012: 46–48), but which is still poorly understood for antiquity.

Intermittent investigations of the Bashtepa cluster began as early as 1937 when V.A. Shishkin led the first expedition there (**Fig. 3**), and were continued until 2007 with a survey conducted by the Uzbek-Italian mission excavating Uch-Kulakh.[18] These

18 Šiškin 1940; 1956; 1963; 2015; Žukov 1956; Žukov N.D.; Muhamedžanov 1978; Muhamedžanov et al. 1985;

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Fig. 3: Bashtepa during the investigations of Shishkin in 1938 (photo by V.A. Shishkin, from the Fotoal'bum Zarafšanskoj Arheologičeskoj Èkspedicii V.A. Šiškina 1938 r. in the Arhiv Ohrany Pamâtnikov Uzbekistna, Taškent, Inv. № 330).

investigations comprising non-systematic surveys and very limited excavations registered 14 mounded sites, each very small (between 0.01 to 0.3 ha). Most have been understood by earlier researchers as individual farmsteads (**Fig. 4**).[19] Small-scale and brief excavations at the sites of Bashtepa and Aiaktepe II indicated that these sites were fortified and built on artificial platforms, apparently with domestic structures on the top. Previous research suggested a rather broad date range for the functioning of the Bashtepa site cluster, from the Achaemenid period (6th–4th century BCE) until Late Antiquity (ca. 4th century CE). According to this earlier work, it was typically assumed the Bashtepa region was abandoned because the terminal canals of the Zeravshan delta dried up – possibly due to increased irrigation in Middle Zeravshan (e.g. Gulâmov 1957: 107; Muhamedžanov 1978: 95). However, this is still very much an open question.

Despite the value of previous investigations, numerous questions remain about this densely inhabited farming hub straddling the western fringes of the desert-steppe/oasis: Why are there so many small tell-type sites in such relative close proximity to each other? What was their function? What is the relationship between these mounded sites? Are they all contemporary? How was the space between these sites used? What was the nature of the relations that existed with mobile groups in the desert-steppe?

Since 2015, the Uzbek-American Expedition to Bukhara (UzAmEB)[20] has been working at the Bashtepa site cluster. The overall aim of our work is a better understanding of agro-pastoral networks at the desert-steppe/oasis interface of Western Central Asia during the second half of the 1st millennium BCE and the first half of the 1st millennium CE (Stark et al. forthcoming and Stark et al. in preparation).

In 2015, our work started with a first systematic, intensive pedestrian survey in the area immediately surrounding Bashtepa (**Fig. 1**). We chose the area in the vicinity of Bashtepa for several reasons: it offers the possibility to plug many of the gaps in our knowledge about Antique period Bukhara referred to above, and in particular the entire ceramic repertoire; and because we wanted to understand the rural setting of the tell-type sites and the wider ecological borderland – a zone where one would expect a wide range of agro-pastoral interactions. In an area of 416 ha we registered no less 137 anthropogenic features; these include entire systems of irrigated fields, as well as other landscape features that appear to have been connected with water management (possibly water basins – called *ḥawuż* in present-day Tadzhik/Uzbek). Kite-based prospection of these fields revealed important details and variations. For instance, we were able to discern

1990; Semenov 1990; Adylov 1991; 1995; 2002; Cerasuolo 2009.

19 The Russian term used in the archaeological literature is *usad'ba* (усадьба). Note that this term is somewhat ambiguous as it also (and predominantly) translates into English as "manor house". The small mounted sites of the Bashtepa cluster are, however, not elite-related country estates, but non-elite farmsteads.

20 The UzAmEB is a collaborative project between the Academy of Sciences of Uzbekistan, the Institute for the Study of the Ancient World, New York University, and New York University Abu Dhabi. The project is co-directed by Sören Stark (ISAW, NYU), Fiona Kidd (NYU Abu Dhabi) and Dzhamal K. Mirzaakhmedov (Samarkand/Tashkent).

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Fig. 4: Site of Urtatepa – a possible farmstead (© F. Kidd).



Fig. 5: Fields. A: Simple field system with elevated field borders; B: Complex field and canal system (© S. Stark).

various kinds of irrigation techniques, ranging from very simple systems involving only small dams as field borders (**Fig. 5a**) – a technique in which one plot is flooded after the other – to more sophisticated techniques with a multitude of small terminal canals, which allowed for a direct and more targeted feeding of the field plots (**Fig. 5b**). Most impressive – and largely unexpected – was the dense clustering of ceramics: over 4,000 diagnostic pottery fragments were found (**Fig. 6**). Initial observation of the pottery reflects a repertoire spanning the Late Iron Age to the 19th century. Equally impressive is the number of worked artefacts in stone: over 1,300 pieces were documented from the plain surrounding Bashtepa, many of which were saddle querns and grinding stones of diverse forms and sizes, used for processing grains and other materials (**Fig. 7**). Less numerous, but clearly present, are traces of ancient craft production in the area, such as 36 pieces of slag.

Among the anthropogenic sites around the small "tells" are numerous very low mounds (usually less than 1 m high) (**Fig. 8**). Without excavation it is difficult to say anything with certainty about these mounds – some may even be natural soil accumulations. However, in the Kyzylkyr site cluster, some 23 km to the north-east, at the terminal arms of the Zandan-rud – albeit dated somewhat later, probably to the 3rd/4th centuries CE[21] – the excavation of

21 A firm date for these huts is provided by the find of a silver coin of the "Hyrcodes" series, found in associa-

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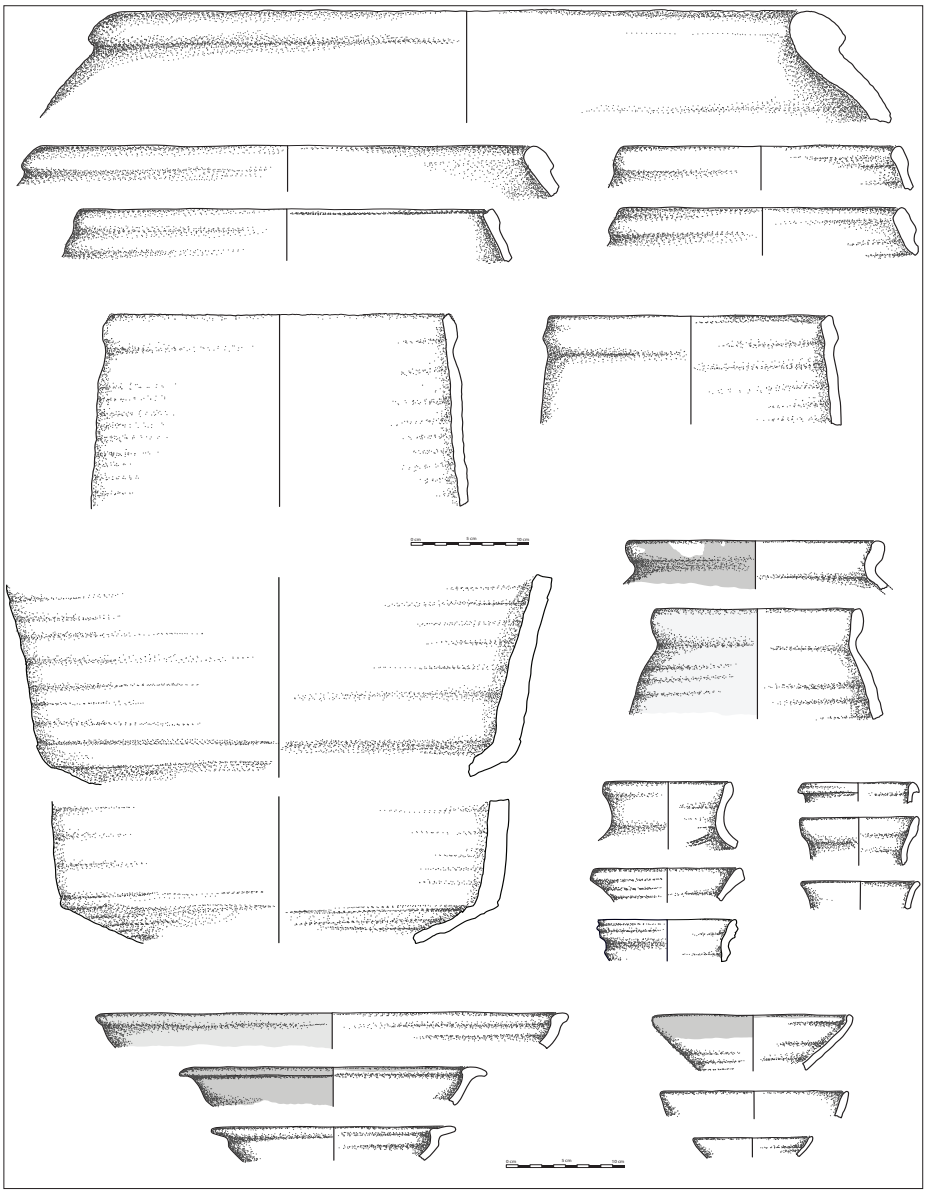


Fig. 6: Ceramic from the 2015 survey (elaborated by F. Kidd).

the site of Kyzylkyr, house 2 – a low mound (surface area ca. 600 sq m, height ca. 50–60 cm) – yielded the remains of two small (ca. 7.5 x 5 m, ca. 50–70 cm deep) pit-houses with simple timber frame superstructures, complete with numerous economic or storage pits, hearth features, and fireplaces in and outside the two huts. The material complex from the huts is identical with the archaeological complex from the nearby and completely excavated site of Kyzylkyr-1 (Muhamedžanov 1983). Consequently, Mukhamedzhanov interpreted them as "belonging to the sedentary farming culture [of Kyzylkyr], the carriers of which combined small-scale domestic animal husbandry with seasonal farming, which had a shifting character, adapted to the hydrographic conditions of the delta area of the old Khitfar [i.e. the Zandan-rud]. Naturally, the environmental conditions of the area, the presence of salty marshes covered with thickets of bushes and reeds and surrounded by steppe stretches of the Kyzylkum, favoured a complex economy." (Muhamedžan-

tion with "Horizon II" outside the huts (Muhamedžanov 1983: 47–48, Fig. 15). This coin type was first issued ca. 1st century CE and continued to be imitated (with a "Sogdianisation" of the legend and increasing deterioration of the imagery) into the 3rd century CE. This particular specimen, the whereabouts of which is unknown, seems to belong to a late stage of the typological line of development of this series, suggesting a date to the end of the 2nd or the 3rd century CE. On these coins, see Zeimal 1983: 252; Naymark 2001: 53–54; Musakaeva 2014: 118–163.

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Fig. 7: Grinding stone and saddle quern from survey (© F. Kidd).

ov 1983: 49). Perhaps these simple dwellings were used by inhabitants of the nearby compact settlements of this area (Kyzylkyr-1 to -3) only in the summer months – small huts amidst fields and gardens, perhaps for the processing of agricultural produce (indicated by a large number of grinding stones found in and outside these two pit-houses), or herdsmen's stations outside the actual settlements. Low mounded sites excavated in the Samarkand region similarly showed that they were small settlements, provisionally characterised as seasonal habitation sites associated with agricultural activities (Mantellini 2014b: 42). In principle, one could assume that at least some of the low mounds in the open areas around Bashtepa represent such seasonal habitations.[22] At least the recovery of a surprising number of grinding stones from the same open areas suggest that it was here, in the open plain, that most of the grain processing took place.

In sum, the results of our preparatory survey clearly demonstrated that the area of the Bashtepa site cluster was a surprisingly dynamic farming hub at the edge of the oasis of the Zeravshan delta. Some of the data (low mounds) are possibly related to seasonal activities, but overall there is little evidence of mobile lifeways. The field systems and the numerous finds of grinding stones, mentioned above, reinforce this impression of an intensive cropping regime. In addition, there is clear evidence for diversified craft production, in the form of ceramics, metallurgy, based on finds of slag, and textile production, manifest by finds of spindle whorls.

Subsequent excavations at Bashtepa itself in 2016 and 2017 have in many ways confirmed our initial survey findings of an economy heavily reliant on irrigation farming. They also provided a better chronological anchor for the survey data. Based on a set of 19 C14 dates, in combination with stratigraphic observations pertaining to building techniques (such as the use of square mudbricks since the first building phase), we are now able to narrow down considerably the "life span" of the site of Bashtepa: from the very end of the 4th or (more likely) the first half of the 3rd century BCE (i.e. the Early Seleucid period) to the late 1st or early 2nd century CE.

22 However, one needs to keep in mind that the earliest archaeological complex from the Kyzylkyr site cluster is strongly connected with earlier and contemporary cultures from the Lower and Middle Syr Darya (see in detail Stark forthcoming), thus the Kyzylkyr communities might have had a different geographical origin than the Bashtepa communities, and consequently somewhat different economic and habitation traditions.

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Fig. 8: Low mound from survey (© F. Kidd).

Given the early stage of stratigraphic excavations, the earlier phases of the existence of the site are still relatively poorly known (**Fig. 9**). It seems that the site was from its founding heavily fortified. A stratigraphic trench through the profile of the northern fortification wall of the site revealed that these fortifications were repaired and reinforced twice (Stark et al. forthcoming) (**Fig. 10**). The presence of such strong fortifications, together with the location of Bashtepa at the westernmost point of the entire site cluster at the desert-steppe/oasis interface on the trade route connecting the Bukhara oasis with Choresmia, suggest an interpretation of the site, at least during its early phase, as some sort of border fortress – perhaps also serving as a trading post and way station – possibly connected with the establishment of Seleucid rule over Sogdiana (Stark et al. forthcoming). Somewhat later, the original fortifications and parts of the northern interior of the site were occupied by a monumental platform, the purpose and absolute chronological relationship of which need further study (Stark et al. in preparation).

We are much better informed about the final phase of the site's existence. At some point in the 1st century BCE, it developed into a full-flung rural settlement, characterised by densely clustered pit-houses and economic pits, partially dug into the earlier platform (**Fig. 11**). Animal bones and macro-botanical remains from the site suggest that the inhabitants of Bashtepa during this last phase were predominately engaged in grain farming (wheat and hulled barley), but also hunting (wild pigs, wild birds) and fishing in the marshes and small lakes that once existed in this part of the Zeravshan delta. They also grew grapes and legumes (grass pea) and consumed sheep, goat, and perhaps cattle; horses are also attested in the palaeo-zoological record.[23] The ceramic repertoire is characterised by predominantly wheel-made forms, many of which find general parallels in the Bukhara oasis, and with Sogdiana and Bactria more broadly (Stark et al. forthcoming; Stark et al. in preparation). Yet the lack of specific parallels for many of these forms – especially the large storage vessels (Uzbek-Tadzhik: *khum*) – may suggest a strong local ceramic production economy, perhaps with specialists mimicking forms from other regions (Stark et al. in preparation). Significantly, the parallels with ceramic forms from Choresmia, seen especially in the survey material (Stark et al. forthcoming), appear less visible in the excavated pottery from Bashtepa, but more work is required to confirm this observation. The location of at least some of the crafting activities producing these goods may well have been very close by: a production area some 3.5 km to the east of Bashtepa, first mentioned by Adylov (Adylov 1991: 15) and rediscovered by our team during the 2017 season, suggests specialised ceramic and metallurgical production, based on concentrations of slag and ceramic fragments. As mentioned above, in addition to this production area there were possibly also semi-permanent installations scattered across the fields and gardens in the plain surrounding the little village at Bashtepa (suggested by the presence of low mounds documented during the survey).

In addition to this predominantly agricultural outlook, there is evidence for pastoral components

23 The archaeobotanical evidence of the site is being studied by Robert Spengler (Max Planck Institute for the Science of Human History, Jena); the animal bones will be studied by Pamela J. Crabtree (NYU).

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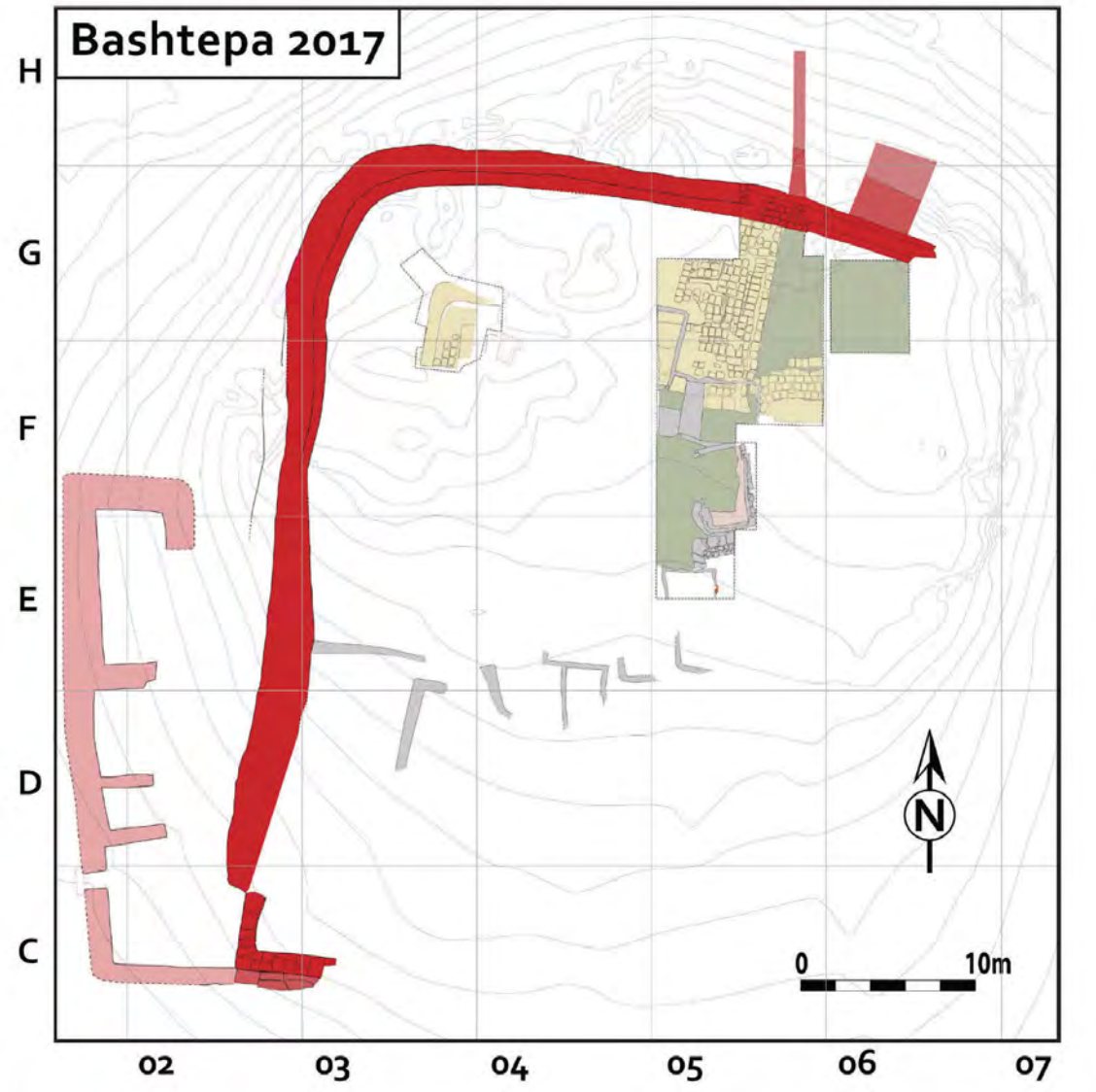


Fig. 9: Plan of Bashtepa, 2017 (© Z. Silvia).

in the society. But here the picture is more complex and we are still at an early stage of our research. As noted above, sheep and goats were consumed at Bashtepa, and it is logical to assume that most of these animals were herded in the nearby desert-steppe on the basis of seasonal use of pasture ground. But at present we do not know enough about the character of this animal husbandry. On the one hand it might well have been largely of domestic character – i.e. the animals belonged to the inhabitants of Bashtepa and the surrounding farmsteads and were herded by members of the community, perhaps even specifically hired herdsman (as is the case today in this area with cattle, sheep-goats and – a few – horses). Nineteenth-century accounts detail how the division of labour between farmers and herders played out within one community, sometimes even within one family.[24]

On the other hand, the animals might have belonged to outside groups of mobile pastoralists who might have exchanged their livestock for agricultural produce and craft products with grain farmers and craft specialists at and around Bashtepa. Livestock-grain/flour trade between farmers and pastoralists is well attested in the wider Bukhara area by 19th-century sources (Meyendorff 1826:

24 See Morgan 1874: 22, based on observations made in 1872 by Strebnitzky: "the Chomura [settled] and Charva [mobile] Turkomans are closely connected; thus, for instance, a father lives a settled life while the sons are nomadic." This division of activities within a single family continues to be observed in the present day (Chang 2018: 72).

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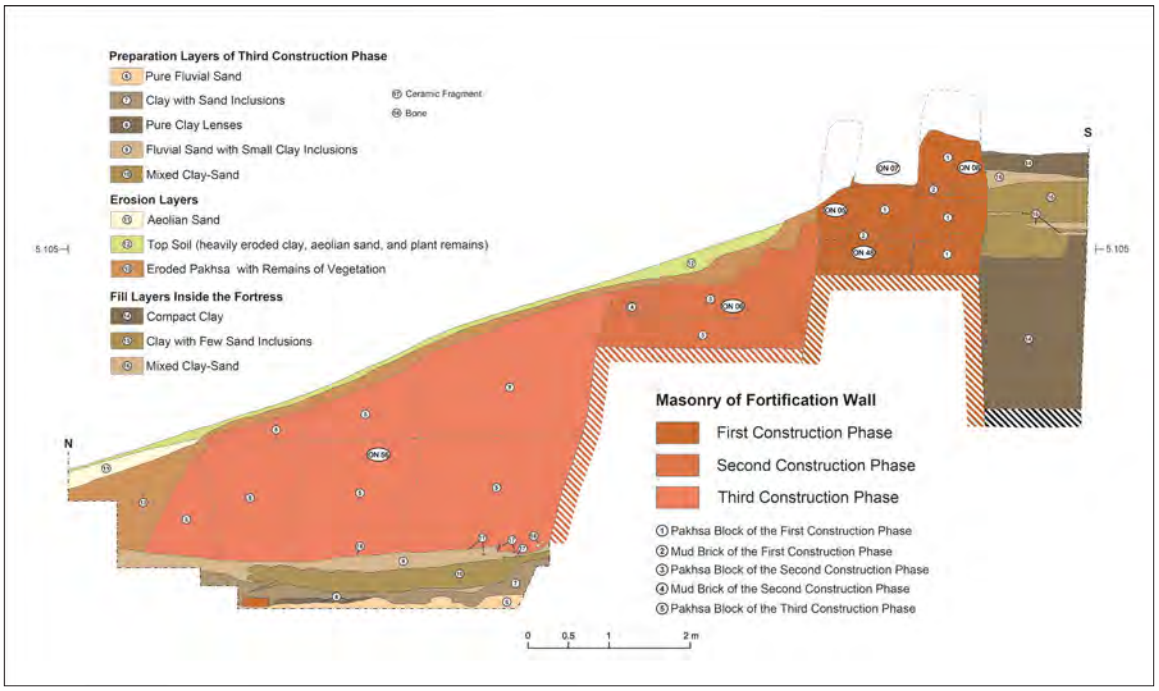


Fig. 10: Profile trench through fortifications (© S. Stark).

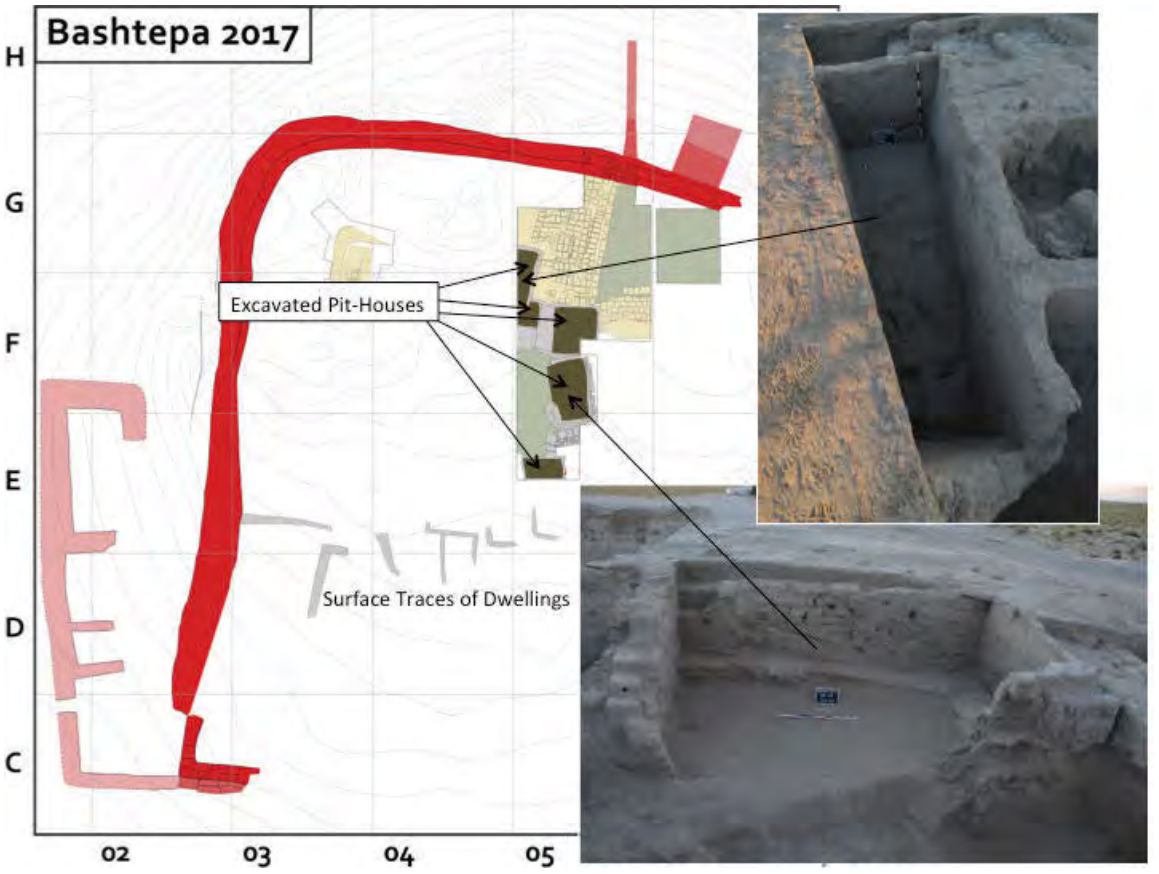


Fig. 11: Pit-houses, 2017 (elaborated by S. Stark).

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Fig. 12: Kurgans at Liavandak (© S. Stark).



Fig. 13: Single kurgan in the Kuldzhuk-tau in the Inner Kyzyl-kum (© S. Stark).

199–200),[25] and wheel-made ceramic vessels are often found in burials associated with nomadic groups (or at least associated with a nomadic heritage linked to the steppe), demonstrating close ties between these groups. However, the archaeology of "nomads" in Bukharan Sogdiana is a complex problem: to date, no "kurgans" (commonly interpreted as burials of nomads – though this equation is in itself problematic) are known in the immediate vicinity of Bashtepa[26] – and not even from the entire western fringes of the oasis. Of course, many hundreds of kurgan burials are attested on the periphery of the oasis, often forming extensive clusters (comprising several dozen mounds) (**Fig. 12**),[27] but they are all located at the opposite end of the oasis – at the eastern and north-eastern fringes of the oasis. Nonetheless, a bone or ivory belt buckle fragment from Bashtepa finds its closest parallel with a belt plaque from Kurgan 7 at the Kuyu-mazar burial ground at the eastern border of the oasis.[28] In addition, potential pastoral "trading partners" might have dwelled farther away, inside the Kyzyl-kum, in the small ecological niches of the mountain ranges of the Inner Kyzyl-kum, where similar kurgan burials are attested **(Fig. 13**) (Manylov 1986; 1987; 1988; Many-

25 For Fergana, see also Batrakov 1962: 161. This has also been hypothetically proposed for sites at the Talgar fan in Semirech'e (Chang 2018: 109).

26 Since 2015 we have registered a handful of mounds resembling kurgans in the desert-steppe a few kilometres to the west of the Bashtepa site cluster. But without excavations it is impossible to know if that is indeed the case.

27 Obel'čenko 1992; for a brief summary and further literature see also Stark forthcoming. Archaeological excavations of these kurgans at the eastern periphery of the oasis have been renewed in 2017 by the UzAmEB, directed by Shujing Wang, doctoral student at ISAW/NYU (Stark et al. in preparation).

28 Obel'čenko 1956: 226–227. Obel'chenko dates this kurgan to the 2nd to 1st century BCE, so contemporary with Bashtepa.

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lov/Abdirimov 1990; Manylov 1990; 1990). For these reasons, the phenomenon of "pastoralism" in our case study is potentially a highly complex one. Scientific approaches such as isotope analysis of the archaeozoological remains from Bashtepa provide one promising means of disentangling this complexity, but we are only at the beginning of our work in this field.

5 The concept of agro-pastoralism

It has long been recognised that an oversimplified division of pre-Modern Central Asian societies into "nomads" on the one hand and "sedentarists" on the other is insufficient for understanding the complexity of socio-political organisation, economic collaboration, and lifestyles.[29] Yet it is still difficult to identify the exact nature of these relations. The concept of agro-pastoralism, based around farming, herding and pastoral practices, is helpful in this context.

The most recent archaeological research on agro-pastoralism in Central Asia – based on an increasingly detailed understanding of farming and herding practices using both archaeobotanical and archaeozoological analyses – is beginning to interrogate exactly what is meant by terms such as "pastoralism" and "mobile" in order to challenge many of the assumptions made about these lifeways by providing increasing detail on the complexities of lifestyle.

Some recent publications continue to draw a line between farmer and herding society. In their discussion of Achaemenid period Kyzyltepa, "located at the very frontier between the irrigated agricultural land and the territory of nomadic pastoralists", Wu et al. state that "comparisons between the material from Kyzyltepa and the Iron Age material from Central Asia and elsewhere can offer important insights into the similarities and differences of these two systems across Eurasia" (Wu et al. 2015: 95). Chang envisages a more interdependent relationship, suggesting that "agropastoralism is an economy that relies both on farming and herding, usually in a symbiotic manner" (Chang 2018: 74, note 8). In her recent study of the Talgar alluvial fan in south-eastern Kazakhstan – in the steppes at the foot of the Tianshan Mountains – she notes that the inhabitants "practiced both the husbandry of sheep, goats, cattle and horses and the cultivation of wheat, barley and two millets [...] the architecture consisted of semi-subterranean pit-houses, rectangular mudbrick houses, walls, and platforms, storage pits, fireplaces and outdoor activity areas" (Chang 2018: 2–4). Spengler et al. too have questioned the nature of nomadic lifestyles, presenting evidence from this foothill region – a traditional stronghold of mobile populations – that clearly manifests agricultural activities, perhaps adopted as a reaction to increased social exchanges (Spengler et al. 2017; see also Wu et al. 2015). Lhuillier and Mashkour are more cautious in their understanding of agro-pastoralism, stating that Iron Age economies, although agro-pastoral, "should be nuanced on a case-by-case basis, according to a more or less important component of agriculture or pastoralism" (Lhuillier/Mashkour 2017: 667).

However, such studies are typically focused on sites in the steppe foothill zone. In order to really understand agro-pastoralism and its complexities, perspectives are also needed from the specific context of the Central Asian river oases, which are usually merged into one broad "island" of intensive farming. Indeed, agro-pastoralism seems also the most productive way of describing our case at the Bashtepa cluster: the interface economy and lifestyle at Bashtepa, in which we find evidence for both mobile forms of pastoralism (sheep-goats and horse herding) and a diverse range of non-casual agricultural and craft production practices. This lifestyle continued across millennia. Still in the 19th-century, accounts written predominantly by English, European and Russian travellers to Central Asia, provide a continuum with these early sources, manifesting the intrinsic linking of herder/mobile and agricultural lifeways in the Central Asian oases. In these sources, the Turkmen terms *charva* and *chomur* refer specifically to the way of life led by these groups, with the former referring to the breeders and the latter to the "settled farmers" (van Leeuwen et al. 1994: 41) – terms that recall Herodotus's division of the Scythians into nomadic and farming groups (Book IV, 17–19). Thus, de Bode describes the Yamud (Yomut) *chomur* or Turkmen, who "give themselves up to agriculture..." (de Bode 1848: 62). Bukhari's description of the Middle Zeravshan Valley further blurs the distinctions between mobile and sedentary groups in the Central Asian oases: he states, "... the number of tent-dwellers (*ḥašam-nišīnān*) equals that of the city-dwellers (*šahr-nišīnān*). All the way from Bukhara up to Samarkand, Jizzaq and Ūra-Tīpa there are villages (*dihāt*), towns (*kuy*) and nomads (*ḥašam-nišīn*) side by side" (Schefer [1876] 1970: 171–172; translation by Holzwarth 2004: 97).

Ecological borderlands provide an especially productive means of better understanding the complexities of mixed mobile/herder and agricultural lifestyles, as they form a nexus between the oasis and the desert/steppe. A borderland approach (Baud/van Schendel 1997; Ellis 2015) to these areas helps to re-conceptualise traditional dichotomies (oasis vs. desert-steppe, urban vs. rural, sedentary vs. nomadic, and centre vs. periphery) by facilitating a more comprehensive understanding of how these complex spaces operate. As a mixing place for people

29 Khazanov 1992.

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practising varied lifestyles with networks spreading into the oasis and into the desert-steppe, the Bashtepa border zone provides a localised perspective on mixed agro-pastoral lifestyles. Inter-oasis comparisons of such zones are constructive for perceiving nuances: for example, the infrastructure of agro-pastoralism at the Bukhara interface appears very different from that in Choresmia. On the western fringes of the Bukhara oasis, the settlement pattern is characterised by a combination of small and compact mounds, at least some of which were fortified, surrounded by grain fields, vineyards, and legume gardens, with open sites perhaps housing the processing of grains and other kinds of agricultural produce. This settlement type contrasts with that of Iron Age Choresmia; here the desert-steppe/oasis border is marked with the classic Central Asian *qal'a*,[30] albeit sometimes also with surrounding open settlement and fields. The two types of fortified sites – the extensive *qal'a* and the small fortified mounds – are different, and, by their very plan, might indicate that they housed rather different sorts of activities and served different functions, or descend from different cultural traditions. Yet both settlement types are understood as being part of the agro-pastoral mixed zone oasis economy.

All this helps us to shift the focus away from "urban", metropolitan centres as the main and only points of interest in order to understand "oasis societies" in Central Asia. It is particularly productive in the context of Antique period Bukhara: an oasis without cities.

Bibliography

Abdullaev, K.
2007: Nomad Migration in Central Asia, in: Cribb, J./Herrmann, G. (ed.), *After Alexander: Central Asia before Islam* (= Proceedings of the British Academy 133), Oxford, 73–98.

2014: City Walls and Nomads: Archaeological Parallels in the Post-Hellenistic and Medieval Periods, *Art-Sanat* 1, 1–17.

Adams, R. McC.
1965: *Land Behind Baghdad: A history of Settlement on the Diyala Plains*, Chicago.

Ban, Gu
China in Central Asia: The Early Stage (125 B.C.–A.D. 23). An Annotated Translation of Chapters 61 and 96 of the History of the Former Han Dynasty. By A.F.P. Hulsewé, with an Introduction by M.A.N. Loewe (= Sinica Leidensia 14), 1979, Leiden.

Baud, M./van Schendel, W.
1997: Toward a Comparative History of Borderlands, *Journal of World History* 8, 211–242.

Bernard, P.
1978: Campagne de fouilles 1976–1977 à Aï Khanoum (Afghanistan), *Comptes rendus de l'Académie des inscriptions et belles-lettres* 122, 421–463.

Bi, Bo
Forthcoming: Recent Archaeological Discoveries Regarding Kangju and Sogdiana, in: Lerner, J.A./Juliano, A.L./Stark, S. (ed.), *Central and Inner Asian Art and Archaeology. Volume 2*, Turnhout.

Tārīḫ-i Buḫārā
Tārīkh-i Bukhārā. Edited by Mudarris Razavi, 1984², Tehran.

The History of Bukhara. Translated from a Persian Abridgement of the Arabic Original by Narshakhī by Richard Nelson Frye (= Mediaeval Academy of America. Publication 61), 1954, Cambridge, MA.

Cerasuolo, O.
2009: Indagine topografica nel territorio di Varakhsha, in: Silvi Antonini, C./Mirzaachmedov, D.K. (ed.), *Gli scavi di Uch Kulakh (oasi di Bukhara). Rapporto preliminare, 1997–2007* (= Rivista degli studi orientali. Nuova serie 80, suppl. 1), Pisa/Rome, 189–210.

Chang, C.
2018: *Rethinking Prehistoric Central Asia. Shepherds, Farmers and Nomads* (= Asian States and Empires 14), Abingdon/New York.

Cowgill, G.L.
2004: Origins and Development of Urbanism: Archaeological Perspectives, *Annual Review of Anthropology* 33, 525–549.

Daffinà, P.
1967: *L'immigrazione dei Sakā nella Drangiana* (= Istituto italiano per il medio ed estremo Oriente. Centro studi e scavi archeologici in Asia. Reports and Memoirs 9), Rome.

de Bode, C.A.
1848: On the Yamud and Goklan Tribes of Turkomania, *Journal of the Ethnological Society of London* 1, 60–78.

Ellis, M.H.
2015: Over the Borderline? Rethinking Territoriality at the Margins of Empire and Nation in the Modern Middle East (Parts I and II), *History Compass* 13, 411–434.

30 See above, note 5.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Finley, M.I.
1981: *Economy and Society in Ancient Greece, with an introduction by B.D. Shaw and R. P. Saller*, London.

Francfort, H.-P.
1988: Central Asia and Eastern Iran, in: Boardman, J. et al. (ed.), *The Cambridge Ancient History. Volume IV. Persia, Greece and the Western Mediterranean c. 525 to 479 B. C.*, Cambridge, 165–193.

1979: *Les fortifications en Asie centrale de l'âge du bronze à l'époque Kouchane* (= Travaux de l'Unité de Recherches Archéologiques 10), Paris.

Francfort, H.-P./Lecomte, O.
2002: Irrigation et société en Asie centrale des origines à l'époque achéménide, *Annales. Histoire, Sciences Sociales* 57, 625–663.

Gardin, J.-C.
1995: Fortified Sites of Eastern Bactria (Afghanistan) in Pre-Hellenistic Times, in: Invernizzi, A. (ed.), *In the Land of the Gryphons. Papers on Central Asian Archaeology in Antiquity* (= Monografie di Mesopotamia 5), Florence, 83–105.

Grenet, F.
2004: Maracanda/Samarkand, une métropole pré-mongole: sources écrites et archéologie, *Annales. Histoire, Sciences Sociales* 59, 1043–1067.

1996: Crise et sortie de crise en Bactriane-Sogdiane aux IV^{e} et V^{e} siècles : de l'héritage antique à l'adoption de modèles sassanides, in: Accademia Nazionale dei Lincei (ed.), *La Persia e l'Asia centrale da Alessandro al X secolo: Convegno Internazionale, Roma, 9–12 Novembre 1994* (= Atti dei convegni Lincei 127), Rome, 367–390.

Haneda, M.
1997: The Pastoral City and the Mausoleum City, in: Sato, T. (ed.), *Islamic Urbanism in Human History. Political Power and Social Networks,* London/New York, 142–170.

Hill, J.E.
2009: *Through the Jade Gate to Rome. A Study of the Silk Routes During the Later Han Dynasty (1st to 2nd Centuries CE): An Annotated Translation of the Chronicle on the "Western Regions" from the Hou Hanshu*, Charleston, South Carolina.

Holzwarth, W.
2004: The Uzbek State as Reflected in Eighteenth Century Bukharan Sources, in: Herzog, T./Holzwarth, W. (ed.), *Nomaden und Sesshafte – Fragen, Methoden, Ergebnisse. Teil 2* (= Orientwissenschaftliche Hefte 15 = Mitteilungen des SFB 586 „Differenz und Integration" 4/2), Halle, 93–129.

Hunt, R.C.
1988: Size and the Structure of Authority in Canal Irrigation Systems, *Journal of Anthropological Research* 44, 335–355.

Hüttel, H.-G./Erdenebat, U.
2009: *Karabalgasun und Karakorum: zwei spätnomadische Stadtsiedlungen im Orchon Tal. Ausgrabungen und Forschungen des Deutschen Archäologischen Instituts und der Mongolischen Akademie der Wissenschaften 2000-2009*, Ulaanbaatar.

Inevatkina, O.N.
2010: La Sogdiane autour de Samarcande, in: Rapin, C. (ed.), *Samarcande, cité mythique au cœur de l'Asie* (= Dossiers d'archéologie 341), Dijon, 24–27.

Khazanov, A.M.
1992: Nomads and Oases in Central Asia, in: Hall, J.A./Jarvie, I.C. (ed.), *Transitions to Modernity: Essays on Power, Wealth and Belief*, Cambridge/New York/Port Chester/Melbourne/Sydney, 69–89.

Khozhaniyazov, G.
2006: *The Military Architecture of Ancient Chorasmia (6th century B.C.–4th century A.D.). Translated, edited and emended by Svend Helms*, Paris.

Leriche, P.
2009: Das Baktrien der 1000 Städte, in: Hansen, S./Wieczorek, A./Tellenbach, M. (ed.), *Alexander der Grosse und die Öffnung der Welt: Asiens Kulturen im Wandel. Begleitband zur Sonderausstellung "Alexander der Große und die Öffnung der Welt – Asiens Kulturen im Wandel" in den Reiss-Engelhorn-Museen Mannheim* (= Publikation der Reiss-Engelhorn-Museen 36), Regensburg, 155–167.

2014: L'hellénisation de l'Orient. Urbanisation ou colonisation?, in: Leriche, P. (ed.), *Art et civilisations de l'Orient hellénisé. Rencontres et échanges culturels d'Alexandre aux Sassanides. Hommage à Daniel Schlumberger*, Paris, 61–74.

Lhuillier, J./hasanov, M.
2013: Nouvelles recherches à Padayatak tépé au Kashka-Daria (Ouzbékistan), in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie Centrale 21/22), Paris, 389–398.

Lhuillier, J./Mashkour, M.
2017: Animal Exploitation in the Oases: An Archaeozoological Review of Iron Age Sites in Southern Central Asia, *Antiquity* 91, 655–673.

Mantellini, S.
2014^{2}a: Irrigation Systems in Samarkand, in: Selin, H. (ed.), *Encyclopaedia of the History of Science, Technology and Medicine in Non-Western Cultures. Second Edition*, Dordrecht, 1–14.

2014b: Settlement Dynamics, Territory Exploitation, and Trade Routes in the Ancient Samarkand Oasis (Uzbekistan), in: Genito, B./Caterina, L. (ed.), *Archeologia delle Vie della Seta. Percorsi,*

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immagini e cultura materiale. Volume II, Rome, 13–24.

Minardi, M.
2015: *Ancient Chorasmia. A Polity between the Semi-Nomadic and Sedentary Cultural Areas of Central Asia. Cultural Interactions and Local Developments from the Sixth Century BC to the First Century AD* (= Acta Iranica 56), Leuven.

Morgan, E.D.
1874: Colonel Stebnitzky's Report on his Journey in 1872 in Central and Southern Turkomania, *Journal of the Royal Geographical Society of London* 44, 217–227.

al-Muqaddasī
Aḥsan al-taqāsīm fī maʿrīfat al-aqālīm (Descriptio imperii moslemici auctore Schamso'd-dîn Abû Abdollâh Mohammed ibn Ahmed ibn abî Bekr al-Bannâ al-Basschârî al-Mokaddasi. Edidit M. J. de Goeje) (= Bibliotheca Geographorum Arabicorum 3), 1877, Leiden.

The Best Divisions for Knowledge of the Regions. Translated by Professor Basil Collins. Reviewed by Dr. Mohammad Hamid Alta'i, 2001, Reading, UK.

Naymark, A.
2001: *Sogdiana, its Christians and Byzantium: A Study of Artistic and Cultural Connections in Late Antiquity and Early Middle Ages*, unpublished PhD dissertation, Indiana University, Bloomington.

Negus Cleary, M.
2013: Khorezmian Walled Sites of the Seventh Century BC–Fourth Century AD: Urban Settlements? Elite Strongholds? Mobile Centres?, *Iran* 51, 71–100.

Negus-Cleary, M.
2008: Walls in the Desert: The Phenomenon of Central Asian Urbanism in Ancient Chorasmia, in: Parry, K. (ed.), *Art, Architecture and Religion Along the Silk Roads*, Turnhout, 51–78.

Omel'chenko, A.V.
2016: On the Question of Sasanian Presence in Sogdiana. Recent Results of Excavations at Paykand, *Journal of Inner Asian Art and Archaeology* 7, 79–107.

Paul, J.
2004: Perspectives nomades: état et structures militaires, *Annales. Histoire, Sciences Sociales* 59, 1069–1093.

2012: *Zentralasien* (= Neue Fischer Weltgeschichte 10), Frankfurt am Main.

Podushkin, A.
2013: Der Staat der Kangju aus Sicht der Archäologie, in: Stöllner, T./Samašev, Z. (ed.), *Unbekanntes Kazachstan. Archäologie im Herzen Asiens. Katalog der Ausstellung des Deutschen Bergbau-Museums Bochum vom 26. Januar bis zum 30. Juni 2013. Band 2*, Bochum, 793–809.

Price, D.H.
1994: Wittfogel's Neglected Hydraulic/Hydroagricultural Distinction, *Journal of Anthropological Research* 50(2), 187–204.

Rapin, C.
2007: Nomads and the Shaping of Central Asia from the Early Iron Age to the Kushan Period, in: Cribb, J./Herrmann, G. (ed.), *After Alexander: Central Asia before Islam* (= Proceedings of the British Academy 133), Oxford, 29–72.

Rapin, C./Issamiddinov, M.
2013: Entre sédentaires et nomades. Les recherches de la Mission archéologique franco-ouzbèke (MAFOuz) de Sogdiane sur le site de Koktepe, in: Bendezu-Sarmiento, J. (ed.), *L'archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie centrale 21/22), Paris/Bishkek/Kabul, 113–133.

Renfrew, C.
2008: The City through Time and Space. Transformations of Centrality, in: Marcus, J./Sabloff, J.A. (ed.), *The Ancient City: New Perspectives on Urbanism in the Old and New World*, Santa Fe, 29–51.

Rogers, J.D.
2017: Inner Asian Polities and their Built Environment, *Archaeological Research in Asia* 11, 1–14.

Rogers, J.D./Ulambayar, E./Gallon, M.
2005: Urban Centres and the Emergence of Empires in Eastern Inner Asia, *Antiquity* 79, 801–818.

Rtweladse, E.V.
2009: Kampyr-Tepe-Pandocheion – Alexandria Oxiana, in: Hansen, S./Wieczorek, A./Tellenbach, M. (ed.), *Alexander der Grosse und die Öffnung der Welt: Asiens Kulturen im Wandel. Begleitband zur Sonderausstellung "Alexander der Große und die Öffnung der Welt – Asiens Kulturen im Wandel" in den Reiss-Engelhorn-Museen Mannheim* (= Publikation der Reiss-Engelhorn-Museen 36), Regensburg, 169–176.

Schefer, Ch.H.A.
[1876] 1970: *Histoire de l'Asie centrale par Mir Abdoul Kerim Boukhary*, Amsterdam.

Semenov, G.L.
1996: *Studien zur sogdischen Kultur an der Seidenstraße* (Studies in Oriental Religions 36), Wiesbaden.

Shishkina, G.V.
1996: Ancient Samarkand: Capital of Soghd, in: Litvinskii, B.A./Altman Bromberg, C. (ed.), *The Archaeology and Art of Central Asia: Studies from the Former Soviet Union* (= Bulletin of the Asia Insitute. New series 8), Bloomfield Hills, 81–99.

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Spengler, R.N./Miller, N.F./Neef, R./Tourtellotte, P.A./Chang, Cl.
2017: Linking Agriculture and Exchange to Social Developments of the Central Asian Iron Age, *Journal of Anthropological Archaeology* 48, 295–308.

Stark, S.
Forthcoming: The Hunnic Period in Bukharan Soghd: Archaeological perspectives and historical considerations, in: von Rummel, Ph./Payne R. (ed.), *The Huns between Central Asia, the Near East, and Europe: The Archaeology of Nomadic Imperialism, circa 300 CE–600 CE* (= Archäologie in Iran und Turan), Berlin.

Stark, S./Kidd, F./Mirzaakhmedov, D./Silvia, Z./Mirzaakhmedov, S./Evers, M.
Forthcoming: Bashtepa 2016: Preliminary Report of the First Season of Excavations (with an appendix by Aleksandr Naymark), *Archäologische Mitteilungen aus Iran und Turan* 48, 11–48.

Stark, S./Kidd, F./Wang, Sh./Mirzaakhmedov, D./Spengler, R. N./Pozzi, S./Silvia, Z./Mirzaakhmedov, S.
In prepration: The Uzbek-American Expedition in Bukhara. Preliminary Report on the third season (2017), *Iran*.

Stride, S./Rondelli, B./Mantellini, S.
2009: Canals Versus Horses: Political Power in the Oasis of Samarkand, *World Archaeology* 41, 73–87.

Sverchkov, L.M.
2009: A History of Research on Ancient Mining in Uzbekistan, *Archäologische Mitteilungen aus Iran und Turan* 41, 141–164.

Tarn, W.W.
1951[2]: *The Greeks in Bactria and India*, Cambridge.

Usmanova, Z. I.
1992: New Material on Ancient Merv, *Iran* 30, 55–63.

van Leeuwen, C./Emeljanenko, T./Popova, L.
1994: *Nomads in Central Asia: Animal Husbandry and culture in transition (19th–20th Century)*, Amsterdam.

Weber, M.
2000: *Wirtschaft und Gesellschaft. Die Wirtschaft und die gesellschaftlichen Ordnungen und Mächte. Nachlaß. Teilband 5: Die Stadt* (= Studienausgabe der Max-Weber-Gesamtausgabe. Abteilung 1. Schriften und Reden 22, Tübingen.

Wilkinson, T.J./Boucharlat, R./Ertsen, M.W./Gillmore, G./Kennet, D./Magee, P./Rezakhani, Kh./De Schacht, T.
2012: From Human Niche Construction to Imperial Power: Long-term Trends in Ancient Iranian Water Systems, *Water History* 4(2), 155–176.

Wilkinson, T.J./Rayne, L.
2010: Hydraulic Landscapes and Imperial Power in the Near East, *Water History* 2(2), 115–144.

Wittfogel, K.A.
1957: *Oriental Despotism: A Comparative Study of Total Power*, New Haven/London.

Wu, Xin/Miller, N.F./Crabtree, P.
2015: Agro-Pastoral Strategies and Food Production on the Achaemenid Frontier in Central Asia: A Case Study of Kyzyltepa in Southern Uzbekistan, *Iran* 53, 93–117.

Zeimal, E.V.
1983: The Political History of Transoxania, in: Yarshater, E. (ed.), *The Cambridge History of Iran. Volume 3/1: The Seleucid, Parthian and Sasanian Periods*, Cambridge, 232–262.

Zuiderhoek, A.
2017: *The Ancient City (Key Themes in Ancient History)*, Cambridge.

Russian texts

Adylov, Š.T.
1987: *Stanovlenie i razvitie gorodskoj kul'tury Buharskogo Sogda po materialam stratigrafičeskih issledovanij (IV v. do n.è.–VIII v.).* Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata istoričeskih nauk, Samarkand.

1990: K istoričeskoj topografii Varahši, in: Rtveladze, È.V. (ed.), *Iz istorii kul'turnogo naslediâ Buhary. Vypusk 1*, 28–32.

1995: Poselenie Urtatepa (nekotorye predvaritel'nye itogi obsledovaniâ), *Obŝestvennye nauki v Uzbekistane* 1995/5–8, 47–50.

2002: Zapadnye okrainy Buharskogo oazisa na rannih stadiâh obživaniâ (VI v. do n.è.–III v. n.è.) (Po materialam issledovanij v Baštepinskoj zone Varahšinskogo massiva), *Istoriâ material'noj kul'tury Uzbekistana* 33, 72–80.

2006: Iz istorii gornyh promyslov i metallurgii Buhary, *Istoriâ material'noj kul'tury Uzbekistana* 35, 280–282.

Andrianov, B.V.
1969: *Drevnie orositel'nye sistemy Priaral'â (v svâzi s istoriej vozniknovleniâ i razvitiâ orošaemogo zemledeliâ)*, Moscow.

Batrakov, V.S.
1962: Osobennosti razvitiâ sel'skogo hozâjstva Buharskogo hanstva s poloviny XVIII do 70-h gg. XIX veka, *Trudy Taškentskogo gos. universiteta im. V. I. Lenina* 193, 154–184.

Belenickij, A.M./Bentovič, I.B./Bol'šakov, O.G.
1973: *Srednevekovyj gorod Srednej Azii*, Leningrad.

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Belenickij, A.M./Maršak, B.I./Raspopova, V.I.
1981: Sogdijskij gorod v načale srednih vekov (itogi i metody issledovaniâ drevnego Pendžikenta), *Sovetskaâ arheologiâ* 2, 94–110.

Bolelov, S.B.
2010: Žilaâ zastrojka kreposti Kampyrtepa v pervye veka n.è., in: Zilivinskaâ, È.D. (ed.), *Otzvuki Velikogo Horezma. K 100–letiû so dnâ roždeniâ S. P. Tolstova. Sbornik statej*, Moscow, 57–90.

2013: Kampyrtepa – antičnaâ krepost' na Okse: stratigrafiâ, periodizaciâ, hronologiâ, in: Buharin, M.D. (ed.), *Scripta antiqua. Voprosy drevnej istorii, filologii, iskusstva i material'noj kul'tury. Tom 3. K ûbileû Èdvarda Vasil'eviča Rtveladze*, Moscow, 75–132.

Gulâmov, Â.G.
1957: *Istoriâ orošeniâ Horezma s drevnejših vremen do naših dnej*, Tashkent.

Inevatkina, O.N.
2002: Fortificiâ akropolâ drevnego Samarkanda v seredine pervogo tysâčeletiâ do n.è., *Material'naâ kul'tura Vostoka* 3, 24–46.

Isamiddinov, M.H.
2002: *Istoki gorodskoj kul'tury Samarkandskogo Sogda (problemy vzaimodejstviâ kul'turnyh tradicij v èpohu ranneželeznogo veka i v period antičnosti)*, Tashkent.

Isamiddinov, M.H./Sulejmanov, R.H.
1984: *Erkurgan (stratigrafiâ i periodizaciâ)*, Tashkent.

Isamiddinov, M.H./Rapen, K.
1999: K stratigrafii gorodiša Koktepa, *Istoriâ material'noj kul'tury Uzbekistana* 30, 68–79.

Kabanov, S.K.
1959: Raskopki žilyh postroek i gorodskih oboronitel'nyh sooruženij na gorodiše Varahša v 1953–1954 gg., *Istoriâ material'noj kul'tury Uzbekistana* 1, 109–153.

Manylov, Û.P.
1987: Issledovaniâ v Kyzylkumah, *Arheologičeskie otkrytiâ* 1985, 595.

1988: Novye pamâtniki arheologii Navoijskoj oblasti, *Istoriâ material'noj kul'tury Uzbekistana* 22, 108–118.

1990: Mogil'nik Džuzkuduk-2 rannesakskogo vremeni v gorah Bukantau, *Istoriâ material'noj kul'tury Uzbekistana* 24, 33–39.

1990: Raskopki Kulkudukskoj kurgannoj gruppy v central'nyh Kyzylkumah, *Istoriâ material'noj kul'tury Uzbekistana* 23, 44–60.

Manylov, Û.P./Abdirimov, R.
1990: Kurgany III–II vv. do n.è. v kurgannoj gruppe Džuzkuduk-2, in: Filanovič, M.I. (ed.), *Arheologičeskie raboty na novostrojkah Uzbekistana*, Tashkent, 206–214.

Masson, M.E.
1973: *Stoličnye goroda v oblasti nizov'ev Kaškadar'i s drevnejših vremen. Iz rabot Kešskoj arheologo-topografičeskoj èkspedicii TašGU (1965–1966 gg.)*, Tashkent.

Masson, V.M.
1979: Arheologičeskie kompleksy i kul'turnyj process v drevnej Srednej Azii, in: Askarov, A.A./Filanovič, M.I. (ed.), *Vsesoûznoe naučnoe soveŝanie "Antičnaâ kul'tura Srednej Azii i Kazahstana". Tezisy dokladov*, Tashkent, 3–5.

Muhamedžanov, A.R.
1978: *Istoriâ orošeniâ Buharskogo oazisa (s drevnejših vremen do načala XX v.)*, Tashkent.

1983: Raskopki Kyzylkyra-II. Dom-2, in: Filanovič, M.I. (ed.), *Kul'tura drevnebuharskogo oazisa III–VI vv. n.è.*, Tashkent, 26–41.

1999: *Gorodu Buhare – 2500 let*, Tashkent.

Muhamedžanov, A.R./Mirzaahmedov, D.K./Adylov, Š.T.
1982: Keramika nižnih sloev Buhary (opyt predvaritel'noj periodizacii), *Istoriâ material'noj kul'tury Uzbekistana* 17, 81–97.

Muhamedžanov, A.R./Mirzaahmedov, D.K./Adylov, Š.T./Vul'fert, M.
1990: Rezul'taty issledovaniâ arheologičeskih pamâtnikov Varahšinskogo massiva (po materialam rabot 1985 g.), in: Filanovič, M.I. (ed.), *Arheologičeskie raboty na novostrojkah Uzbekistana*, Tashkent, 141–162.

Musakaeva, A.A.
2014: *Stanovlenie i dinamika razvitiâ denežnyh otnošenij v zapadnom Sogde v èpohu antičnosti i rannego srednevekov'â (Turanskie monety. Čast' 2)*, Tashkent.

Najmark, A.I.
1989: Territorial'noe razvitie gorodov Zarafšanskoj doliny v I–VII vv. n.è., in: Askarov, A.A. et al. (ed.), *Zony i ètapy urbanizacii (teoretičeskie aspekty problemy "gorod i process urbanizacii v Srednej Azii"). Tezisy dokladov regional'noj konferencii*, Namagan/Tashkent, 58–60.

Nekrasova, E.G.
2011: Arheologo-topografičeskij komentarij, in: an-Naršahi, M., *Ta'rih-i Buhara – Istoriâ Buhary. Perevod, kommentarii i primečaniâ Š.S. Kamoliddina. Arheologo-topografičeskij kommentarij E.G. Nekrasovoj*, Tashkent, 441–509.

Obel'čenko, O.V.
1956: Kuû-mazarskij mogil'nik, in: Šiškin, V.A. (ed.), *Arheologičeskie issledovaniâ na gorodiše Varahša i v Buharskom oazise v 1947–1953 gg.* (= Trudy Instituta Istorii i Arheologii Akademii nauk Uzbekskoj SSR 8), Tashkent, 205–228.

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1992: *Kul'tura antičnogo Sogda (po arheologičeskim dannym VII v. do n.è.–VII v. n.è.)*, Moscow.

Pruger, E.B.
1989: Mesto Kyzylkumov v istorii dobyči i rasprostranenii sredneasiatskoj birûzy, in: Masson, M.E. (ed.), *Drevnij Merv*, Ashgabat, 192–205.

Pugačenkova, G.A.
1989: *Drevnosti Miankalâ. Iz rabot Uzbekistanakoj iskusstvovedčeskogo èkspedicii*, Tashkent.

Raspopova, V.I.
1970: Sogdijskij gorod i kočevaâ step' v VII–VIII vv., *Kratkie soobŝeniâ Instituta arheologii* 122, 86–91.

1979: K voprosu o specifike goroda i sel'skih poselenij rannesrednevskovogo Sogda, in: Masson, V.M. (ed.), *Uspehi sredneaziatskoj arheologii. Vypusk 4*, Leningrad, 22–26.

1990: *Žiliša Pendžikenta (opyt istoriko-social'noj interpretacii)*, Leningrad.

Semenov, G.L.
1990: Urbanizaciâ Buharskogo Sogda, in: Burâkov, Û.F. (ed.), *Kul'tura drevnego i srednevekovogo Samarkanda i istoričeskie svâzi Sogda. Tezisy dokladov sovetsko-francuzskogo kollokviuma*, Tashkent, 91–92.

2002: *Sogdijskij gorod V–XI vv. Formirovanie plana (po materialam Pajkenda v Buharskom oazise i Ak-Bešima v Semireč'e). Disseraciâ v vide naučnogo doklada na soiskanie učenoj stepeni doktora istoričeskih nauk*, St. Petersburg.

Šiškin, V.A.
1940: *Arheologičeskie raboty v 1937 g. v zapadnoj časti Buharskogo oazisa*, Tashkent.

1956: Arheologičeskaâ razvedka na Baš-tepe, in: Šiškin, V.A. (ed.), *Arheologičeskie issledovaniâ na gorodiŝe Varahša i v Buharskom oazise v 1947–1953 gg.* (= Trudy Instituta Istorii i Arheologii Akademii nauk Uzbekskoj SSR 8), Tashkent, 163–172.

1963: *Varahša. Opyt istoričeskogo issledovaniâ*, Moscow.

2015: Arheologičeskie raboty 1934–1951 gg. na gorodiŝe Varahša. Okruga Varahši, in: Bolelov, S.B./Kol'čenko, V.A. (ed.), *Arheologiâ Central'noj Azii. Arhivnye materialy. Tom 2*, Samarkand, 74–118.

Šiškina, G.V.
1990: Varahša i ee okruga (novye issledovaniâ), in: Rtveladze, È.V./Sagdullaev, A.S./Usmanova, Z.I. (ed.), *Arheologiâ Srednej Azii. Tezisy dokladov*, Tashkent, 108–110.

Šiškina, G.V./Inevatkina, O.N.
2012: Zapadnye zemli Samarkandskogo Sogda. Tipologiâ arheologičeskih pamâtnikov, *Problemy istorii, filologii, kul'tury* 38, 33–68.

Sverčkov, L.M.
2006: Istoriâ izučeniâ drevnih vyrabotok Uzbekistana (kratkij obzor), *Istoriâ material'noj kul'tury Uzbekistana* 35, 113–129.

Sulejmanov, R.H.
1999: Poâvlenie goroda na Erkurgane v processe urbanizacii i složeniâ gosudarstvennosti na territorii Uzbekistana, *O'zbekistan Tarixi* 2, 14–23.

2000: *Drevnij Nahšab. Problemy civilizacii Uzbekistana VII v. do n.è.–VII v. n.è.*, Tashkent/Samarkand.

Tolstov, S.P.
1948: *Drevnij Horezm. Opyt istoriko-arheologičeskogo issledovaniâ*, Moscow.

Vinogradov, A.V./Lopatin, S.V./Mamedov, È.D.
1965: Kyzylkumskaâ birûza (iz istorii dobyči i obrabotki), *Sovetskaâ ètnografiâ* 2, 114–134.

Žukov, V.D.
1956: Materialy k izučeniû Baš-Tepenskoj gruppy pamâtnikov v zapadnoj časti Buharaskogo oazisa, in: Šiškin, V.A. (ed.), *Arheologičeskie issledovaniâ na gorodiŝe Varahša i v Buharskom oazise v 1947–1953 gg.* (= Trudy Instituta Istorii i Arheologii Akademii nauk Uzbekskoj SSR 8), Tashkent, 173–204.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Urbanscape vs. Landscape, or Urbanscape as Landscape?

A case from ancient Samarkand (Sogdiana)

Simone Mantellini

Abstract: Located in the middle of Central Asia, Samarkand has always been a major socio-political entity of ancient Sogdiana. Though its fame is connected to the rich trade along the Great Silk Road and to its monumental Timurid architecture, historically Samarkand developed in close association with its hinterland. This paper presents the results of the project "Samarkand and Its Territory", which unveiled a more complex relationship between the urban landscape of the city and its regional connections. Started in 2001, the joint Uzbek-Italian Archaeological Project "Samarkand and Its Territory" conducted research at both a regional and local scale, based on a multidisciplinary approach and a specific focus on the study of the ancient irrigation system. According to the information available from Afrasiab (ancient Samarkand), the major urbanisation of this region is usually dated as early as the Achaemenid period (6th century BCE). However, data from regional surveys and stratigraphic excavations of targeted sites suggests that this process took place later, during the Hellenistic and post-Hellenistic centuries (4th century BCE to 1st century CE), and that it can be explained as the result of the symbiotic relationship between the settled farmers and the semi-nomadic pastoralists.

Keywords: Samarkand, landscape archaeology, archaeological survey, remote sensing, ancient irrigation systems, *tepa*.

Резюме: Расположенный в центре Средней Азии, Самарканд всегда был основным общественно-политическим центром древней Согдианы. Несмотря на славу, связанную с богатой торговлей вдоль Великого шелкового пути с его монументальной архитектурой Тимуридов, исторически Самарканд развивался в тесной связи с его внутренними районами. В этой статье представлены результаты деятельности проекта "Самарканд и его территория", который сделал явными более сложные отношения между ландшафтом города и его региональными связями. Совместная узбекско-итальянская археологическая экспедиция, начавшая свою работу в 2001 году, проводила исследования как регионального, так и местного масштаба на основе многодисциплинарного подхода и уделения особого внимания изучению древней оросительной системы. Согласно информации, полученной с городища Афрасиаб (древний Самарканд), пикурбанизации этого региона обычно датируется еще периодом Ахеменидов (VII–VI вв. до н.э.). Однако данные региональных исследований и стратиграфических раскопок целевых объектов свидетельствуют о том, что этот процесс произошел позднее, в эллинистическую и постэллинистическую эпохи (IV век до н.э.–I век н.э.), и это можно объяснить как результат симбиотических отношений между оседлыми земледельцами и полукочевыми скотоводами.

Ключевые слова: Самарканд, ландшафтная археология, археологическая разведка, дистанционное зондирование, древние ирригационные системы, тепа.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

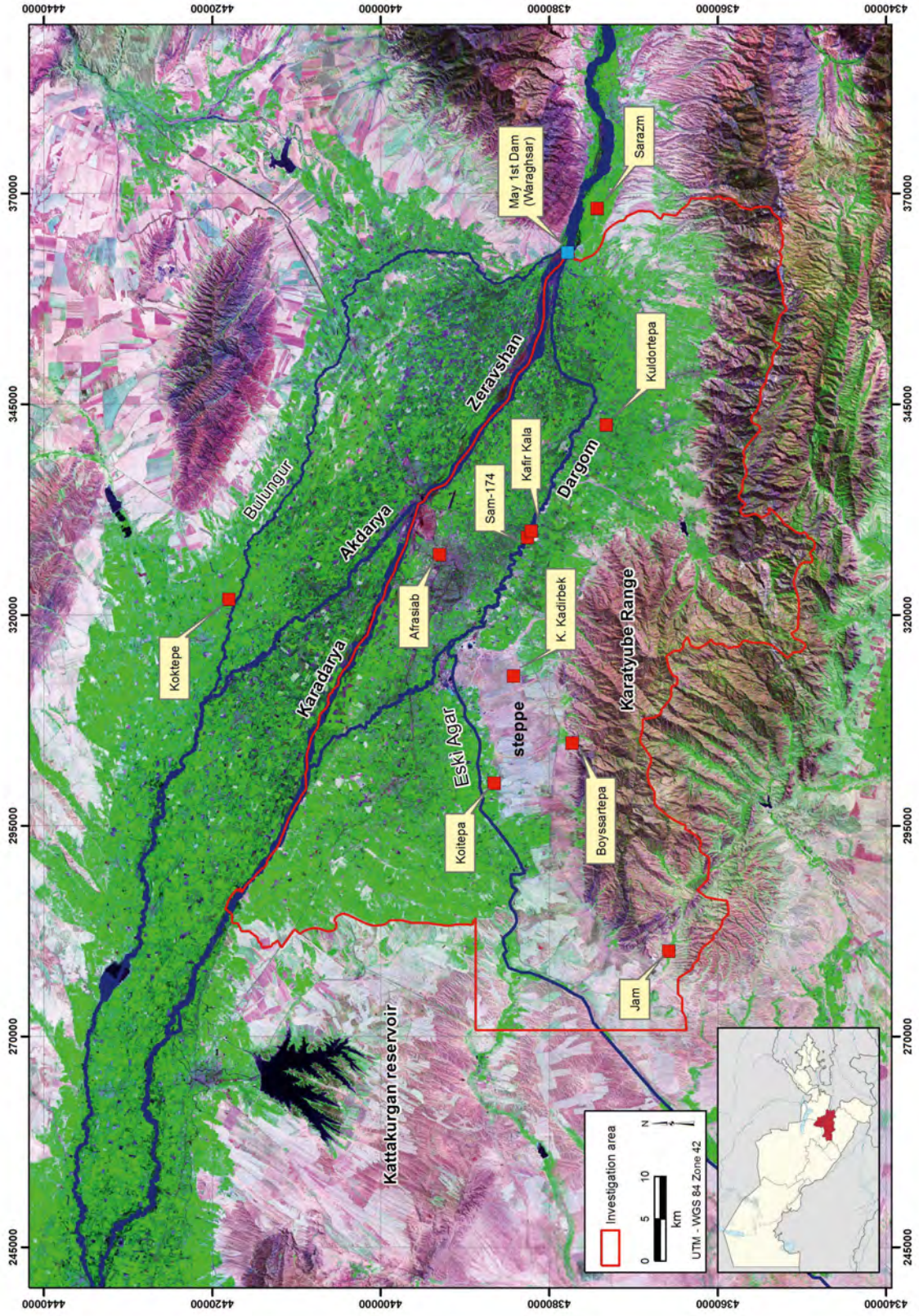


Fig. 1: Samarkand and the Middle Zeravshan Valley investigated by the Uzbek-Italian Expedition, including the major sites, places and environmental features mentioned in this paper (base map: USGS© Landsat TM satellite image, 1987–1992; elaborated by the author).

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

1 Introduction

The earliest urbanisation along the Middle Zeravshan Valley is associated with the Chalcolithic-Bronze Age (late 4th–3rd millennia BCE) site of Sarazm (Besenval/Isakov 1989), presently in Tajikistan but only 40 km from Samarkand, and Koktepe, 25 km north of Samarkand in the Payariq District, dated to the end of the 2nd millennium BCE (Rapin/Isamiddinov 2013). Samarkand was founded later, around the 6th century BCE, but the city soon became a crossroad of civilisations, cultures, economic exchange, languages and religions in the Eurasian landmass. Beside the rich trading opportunities made possible by the Silk Road, the different resources available in its hinterland – and the different ways of exploiting them – made Samarkand a major urban centre of ancient Sogdiana and indeed present-day Uzbekistan. The ecological variety of this region ranges from the typical riverine alluvial zones along the Zeravshan River to the green valleys in the Karatyube Mountains, from the semi-arid steppe to the fertile alluvial plain (**Fig. 1**). Since ancient times, that biodiversity has allowed people to combine the settled irrigated farming of the plain with the semi-mobile pastoralism of the rain-fed foothills in a symbiosis in which the urban and rural markets were the hubs for trading and economic exchange (Shirinov/Tosi 2003).

However, as with many of the largest cities in the world, an understanding of Samarkand's past is limited by, among other factors, modern urban development, which has caused the destruction of archaeological evidence and the loss of part of its history. In recent decades, the city has undergone a modernisation that has seriously threatened its historical heritage, with limited programmes of rescue archaeology. The archaeological site of Afrasiab (ancient Samarkand, the "Maracanda" of Alexander the Great) bears evidence of these unregulated activities. Today, the site is embedded in an urban fabric and is cut by large highways leading to the city. The streets linking the Siab bazaar to Samarkand airport, on the western side, and to the Ulug Beg observatory, on the eastern side, both cut through this historical site for 1.7 km (**Fig. 2**).

2 The "four Samarkands"

The urban transformations of the city across the centuries can be traced on the 1:100,000 scale topographical maps of the early 1980s and the recent satellite images (Mantellini 2017a: 334–335). The earliest settlement, founded in the Achaemenid period (mid-6th century BCE), was the capital of the Persian satrapy of Sogdiana and later became the Maracanda mentioned in the Hellenistic sources. After its destruction by the Mongols of Genghis Khan in 1220 CE, people abandoned the city, and today its ruins are known as Afrasiab (220 ha). A "chaotic" and tangled network of small alleys characterised the medieval city, when in the 13th century Timur made it the capital of his great empire. The geometric pattern of broad streets and public green areas is the result of the Russian conquest of 1868 and the following Soviet period. Finally, Google Earth© images show how the city absorbed the rural villages during the recent expansion (**Fig. 3**). Today, 500,000+ inhabitants make Samarkand the second largest city of Uzbekistan. It extends for ca. 150 sq km inside the artificial *mesopotamia* between the Zeravshan River in the north and the Dargom Canal in the south.

3 The Uzbek-Italian archaeological project "Samarkand and Its Territory"[1]

Assuming that no city can survive and develop without a strong connection with its territory through a regime of economic, social, and political relationships, the project "Samarkand and Its Territory" started in 2001 with the main aim of studying the transformation of Samarkand through a landscape perspective, in which its urbanism is not seen from "inside", i.e. the city itself, but from the land around it. The scope of investigation was twofold: both regional- and local-scale research was combined in order to create a comprehensive overview of the settlement dynamics of Samarkand and its hinterland transformations.

When the project began, two main factors conditioned the perception of this territory and its historical development. First, despite the high number of archaeological sites in this region, only a few had been studied systematically. Although investigated as early as the late 19th century, Afrasiab itself was poorly excavated archaeologically. Second, several unauthorised activities have damaged Afrasiab, and in recent decades the entire Samarkand territory has suffered the destruction of many archaeological sites because of Soviet agrarian reforms (Berdimuradov et al. 2007; Tosi et al. 2007; Mantellini/Berdimuradov in press). Many sites were in fact bulldozed to extend cultivations, cotton and vine-

1 The Uzbek-Italian Archaeological Project (UIAP) "Samarkand and Its Territory" is a joint collaboration between the Institute of Archaeology of Samarkand, Uzbek Academy of Sciences, and the Department of History and Cultures, University of Bologna. The project was first directed by Maurizio Tosi and Timur Shirinov, and currently by Amriddin Berdimuradov and Antonio Curci (Tosi et al. 2001–2002; Bonora et al. 2003; Mantellini/Berdimuradov 2016).

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Fig. 2: Afrasiab and the two highways (black arrows) which cut across the historical site (base map: Google Earth© satellite image 2016; elaborated by the author).



Fig. 3: The historical development of Samarkand city (base map: Google Earth© satellite image, 2016; elaborated by the author).

yard above all, while others were – and still are – destroyed by local people to obtain raw material (earth) for building rural houses, traditionally made using *pakhsa* (rammed earth).[2] Finally, the choice of a "landscape approach" was also influenced by the fact that, since 1989, Afrasiab was already under systematic investigation by the Mission Archéologique Franco-Ouzbek – MAFOuz (Grenet 2004).

2 For an ethnoarchaeological study of earthen architecture in the Samarkand region, see di Cugno/Mantellini/Berdimuradov 2012: 102–103.

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4 A regional perspective

Travelling in the Samarkand countryside, it is difficult not to be impressed by the hundreds of conical-shaped mounds (*tepa*), built in mud bricks and *pakhsa*, which represent an uninterrupted occupation of decades and even centuries on the same sport and testify to the long-lasting exploitation of the territory around Samarkand. By using the *tepa* as markers of ancient human occupation, and by considering them in a regional perspective, it is possible to attempt a diachronic reconstruction of the main settlement phases in this region.

Moreover, the ancient settlements cannot be understood without considering the *tepa* in close combination with the development of irrigation systems. Because of the semi-arid conditions that characterise this region, the growth of Samarkand has been historically connected to an appropriate management of resources, especially water. As in many other Central Asian oases, since ancient times the irrigation of Samarkand was based on a large network of artificial canals.[3] The Dargom to the south and the Bulungur to the north are historically the major canals in this territory (see **Fig. 1**). The former deserves special attention because it was mentioned by Ptolemy (2nd century CE) as the main water supply of Maracanda (Samarkand), and indeed it still provides the city and its southern sector with water.[4]

5 Landscape approach, research strategy and methods

Because of the huge extent of this region,[5] the environmental variability, and the presence of other international expeditions, we selected for our research an area of ca. 2,500 sq km, corresponding to the six administrative districts south of the Zeravshan River, delimited by the Uzbek-Tajik border in the east, the Karatyube foothill in the south, and the Jam corridor in the west (**Fig. 1**).[6]

The different ecological niches and the anthropic activities affecting the cultural landscape in this region also conditioned our research approach. Since its beginning, the project was based on a multidisciplinary strategy, with archaeological methods being integrated with other disciplines, especially geology, for investigating the ancient irrigation networks. According to an approach well-developed in Near Eastern landscape archaeology, remote-sensing techniques were combined with systematic field activities in order to identify the greatest number of archaeological features in this territory.[7] Geographical Information System (GIS) was used to manage the bulk of data acquired, which may differ in type (raster/vector), scale (regional/local), period (historical/recent), acquisition (archive/field), etc. (Rondelli/Mantellini 2004; Rondelli/Tosi 2006; Mantellini/Rondelli/Stride 2011: 388–393; Mantellini 2017a: 336–337; Mokroborodov et al. 2017).

The benefits due to the possibility of working with more datasets that differ in period, scale and detail represent an added value in detecting all the potential archaeological features by means of remote-sensing techniques, and therefore the ability to reconstruct the long-term human-environment interactions in such an important historical region of the ancient world. Since *tepa* are available on spatial datasets from the 1950s onward, this approach made possible a comprehensive investigation of the archaeological mounds, even those destroyed – their distribution, shape, size and state of preservation.

The acquisition of spatial datasets

The preliminary step was the acquisition of the spatial datasets useful for positioning the anthropogenic features in the Samarkand territory. This task was particularly difficult at the beginning of the project, when data was not yet available on the Internet and most of it still classified by Tashkent government offices. In the very first seasons, the field survey was solely based on the topographical 1:100,000 scale map available at the UC Berkeley Library.[8] Although accurate and precise, the 1:100,00 scale map was too small to represent all the *tepa* in the region; it is worth noting, for example, that the 20+ ha archaeological compound of Kafir Kala – one of the biggest in this area – is not recorded at all in this dataset (**Fig. 4**). Moreover, the representation of roads, canals, and field borders on the 1980s topographical maps may have changed greatly by the time of the field surveys. At that time, GPS was often inaccurate, and its use was forbidden in certain military areas,

3 On the development of the irrigation systems in the Central Asian oases, see a summary in Lewis 1966; Andrianov 1969 (84–93) and its recent translation (Mantellini 2016: 126–134); Andrianov/Muhamedžanov 1980; Andrianov 1995; Francfort/Lecomte 2002.

4 For an overview on the many studies concerning the origin, development and chronology of the Dargom Canal and the irrigation systems of Samarkand, see Isamiddinov 2002: 15–30; Gentelle 2003; Stride/Rondelli/Mantellini 2009; Mantellini 2003; 2016[3]: 4–8.

5 The total area covered by the Samarkand region amounts to 17,000 sq km.

6 The Nurabad district, the largest of the region, has been investigated as far as the Jam corridor.

7 For an overview of the shared methods and issues concerning landscape archaeology between Central Asia, the Near East and Mesopotamia, see Mantellini 2018.

8 See the OskiCat UCL Library Catalog http://oskicat.berkeley.edu/, entry "Uzbekistan".

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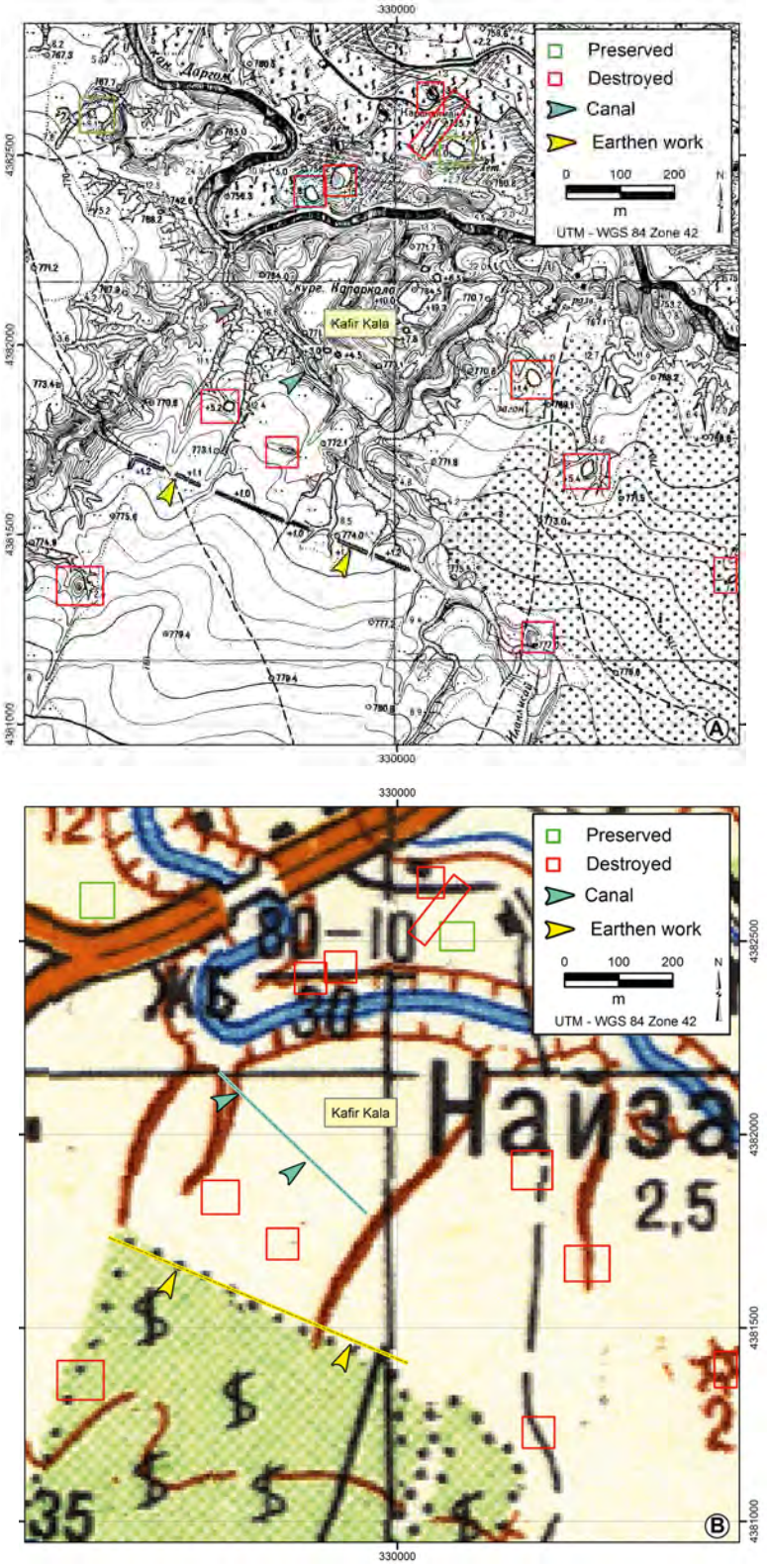


Fig. 4: Different representations of the archaeological evidence on the topographical maps around the Kafir Kala complex: **A**) 1:10,000 scale (mid-1950s); **B**) 1:100,000 scale (mid-1950s). Note that on Fig. 4B, the toponym "Naizatepa" is partially cut off on the left side because of the figure layout (base maps: GUK - MVD SSSR; elaborated by the author).

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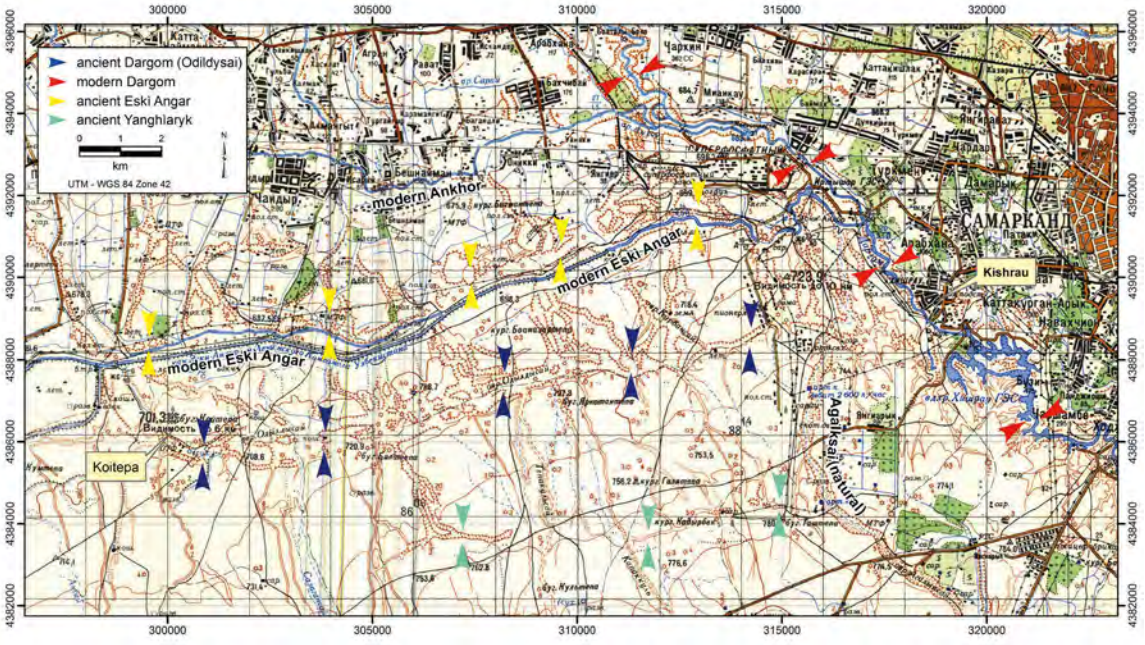


Fig. 5: Abandoned irrigation network in the present steppe as represented on the 1:100,000 scale topographical map. Note that the first stretch of the modern Eskì Angar runs into the ancient canal's bed (base map: GUK - MVD SSSR; elaborated by the author).

such as the Taylak and Urgut district on the border with Tajikistan. Later on, the recovery of maps of a larger scale (1:10,000 and 1:25,000) greatly improved the number and type of archaeological features in this region. Alongside the topographical maps, the aerial photos of the early 1970s, the historical satellite photographs of the US spy programme CORONA (1960–1972), and modern satellite imagery were also very useful. A final remark concerns the early surveys conducted by the Uzbek archaeologists around Samarkand in the 1980s.[9] During their surveys, the archaeologists used the topographical maps for positioning the archaeological sites, while a detailed description of those sites was reported on a specific form. However, it is unclear whether they were always equipped with maps or some of the maps were lost in the following years. Sometimes, for example, seasonal field reports do not include topographical maps, sites being fixed on a rough sketch-map drawn manually by the archaeologists themselves. In those surveys, *tepa* were positioned according to their approximate distance from the nearest landmarks, such as villages and canals.

Desktop assessment

All the datasets available were used to detect potential archaeological features in the areas of investigation, with a specific focus on two main types: multi-layered mounds and abandoned canals.

Once in the field, Soviet topographers recognised that *tepa* were the remains of ancient mud-brick anthropic settlements, later affected by erosion due to atmospheric and climatic features such as wind, rain and snow (Rondelli/Stride/García-Granero 2013: 272; Mantellini 2017b: 15–16). According to the scale, each *tepa* is represented either by a specific symbol (1:100,000 scale map) or by accurate contour lines (1:25,000 and 1:10,000; **Fig. 4**).[10] Site representation is also usually associated to its toponym and with the height of each mound, measured at its top.[11] The larger the scale (1:10,000), the higher the number of recorded sites and the details represented. However, it was essential to rely on several data-

9 Reports of single surveys are mostly unpublished, but they are accessible, with permission, at the Institute of Archeology of Samarkand. They include site descriptions, their plans and pictures, and, when available, topographical maps. See further in Mantellini/Berdimuradov in press.

10 On the symbols used in the Soviet military topographic maps, see US Department of the Army-Headquarters 1958, and Psarev et al. 1986. See further on the Soviet topographical maps in Postnikov 2002 and Davies 2005a–b.

11 Quite often, the same *tepa* may have more than one toponym. Already in the 1980s, the name attributed by local people to both canals and villages was in Uzbek, thus it might differ from the "official" Russian name reported on topographical maps. Kafir Kala, for example, appears on the 1:10.000 scale map as "Kaparkala", while it is usually known among local people as "Kafir Kala" or "Naizatepa", the latter referring also to the name of the nearest village on the opposite side of the Dargom Canal (**Fig. 4**).

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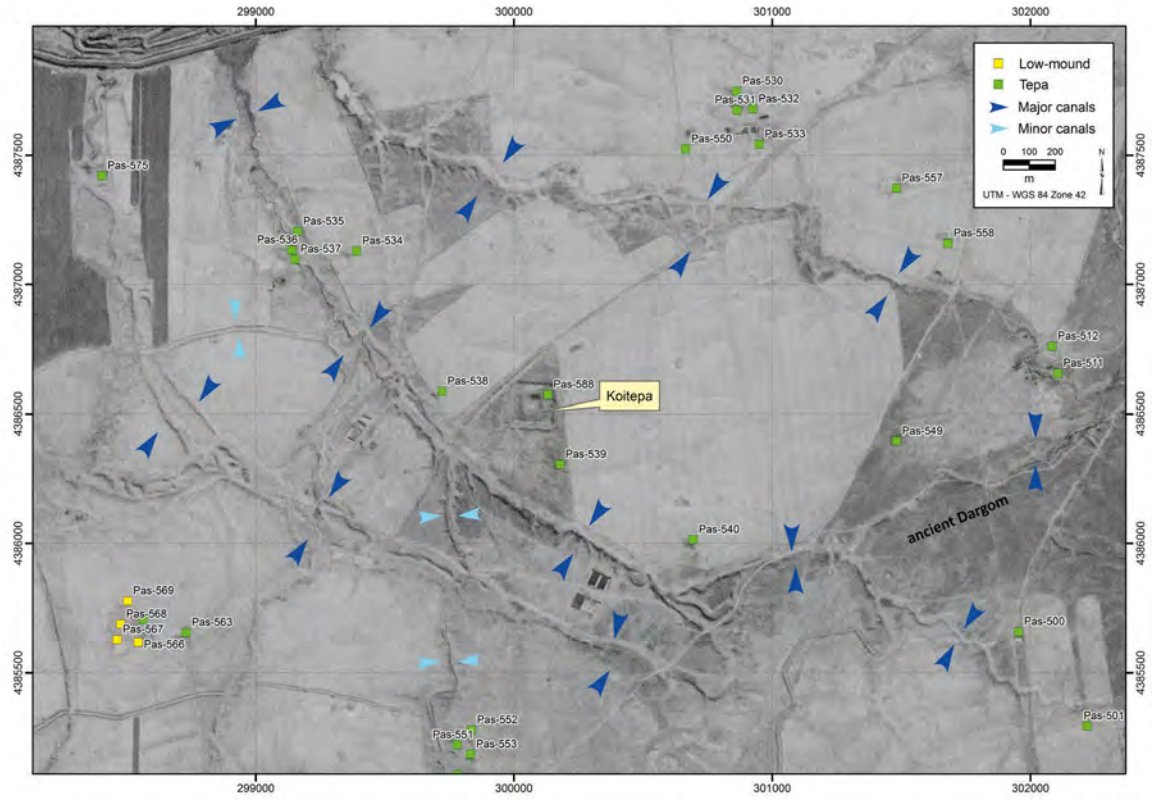


Fig. 6: Detection of abandoned canals and ancient settlements on the CORONA satellite image around the Koitepa site (base map: CORONA frame ID DS1011-1039DF128, acquisition date 8 October 1968, provided by the USGS© Earth Explorer service; elaborated by the author).

sets to provide the most accurate sites detection. As mentioned above, while Kafir Kala is missing on the 1:100,000 scale map, its spatial organisation and individual features (citadel, moats, ramparts, towers and minor satellite sites) are clearly distinguishable on the 10,000 and 25,000 scale maps (Mantellini/Berdimuradov 2005: 118–120 and Fig. 9). Moreover, the largest-scale series report the presence of an artificial ditch (perhaps for defensive purposes) and a small earthen work (wall?) 1 m high, both south of the main settlement, that are not drawn on the smaller 1:100,000 scale map (see **Fig. 4**). A second remarkable case is Kuldortepa. This is a site of 20 ha located in the Urgut district, ca. 2 km south of the Dargom Canal near the village of Uramas. In this case as well, the topographical map highlights the spatial repartition of the settlement, with a typical reservoir for water supply (*khaus*) clearly distinguishable at the southern base of the citadel (Mantellini/Berdimuradov in press: Fig. 10).

Another feature typical in the cultural landscape of Samarkand is the network of artificial canals used since ancient times to irrigate this oasis. The linear pattern of the major canals and their distributors is well represented on the topographical maps (**Fig. 5**), either historical or recent, and are clearly visible on satellite images. In certain cases, such as the non-anthropised steppe, the ancient canals are so well preserved that it is possible to recognise their hierarchy, course, length and width, as well as levees and the boundaries between the small cultivated plots (**Fig. 6**). It was possible, for instance, to trace the development of the Dargom, which is the only historical canal on the southern side of Samarkand still supplying water to this territory today. According to a hypothesis already advanced by Muhamedžanov (1975: 279), in its early stage the Dargom was longer than it is today and it probably irrigated the Kashka Darya Valley. This hypothesis finds confirmation in the historical maps, where the original course of the Dargom is drawn and marked as "Old Angar" (1891 map) or Odyldysai (1980s map) (see **Fig. 5**), as well as in the discovery of the typical grey sediments of the Dargom around the Uch Yagach site, ca. 50 km south-west of Afrasiab (Mantellini 2016[3]: 6) (see **Fig. 1**). Only later, at the height of Kishrau, was the Dargom diverted northward into the natural bed of the Agaliksai and then joined the Zeravshan near the village of Kumarik, as it appears today (see **Fig. 5**). The same datasets made it possible to identify many other traces of major ancient irrigation canals and their minor distributors. It is worth noting, for example, that north of the abandoned Dargom/Odyl-

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Fig. 7: The main archaeological features in the Samarkand landscape: **A**) a multi-layered mounds (*tepa*) from the Pasdargom district (Uz-Sa-Pas-008); **B**) a kurgan (burial) covered by stones from the northern foothill of the Karatyube Mountains; **C**) the low mounds in the Kurgan Kadirbek complex: Uz-Sa-Sam-486 (2012 excavation in progress) and Uz-Sa-Sam-487 (view from south from the top of the tepa Uz-Sa-Sam-172) (photos by the author).

dysai, the first part of the modern Eskì Angar follows exactly its ancient bed (**Fig. 5**).

Field validation and new discoveries

Field visits are essential for validating potential archaeological features already preliminarily detected, and for discovering new ones. Ground inspection makes it possible to evaluates the existence of *tepa* and their state of preservation, but also to identify potentially interesting situations that require a deeper investigation with stratigraphic surveys. For each site, photos were taken from different positions and all the information (morphology, damage, architecture, etc.) was gathered into a specific form. Artefacts were then collected from the sites and, depending on their state of preservation, a field walk was also conducted in the surrounding area. The more a site is preserved, the fewer the ceramics and their distribution in proximity to the site. On the contrary, the more a site is destroyed, the more pottery sherds there are, which can be scattered for a few hundred metres around it. In particular, the accurate positioning of sites on maps, combined with the use of the GPS in the field, allowed us to determine the exact location of *tepa* even when they had been destroyed (Mantellini/Rondelli/Stride 2011: 389; Rondelli/Stride/García-Granero 2013: 274). In several cases, also thanks to the collaboration of the local farmers, a lot of ceramics were discovered scattered over the field where the sites were located before their destruction. Countryside inhabitants may provide archaeologists with useful information about damage to the sites, artefacts collected by locals and stored in their houses, and possibly the presence of further and unrecorded archaeological evidence in the same area.

In consideration of the different environmental conditions of the Samarkand region, a site could be located either amid cultivated fields, embedded in villages, or in the unexploited and uninhabited steppe. In the former cases, the visits were basically targeted on the *tepa* and on interviewing local people, while the steppe required an in-depth field survey because the anthropisation was so low that the archaeological landscape was extremely well preserved (Mantellini 2017a: 336–337).

On the steppe, not only were the *tepa* better preserved than elsewhere, but it was also possible to

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discover archaeological features that were barely reported on the maps or visible on the remote data (Mantellini 2016[3]: 6) (**Fig. 7**). The first were classified as "low-mounds" because of their very limited extension and height, which rises above the ground about 1 m (Mantellini 2017b: 17). Low-mounds are usually clustered together around the major *tepa* and their clear and clumpy pattern is visible on the most recent satellite images, while only some of them were reported on the historical maps. This is quite understandable because their identification in the field depends on many factors, such as light conditions, ground moisture, time of day, etc. It is therefore possible that, though extremely accurate, the Soviet topographers only partially recognised their presence.

A second type of archaeological evidence is the kurgan, i.e. burial typically associated with a nomadic/pastoralist lifestyle. Clustered together, and sometimes marked on the ground by one or more stone rings, these graves can be single or multiple burials characterised by an underground chamber. The outer mounds are of different size, and their height varies from a few centimetres to many metres. It is therefore possible that many sites reported on the maps as "kurgans" are rather anthropic mounds with a function other than funerary (for an example, see below, Kurgan Kadirbek).

A third feature is represented by the "off-sites", which refer to the pottery dispersion without any association to mound-based occupation. They are just flat sites that can be identified only through an accurate field-walking. Unlike *tepa* and low-mounds, which somehow reflect a permanent or seasonal occupation on the same spot, the off-sites point to a random frequentation, perhaps connected to the seasonal transhumance of mobile pastoral communities.

The field visits also concerned the geo-archaeological observations of traces detected through remote sensing and potentially pertaining to ancient irrigation systems. In a few instances small soundings and section cleaning were undertaken in order to collect sediments and organic samples for mineralogical analysis of soil and 14C dating (for an example, see below, Sam-174). Although this approach could allow for an accurate reconstruction of the networks of canals, a major issue remains their chronology. Canals, either major or minor, cannot be dated accurately because of their number and the impossibility of conducting stratigraphic excavations, including sample collection, for absolute dating. In most cases, their chronology is therefore established only by association with the archaeological sites located in their proximity (Mantellini 2018: 182).

6 Results and preliminary observations

The desktop assessment and the 2001–2015 field activities resulted in the identification of 2,000+ sites in the area of investigation. Field exploration and the study of finds are still in progress in the Pasdargom district, though the data available already provideas some interesting observations.

The first concerns the high number of destroyed sites: 818 of the 2,056 sites have been destroyed, i.e. 40% (**Fig. 8**). By considering the single districts, the highest rate of sites bulldozed (52%) is around Samarkand city, but it is considerable also in the agricultural districts of Taylak and Urgut (both 48%). Except in Samarkand city, the main reason for site levelling is agriculture. The district of Nurabad, which largely corresponds to the uninhabited steppe, has only 6% of sites destroyed.

A second observation regards settlement chronologies (**Fig. 9**), where dating has been possible according to surface finds collected during field surveys. The Achaemenid sites appear very few considering that at the time Samarkand was already the major urban centre of Sogdiana (Shishkina 1994; Grenet 2004). It is true that Sogdiana was the north-easternmost satrapy of the Persian Empire, and possibly many Achaemenid sites have been either destroyed or not recognised as such because of small differences in material culture;[12] nevertheless, their number is definitely lower than expected. Again, the main interesting results come from the preserved steppe. There, many sites are dated to the Hellenistic and post-Hellenistic centuries, which are otherwise less attested in other districts (Taylak and Urgut), where the pottery of the Early Middle Ages–Early Islamic periods prevails. This data suggest that the early systematic occupation of the region started along the north-western foothills of the Karatyube between the 4th century BCE and the 1st century CE. That period is generally known as "nomadic" due to the different nomadic confederations (Kangju and, later, Kushan) that invaded Central Asian territories (Shishkina 1994: 90). However, at that time Samarkand was apparently not subject to any control or power from outside and a local culture developed along the Middle Zeravshan Valley (Marshak/Negmatov 1996: 233). Since life and agriculture are impossible in this arid region without appropriate water management, the existence of such a large number of sites can be explained only by progress in irrigation techniques. At that time, the Dargom and other major canals irri-

12 On the problem of the chronological attribution of the ceramics, and therefore of the archaeological sites, in Samarkand region, see Lyonnet 2012 and Mantellini 2018: 178–179. On Sogdiana as "Achaemenid frontier zone" see also Genito 2014: 28–29.

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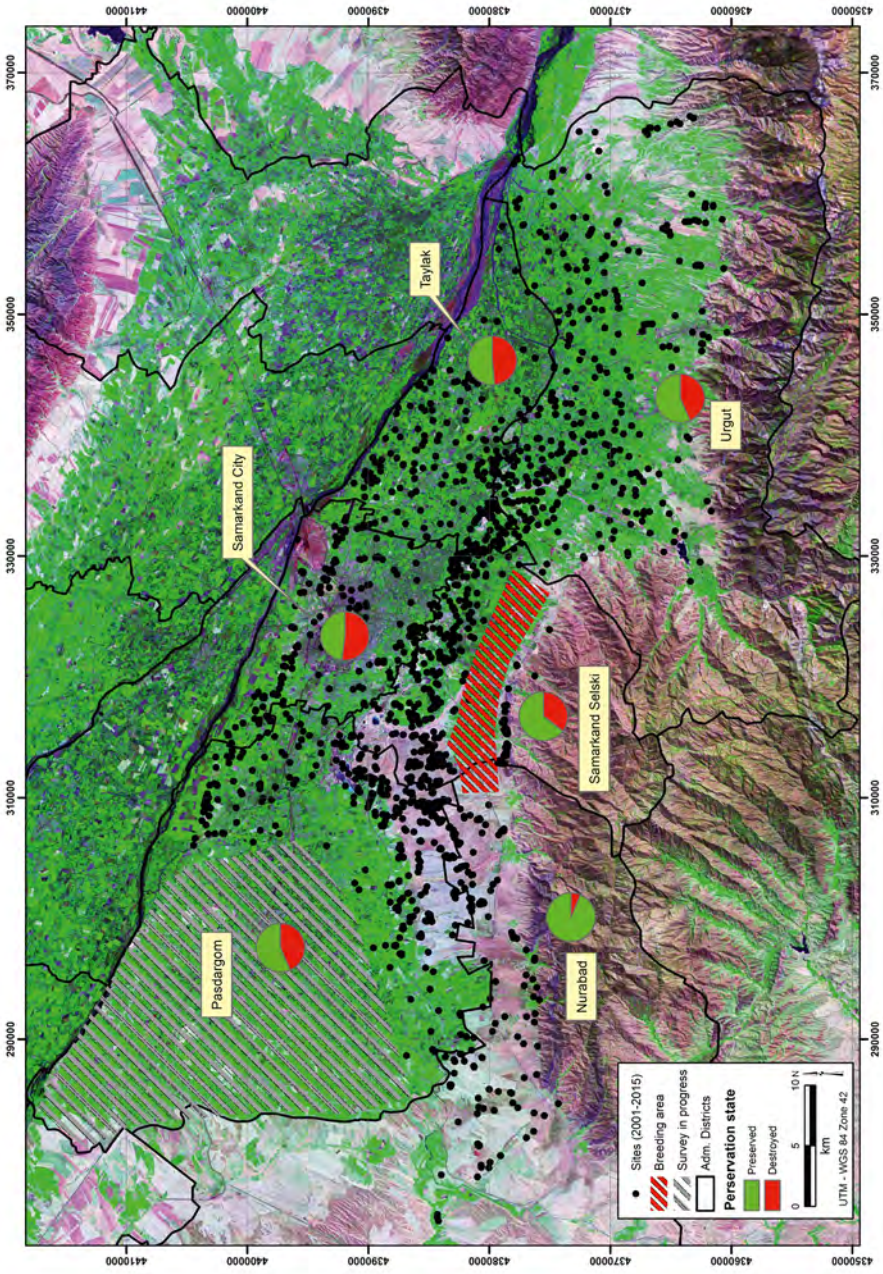


Fig. 8: Distribution of archaeological sites after the Uzbek-Italian survey (2001–2015). Charts refer to the degree of preservation in each district (green = preserved; red = destroyed), the red dashed line refers to the area empty of archaeological sites between the Karatyube foothill and the ancient Yanghìarik Canal (base map: USGS© Landsat TM satellite image, 1987–1992; elaborated by the author).

gated this territory, according to a complex and hierarchical articulation of canals.[13] The clear growth of settlements is attested in the Early Middle Ages (6th–7th centuries CE) in other districts such as Urgut and Taylak (Maymurgh according to the Early Medieval Chinese sources) can also be explained by the development of irrigated farming, certainly based on the Dargom-Yanghìarik system, as well as by increasing trade along the east-west axis between Samarkand and the other large city of Panjikent eastward (Mantellini 2017a: 340).[14]

13 Although Samarkand was not included in the Kushan empire (Shishkina 1994: 90), it must be noted that the early Kushan period (1st century CE) is commonly considered as the heyday in the development of irrigated agriculture in many historical regions of Central Asia (Lewis 1966: 489; Gulâmov 1974: 118; Muhamedžanov 1975: 278; Mukhamedjanov 1994: 265–266; Andrianov 1995: 14).

14 According to Marshak/Negmatov (1996: 233) and de la Vaissière (2005: 16), even in the centuries characterised by the rich Silk Road trade, the Sogdian economy

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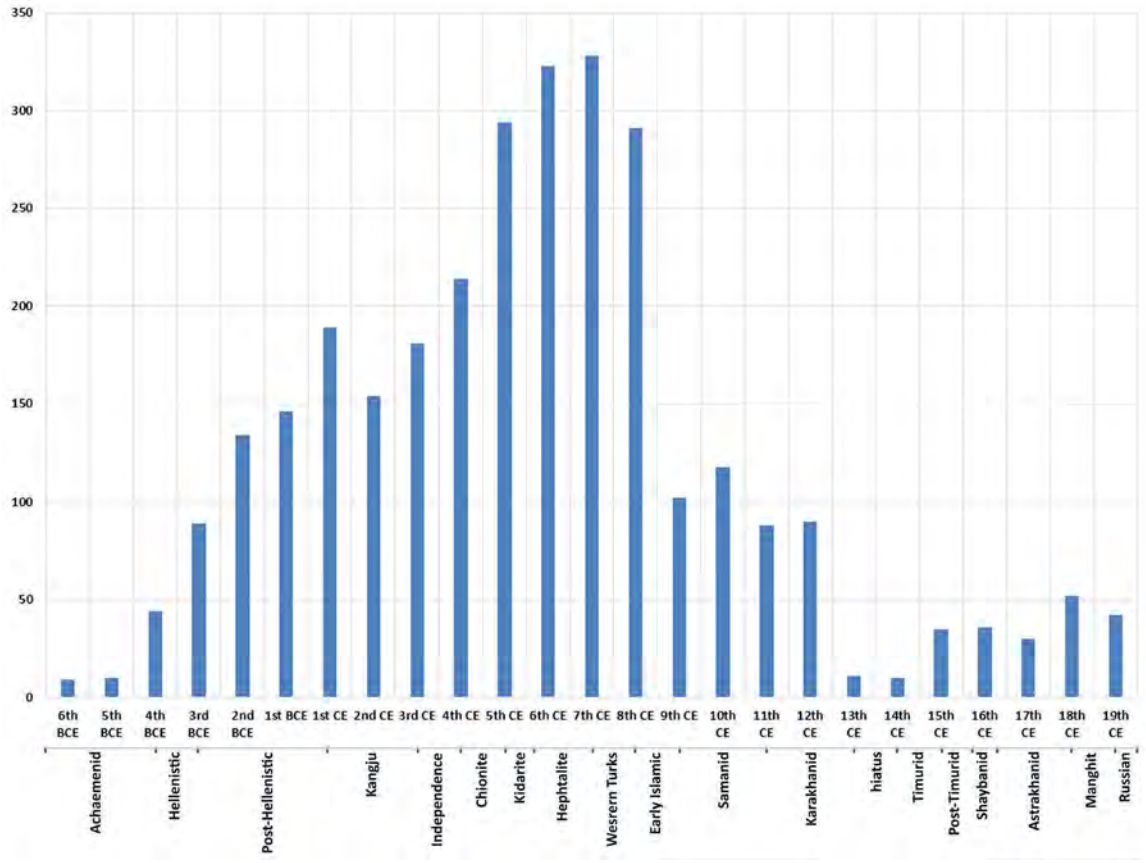


Fig. 9: Chronology of the sites investigated during the Uzbek-Italian survey according to the finds collected in situ.

Alongside socio-political causes, the decline in sites followed a drastic change in water management. According to Tabari (II, 1586), at the time of the conquest of Samarkand in 712 CE, the Arab governor, Asad b. Abdallah, attempted "to deprive the inhabitants of Samarqand of water by constructing a dam at Waraghsar" (Barthold 1928[2]: 83).[15] It is arguable that the irrigation system was seriously damaged, causing the abandonment of many sites in the territory south-west of Samarkand (today steppe), which was no longer inhabited as before. According to the settlement trend, it is possible that depopulation in that area began slightly earlier, around the 6th century CE, possibly for hydrological reasons,[16] and that the potential harm caused by the Arab invasion quickened this process. Later, in 1220 CE, the Mongol troops of Genghis Khan conquered Samarkand by destroying the aqueduct of Djuy-arziz (Muhamedžanov 1969: 300; Frumkin 1970: 123). The results were even more dramatic: Samarkand itself was completely abandoned, as well as many settlements in its territory.

A third observation concerns land exploitation (see **Fig. 8**). Regardless of site chronologies, there is an area that is apparently devoid of systematic human occupation. This is the rain-fed Karatyube piedmont, standing between 800 and 900 m asl and located between the modern village of Terakul to the west and the Ilonsai stream to the east. It is worth noting that the presence of *tepa* ends exactly in correspondence to the traces of the ancient Yanghìarik, an artificial canal that run along the 790 m asl contour line and today has almost entirely disappeared.[17] The approach and the datasets used there are the same as elsewhere in this region, so the lack of any settlement can be explained only by socio-political factors. It looks as though in the past this area was left empty for herding and breeding, according to a sort of master plan where the rest

was based upon irrigated agriculture.

15 Waraghsar is historically the place where the waters of the Zeravshan River were diverted into the Dargom and the Bulungur. Today, it corresponds to the village of Ravatkhodja, where the May 1st Dam is also located (Muhamedžanov 1972; 1994: 272; di Cugno/Mantellini/Berdimuradov 2012: 100; Mantellini 2016[3]: 1–2).

16 This interpretation follows the preliminary geo-archaeological survey conducted in collaboration with Vincenzo Picotti (University of Bologna/ETH, Zurich) in 2014. More accurate investigation, sediment and samples analysis, and data processing are in progress.

17 The Yanghìarik Canal is apparently mentioned also in Arab historical sources as "Abbas" (Barthold 1928[2]: 83). For its first interpretation based on archaeological data, see Stride/Rondelli/Mantellini 2009: 77; Malatesta et al. 2012; Mantellini 2016[3]: 6.

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of the region was set aside for irrigated agriculture (Mantellini 2017a: 339–340). The presence of several kurgans associated with pastoral communities and located over 900 m asl along the Karatyube foothill seem to confirm this hypothesis.

7 Local scale

In order to validate the hypotheses formulated in a regional perspective, survey data was used to targeted sites. Long-term archaeological excavation was conducted systematically at Kafir Kala, Boyssartepa, and Koitepa, while minor and short-term operations were carried out at the small sites of Kurgan Kadirbek and Sam-174.[18]

Kafir Kala

The fortified complex of Kafir Kala was built on the left bank of the Dargom, 12 km from Afrasiab. Already in the early 20th century, the eminent archaeologist M.E. Masson (1928), interpreting a passage of the 15th-century Spanish ambassador R.G. Clavijo, located Kafir Kala on the major south-north route connecting Samarkand with Shahrisabz and the Kashka Darya Valley by means of the Amankutan-Takhtakaracha pass (1,788 m asl) (Mantellini/Berdimuradov 2005). The exceptional discovery of ca. 700 clay sealings from the pre-Islamic layers of the upper citadel testify to the presence there of a major administrative centre (Cazzoli/Cereti 2005).[19] Its role was possibly connected to both trade and agriculture magagement in this part of the region (Mantellini et al. 2016: 222). At the time of the Arab conquest (712 CE), the upper citadel was the scene of a fire that destroyed a wooden portico set in the inner courtyard, where the archive was located. The sealings (and possibly the associated documents) were scattered over the floor, then covered by the fallen burnt beams of the wooden portico. The fire caused the abandonment of the citadel, which was resettled soon after but for residential purposes (Mantellini et al. 2016). During the Early Islamic occupation, the main changes concerned building techniques, including wall coating with plaster, which looks rough compared to the pre-Islamic plaster. The pre-Islamic monumental architecture was extensively reused for different purposes: small partition walls re-arranged the pre-Islamic rooms for domestic activities, especially storing food, while several cooking installations from the Islamic layers testify to predominantly domestic activity. It is noteworthy that at that time the inhabitants reused and adapted only the perimetral rooms, including the western corridor, while the central courtyard was left without structures or activity. Generally, Kafir Kala provides interesting evidence of the socio-cultural transition brought about by the Islamic conquest of Sogdiana at the beginning of the 8th century CE. The analysis of such a crucial period would deserve further and special attention at a regional level, but at the moment Kafir Kala is one of the few sites being systematically excavated around Samarkand. In that perspective, the clear decline in settlements attested in this region after the Arab conquest can therefore be compared with the sharp shift in the occupation and function of a major site like Kafir Kala (see **Fig. 9**).

Boyssartepa

Located in the small village of Sazagan, 28 km southwest of Afrasiab, Boyssartepa covers ca. 4 ha on a small terrace at an altitude of 880 m asl (see **Fig. 1**). The necropolis with several kurgans was first investigated by O. V. Obel'chenko in the 1960s (Obelchenko 1966), while the Uzbek-Italian Expedition investigated this site between 2003 and 2008.[20] Since the kurgans of Boyssartepa are small burial mounds rising only a few centimetres from the ground, their detection was rather difficult. For this reason, the first operations concerned an accurate topographical survey with a kinematic GPS. The survey highlighted the presence of a major mound (initially named "Great Kurgan", K.1) almost in the middle of the terrace, some 40 kurgans, and, unexpectedly, the existence of a rectangular and slightly raised earthen work, possibly a rampart, ca. 160 by 110 m. A later magnetometric prospection evidenced also a small ditch, 4.5 m wide and 0.8 m deep, on the terrace border outside the rampart (**Fig. 10**). Subsequent digging produced evidence of two phases. The earliest occupation concerned the presence of a Hellenistic complex, characterised by a small citadel (the "Great Kurgan") and rooms with a mud-brick construction. The comparison with Afrasiab allows us to date the ceramics from this phase of Boyssartepa to the late 4th–early 3rd century BCE (Khasanov,

18 The site of Koitepa, preliminarily mapped and studied by the University of Bologna within the steppe survey (Uz-Sa-Pas-588), is currently being excavated by the University of Naples "L'Orientale" under the direction of Bruno Genito (Abdullaev/Genito 2014).

19 The number refers to the 500 sealings discovered by the Uzbek-Italian Archaeological Expedition between 2001 and 2015, plus another set of around 200 sealings found recently by the Uzbek-Japanese Excavation (2014–2015).

20 The site was recorded as Szg-137 (field code) and Uz-Sa-Nur-175 (administrative code). The activities at Boyssartepa-Sazagan were directed by Abdusabir Raimkhulov, and later Muhtalib Khasanov, for the Institute of Archaeology of Samarkand (Uzbekistan), and Francesca Franceschini, and later Giorgia Codini, for the University of Bologna (Italy). The topographical survey of the site was undertaken in 2003 by Luca Vittuari (University of Bologna) and the geophysical prospection in 2008 by Helmut Becker (Becker Archaeological Prospection).

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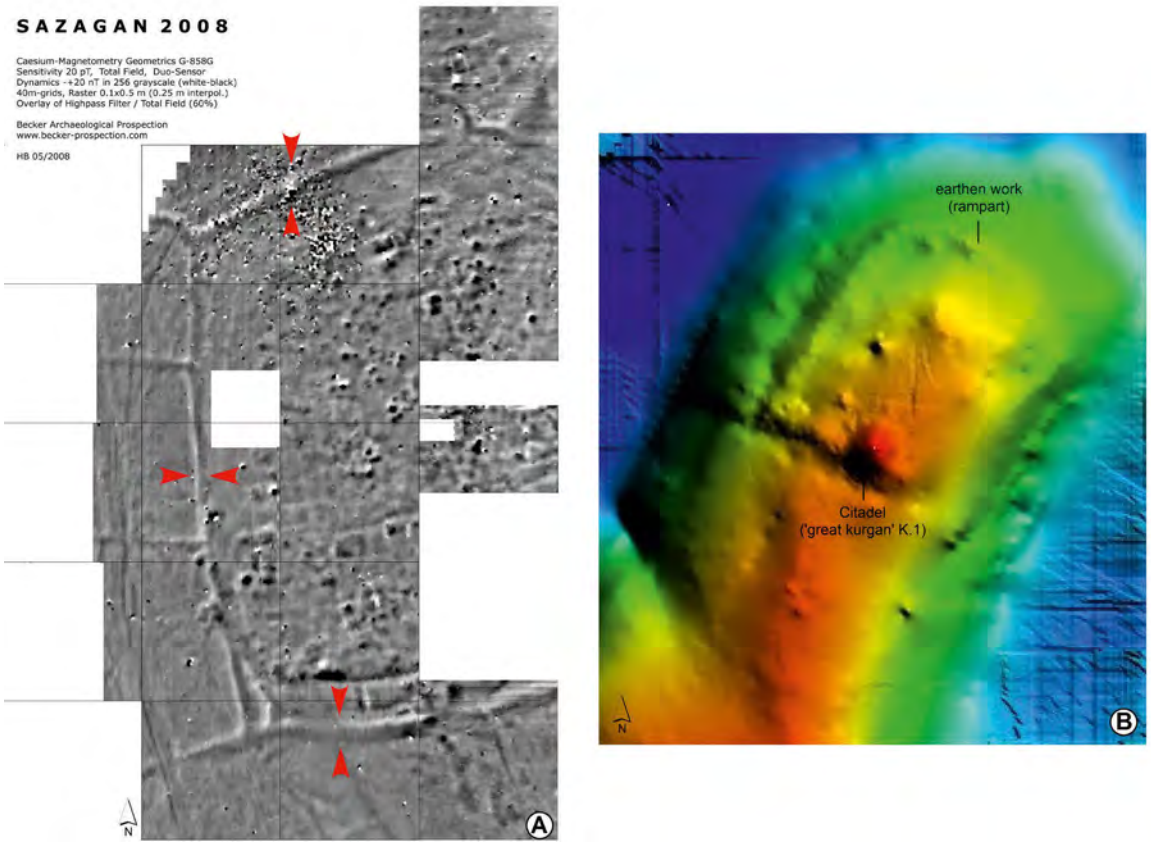


Fig. 10: Non-invasive investigation at Boyssartepa: **A**) the magnetometric prospection and the ditch (red arrows) surrounding the site (© Becker Archaeological Prospection, 2008); **B**) the kinematic GPS survey, the outer earthen work and the citadel belonging to the Hellenistic occupation (GPS survey and processing by Luca Vittuari, DISTART – University of Bologna, 2003).

personal communication). The most remarkable find is a silver tetradrachm discovered in 2003 at Kurgan K.3 (Abdullaev/Franceschini/Raimkulov 2004). On the obverse, the coin depicts the head of Alexander-Hercules wearing a lion's head; on the reverse, there is the seated figure of Zeus on a throne and facing left. The words "Seleucus" and "Basileus" refer to Seleucus I Nicator, one of the Diadochi who succeeded Alexander the Great and founded the Seleucid dynasty. The coin was minted at Ecbatana at the very beginning of the 3rd century BCE. A second occupation was the use of this terrace as a funerary area. The excavation opened seven graves (K.1–7), all characterised by an underground chamber with a dromos for access. All but one (K.7) were individual burials. The associated grave goods included pottery, bone items, glass beads, a bronze mirror and many iron objects and weapons such a bracelet, a buckle, a razor, and a sword (Franceschini 2007: 221–304). The finds date to the 1st century BCE and the 1st–2nd centuries CE and belong to a typical semi-nomadic/pastoralist lifestyle. Although the occupation at Boyssartepa was discontinuous throughout the centuries, it is remarkable that its lifespan (from the late 4th century BCE to the first centuries CE) corresponds to the early systematic settlement attested in the irrigated plain below.

Kurgan Kadirbek

The complex known as Kurgan Kadirbek stands in the uninhabited steppe south-west of Samarkand, 17 km from Afrasiab. Comprising two major *tepa* (field code Stp-031; administrative code Uz-Sa-Sam-172 the northern one and Uz-Sa-Sam-484 the southern one) and about 20 low-mounds, it is located on the right bank of the ancient Yanghìarik, whose traces are still visible to the south. Since no archaeological attention had ever been given to these low-mounds, one of them (field code Stp-031d; administrative code Uz-Sa-Sam-486) was selected for a stratigraphic investigation in 2012 in order to gain an understand of its nature (burial?) and possibly its chronology (Mantellini 2017b: 17). The excavation resulted in a settlement lacking significant architecture. Many postholes, pits, and lithic tools such as grinders, grinding stones, mortars and pestles suggest rather that it was used for seasonal agricultural activities. The ceramics attested that its major occupations occurred in the 2nd–1st centu-

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ries BCE, which therefore confirms the general settlement trend attested in this area.

Sam-174

Sam-174 (administrative code: Uz-Sa-Sam-174) is a small, unnamed *tepa* located on the left bank of the Dargom, 1 km north of Kafir Kala. The site was visited by S.K. Kabanov in the 1950s and early 1960s (Kabanov 1978) and later by the Uzbek-Italian Expedition, in 2007 and 2008. During the last decade, the lower part of the *tepa* was used as an earth quarry, so it was largely destroyed. Although deplorable, at the western base of the *tepa* this work exposed some small hollows/ditches filled with cross-stratified coarse grey sand deposited by a single flooding event. The soundings done in 2009 and 2010, combined with some observations of the surroundings of the site, have provided archaeological evidence of the ancient Yanghìarik Canal, now disappeared, and the reconstruction of the local irrigation system derived from it. The organic samples collected for radiocarbon analysis have allowed us to limit the date of the flood to the period AD 80–240, (Malatesta et al. 2012: 99), hence confirming that the irrigation system based on the Dargom-Yanghìarik functioned at that time.

Koitepa

Koitepa is a site of 4 ha presently located on the dry steppe 25 km south-west of Samarkand. It has a characteristic layout, with a circular, truncated cone *tepa* (citadel) and is surrounded by quadrangular earthen ramparts. In the past, Koitepa stood in the middle of a large cultivated area supplied by the ancient Dargom (Odyldysai) and Eskì Angar canals. Based on the many other sites in the area having the same typical layout (Shishkina/Inevatkina 2012: 15, Fig. 15.5–6), the foundation of Koitepa can be dated to the Hellenistic period. The investigation conducted on the site by the University of Naples L'Orientale since 2008 confirmed that its main living phases were during the late and post-Hellenistic periods (4th–2nd centuries BCE) (Raiano 2014: 297–304), which corresponds, again, to the largest occupation of this area as suggested by the finds gathered during the survey.

8 Concluding remarks

The rich history of Samarkand and its recent urban transformation make it difficult to gain a comprehensive understanding of its dynamics under a multi-temporal perspective. After its foundation around the 6th century BCE, Samarkand soon became the major political and economic centre along the Zeravshan River and of the entire Sogdiana. The data collected during the last two decades by the Uzbek-Italian Expedition in the southern sector of the Samarkand oasis has allowed an analysis of its historical development, using the distribution of settlements and their association with the development of water management to better understand the complex interactions between the city and its surroundings. Interestingly, the major occupation of this area seems to have started only in the post-Hellenistic centuries, according to a sort of master plan that ensured a rational exploitation of the territory, with urban spaces around the city, and areas for irrigated agriculture on the plain, and animal breeding on the foothills. The hundreds of abandoned settlements and the relicts of canals around Maracanda/Samarkand demonstrate how the historical dynamics of this city must be understood only in a close connection with its hinterland, where the creation of a large irrigation network and an appropriate exploitation of the resources made possible its development for a long time.

Bibliography

Abdullaev, K./Genito, B. (ed.)
2014: *The Archaeological Project in the Samarkand Area (Sogdiana). Excavations at Kojtepa (2008–2012)* (= Università di Napoli L'Orientale – Institute of Archaeology of the Academy of Sciences of Uzbekistan. Series Minor 79), Samarkand/Naples.

Abdullaev, K./Franceschini, F./Raimkulov, A.
2004: The Tetradrachm of Seleucos I from Sazagan Region of Uzbekistan, *Circle of Inner Asian Art Newsletter* 19, 10–13.

Andrianov, B.V.
1969: *Drevnie orositel'nye sistemy priaral'â*, Moscow.

1995: The History of Economic Development in the Aral Region and its Influence on the Environment, *GeoJournal* 35, 11–16.

Andrianov, B.V./Muhamedžanov, A.R.
1980: Irrigaciâ i ee rol' v social'no-ekonomičeskoj istorii drevnej i srednevekovoj Srednej Azii, *Obŝestvennye nauki v Uzbekistane* 11, 35–42.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Barthold, V.V.
1928[2]: *Turkestan Down to the Mongol Invasion. Second Edition. Translated from the Original Russian and Revised by the Author with the Assistance of H.A.R. Gibb, M.A.*, London.

Berdimuradov, A.E. et al.
2007: Samarkand and Its Territory: From Archaeological Map to Cultural Landscape Management, *Bulletin of the International Institute for Central Asian Studies* 6, 22–33.

Besenval, R./Isakov, A.I.
1989: Sarazm et les débuts du peuplement agricole dans la région de Samarkand, *Arts Asiatiques* 44, 5–20.

Bonora, G.L. et al.
2003: Carta archeologica della Media Valle dello Zeravshan: aspetti diversificati per una comprensione diacronica del popolamento antico, *Ocnus. Quaderni della Scuola di Specializzazione in Beni Archeologici* 11, 35–63.

Cazzoli, S./Cereti C.G.
2005: Sealings from Kafir Kala: Preliminary Report, *Ancient Civilizations from Scythia to Siberia* 11, 133–164.

Davies J.
2005a: Uncle Joe Knew Where You Lived. Soviet Mapping of Britain (Part 1), *Sheetlines* 72, 26–38.

2005b: Uncle Joe Knew Where You Lived. Soviet Mapping of Britain (Part 2), *Sheetlines* 73, 6–20.

de la Vaissière, E.
2005: *Sogdian Traders. A History. Translated by James Ward* (= Handbook of Oriental Studies 8 = Central Asia 10), Leiden/Boston.

di Cugno, S./Mantellini, S./Berdimuradov A.E.
2013: Traditional Techniques, Resources Exploitation and Archaeological Record: An Ethnographical Study from the Oasis of Samarkand (Uzbekistan), in: Lugli, F./Stoppiello, A.A./Biagetti, S. (ed.), *Ethnoarchaeology: Current Research and Field Methods. Conference Proceedings, Rome, Italy, 13th–14th May 2010* (= British Archaeological Reports International Series 2472), Oxford, 99–106.

Francfort H.P./Lecomte, O.
2002: Irrigation et société en Asie centrale des origines à l'époque achéménide, *Annales. Histoire, Sciences Sociales* 57, 625–663.

Franceschini, F.
2007: *I nomadi della Media Valle dello Zeravshan. Territorio e identità culturale attraverso i tumuli funerari*. Unpublished Ph.D. Thesis. University of Bologna, Department of Archaeology.

Frumkin, G.
1970: *Archaeology in Soviet Central Asia* (= Handbook of Oriental Studies 7 = Art and Archaeology, Central Asia 3/1), Leiden/Cologne.

Genito, B.
2014: The Italian-Uzbek Archaeological Project, in: Abdullaev, K./Genito B. (ed.), *The Archaeological Project in the Samarkand Area (Sogdiana). Excavations at Kojtepa (2008–2012)* (= Università di Napoli L'Orientale - Institute of Archaeology of the Academy of Sciences of Uzbekistan. Series Minor 79), Samarkand/Naples, 23–47.

Gentelle, P.
2003: *Traces d'eau: un géographe chez les archéologues*, Paris.

Grenet, F.
2004: Maracanda/Samarkand, une métropole pré-mongole. Sources écrites et archéologie, *Annales. Histoire, Sciences Sociales* 59, 1043–1067.

Gulâmov, Â.G.
1974: Kušanskoe carstvo i drevnââ irrigaciâ Srednej Azii, in: Gafurov, B.G. (ed.), *Central'naâ Aziâ v kušanskuû èpohu. Tom I. Trudy meždunarodnoj konferencii po istorii, arheologii i kul'ture Central-noj Azii v kušanskuû èpohu. Dušanbe, 27 sentâbrâ – 6 oktâbrâ 1968 g. (Central Asia in the Kushan Period. Vol. I Proceedings of the International Conference on the History, Archeology and Culture of Central Asia in the Kushan Period, Dushanbe, 27 Sept.–6 October 1968)*, Moscow, 118–122.

Isamiddinov, M.H.
2002: *Istoki gorodskoj kul'tury Samarkandskogo Sogda*, Tashkent.

Kabanov S.K.
1978: Arheologičeckaâ razvedka v pridargomskoj stepi, *Istoriâ material'noj kul'tury Uzbekistana* 14, 66–78.

Lewis, R.A.
1966: Early Irrigation in West Turkestan, *Annals of the Association of American Geographers* 56, 467–491.

Lyonnet, B.
2012: Questions on the Date of the Hellenistic Pottery from Central Asia (Ai Khanoum, Marakanda and Koktepe), *Ancient Civilizations from Scythia to Siberia* 18, 143–173.

Malatesta, L.C. et al.
2012: Dating the Irrigation System of the Samarkand Oasis: A Geoarchaeological Study, *Radiocarbon* 54, 91–105.

Mantellini, S.
2003: The Dargom Canal and the Early Settlement of the Middle Zeravshan Valley, in: Pagani, S. (ed.), *Italo-Uzbek Scientific Cooperation in Archaeology and Islamic Studies: An Overview*, Rome, 41–48.

2016[3]: Irrigation Systems in Samarkand, in: Selin, H. (ed.), *Encyclopaedia of the History of Science, Technology and Medicine in Non-Western Cultures. Third Edition*, Dordrecht, 1–14.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Mantellini, S. (ed.)
2016: *Ancient Irrigation Systems of the Aral Sea Area. The History, Origin and Development of Irrigated Agriculture (translation of original publication written by Boris V. Andrianov)*, Oxford/Philadelphia.

Mantellini, S.
2017a: A City and its Landscape across Time: Samarkand in the Ancient Sogdiana (Uzbekistan), in: Garagnani, S./Gaucci, A. (ed.), *Knowledge, Analysis and Innovative Methods for the Study and the Dissemination of Ancient Urban Areas. Proceedings of the KAINUA 2017 International Conference in Honour of Professor Giuseppe Sassatelli's 70th Birthday (Bologna 18–21 April 2017)*, Florence, 333–342.

2017b: Settlement Dynamics, Territory Exploitation, and Trade Routes in the Ancient Samarkand Oasis (Uzbekistan), in: Genito, B./Caterina, L. (ed.), *Archeologie delle Vie della Seta. Percorsi, immagini e cultura materiale. Volume II*. Rome, 13–24.

2018: Landscape Archaeology and Irrigation Systems in Central Asia: A View from Samarkand (Uzbekistan), in: Domenici, D./Marchetti, N. (ed.), *Urbanized Landscapes in Early Syro-Mesopotamia and Prehispanic Mesoamerica. Papers of a Cross-Cultural Seminar Held in Honor of Robert McCormick Adams*, Wiesbaden, 169–203.

Mantellini, S./Berdimuradov, A.E.
2005: Archaeological Explorations in the Sogdian Fortress of Kafir Kala (Samarkand Region, Republic of Uzbekistan), *Ancient Civilizations from Scythia to Siberia* 11, 107–132.

2016: The Archaeological and Historical Heritage of Samarkand: An Overview from the Uzbek-Italian Expedition 2001–2016, in: Berdimuradov, A.E. (ed.), *Archaeology of Uzbekistan During the Years of the Independence: Progress and Perspectives, Samarkand 15–16 September 2016*, Samarkand, 60–63.

In press: Cultural Heritage and Settlement Dynamics in Samarkand Oasis: The Archaeological Map of the Middle Zeravshan Valley, in: Abduvakhitov, A. (ed.), *The Historical Heritage of Scientists and Thinkers of the Medieval East, its Role and Significance for Modern Civilization. Proceedings of the International Conference, Samarkand, 14–15 May 2014*, Cambridge, 263–280.

Mantellini, S./Rondelli, B./Stride, S.
2011: Analytical Approach for Representing the Water Landscape Evolution in Samarkand Oasis (Uzbekistan), in: Jerem, E./Redő, F./Szeverényi, V. (ed.), *On the Road to Reconstructing the Past. Computer Applications and Quantitative Methods in Archaeology (CAA). Proceedings of the 36th International Conference. Budapest, 2–6 April 2008*, Budapest, 387–396.

Mantellini, S./di Cugno, S./Dimartino R./Berdimuradov, A.E.
2016: Change and Continuity in the Samarkand Oasis: Evidence for the Islamic Conquest from the Citadel of Kafir Kala, *Journal of Inner Asian Art and Archaeology* 7, 227–253.

Marshak, B.I./Negmatov, N.N.
1996: Sogdiana, in: Litvinsky, B.A. (ed.), *History of Civilizations of Central Asia. Volume III. The Crossroads of Civilizations: A.D. 250 to 750*, Paris, 237–281.

Masson, M.E.
1928: O mestonahoždenii sada Timura Davletabad, *Izvestiâ Sredne-Aziatskogo komiteta po delam muzeev, ohrany pamâtnikov stariny, iskusstva i prirody* 3, 43–48.

Mokroborodov, V.V./Strajd, S./Maksudov, F./Rondelli, B./Mantellini, S.
2017: Poslednie raboty po sostavleniyu arheologicheskih kart Sredney Azii. Metody, rezultaty, perspektivy, *Arheologiâ i geoinformatika* 8, 80–96.

Muhamedžanov, A.R.
1969: K voprosu o vodosnabženii Afrasiaba, in: Gulâmov, Â.G. (ed.), *Afrasiab. Tom I. Afrasiabskaâ komleksnaâ arheologičeskaâ èkspediciâ*, Tashkent, 294–299.

1972: Dargomskaâ plotina i kreposť v Ravathodže, *Istoriâ material'noj kul'tury Uzbekistana* 9, 108–114.

1975: K istorii irrigacii v kušanskuû èpohu, in: Gafurov, B.G. (ed.), *Central'naâ Aziâ v kušanskuû èpohu. Tom II. Trudy meždunarodnoj konferencii po istorii, arheologii i kul'ture Centralnoj Azii v kušanskuû èpohu. Dušanbe, 27 sentâbrâ – 6 oktâbrâ 1968 g. (Central Asia in the Kushan Period. Vol. II Proceedings of the International Conference on the History, Archeology and Culture of Central Asia in the Kushan Period, Dushanbe, 27 Sept.–6 October 1968)*, Moscow, 278–281.

1994: Economy and Social System in Central Asia in the Kushan Age, in: Harmatta, J. (ed.), *History of Civilizations of Central Asia. Volume II. The Development of Sedentary and Nomadic Civilizations: 700 B.C. to A.D. 250*, Paris, 256–282.

Obel'chenko, O.V.
1966: Sazaganskie kurgany, *Istoraâ material'noj kul'tury Uzbekistana* 7, 66–81.

Postnikov, A.V.
2002: Maps for Ordinary Consumers versus Maps for the Military: Double Standards of Map Accuracy in Soviet Cartography, 1917–1991, *Cartography and Geographic Information Science* 29, 243–260.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Psarev, A.A. et al.
1986: *Voennaâ topografiâ*, Moscow.

Raiano, F.
2014: Study on the Ceramic Materials from Kojtepa, in: Abdullaev, K./Genito, B. (ed.), *The Archaeological Project in the Samarkand Area (Sogdiana): Excavations at Kojtepa (2008–2012)* (= Università di Napoli L'Orientale di Napoli – Institute of Archaeology of the Academy of Sciences of Uzbekistan. Series Minor 79), Samarkand/Naples, 247–313.

Rapin, C./Isamiddinov, M.H.
2013: Entre sédentaires et nomades: les recherches de la Mission archéologique franco-ouzbèke (MAFOuz) de Sogdiane sur le site de Koktepe, in: Bendezu-Sarmineto, J. (ed.), *L'Archéologie française en Asie Centrale. Nouvelles rechearches et enjeux socioculturels* (= Cahiers d'Asie centrale 21/22), Paris, 113–133.

Rondelli, B./Mantellini, S.
2004: Methods and Perspectives for Ancient Settlement Studies in the Middle Zeravshan Valley, *Silk Road Newsletter* 2/2, 35–38.

Rondelli, B./Tosi, M.
2006: GIS and Silk Road Studies: Monitoring Landscape and Population Changes at Samarkand and in the Middle Zeravshan Valley, in: Uno, T. (ed.), *Reading Historical Spatial Information from around the World. Studies of Culture and Civilization Based on GIS Data, Kyoto 7–11 February 2005*, Kyoto, 459–489.

Rondelli, B./Stride, S./García-Granero, J.J.
2013: Soviet Military Maps and Archaeological Survey in the Samarkand Region, *Journal of Cultural Heritage* 14, 270–276.

Shirinov, T.Sh./Tosi, M.
2003: Land Behind Samarkand. The Archaeological Map of the Middle Zeravshan Valley: Perspectives and Geographical Repartitions, in: Pagani, S. (ed.), *Italo-Uzbek Scientific Cooperation in Archaeology and Islamic Studies: An Overview*, Rome, 13–40.

Shishkina, G.V.
1994: Ancient Samarkand: Capital of Soghd, *Bulletin of the Asia Institute* 8, 81–99.

Shishkina, G.V./Inevatkina, O.N.
2012: Zapadnye zemli Samarkandskogo Sogda. Tipologiâ arheologičeskih pamâtnikov, *Problemy istorii, filologii, kul'tury* 38, 33–68.

Stride, S./Rondelli, B./Mantellini, S.
2009: Canals versus Horses: Political Power in the Oasis of Samarkand, *World Archaeology* 41, 73–87.

Tosi, M. et al.
2001–2002: Interventi archeologici in Uzbekistan, *Ocnus. Quaderni della Scuola di Specializzazione in Beni Archeologici* 9/10, 343–351.

2007: La carta archeologica della Media Valle dello Zeravshan: strategie e metodi per la storia del popolamento nella regione di Samarcanda, in: Shirinov, T.Sh./Pidayev, Sh.R. (ed.), *The Role of Samarkand in the History of World Civilization. Materials of the International Scientific Symposium devoted to the 2750th Anniversary of the City of Samarkand, Samarkand, 24–26 May 2007*, Tashkent/Samarkand, 68–73.

US Department of the Army, Headquarters
1958: *Soviet Topographic Map Symbols. TM 30-548. Department of Army Technical Manual*, Washington, DC.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

New Excavations in the Paikend City-Site

The Sogdian pottery assemblage of the Hellenistic period

Andrei V. Omel'chenko

Abstract: This paper sets out the results of new archaeological research in the citadel of Paikend city-site located in the south-west of Bukhara oasis (Uzbekistan). A clear stratigraphy of excavated areas makes it possible to trace the evolution of pottery assemblages from the founding of a permanent settlement in Paikend. Related findings and analogies in other sites of Central Asia allows us to date the earliest of them from the second half of the 4th to the 2nd century BCE. This puts Paikend in a group of other rare sites in Sogdiana and Bactria where a ceramic scale covering the whole Hellenistic period has been obtained. Excavations measured the approximate size of the first fortress and suggested that a Zoroastrian fire temple was the core of it.

Keywords: Archaeology of Central Asia, Sogd, Bukhara oasis, Paikend, ceramic assemblages, Hellenistic period.

Резюме: В статье освещаются результаты новых археологических исследований на цитадели городища Пайкенд, расположенном на юго-западе Бухарского оазиса (Узбекистан). Ясная стратиграфия раскопанных участков позволила проследить эволюцию керамических комплексов, начиная с момента основания постоянного поселения в Пайкенде. Сопутствующие находки и аналогии на других городищах Средней Азии датируют самые ранние из них второй половиной 4 – 2 вв. до н.э. Это ставит Пайкенд в ряд других редких в Согдиане и Бактрии пунктов, на которых получена керамическая шкала, охватывающая весь эллинистический период. Раскопки также позволили установить примерные размеры первой крепости и предположить, что ее ядром являлся зороастрийский храм огня.

Ключевые слова: Археология Средней Азии, Согд, Бухарский оазис, Пайкенд, керамические комплексы, эллинистический период.

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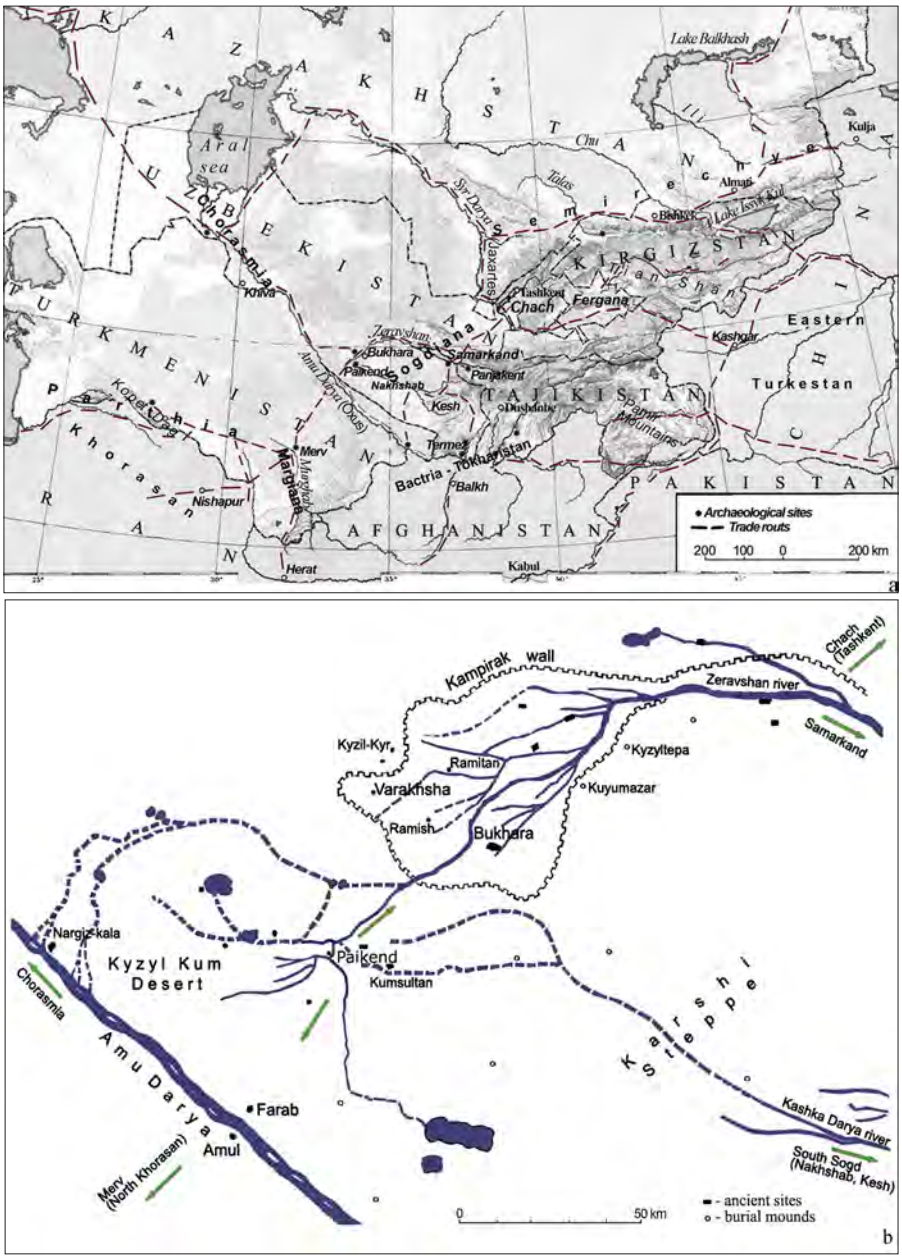


Fig. 1: **a**: Map of historical regions of Western Central Asia (drawing by the author); **b**: Bukhara oasis. Schematic map (after Mukhamedzhanov 1978).

1 Location, ancient names of the city and the history of archaeological investigation

Paikend (Paikand) was an ancient city in the south-western part of Bukhara oasis (modern Uzbekistan) that is attributed in the historical and archaeological literature to Western Sogdiana (**Fig. 1a**). The site is located on the lower reaches of the Zeravshan River, at a distance of two caravan stages (45 km) from the capital Bukhara and two stages (60 km) from Amul-Farab, which was the old and most important crossing point of the Amu Darya River (**Fig. 1b**). Several important trade routes meet in this area: one coming from China, Eastern Turkestan, Chach (now Tashkent) and Eastern Sogdiana (Samarkand), and leading towards Margiana (Marw) and farer on to the Near East; and one coming from eastern Europe and Khwārezm and leading south towards Tokhāristān and the Indian subcontinent. This is why, especially during the Early Middle Ages (in the 6th and 8th centuries CE), merchants from Paikend played an active role in the mediatory trade between China and Iran.

Firdausī, Naršaḫī, Iṣṭaḫri, Berūnī and other medieval Arabian and Persian authors mentioned Paikend. They reported that it was older than Bukha-

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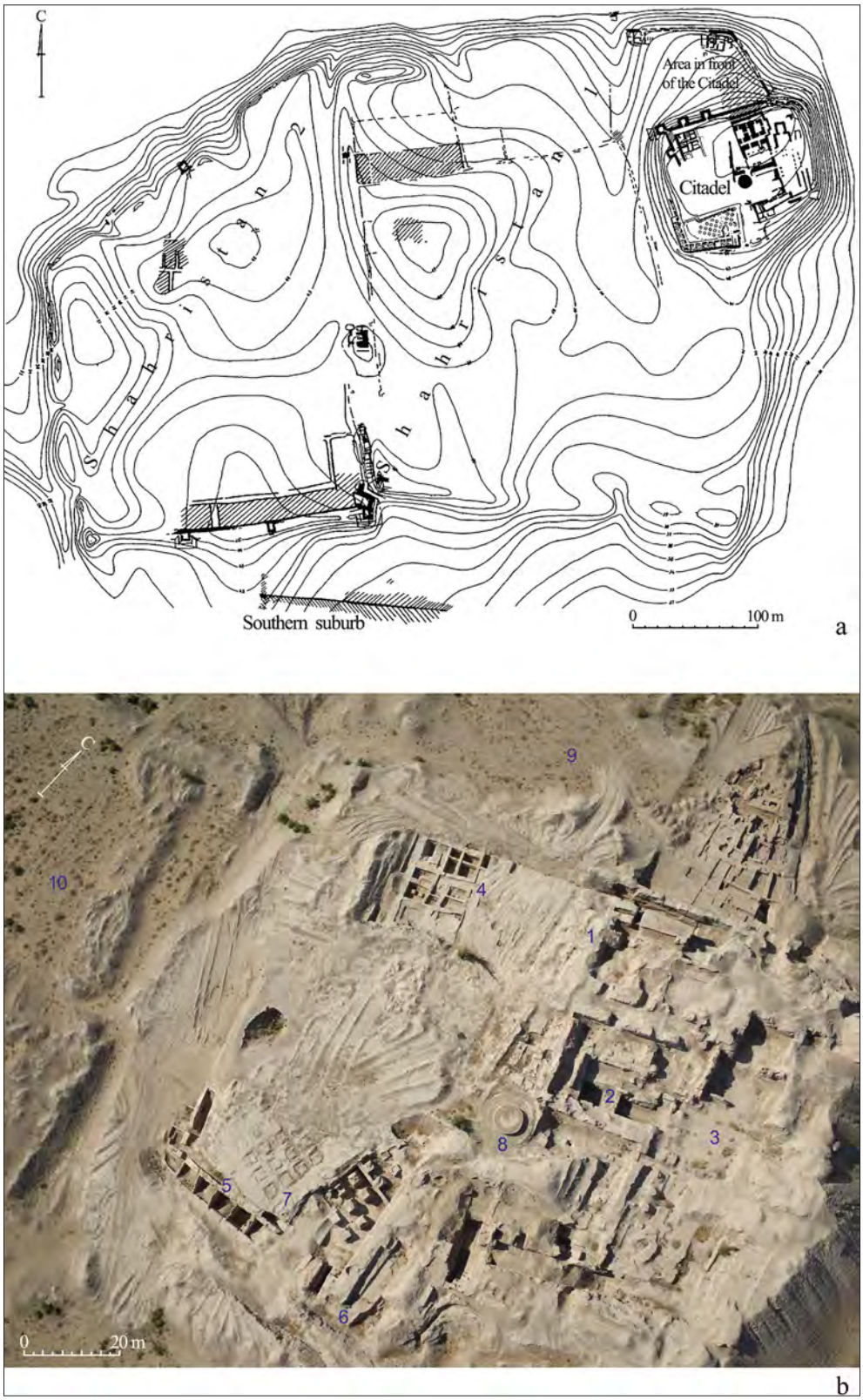


Fig. 2: Paikend. **a**: Plan with the excavation areas (drawing by Bukharan Archaeological Expedition); **b**: Citadel. Aerial view (photo by Bukharan Archaeological Expedition). **1** – Fire temple; **2** – External yard of the fire temple; **3** – Palace; **4** – Administrative quarter; **5** – Garrison barracks; **6** – Entrance to the citadel; **7** – Mosque; **8** – Minaret; **9** – Area in front of the citadel; **10** – Shahrestan-1.

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ra and that it was one of the residences of Bukharan kings (the name of the city may derive from Sogdian Patikanta – "the city [house] of a ruler"). Paikend had the honorary names "City of Merchants" and "Brazen City" (*shārestān-e rūīn*) because of its powerful fortifications.

The first archaeological investigations at the site were carried out by Lev A. Zimin, secretary of the Turkestan Circle of Enthusiasts of Archaeology, in 1913 and 1914. In 1939 and 1940, excavations were conducted by the Zeravshan Expedition, organised by the State Hermitage and the Institute for the History of Material Culture (both in what was then Leningrad) and with the participation of the Uzbek Committee for the Protection of Monuments of Antiquity and Arts (UzKomStarIs).

Systematic investigations, however, started only in 1981 with the work of the Bukharan Archaeological Expedition, organised by the State Hermitage Museum and the Institute of Archaeology of Uzbekistan, which in 1983–1985 was joined by the expedition of the Moscow Museum of Oriental Art. The investigation of ancient and medieval urbanism in Central Asia in all its manifestations was the main task right from the start of archaeological work, so all constituent parts of the former city have become the object of enquiry. They are the citadel (*ark*), the living quarters in both the so-called Shahrestan 1 and the Shahrestan 2, the street-grids and the system of water supply, fortification structures, two suburban areas, and other features (**Fig. 2a**). Almost 11% of the total area of the settlement (inside the fortified walls) has been studied over 35 archaeological seasons. The results of this work have been published in a number of monographs, numerous articles, and, since 1999, in the form of comprehensive annual expedition reports.[1]

Excavations show that even before the Early Medieval period, Paikend was a large city of 18–19 ha. From the end of the 8th to the first half of the 10th centuries CE, some suburbs (*rabads*), appeared outside the city walls (up to 70 ha), where crafts and trade flourished. But in the first half of the 11th century, Paikend was abandoned due to a lack of water for the irrigation systems.

The most ancient part of the city is the citadel, which is located in the north-eastern corner of the site and occupies an area of ca. 1 ha. The location of the citadel is not accidental: apparently it was on a promontory washed by two branches the of Zeravshan River. Paikend plateau itself was on the watershed of the Zeravshan and Kashka Darya Rivers. The natural conditions were favourable, i.e. there were many large and small lakes connected by canals, and dense riparian woodland providing rich hunting and fishing. That is why in the later layers of the citadel itself, and on neighbouring area, we found stone tools of the Neolithic period (the Kelteminar culture, 6th–4th millennia BCE) and Bronze Age (the Zaman-Baba culture, 3rd millennium BCE), as well as Saka arrowheads from the Early Iron Age (1st millennium BCE).

The first test pit (which reached a depth of 19.5 m from the benchmark; Muhamedžanov et al. 1988: 33–38, 148–156) in the north-eastern corner of the citadel revealed material from the Hellenistic period as well. But they were dated in a wide chronological framework from the end of the 4th to the 2nd century BCE.

Excavations conducted under the guidance of Grigoriy L. Semenov (1950–2007), who was a founder of the Bukharan expedition from the Hermitage, opened up some main structures on the citadel. They were fortifications (towers and walls, including so-called "archer's corridor" in the north), a fire temple (Zoroastrian) of late antiquity and the Early Middle Ages (Semenov 1996: Figs. 10–14), the palace and administrative quarter of the 6th to 7th centuries CE, and remains of the Friday Mosque (Jami Masjid) which was mentioned by medieval sources (**Fig. 2b**).

The wide-ranging excavations which studied upper constructions of the citadel allowed us to excavate the earlier layers. Since 2004, we have been working in the south-western sector of the citadel, where a complex of rooms was opened. Judging by its position, the layout of the building, which is of the "corridor-comb" type, the interiors of quarters and the finds, it was a garrison's barracks. The earliest materials of this sector could be dated only as far back as the end of the 3rd and the beginning of the 4th centuries CE (Omel'chenko 2016: 79–107).

2 New excavations of the earliest site on the territory of the citadel

Period 1

In 2011 we began investigating the most ancient layers in the north sector of the citadel. The first location was the north-western corner of the fortress, where we continued an old stratigraphic trench till we reached natural ground (14.4 m from the benchmark).[2] A previous excavation had opened a turn in the so-called archer's corridor, which lies along the whole fortified north wall of the citadel and dates from 3rd to 4th centuries CE. Under this we distinguished three other main stratigraphic periods

1 Proceedings of the Bukhara expedition, Issues 1–14.

2 GPS-coordinates (UTM) of the object are 41S0586733, 4,382,412; altitude 212 m. The excavations in this trench were begun by the author and completed by Viktor V. Mokroborodov.

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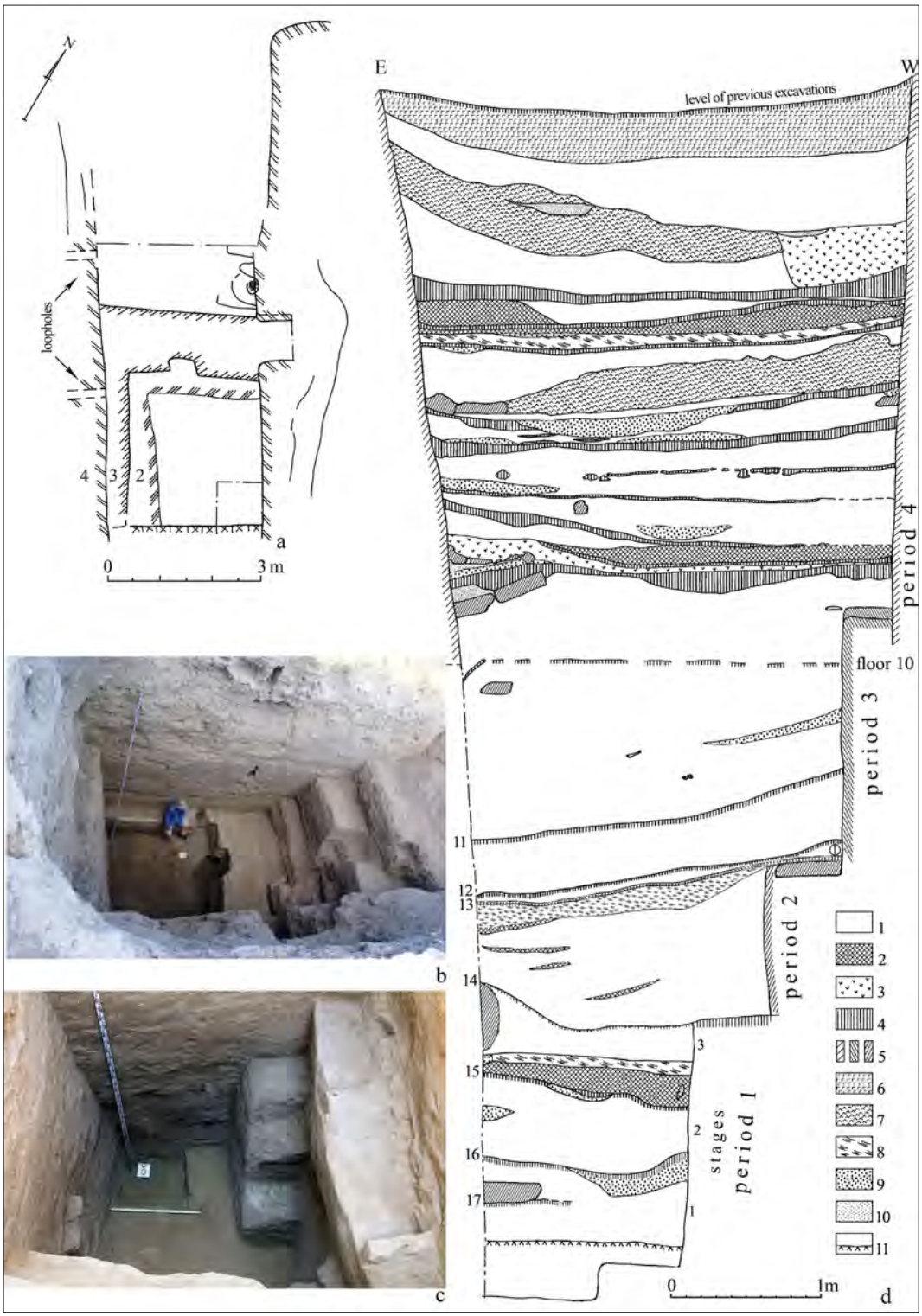


Fig. 3: The stratigraphic trench in the north-western corner of the citadel. **a**: Plan of the excavation: **2, 3, 4** –Walls of the corresponding constructive periods (drawing by L.Yu. Kulakova, A.V. Omel'chenko); **b**: Floor 10 (photo by A.V. Omel'chenko); **c:** Natural ground (photo by A.V. Omel'chenko); **d:** Archaeological sectional drawing: **1** – soil with fragments of *pakhsa* and organic remains, **2** – solid brown-green soil, **3** – gritty soil with fragments of *pakhsa*, **4** – solid greenish clay, floors, **5** – walls of various periods, mud bricks, **6** – back filling from mud bricks, *pakhsa* and soil, **7** – heap from adobe fragments, **8** – demolition layers, **9** – ash dumps, burnt layers, **10** – sandy layers, **11** – natural ground (drawings by V.V. Mokroborodov, A.V. Omel'chenko).

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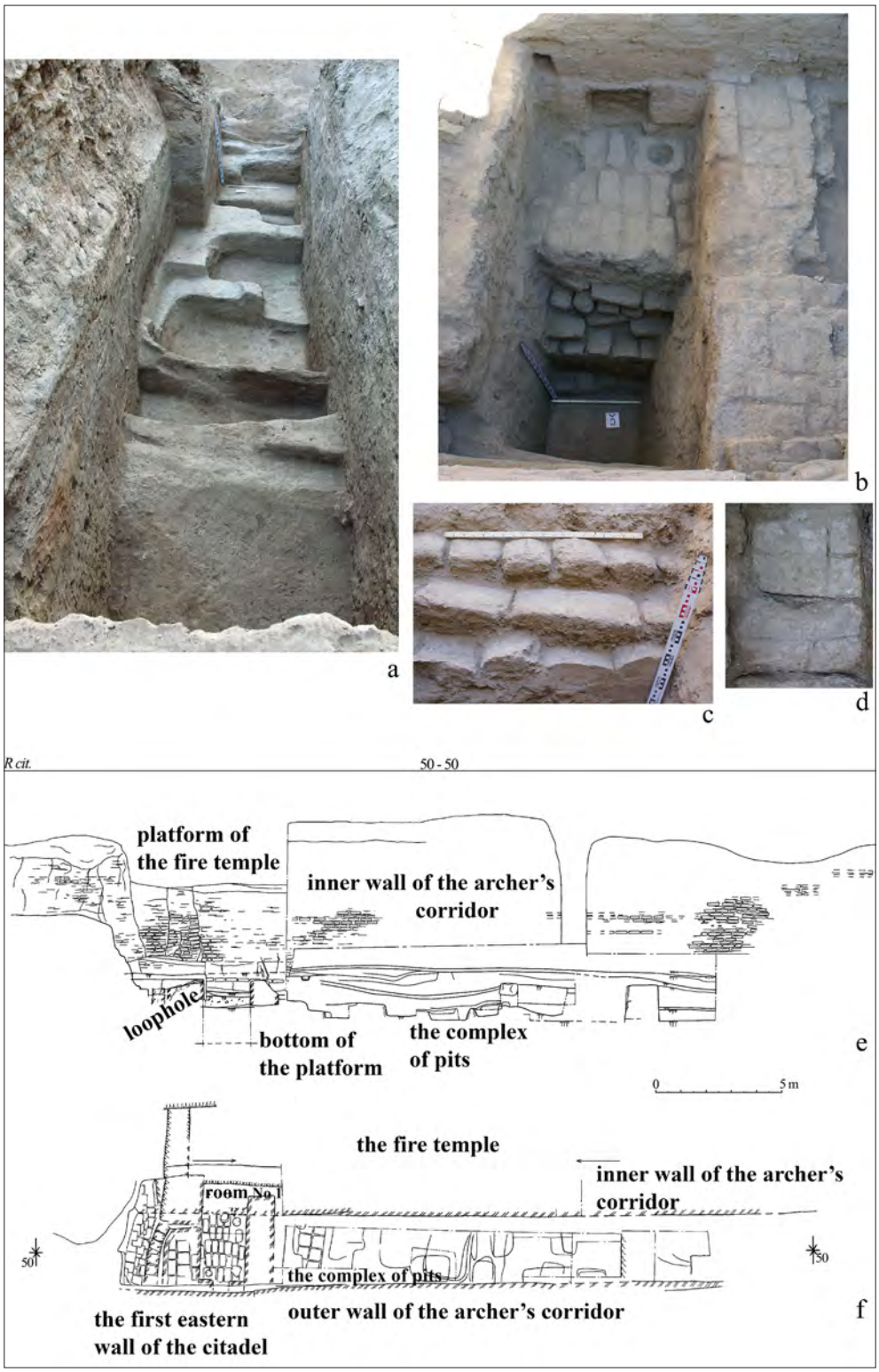


Fig. 4: The excavation in the north-eastern corner of the citadel. **a:** The complex of pits, view from the west; **b**: Segment of the defensive wall and platform under it; **c**: Brickwork of the platform, adobe with convex top ; **d:** Mark in the form of direct cross on mud bricks; **e, f:** Architectural sectional drawing and plan of the complex of pits, Room 1 and eastern defensive wall of the citadel (photos by A.V. Omel'chenko, drawings by L.Yu. Kulakova, A.V. Omel'chenko).

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(**Fig. 3**): all three were related to fortification, but the lowest one was without traces of counterworks. It can be divided into three stages after the number of main floors. It must be emphasised that depositions of stage 1 and stage 2 accumulated gradually, but above Floor 3 (the 15th in terms of the total number of floors) a demolition layer (fallen *pakhsa*, mud blocks, and mud bricks) was apparent.

Fragments of hand-moulded vessels averaged two-thirds of the ceramic assemblage, which was found directly on virgin soil. Deep bowls, sometimes with band of red and brown painting, predominated (**Fig. 5**).

In the whole pottery assemblage of stage 2, two-thirds were wheel-made potsherds; in stage 3, this increased to 91%. The ceramics of stages 2 and 3 are very close: there are beakers (**Fig. 5:31, 41, 42, 43**), small pots with out-turned thickened rim (**Fig. 5:34, 45, 46**), and medium-sized storage vessels (*humchas*) with a similar type of rim (**Fig. 5:36, 47, 52**). All of them have flat or slightly convex bases. Bowls with rims that curve slightly upwards[3] (**Fig. 5:48, 32**) appeared in stage 3. Big jars of cylindro-conical body with so-called banded (cuff-shaped) rim are characteristic for both phases (**Fig. 5:37, 38, 49, 50, 51**). The colour of the paste is tile-red, but surfaces are whitish. This so-called white-on-red effect was the result of special methods of firing and was a specific feature of ceramics of the "Achaemenid period" in Central Asia. This was the Paikend-1 pottery assemblage.[4]

Period 2

Fortified walls were built in the north-western sector of the citadel in Period 2. They survived to a height of 1.1 m and were built from adobes of 50 × ? × 9–10 and 43–45 × ? × 11 cm. The material was grey sludge clay. The total thickness of the plaster on the walls is 4 cm (so they stood a long time).

On the north-eastern sector of the citadel, under the eastern part of the archer's corridor, we also found remains of most ancient fortified wall (**Fig. 4**). This wall (1.5–1.6 m thick) had embrasures and was built on a platform 1.6 m high. The latter stands on the layer of wind-blown sand which has been covered with natural limestone. The mud bricks of the wall, 45 × 45 × 10 cm and 42 × 34 × 10 cm, were made from grey sludge clay. The adobe of the platform are 45–47 × 25 × 8–9 cm and 50–54 × 24–26 × 8–9 cm, have flat a bottom and a convex top, and a mark in the form of a cross (**Fig. 4:b, c, d**). As we know from excavations at Afrasiab (Samarkand), Kok-tepe (in the middle stretch of the Zeravshan River) and Podajatak-tepe (Uzunkir-Nautaka in the upper reaches of the Kashka Darya River), this type of mud brick was characteristic of Sogdian construction during the pre-Achaemenid time and in some places continued till the end of Achaemenid period.

So, in regard to the dimensions and features of the bricks in the walls, we can say that the most ancient constructions in the north-western corner, as in the north-eastern corner, of the citadel were built at the same time. This has enabled us to calculate the length of the earliest fortress of Paikend as 72 m from east to west.

In the north-east corner of the fortress, we found a room (No. 1) that measures 3.75 × 1.8 m. There were two clusters of small holes (up to 10 cm in diameter) with ash and heat-treated patches on the lower (4th) floor of the room. It is interesting that the same apertures appear in the fire temple (Semenov 1996: Figs. 10–14).[5]

The ceramics found on the floors linked with those of the first fortified walls in the west and in the east of the citadel belong to the pottery assemblage Paikend-2A (**Fig. 5:1–30**; **Fig. 6:10–39**). The ratio of wheel-made ceramics of the period is 99%. Beakers were of two types: with cylindro-conical body, and with hemi-spherical body (**Fig. 5:1–8**; **Fig. 6:10–13**). Bowls of a hemi-spherical shape sometimes have a rim that is curved inward (**Fig. 5:15, 16**), a flattened horizontal (projecting), or raised-up rim (**Fig. 6:14, 15**). The conical ones have a T-shaped rim in section (**Fig. 5:17**). Handle-less small pots and pitchers, as well as *humchas* (large storage vessels), are numerous and varied (**Fig. 5:20, 21**; **Fig. 6:16–19, 24–25**). The vast majority of the bases of vessels are flat or slightly convex (**Fig. 5:22, 26**), but there is one with a slightly concave foot (**Fig. 6:17**). *Tagora* (basins) with a T-shaped rim and cylindro-conical body have also been found (**Fig. 5:19**). Big jars with cylindro-conical body and white-on-red effect on the surface of a body were found in the north-eastern corner of the citadel. But now banded rims are smoother than in the Paikend-1 period (**Fig. 6:28, 29**). Bodies of some vessels, especially those of high capacity storage, were grooved because constructed on a potter's wheel (**Fig. 5:2, 19, 28**; **Fig. 6:10, 24, 26, 28, 29, 32, 33**). The important peculiar feature of the pottery assemblage Paikend-2A is the occurrence of red and brown slip.

When the west wall of the above-described room was demolished to the level of Floor 1, a broad passage between the room and sector to the west appeared. This (under the archer's corridor) was excavated by means of a trench 11.7 m long and 1.7–2 m wide. The walls that delimited the sector from east

3 "Outturned", after the terminology used by Susan I. Rotroff (1997: Fig. 2).

4 There were 35 potsherds in the layers of stage 1 of Period 1, 110 in stage 2, 129 in stage 3; 192 fragments were in Period 2 in the north-western corner of the citadel.

5 This is characteristic of Sogdian temples from the Iron Age, as excavation in Sangir-tepe have shown. The last one was the suburban sanctuary of Uzunkur-Nautaka – the principal city of eastern Kashka Darya in the Achaemenid time and may be earlier.

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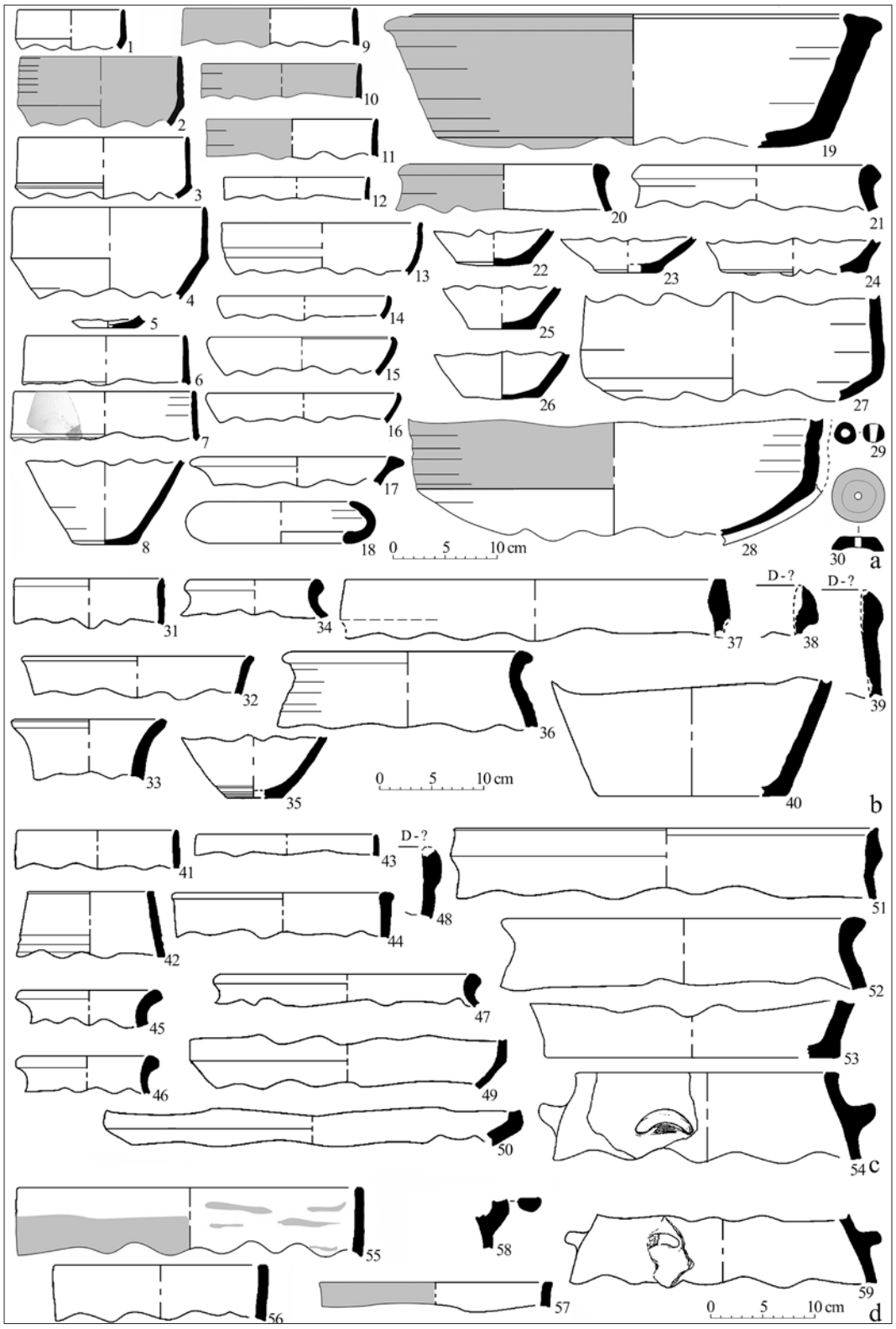


Fig. 5: The north-western corner of the citadel. Ceramics. **55–59**: Period 1, stage 1; **41–54**: Period 1, stage 2; **31–40**: Period 1, stage 3; **1–39**: Period 2; **54–57, 59**: Handmade pottery; **2, 9, 10, 11, 20, 28, 30:** Brown-red engobe; **19**: Light-brown engobe; **7, 55, 57**: Blurs of red paint (drawings by V.V. Mokroborodov, A.V. Omel'chenko).

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and west were built on virgin soil. They were lined with adobe bricks of grey and yellow sludge clay that measured 50 × ? × 12–14 cm, 45 × 45 × 10 cm, and 40 × 40(?) × 10 cm.

We determined an exact stratigraphic sequence between the walls (total height up to 1.9 m) with four main levels (floors). A complex of unusual pits (1.22–1.85 × 1.17–1.25 × 0.15–0.68 m) was opened on the lowest floors, which are 4 and 3 (**Fig. 4a**). The earliest pits, which were "punched" into the natural ground, were used for non-utility purposes and were, apparently, associated with the temple complex located directly to the south. So we may assume that such pits were associated with Zoroastrian rite of "purification of nine nights" (barašnūm-e nō šva or barašnūm ī nō šab), as in the Early Medieval Temple 1 of Panjikent (Škoda *2*009: 64) and in the late Achaemenid fire sanctuary of Kyndyk-tepe in Bactria (Mokroborodov 2011: 105–112).

The clear stratigraphy of the complex of pits and the considerable amount of pottery finds in all horizons allowed us to trace the evolution of ceramic assemblages over a long period of time.[6]

The main characteristics of the pottery assemblage of the ground (4th) level are: the appearance of low bowls or small dishes with wide sides (**Fig. 7:38, 39**), concave on some feet (**Fig. 7:52**); and an expansion in the number and variety of small pitchers (**Fig. 7:41–50**). In contrasted to previous ones (in the Paikend-2A), many of the beakers had walls which incline inwards slightly (**Fig. 7:32, 33, 34**). Some jars, in the same way as before, had a rib in a bottom part of the vessel, but banded rims transformed into incrassated rims, canted inside and slightly acuminate outside, and accented by a groove and a raised border (**Fig. 7:57, 58, 59**). A very interesting find on Floor 4 was the so-called *shashlichnitsa* (a hand-made stand for barbecue) (**Fig. 7:66**). Previously, it was often assumed that this type of ceramic appeared with the Kyzylkir archaeological culture linked with the region of the Syr Darya River.[7]

Middle-sized *tagora* (basins) with a flattened horizontal rim (**Fig. 7:10**) appeared in level 3 of the complex of pits. They have a groove and small raised border under the rim and are often covered with red-brown engobe and polished. Raised borders at the junction of the neck and shoulder of pitchers and *humchas* are not uncommon (**Fig. 7:12, 19, 21, 53, 58**). A marked feature of the pottery assemblage is the appearance of grey-clay vessels due to reduced firing (**Fig. 7:6, 12, 49, 50**). Sometimes red-engobed vessels were put inside each other in a pottery kiln, so in a process of a firing a banded colouring of surface was obtained (**Fig. 7:2, 4**).

The same type of ceramics as on 4th and 3rd floors was found in other points in the citadel. In the north, they were on Floor 1 of Room 1, to the east of the complex of pits (**Fig. 6:1–9**), and on Floor 3 of the second building level, which was opened under the archer's corridor to the west of the complex of pits (**Fig. 8:31–49**).

Similar ceramics hailed from the so-called south external yard of the fire temple (Room 15). We found four layers with ancient ceramics here. The two lowest[8] were under the platform of the temple of the second period. They yielded vessels that are relevant to the above-mentioned ceramics (**Fig. 8:20–30**).

This material comprised the Paikend-2B pottery assemblage. It can be divided into two stages. The first (earlier) stage includes finds from Floor 4 of the complex of pits and from Floor 3 to the west of it (**Fig. 7:28–66**; **Fig. 8:31–49**). The second stage includes materials from Floor 3 of the complex of pits (**Fig. 7:1–26**), from Floor 1 of the room adjoining the eastern fortified wall (**Fig. 6:1–9**), and from the lower levels of the external yard of the fire temple (**Fig. 8:20–30**). There were no longer any cylindro-conical jars with banded rim.

On the 2nd level of the complex of pits, big storage vessels – *khums*, with "classic" bulging body and thickened inclined inward rim (**Fig. 9:26–28**) – increased in number. They are illustrative of all ancient periods.

Novelties of the 1st level: some beakers have high and concave feet (**Fig. 9:9–12**); the cylindro-conical bodies of some beakers have a slight curve; and pitchers with a thin neck and handle appear (**Fig. 9:16**).

Materials from the two upper levels of the complex of pits (**Fig. 9**), as from the two levels adjoining the bottom of the platform of the fire temple of the second period (**Fig. 8:1–19**), are part of the Paikend-2C pottery assemblage.

In the north-east and north-west parts of the citadel, cooking wares of all periods were represented by hand-made cauldrons with straight rim or spherical body. The most ancient have a handle in the shape of a half-moon (**Fig. 5:54, 59**); the

6 There were no archaeological materials of this period in the north-western corner of the citadel. Occupation strata of Period 2 were overlaid by a laminated layer that marks a chronological gap between construction Periods 2 and 3. In the latter, one new defensive wall was built on undercut former constructions (**Fig. 3d**). The large chronological gap is obvious in pottery assemblages as well. Curiously designed goblets with a high stem in Period 3 are the main feature (**Fig. 10**, Paikend-3): this ceramic shape appeared in Sogd and Bactria only in the last quarter of the 2nd century BCE. The date is confirmed by the discovery of iron weapons ("Sarmatian type") in layers of Period 3 in the north-western corner of the citadel of Paikend.

7 In the 3rd to 4th centuries CE.

8 They were alternately of red heat-treated seams and layers of grey ash; all of these were obviously deposited in consequence of permanent fire in altars of the temple.

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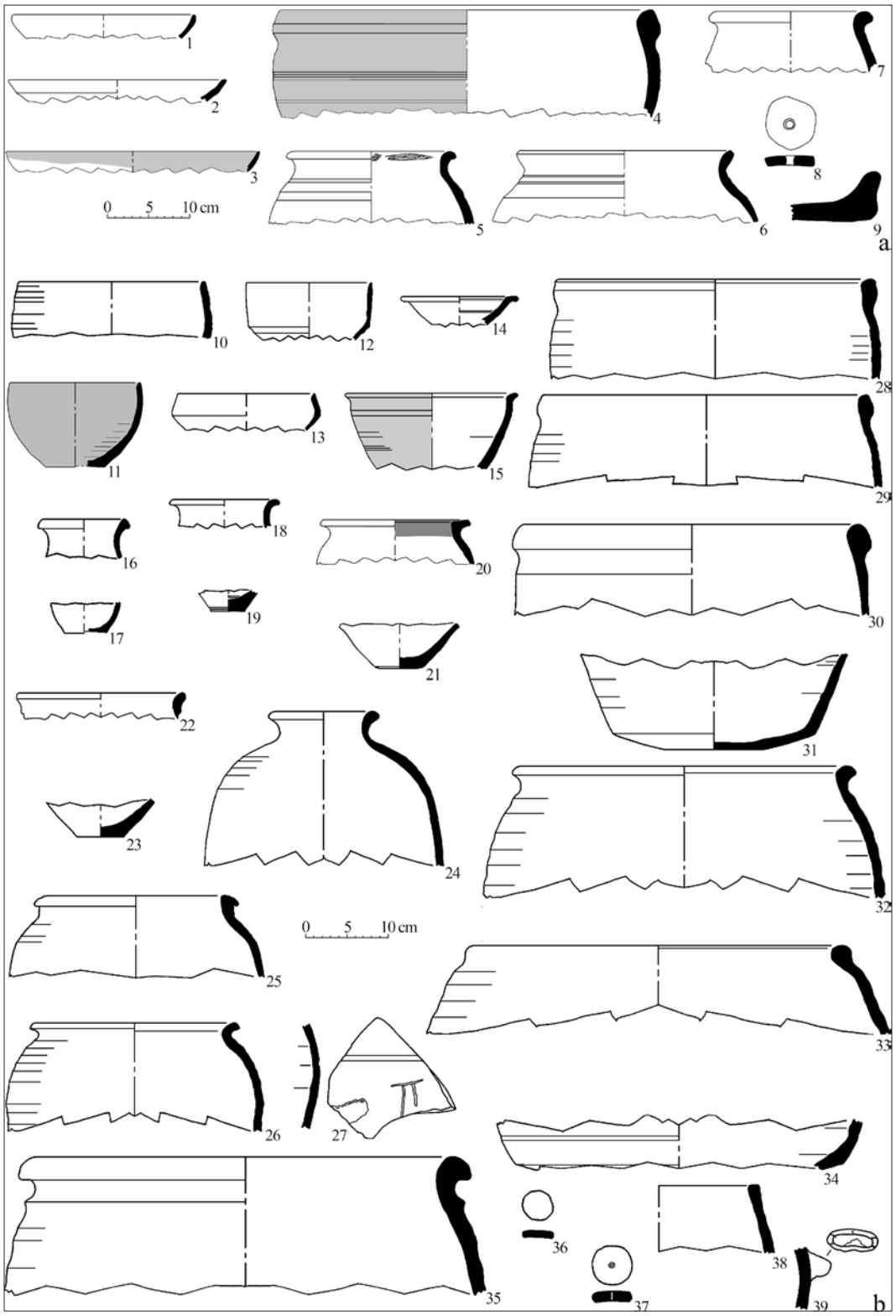


Fig. 6: The north-eastern corner of the citadel. Room 1. Ceramics. **10–39:** Floor 4; **1–9:** Floor 1; **9, 38, 39:** Handmade pottery; **3, 4, 11:** Red-brown engobe; **15:** Light-brown engobe; **20:** Deep-brown engobe; **27**: Sgraffito (drawings by A.V. Omel'chenko).

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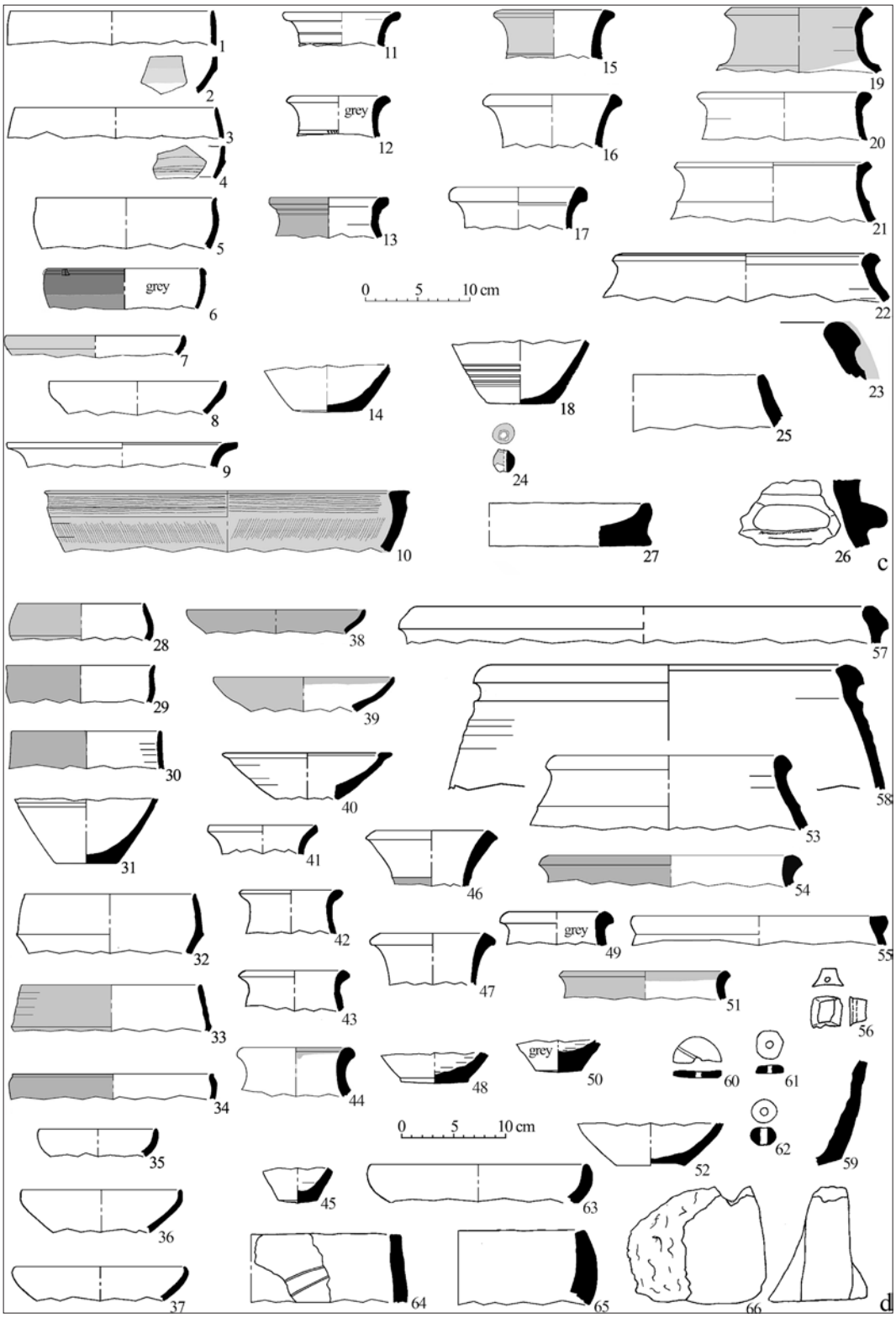


Fig. 7: The north-eastern sector of the citadel, the complex of pits. Ceramics. **28–66**: Level (floor) 4; **1–27**: Level 3; **25–27, 63–66**: Hand-made pottery; **6, 12, 49, 50**: Grey potsherds; **10, 13, 15, 19, 23, 29, 30, 34, 46, 54**: Brown-red engobe; **7, 24, 28, 33, 38, 51**: Red-brown engobe; **2, 4**: Brown-red engobe at the top of potsherds, below – zone of red-brown engobe, below – whitish surface; **6**: Deep brown engobe at the top of potsherds, below – zone of brown engobe; **39, 44**: Light brown engobe; **10**: Horizontal and vertical polishing; **12**: Carved inclined notches on the neck (drawings by A.V. Omel'chenko).

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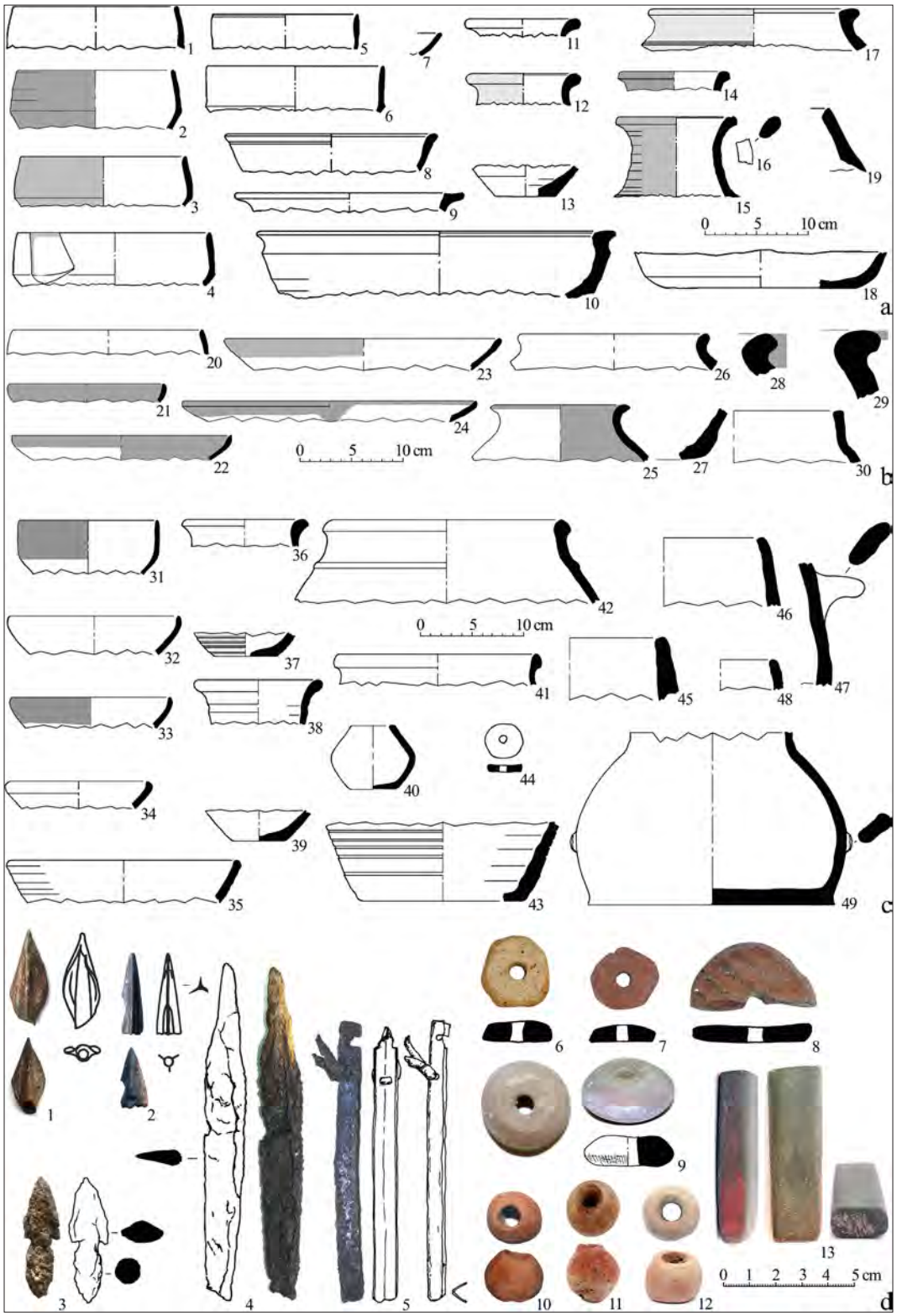


Fig. 8: Ceramics. **31–49**: Floor 3 of the second building level of the area to the west of the complex of pits; **20–30**: South external yard, under the platform of the fire temple of the second period; **1–19**: Near the platform of the fire temple; **30, 45–49**: Handmade pottery; **2, 14, 21, 22, 24, 25, 28, 29**: Brown-red engobe; **3, 4, 7, 15, 23**: Red-brown engobe; **12, 17**: Light-red engobe. – Single finds. **1–3**: Arrowheads; **4**: Knife; **5**: Object of uncertain use; **6–9**: Spindle whorls; **10–12**: Buttons (?); **13**: Oilstone; **1, 2**: Bronze; **3–5**: Iron; **6–12**: Baked clay; **13**: Stone (drawings and photos by A.V. Omel'chenko and L.Yu. Kulakova).

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later ones have an oval contour (**Fig. 7:26**; **Fig. 8: 47**; **Fig. 9:31**). There are also hand-moulded brazier-pans (**Fig. 6:9**; **Fig. 7:27**; **Fig. 9:52**).

Spindle-whorls in the shape of discs with a circular hole are common (**Fig. 8d:6–9**). Those that have a barrel-like shape and are covered with red or brown slip (**Fig. 8d:10–12**) may have served as buttons.

3 Chronology

Some finds and analogies with other archaeological monuments are the basis of the dating of above-mentioned ceramic assemblages.

There are several sites in the Bukhara district with ceramics of the Hellenistic period. The most detailed succession was created using the finds from the excavations in Romish-tepe, in the north of the oasis (Košelenko (ed.) 1985: 423, Table CXXXV). But this research covers long periods and reflects the past situation in Sogdian archaeology, at the beginning of 1980s. There were also no firm reasons to divide materials of the Hellenistic era in terms of clear periods in Bukhara city itself (Muhamedžanov/Mirzaahmedov/Adilov 1987: 81–97).

So in order to date the ceramics of Paikend, we have to appeal to the excavations of sites in Eastern Sogd (Samarkand). It was in particular on the basis of materials from Afrasiab (i.e. pre-Mongol Samarkand) that the classical scale of evolution of Sogdian ceramic assemblages of Early Iron Ages and antiquity was created.[9] This is now divided into five periods. The phases Afrasiab-2A (ca. 327–200 BCE) and Afrasiab-2B (ca. 200–100 BCE) belong to the Hellenistic era (Isamiddinov 2002: 202–204). But the Paikend-1 pottery assemblage found under the fortification wall in the north-west corner of the citadel (**Fig. 5:31–54**) is similar to ceramics of the Afrasiab-1B phase, which is dated ca. 400–327 BCE (Isamiddinov 2002: Fig. 168-II). The materials of the settlement of potters named Sara-tepe 2, which was not so far from Afrasiab, was attributed to this phase as well. However, the author of the excavation noted that some ceramics of the pottery kilns can be attributed to the transitional complex between Afrasiab-1B and Afrasiab-2A (Ivanickiy 1992: 40). In my opinion, both the Paikend-1 pottery assemblage and the Afrasiab-1B (Sara-tepe 2) assemblage were formed in the period shortly after Alexander the Great's conquest of Central Asia, i.e. to the last quarter of the 4th century, and maybe to the very beginning of 3rd century BCE. Based on materials from Koktepe, Muhammadjon H. Isamiddinov rightly observed the influence of new pottery tradition on only some forms of ceramics (but not on surface finish). In the case of the earliest pottery assemblage[10] of Paikend, there are small pots with outturned thickened rim (**Fig. 5:33, 34, 45, 46**) as well as a bowl with a slightly turn-up rim (**Fig. 5:32**). But the old "Achaemenid" tradition (Yaz-3) of making cylindro-conical storage vessels had continued. The ceramic assemblage Yaz-3 from Erk-kala, which was the core of ancient Merv (Margiana), demonstrates this clearly. It was dated by the author of the excavation to the end of the 4th century BCE and later (Usmanova 1992: Fig. 7).

A similar pottery assemblage was discovered at the Erkurgan site (ancient Nakhshab, in western part of the Kashka Darya region, South Sogd). The authors dated it to the end of 4th century BCE (Isamiddinov/Suleymnov 1984: 146).

We know of far more analogies for the sequent pottery assemblage Paikend-2A, which corresponds with building of the first fortified walls, i.e. the creation of the citadel. Because the Afrasiab-2A period in the summary table of the new publication was dated in broad terms (Isamiddinov 2002: Fig. 168-II), we have to appeal to the excavations in ancient Samarkand in the 1970s. Sergey K. Kabanov distinguished a very symptomatic ceramic assemblage which, as in Paikend, included beakers with hemi-spherical and cylindro-conical body, bowls with flatten horizontal or rising-up rim, small pots and *humchas* of the same shape, and (importantly) large cylindro-conical jars (Kabanov 1981: 29–47). The author dated it to the transitional period from Afrasiab-1 to Afrasiab-2. The original rounded hollow stands were found in layers of the Paikend-2A period **(Fig. 5:18**) and in the lowest Hellenistic levels of the archaeological object named the "Bukhara Gate" in Afrasiab (Isamiddinov 2002: Figs. 127: 3; 131: 15). Another pottery assemblage which is very like Paikend-2A is that of Kok-tepe-3 from the upper layers of the city-site of the same name (Isamiddinov 2002: Figs. 111–114).[11]

9 This was done in relation to a revision of the first Sogdian scale, which was based on the excavations in the Tali-Barzu site near Samarkand (Georgi V. Grigoriev, 1936–1940). Without going into detail, it is necessary to point out the deep scientific foresight of the outstanding Central Asian archaeologist Aleksey I. Terenojkin. He used materials from his own limited pilot trenches in ancient Samarkand site (during the difficult post-war period) to create a basis for the Afrasiab scale. In the 1970s and 1980s, it was substantially improved thanks to the excavations of Sergey K. Kabanov and Galina V. Shishkina. A short while ago, the scale was extended thanks to new excavations in Afrasiab and Kok-tepe (Muhammadjon H. Isamiddinov 2002, Bertille Lyonnet 2012).

10 Here we have discussed the pottery assemblage of stages 2 and 3 of Period 1. As there are only a few fragments of recognisable shapes, we cannot accurately identify the pottery assemblage of stage 1.

11 It is a large (up to 100 ha) city-site about 30 km to the north of Samarkand/Marakanda. Sometimes Kok-tepe was identified with the "Royal City of Sogd", which was noted by Arrian in the *Anabasis of Alexander*. It is believed that the latest fortified walls within the inner city

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In Eastern Sogd, we know two other main sites with similar types of ceramics to those of Paikend-2A. They are Kumyshkent-tepe (19 km to the west from Samarkand) and Nur-tepe (north-eastern Sogd, 20 km from Ura-Tyube, modern Istaravshan, Tajikistan). The latter was presumably one of the fortified settlements in the mountainous region of Sogd mentioned during the campaign of Alexander the Great. But in Kumyshkent-tepe as in Nur-tepe, according to the publications, there were no cylindro-conical jars with a banded rim. Moreover, pottery on disc-shaped and even ring feet was found in ancient layers at both sites. So it is younger then the ceramics of Paikend-2A and cannot be dated back of the 4th century BCE as the authors wrote (Pugačenkova/Belâeva 1987: 77; Fig. 4: 4, 5, 19; Negmatov/Belyaeva 1987: 27–28).

In South Sogd, the ceramics of Paikend-2A display a certain similarity with the ceramic assemblage EK-5 from the city-site Erkurgan in western Kashka Darya. However, there were vessels on a disc-shaped foot and so-called "fish dishes", plates or bowls with conical body and downturned rim (Suleymanov 2000: Fig. 96: 12, 20, 22; 97: 2).[12] We can see the same types of cylindro-conical storage vessels in pottery assemblage "H", and fewer in "G", from Podajatak-tepe (eastern Kashka Darya, Nautaka-Kesh). But some types of tableware (beakers, bowls, small pots) had analogies in the "G" complex (Omel'čenko 2006: Fig. 2H: 16, 20, 22; G: 1, 3, 8, 15, 20, 21, 30). These ceramics were dated to the Late Achaemenid/Early Hellenistic periods.

Now we can turn our attention to the other border of Central Asia, northern Bactria. A very similar ceramic assemblage to that of Paikend-2A was found in the lowest level of Tamosho-tepe[13] (Abdullaev 1976: 43; Fig. 3). A strong resemblance in the "dish set", as well as in the details of the shapes of vessels (in particular, cylindro-conical jars with banded rim (Abdullaev 1977: 39; Fig. 2: 16, 18, 22)), provides clear evidence of common ground and a similar line of evolution as Early Hellenistic pottery in the whole of Central Asia. Ceramics of such Bactrian sites as Dzhiga-tepe[14] and Kampyr-tepe[15] Kurganzol[16] demonstrate the same situation. But there was not the slightest presence of cylindro-conical vessels in the earliest pottery assemblages of the sites, though there were types of ceramics very similar to those of Paikend-2A. For these reasons, we cannot regard the Kurganzol-1 ceramic assemblage (Sverchkov 2008: 132; Fig. 10), the Dzhiga-tepe "transitional complex" (Pidaev 1984: 112–114; Fig. 1), or the "unblended pottery assemblage" of the terraced house in Kampyr-tepe (Dvurečenskaâ 2015: 222), as the very first step in the formation of a "Hellenised" pottery assemblage, as was the cases at Kok-tepe-3, Paikend-1, Erkurgan (3–4) or Tamosho-tepe (the lowest level).[17] So in my opinion, the ceramics of Kurganzol-1, of the earliest Dzhiga-tepe and Kampyr-tepe, must be dated to not earlier than the first half of the 3rd century BCE.[18]

Ceramics very similar to those of Paikend-2A (down to the details) were found in the period Yaz-3 in Erk-kala (Merv) as well (Usmanova 1992: Fig. 7). There were beakers with cylindro-conical body, large pots with low body and "S"-shaped profile (**Fig. 6:26**), pots or pitchers with hook-like or well-rounded rim (**Fig. 6:16, 18**), *khums* with inclined insides and oval rims (**Fig. 6:33**), and large cylindro-conical jars with the same profiled or smooth banded rim (**Fig. 6:28, 30**).

So stratigraphic data and analogies let us place the Paikend-2A pottery assemblage at the very end of the 4th/the first half of the 3rd century BCE.

The Paikend-2B pottery assemblage is more varied then the previous assemblages (**Fig. 6:1–9**; **Fig. 7**; **Fig. 8:20–49**), though the main set of tableware is the same: beakers with cylindro-conical or well-rounded bodies, bowls with rim turned inward[19] or horizontally outward with hemi-spherical (much more) or conical bodies, small pots or pitchers. And the same can be said of the ceramic assemblage from Afrasiab (the earlier part) that dated

(23 ha) were built on the orders of Alexander the Great, and that it was here that the barracks of the Greco-Macedonian garrison was situated. For this time, the materials of the Afrasiab-2A period (but not later) were deposited (Isamiddinov 2002: 216).

12 The author dated the pottery assemblage to the second half of the 3rd century BCE (Suleymanov 2000: 165). But in that case, the temporal hiatus between EK-5 and EK-4 (more then 50 years) appeared. In my opinion, both pottery assemblages include ceramics from the end of 4th to the beginning of the 3rd century BCE.

13 The ancient settlement is situated in the Yavan Valley (Southern Tajikistan).

14 Balkh Oasis, northern Afghanistan.

15 The fortress on an important crossing point of the Amu Darya River. See the most ancient pottery assemblages in the site in: Mkrtyčev/Bolelov 2006: 43–44; Fig. 3: 41–54; Dvurečenskaâ 2015: Figs. 1–7.

16 In the Baysun area, Southern Uzbekistan.

17 For details of the presence of cylindro-conical vessels with banded rim in Bactria in Early Hellenistic era, see Zejmal' 1971; Abdullaev 1976, etc.

18 Even the pottery assemblages of Bactrian sites Kyzil-tepe (stage 3) and Lower Bolday (stage 1) with subtle "Hellenised" influences and expressed "jar-shaped" fashion were dated to the end of the 4th and the beginning of the 3rd centuries BCE (Zeimal' 1971: 50–51; Sverchkov/Wu Xin/Boroffka 2013: 69, Fig. 31). But the hallmark of pottery assemblages, such as the one in Kurganzol fortress, is the absence of cylindro-conical vessels. In my opinion, this apparent contradiction could be explained by the period covered by the above-named pottery assemblages, but not by more "Hellenised" levels of material culture. In my view, until the middle of 3rd century BCE the level of Hellenisation in Bactria and Sogdiana was much the same.

19 "Beveled rim", after S. Rotroff (1997: Fig. 2).

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to the 3rd century BCE (Kabanov 1981: Fig. 21).[20] A peculiarity of the Paikend-2B assemblage is the appearance of bowls with wide mouth and flattened roundish or almost conic body **(Fig. 7:38, 39; 8: 35**). In the second stage, they become so wide that we can consider them dishes (**Fig. 6:3**; **Fig. 8:23, 24**). We can observe the same transformation of this form in the example of the earlier Ai-Khanoum pottery assemblages (Lyonnet 2012: Fig. 4: 1; 8: 3). Similar bowls or dishes were among the materials of Period 2 of the Kurganzol fortress (Sverchkov 2008: Fig. 19: 5; 20: 14). Other types of tableware of these Bactrian sites resemble Paikend-2B pottery, too. Slightly inclined inner walls are characteristic of beakers with well-rounded and cylindro-conical bodies in Paikend-2B, as in the Kampyr-tepe pottery assemblage from the earliest layers of the Lower Town (Dvurečenskaâ 2015: Fig. 3). Pitchers with rims hypo-triangular in section and with well-rounded or beak-shaped flange (**Fig. 7:11–17, 41–47**) were common in the before-mentioned pottery assemblages of both sites. These analogies, as well as the presence of a considerable number of pitchers with handles, the appearance of modelled wave-shaped decoration on walls of pitchers, and the presence of fishdishes (Dvurečenskaâ 2015: Fig. 2, 5) led us to date the "unblended ceramic assemblage" of the terraced house in the Lower Town of Kampyr-tepe from the middle of the 3rd century BCE, but not earlier.

As to storage vessels of Paikend-2B, there were *humchas* with typical thickened and oval-acuminate rim (**Fig. 7:22, 53**; **Fig. 8:42**) and others with the very special form of keel-shaped[21] rim (**Fig. 7:58**). It was a marked feature of the pottery assemblage of Afrasiab of the 3rd century BCE (earlier complex, Kabanov 1981: Fig. 22: 4–7) and Kok-tepe-3 (Isamiddinov 2002: Figs. 111: 12; 114: 4, 5, 6; 168-II, 168-III), as well as Kumyshkent-1 (Pugačenkova/Belâeva 1987: Fig. 4: 22, 37), Erkurgan-6 (Suleymanov 2000: Fig. 97: 13), and Podajatak (Omel'čenko 2006: Figs. 2G: 24; F: 43, 45). *Humchas* with T-shaped rim and sloping shoulders are among the Afrasiab ceramics (4th century BCE; Kabanov 1981: 18: 14) and in the Kumyshkent-1 ceramic assemblage (Pugačenkova/Belâeva 1987: Figs. 4, 27), etc.

The specific square handle with vertical aperture for a cord (**Fig. 7:56**) perhaps belong to the flask. It is present in such pottery assemblages as Kumyshkent-2 (Pugačenkova/Belâeva 1987: Fig. 6: 20), period 3 of the Kurganzol fortress (Sverchkov 2008: Fig. 28: 15), Period 1 of the settlement Kapyr-kala in northern Parthia.[22] The latter was dated to the 3rd century BCE (Pilipko 1990: Fig. 2: 29).

Another particular shape is that of thick-walled bowls of coarse paste[23] (**Fig. 7:63**). In Bactria, there were the same hand-moulded wares in period-1 of Kurganzol and in the pottery assemblage of 3rd century BCE found near the Kampyr-tepe site (Rtveladze/Bolelov 2000: 102; Fig. 2: 18, 20). It is believed that such bowls were used as a mould in the production of ceramics (Sverchkov 2008: 131; Fig. 10: 16).

The debut of grey pottery took place in the Paikend-2B period. There were only a few potsherds of this clay (**Fig. 7:6, 12, 49, 50**). One bowl (**Fig. 7:6**) was covered by brown-red slip,[24] the form of engobe coating that came before grey-black pottery. The type of the bowl, with two grooves around the outside rim and with two opposite horizontally applied small lugs, appeared in the middle of the Afrasiab-2 period in Samarkand (or in the Afrasiab-2B, maybe slightly earlier). It is commonly believed that "Megarian" bowls were the prototype of these Sogdian vessels (Shishkina 1975: 66; Fig. 3: 12–16; Lyonnet 2012: 161). The bowls of hemispherical shape with grooves just below rim were found in the earliest layers of the lower town of Kampyr-tepe (Dvurečenskaâ 2015: Fig. 1: type 1, variant 1).

Big *humchas* with an oval-acuminate outward rim are found in Paikend-2B (**Fig. 7:22**), as well as in Afrasiab-2A (Shishkina 1969: Fig. 7: 155), and in upper layers of Tamosho-tepe (Abdullaev/Bubnova/P'ânkova 1975: Fig. 3: 1). *Khums* with oval section and projecting rim appear only in this period of ancient Paikend ceramics (**Fig. 8:28, 29**). We can see a similar type of rim in Erkurgan-5 (Suleymanov 2000: Fig. 99: 10), Podajatak-F (Omel'čenko 2006: Fig. 2: 44), and the Termez pottery assemblage of the first stage (Pidaev 1991: Fig. 1: 30–32).

There are other means of establishing the approximate date for the stages of the period Paikend-2B. The bronze two-bladed arrowhead in the shape of a laurel leaf[25] was found in deposits above Floor 4 of the complex of pits (**Fig. 8d:1**). A socket showed only through a rib on an arrowhead. It's often assumed that in Eurasia this type of bronze arrowhead with a cutaway socket dates from the 7th to 5th centuries BCE (Moškova (ed.) 1992: Table 84,

20 But it has bowls on ring feet. There were only vessels on disc-shaped (**Fig. 7:48**) and on a slightly concave foot (**Fig. 7:52**) in the pottery assemblage Paikend-2B.

21 Thickened rim, inclined inward, but also protruding slightly outward.

22 Modern south Turkmenistan. The settlement consisted of several households.

23 It was slightly improved on a potter's wheel.

24 In the archaeological season of 2016, we found a fragment of a grey-black bowl with a turned-up horizontal rim in low layers of the citadel under the central section of the archer's corridor. The excavation in principle confirmed the relative pottery scale. The materials are forthcoming. It is often assumed that grey pottery appeared at a specific stage of the Central Asian potting during the Hellenistic period.

25 Upper parts of the blades are slightly bent.

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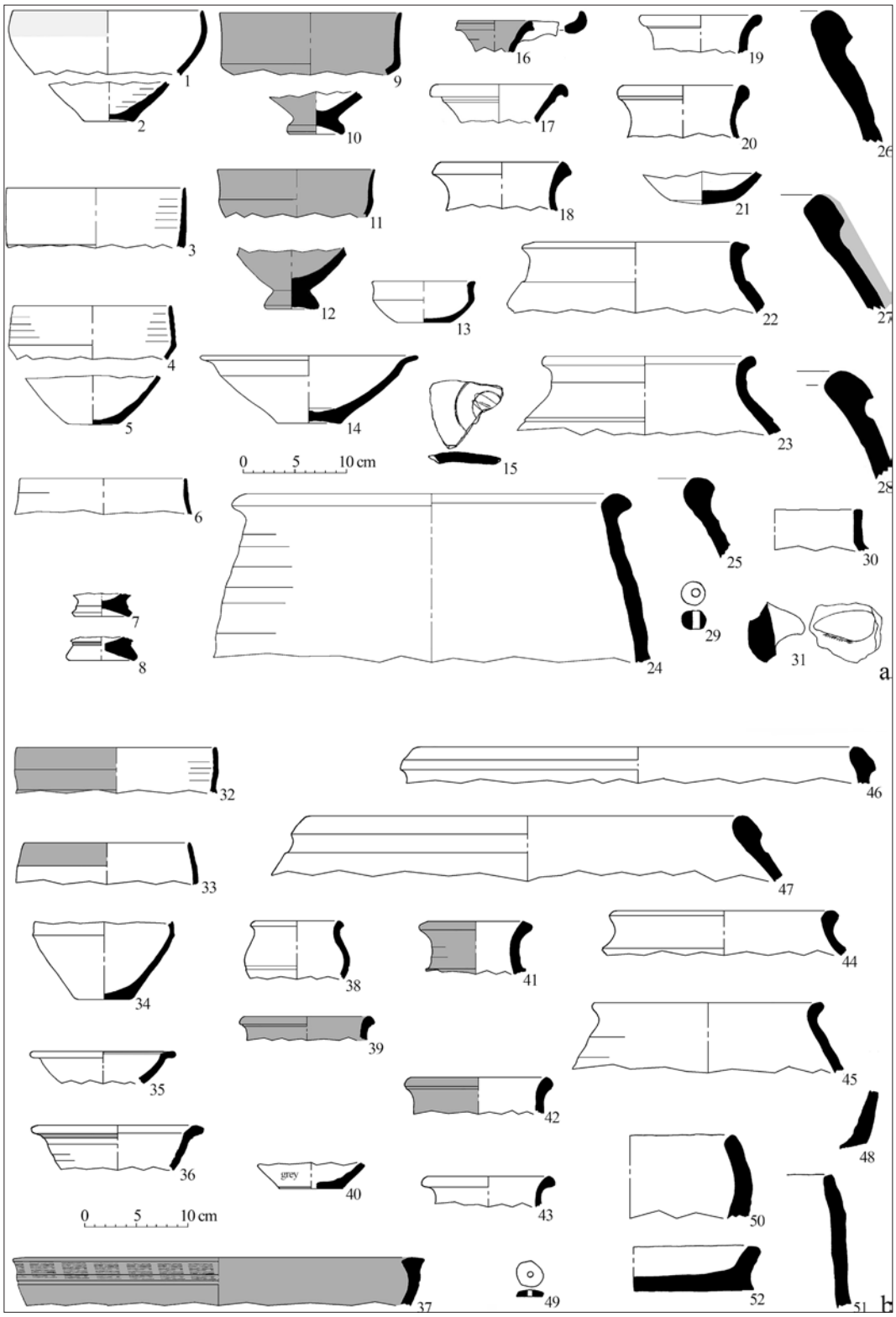


Fig. 9. The north-eastern sector of the citadel, the complex of pits. Ceramics. **32–51**: Level 2; **1–31**: Level 1; **30, 31, 49–50**: Hand-made pottery; **40**: Grey potsherd; **9–12, 16, 32, 37, 39, 41, 42**: Brown-red engobe; **27**: Red-brown engobe; **37**: Horizontal polishing; **1**: Whitish surface at the top; **15**: Graffito (drawings by A.V. Omel'chenko).

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23; Litvinskij 2001: 68–69).[26] But some observations suggest that two-bladed arrowheads were seldom used in Central Asia and Kazakhstan up to the 4th–3rd centuries BCE (Akišev/Kušaev 1963: 117, 121; Moškova (ed.) 1992: 59; Table 9: 3; Usmanova 1992: Fig. 9: 6, 7; Vorob'ëva 1973: 195; Table I: 5; Table II: 35, etc.).

A more age-appropriate find was a bronze arrowhead on Floor 3. It is triangular three-bladed arrowhead with a "hidden" socket (**Fig. 8d:2**). Arrowheads of this type were found in early Sarmatian burial mounds of the 4th to 2nd century BCE (Melûkova (ed.) 1989: Table 64: 6) and on archaeological monuments associated with Central Asian Saka (Moškova (ed.) 1992: Table 9: 40, 57; Table 50: III, IX). They were among other findings in the Bactrian Temple of Oxus (Takhti-Sangin site, South Tajikistan (Litvinskij 2001: Table 18: 26) and in the armoury of Aï-Khanoum (northern Afghanistan) (Âgodin 1984: Fig. 5: 24, 25).[27]

An iron arrowhead with two slightly downturned edges was found on Floor 1 with materials of the Paikend-2C period (**Fig. 8d:3**). This is a rare type of shafted arrowhead of triangular shape. Another was found in Aï-Khanoum in layers of the 3rd to 2nd centuries BCE (Litvinskij 2001: 95; Table 27: 2, 3).

Beakers with a high-ring foot (curved inward),[28] as in the Paikend-2C period (**Fig. 9:7, 8, 9, 12**), are a feature of the Late Hellenistic pottery assemblage in Bactria (Pugačenkova/Rtveladze 1978: Fig. 6: X–XI; Pidaev 1991, 4: 45; Lyonnet 2012, Fig. 8: 13–15). The same situation was marked by researchers in Afrasiab (Isamiddinov 2002: 155–156, Fig. 148: 1, 2) and Kumyshkent-tepe in eastern Sogd (Pugačenkova/Belâeva 1987: 80, Fig. 6: 17, 32). In Erkurgan (south Sogdia), these beakers were dated from the end of the 2nd to the first half of the 1st century BCE (EK-7 ceramic assemblage)[29] (Sulejmanov 2000: 166–167, Fig. 100: 11). The upper part of cylindro-conical beakers of the Late Hellenistic period sometimes had a slight curve (**Fig. 9:9, 11**) (Isamiddinov 2002; Fig. 148: 5, 6, 8; Pidaev 1991: Fig. 4: 39; Sverchkov 2008: Fig. 30: 1; Pilipko 1990: Fig. 6: 1, 12). The same feature is evident in the case of Paikend bowls with a conic or hemi-spherical body and horizontal out-turned rim (**Fig. 9:14**) (for analogies, see Šiškina 1975: 2, 4; Pidaev 1984: Fig. 3: 18; Sverchkov 2008: Fig. 33: 11; Pilipko 1990: Fig. 6: 29, 30, 37; Rutkovskaâ 1958: Fig. 1: 14, 20). Small, narrow-necked pitchers with a triangular-shaped rim and a groove were found during the excavations at Aï-Khanoum (Lyonnet 2013: Fig. 91: 8, 9). They have a handle that is bean-shaped in section, as in the Paikend-2C pottery assemblage (**Fig. 9:16**). At the Erkurgan city-site, similar vessels have appeared only in the EK-7 period (Sulejmanov 2000: Fig. 101: 11).

Of course, the above examples are not entirely limited to the analogies in the sites mentioned above. For instance, we have consciously omitted the materials of ancient Khwarezm, with which Bukhara oasis have had ancient contacts.[30]

It is difficult to say exactly how long Paikend-2C lasted, for we have not found a distinct transition to the pottery assemblage in which goblets on a high stem were prevalent. But on the basis of analogies and stratigraphic observations, we can state that Paikend-2C lasted from the end of the 3rd century until the middle of 2nd century BCE.

One table given here is of the periodisation of artefacts from Paikend of the Hellenistic period (**Fig. 10**). In another table, I try to show the chronological position of Paikend pottery assemblage among other materials of main archaeological sites of Bactria and Sogdia (**Fig. 11**).[31]

4 Some conclusions

1. It seems that a permanent settlement on the territory of the Paikend site occurred on one of the promontory of the Zeravshan River as early as

26 It is not improbable that the arrowhead landed in an occupation layer by chance. Sometimes we find ancient artefacts (Neolithic, Bronze Age and Early Iron Age) in Paikend. Usually they are in the mudbricks and *pakhsa* of constructions, or in the clay covering of pavements. But in such cases the arrowhead lay in burnt stratum which was in an intermediate position between Floor 4 and Floor 3.

27 In the latter case, arrowheads have slightly hanging blades. Findings were dated to the 2nd century BCE.

28 In the terminology used by S.I. Rotroff, this type of foot is named "false ring foot" (Rotroff 1997: Fig. 1).

29 The new pottery scale of Erkurgan (2000) has slightly "younger" data than the previous one (Isamiddinov/Sulejmanov 1984), which was, in my opinion, more authentic.

30 Ceramics of the Dingil'dje farmstead on an old bed of the Akcha Darya River (Vorob'ëva 1973: Figs. 33–39) have many parallels with the Paikend-1 and -2A pottery assemblages, while materials of the bottom level of Koi Krylgan Kala site (Vorob'ëva 1967: Tables I, II, III) have analogies in Paikend-2B and -2C. But ceramics assemblages of these Khwarezmian sites were dated by the authors to the 5th to 3rd centuries BCE. Therefore, the so-called Late Archaic culture of Khwarezm is thrown into sharp relief among other Central Asian archaeological finds. In my opinion, there is a need to review the absolute chronology of Khwarezm monuments of the Late Achaemenid and Early Hellenistic periods. The Paikend-2B pottery assemblage also has many analogies in the materials of the Chirik Rabat culture in the lower reaches of the Syr Darya River (Moškova (ed.) 1992: Table 11, 12).

31 It should be noted that the excavator of Kurganzol has revised the chronology of the site and has dated all constructive periods to the time of Alexander the Great, hence before the beginning of the 3rd century BCE. See Sverčkov 2012.

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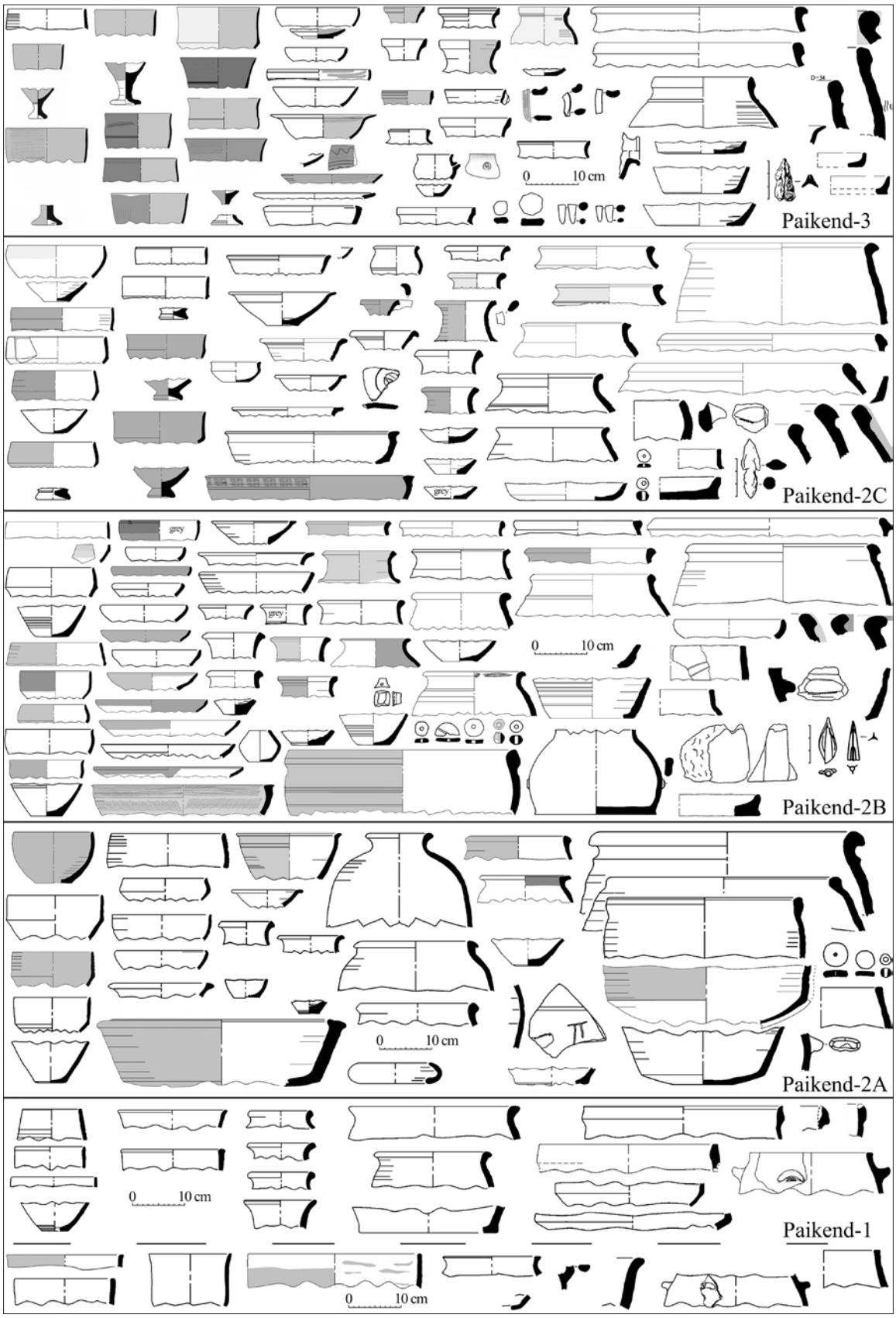


Fig. 10. The table of periodisation of artefacts from Paikend of Hellenistic times (drawings by A.V. Omel'chenko).

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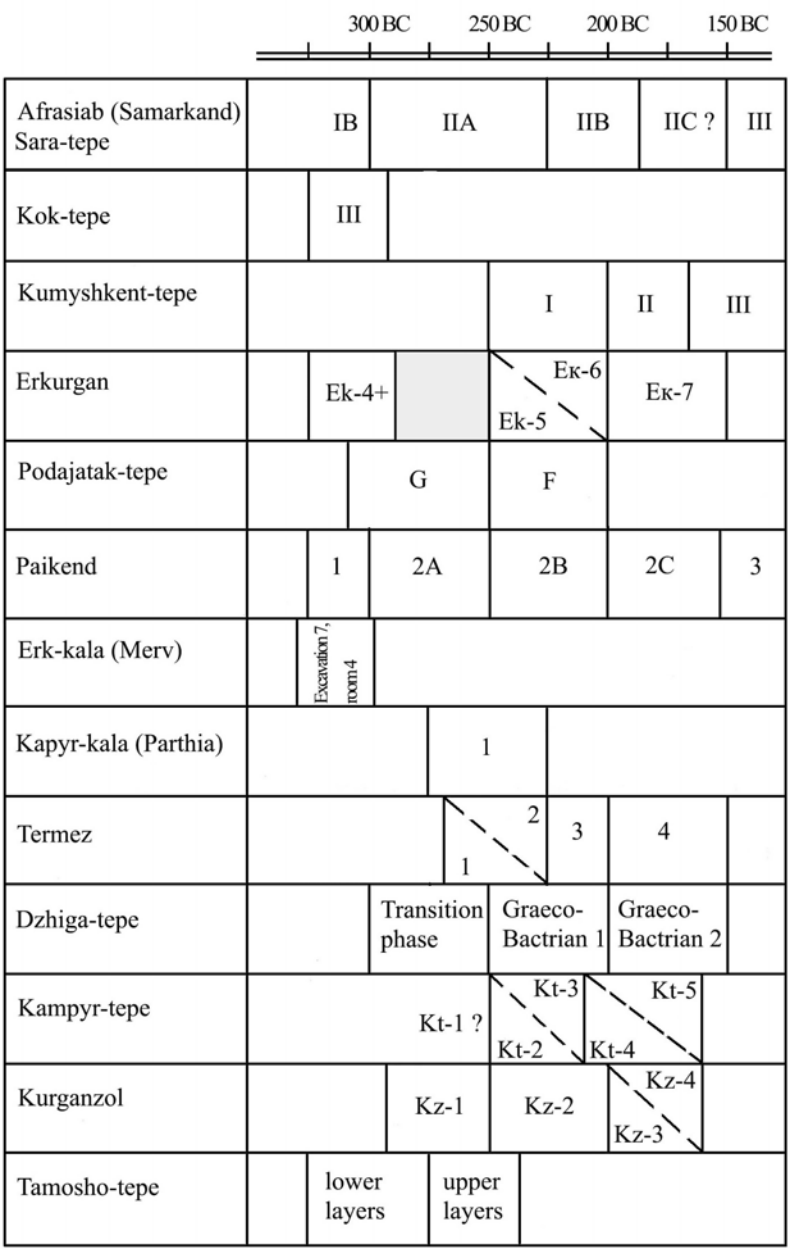


Fig. 11. The synchronic table of the main pottery assemblages of the sites in Sogd, Bactria, Margiana and Parthia of the Hellenistic period (after the publications of A.A. Abdullaev, S.B. Bolelov, M.H. Isamiddinov, I.D. Ivanickij, A.V. Omel'chenko, Sh.R. Pidaev, V.N. Pilipko, G.A. Pugachenkova and T.V. Belyaeva, L.M. Sverchov and A.A. Voskovskij, R.H. Sulejmanov, Z.I. Usamova).

the second half of 4th century BCE. This date, and the artefacts found at Paikend, are consistent with the previously proposed idea (by Š.T. Adylov) that the formation of new settlements in Bukhara oasis (Romish-tepe, Varaksha, perhaps Bukhara as well) was due to migration of groups of Sogdians from the Samarkand oasis to lower parts of the Zeravshan River, caused by pressure from Alexander's military operations in eastern Sogdia (Samarkand and the mountainous regions).

2. The archaic character of the ceramic assemblage found directly on the natural ground of the citadel of Paikend can be explained by the first settlers' inability to produce good wheel-made ceramics. Red and brown painting applied to a whitish surface of some handmade vessels was a feature of Sogdian pottery from the Early Iron Age onwards. At the same time, excavations in Kok-tepe and Sangyr-tepe showed that this manner of decoration continued until the Hellenistic period.

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3. The first large-scale construction activity in Paikend took place at the fortification and at the temple of fire. The genesis of a city near main ceremonial centres is a characteristic of Sogdian urbanism, as shown by excavations in Erkurgan (Sulejmanov 2000: 88–101) and Uzunkyr (Sangyr-tepe) in South Sogdia, and in Kok-tepe (Rapin/Isamiddinov 2013: 124–131) and in Kumyškent-tepe (Pugačenkova/Belâeva 1987: 85–86) in eastern Samarkand in Sogdia. It is interesting that new data from the excavations in Paikend accord with the evidence of Shāh-nāma. Ferēdūn – the legendary Iranian king and ruler of Iran and Tūrān – constructed one of the oldest fire temples in Paikend (then called Kunduz) (Firdawsī: 358–359). Although legendary, this evidence attests to ancient contacts in this part of the Bukhara oasis with Iran (eastern Khorāsān), and also to the importance of Paikend in the spread of Zoroastrianism in Sogdiana.

4. The analysis of finds from the lowest stratum of Paikend, as well as from excavations in some other Sogdian and Bactrian sites, testified that in so-called transitional pottery assemblage, the old, Late Achaemenid, "cylindro-conical" tradition held sway. But some ceramic forms show new influences that obviously depended on a new pottery tradition that emerged when Central Asia became part of the Hellenistic world. Presumably this period covered the last quarter of the 4th century BCE.

5. According to the archaeological evidence, the influence of Greek (Hellenistic) tradition of pottery increased during the first half of the 3rd century BCE. The further advance in the pottery industry appeared in an extension of the range of ceramics and an improvement in its quality. Brown and red engobe coating became widespread, along with new techniques of preparing and moulding clay, and the use of ceramic kilns of a new construction (Bolelov 2001: 20–22; Fig. 3, 4). The same developments were apparently typical of Sogdiana, Bactria and Parthia, as well as of Khwarazm and even of the region of the lower reaches of the Syr Darya River (the Chirik Rabat archaeological culture).

6. Profound changes in pottery assemblages of the historical-cultural regions of Central Asia took place in the second half of the 3rd century BCE. All the main types of ceramics that would continue to evolve till the end of Hellenistic period appeared. In this context, the hypothesis that the formation of this pottery assemblage had its origins beyond Central Asia (in western Asia?) seems reasonable.[32] Determining the details of the process is a subject for further research.

7. "Old" local ceramic forms evolved as well (for instance beakers with round or cylindro-conical bodies). Experiments with reduced firing are symptomatic of the evolution of local pottery. In the first stage, a grey potsherd was covered by the more habitual red-brown engobe. Later, grey-black tableware started to be produced.

8. In the Hellenistic period, the pottery industry of Sogdia by and large looked like that of Bactria, though of course Bactria produced more "Greek" forms such as amphora, askos, aryballos, pyxis (Tihonov 2012: Fig. 2).

9. The Sogdian pottery assemblage is substantially similar to the ceramics of northern Parthia, Margiana, and Khwarazm. So new trends in the "Hellenistic fashion" in ceramics were able to cross political borders quickly. Ascertaining how this happened is an intriguing aspect of the studying of the Central Asian pottery.

10. Even this brief review shows that the formation of the united ceramic scale for Sogdia remains a task. The fact that the scale is outdated contrasts markedly the recent progress in Bactrian archaeology, where we can see a boom of excavations in Hellenistic sites. I hope this paper will draw the same attention to Sogdian sites.

32 Sverčkov/Voskovskij 2006: 27. But the authors dated an expansion of this pottery assemblage in Central Asia to the beginning of the 3rd century BCE.

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Bibliography

Abdullaev, A.A.
1976: Otčet o raskopkah Tamošo-tepe v 1972 g., *Arheologičeskie raboty v Tadžikistane* 12, 38–47.

1977: Otčet o raskopkah Tamošo-tepe v 1973 g., *Arheologičeskie raboty v Tadžikistane* 13, 35–46.

Abdullaev, A./Bubnova, M.A./P'ânkova, L.T.
1975: Otčet o raskopkah Âvanskogo otrâda v 1971 g., *Arheologičeskie raboty v Tadžikistane* 11, 249–262.

Akišev, K.A./Kušaev, G.A.
1963: *Drevnââ kul'tura sakov i usunej doliny reki Ili*, Almaty.

Âgodin, V.N.
1984: Bronzovye nakonečniki strel iz Ûžnoj Baktrii, in: Kruglikova, I.T. (ed.), *Drevnââ Baktriâ. Vypusk 3. Materialy Sovetsko-Afganskoj arheologičeskoj èkspedicii*, Moscow, 33–57.

Bolelov, S.B.
2001: Gončarnaâ masterskaâ III–II vekov do n.è. na Kampyrtepa. K voprosu o keramičeskom proizvodstve i organizacii remesla v Severnoj Batkriii èpohi èllinizma, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 2. Arheologičeskie issledovaniâ. Kampyrtepa*, Tashkent, 15–30.

Dvurečenskaâ, N.D.
2015: K voprosu o ranneèllinističeskoj keramike Baktrii (na osnove zakrytogo kompleksa terrasnogo doma Kampyrtepa), in: Nikonorov, V.P./Alëkšin, V.A. (ed.), *Akademičeskoe vostokovedenie v Rossii i stranah bližnego zarubež'â (2007–2015). Arheologiâ, istoriâ, kul'tura* (= Trudy Instituta Istorii Material'noj Kul'tury RAN 45 = Zapiski Vostočnogo otdeleniâ Rossijskogo Arheologičeskogo Obŝestva. Novaâ seriâ 3/28) (*Academic Oriental Studies in Russia and the Near Abroad Countries (2007–2015). Archaeology, history, culture* (= Proceedings of the Institute for the History of Material Culture of the Russian Academy of Sciences 45 = Memoirs of the Oriental Department of the Russian Archaeological Society. New Series 3/28)), St. Petersburg, 195–225.

Firdawsī, Ḥakīm Abū'l-Qāsim
Šahname. Tom 4. Ot carstvovaniâ Lohraspa do carstvovaniâ Iskendera. Perevod C.B. Banu-Lahuti. Kommentarii V.G. Lukonina, 1969, Moscow.

Ivanickij, I.D.
1992: Saratepe-2 – poselenie keramistov serediny I tys. do n.è. pod Samarkandom, *Istoriâ material'noj kul'tury Uzbekistana* 26, 22–41.

Isamiddinov, M.H.
2002: *Istoki gorodskoj kul'tury Samarkandskogo Sogda (problemy vzaimodejstviâ kul'turnyh tradicij v èpohu ranneželeznogo veka i v period antičnosti)*, Tashkent.

Isamiddinov, M.H./Sulejmanov, R.H.
1984: *Erkurgan (stratigrafiâ i periodizaciâ)*, Tashkent.

Kabanov, S.K.
1981: Osvoenie zapadnyh rajonov goroda na ranih ètapah ego žizni, in: Burâkov, Û.F. (ed.), *K istoričeskoj topografii drevnego i srednevekovogo Samarkanda (On the Historical Topography of Ancient and Medieval Samarkand)*, Tashkent, 23–58.

Košelenko, G.A. (ed.).
1985: *Drevnejšie gosudarstva Kavkaza i Srednej Azii* (= Arheologiâ SSSR 7), Moscow.

Litvinskij, B.A.
2001: *Hram Oksa v Baktrii (Ûžnyj Tadžikistan). Tom 2. Baktrijskoe vooruženie v drevnevostočnom i grečeskom kontekste*, Moscow.

Lyonnet, B.
2012: Questions on the Date of the Hellenistic Pottery from Central Asia (Ai Khanoum, Marakanda and Koktepe), *Ancient Civilizations from Scythia to Siberia* 18, 143–173.

2013: La Céramique de la Maison du Quartier Sud-Ouest d'Aï Khanoum, in: Lecuyot, G. (ed.), *Fouilles d'Aï Khanoum. Tom 9. L'habitat* (= Mémoires de la délégation archéologique française en Afghanistan 34), Paris, 179–192.

Moškova, M.G. (ed.)
1992: *Stepnaâ polosa Aziatskoj časti SSSR v skifo-sarmatskoe vremâ* (= Arheologiâ SSSR 11), Moscow.

Melûkova A.I. (ed.)
1989: *Stepi Evropejskoj časti SSSR v skifo-sarmatskoe vremâ* (= Arheologiâ SSSR 10), Moscow.

Mkrtyčev, T.K./Bolelov, S. B.
2006: Stratigrafiâ ûgo-vostočnoj časti citadeli Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 5,* Tashkent, 43–66.

Mokroborodov, V.V.
2010: Raskopki pamâtnikov serediny pervogo tysâčeletiâ do n.è. v Bandyhane, in: Sulejmanov, R.H. (ed.), *Tradicii drevnej i srednevekovoj gorodskoj kul'tury Srednej Azii. Materialy konferencii, posvâŝennoj 70-letiû kafedry arheologii Gosudarstvennogo universiteta Uzbekistana (Traditions of Ancient and Medieval Urban Culture of Central Asia. Proceedings of the Conference Held in Commemoration of the 70th Jubilee of the Chair of Archaeology of the National University of Uzbekistan)*, Tashkent, 105–112.

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Muhamedžanov, A.R./Adylov, Š.T./Mirzaahmedov, D.K./Semenov, G.L.
1988: *Gorodiše Paikend. K probleme izučeniâ srednevekovogo goroda Srednej Azii*, Tashekent.

Muhamedžanov, A.R./Mirzaahmedov, D.K./Adylov, Š.T.
1982: Keramika nižnih sloev Buhary (opyt predvaritel'noj periodizacii), *Istoriâ material'noj kul'tury Uzbekistana* 17, 81–97.

Omel'čenko, A.V.
2006: Keramičeskie kompleksy èllinističeskogo vremeni iz oblasti Keš (po materialam gorodiŝa Podaâtaktepa), *Rossijskaâ arheologiâ* 3, 137–142.

2016: On the Question of Sasanian Presence in Sogdiana. Recent Results of Excavations at Paykand, *Journal of Inner Asian Art and Archaeology* 7, 79–107.

Pidaev, Š.R.
1984: Keramika Džiga-tepe (iz raskopok 1976 g.), in: Kruglikova, I.T. (ed.), *Drevnââ Baktriâ. Vypusk 3. Materialy Sovetsko-Afganskoj arheologičeskoj èkspedicii*, Moscow, 112–124.

1991: Keramika greko-baktrijskogo vremeni s gorodiŝa Starogo Termeza, *Sovetskaâ arheologiâ* 1, 210–224.

Pilipko, V.N.
1990: Ranneantičnoe poselenie Kapyr-kala u Kaušuta, in: Usmanova, Z.I. (ed.), *Drevnââ i srednevekovaâ arheologiâ Srednej Azii (k probleme istorii kul'tury) (Ancient and Medieval Archaeology of Central Asia (on a Question of Cultural History)*, Tashkent, 60–76.

Pugačenkova, G.A./Belâeva, T.V.
1987: K stratigrafii Kumyškent-tepe, *Sovetskaâ arheologiâ* 4, 74–86.

Pugačenkova, G.A./Rtveladze, È.V. et al.
1978: *Dal'verzintepe – kušanskij gorod na ûge Uzbekistana*, Tashkent.

Rapin, C./Isamiddinov, M.
2013: Entre sédentaires et nomades: les recherches de la Mission archéologique franco-ouzbèke (MAFOuz) de Sogdiane sur le site de Koktepe, in: Bendezu-Sarmiento, J. (ed.), *L'Archéologie française en Asie centrale. Nouvelles recherches et enjeux socioculturels* (= Cahiers d'Asie centrale 21/22), Paris, 21–22, 113–133.

Rotroff, S.
1997: *Hellenistic Pottery: Athenian and Imported Wheelmade Table Ware and Related Material. Part 2. Illustrations* (=Athenian Agora 29), Princeton.

Rtveladze, È.V./Bolelov, S.B.
2000: Keramičeskij kompleks èpohi èllinizma na Kampyr-tepe v Severnoj Baktrii, in: Alpatkina, T.G. et al. (ed.), *Srednââ Aziâ. Arheologiâ, istoriâ, kul'tura. Materialy meždunarodnoj konferencii, posvâŝennoj 50-letiû naučnoj deâtel'nosti G.V. Šiškinoj (Central Asia. Archaeology. History. Culture. Proceedings of the International Conference Held in Commemoration of the 50th Jubilee of Scholarly Endeavor of G.V. Shishkina)*, Moscow, 99–104.

Rutkovskaâ, L.M.
1958; Parfânskaâ keramika Drevnego Merva, *Sovetskaâ archeologiâ* 3, 120–133.

Šiškina, G.V.
1969: O mestonahoždenii Marakandy, *Sovetskaâ archeologiâ* 1, 62–75.

1975: Èllinističeskaâ keramika Afrasiaba, *Sovetskaâ archeologiâ* 2, 60–78.

Škoda, V.G.
2009: *Pendžikentskie hramy i problemy religii Sogda (V–VIII vv.)*, St. Petersburg.

Semenov, G.L.
1996: *Studien zur sogdischen Kultur an der Seidenstrasse* (= Studies in Oriental religions 36), Wiesbaden

Sulejmanov, R.H.
2000: *Drevnij Nahšab. Problemy civilizacii Uzbekistana VII v. do n.è.–VII v. n.è*, Tashkent/Samarkand.

Sverchkov, L.M.
2008: The Kurganzol Fortress (on the History of Central Asia in the Hellenistic Era), *Ancient Civilizations from Scythia to Siberia* 14, 123–191.

Sverčkov, L.M.
2012: *Kurganzol-krepost' Alexandra na ûge Uzbekistana*, Tashkent.

Sverčkov, L.M./Voskovskij, A.A.
2006: Stratigrafiâ, periodizaciâ i hronologiâ nižnih sloev Kampyrtepa, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 5*, Tashkent, 21–46.

Sverčkov, L.M./Sin, U./Boroffka, N.
2013: Gorodiše Kizyltepa (VI–IV vv. do n.è.): novye dannye, in: Buharin, M.D. (ed.), *Scripta antiqua. Voprosy drevnej istorii, filologii, iskusstva i material'noj kul'tury. Tom 3. K ûbileû Èdvarda Vasil'eviča Rtveladze*, Moscow, 31–74.

Tihonov, R.V.
2011: K voprosu o datirovke ranneèllinističeskih keramičeskih kompleksov Baktrii, in: Rtveladze, È.V. (ed.), *Materialy Toharistanskoj èkspedicii. Vypusk 8*, Elets, 202–216.

2012: Grečeskie tipy v èllinističeskoj keramike Baktrii, *Stratum plus* 3, 275–289.

Usmanova, Z.I.
1992: New Material on Ancient Merv, *Iran* 30, 55–63.

Vorob'ëva, M.G.
1967: Keremika, in: Tolstov, S.P./Vajnberg, B.I. (ed.), *Koj-Krylgan-Kala – pamâtnik kul'tury drevnego Horezma IV v. do n.è.–IV v. n.è.* (= Trudy Ho-

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rezmskoj arheologo-ètnografičeskoj èkspedicii 5), Moscow, 102–131.

1973: *Dingil'dže. Usad'ba I tysâčeletiâ do n.è.* v *Drevnem Horezme* (= Materialy Horezmskoj èkspedicii 9), Moscow.

Voskovskij, A.

2002: Kompleks keramičeskih sosudov iz nižnego sloâ gorodiša Kampyrtepa, in: Širinov, T.Š. (ed.), *Arheologičeskie issledovaniâ v Uzbekistane. Vypusk 2. 2001 god*, Samarkand, 48–51.

Zejmal', T.I.

1971: Drevnie i srednevekovye kanaly Vachšskoj doliny, in: Ol'derogge, D.A. (ed.), *Srednââ i Central'naâ Aziâ. Geografiâ, ètnografiâ, istoriâ* (= Strany i narody Vostoka 10), Moscow, 37–57.

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Preliminary Results of Archaeological Investigations at Vardāna

A focus on the Early Medieval period

Silvia Pozzi, Sirojiddin Mirzaachmedov, and Munira Sultanova

Abstract: The archaeological site of Vardanzeh (ancient Vardāna) is located on the northern border of the Bukhara oasis (Uzbekistan), which formed the westernmost territory of ancient Sogdiana. During the Early Medieval period (5th–8th centuries CE), this settlement controlled the surrounding territory constituting a political entity known as the "villages of Obavija". Descriptions of Vardāna are present in several Islamic sources, suggesting its antiquity, but also its strategic and political role, particularly relevant at the time of the Arab advance in the region. This paper presents the results of the archaeological investigations carried out at the citadel of Vardāna between 2009 and 2016. In particular, it focuses on the Early Medieval building phase and on the rich corpus of pottery and finds that reflect cultural influences and ties with the Sassanid Empire, the Middle Syr Darya region and the Turks.

Keywords: Vardāna, Early Medieval period, Sogdiana, Turks, Sassanids.

Резюме: Археологический памятник Варданза (древняя Вардана) расположен на северной границе Бухарского оазиса (Узбекистан), который входил в состав западной территории древней Согдианы. В период раннего средневековья (5-8 вв. н.э.) это поселение контролировало окружающую территорию, которая представляла собой политическую силу, известную как "села Обавия". Описания Варданы присутствуют в нескольких исламских источниках, что свидетельствует не только о древности этого места, но и о его стратегической и политической роли, что особенно важно для времени арабского продвижения в регионе. В данной статье представлены результаты археологических исследований на цитадели Вардана между 2009 и 2016 годами. В частности, рассматривается ранняя средневековая стадия строительства и богатые комплексы керамики и других находок, которые отражают культурные влияния и связи с империей Сасанидов, населением области Средней Сырдарьи и тюрками.

Ключевые слова: Вардана, раннее средневековье, Согдиана, тюрки, сасаниды.

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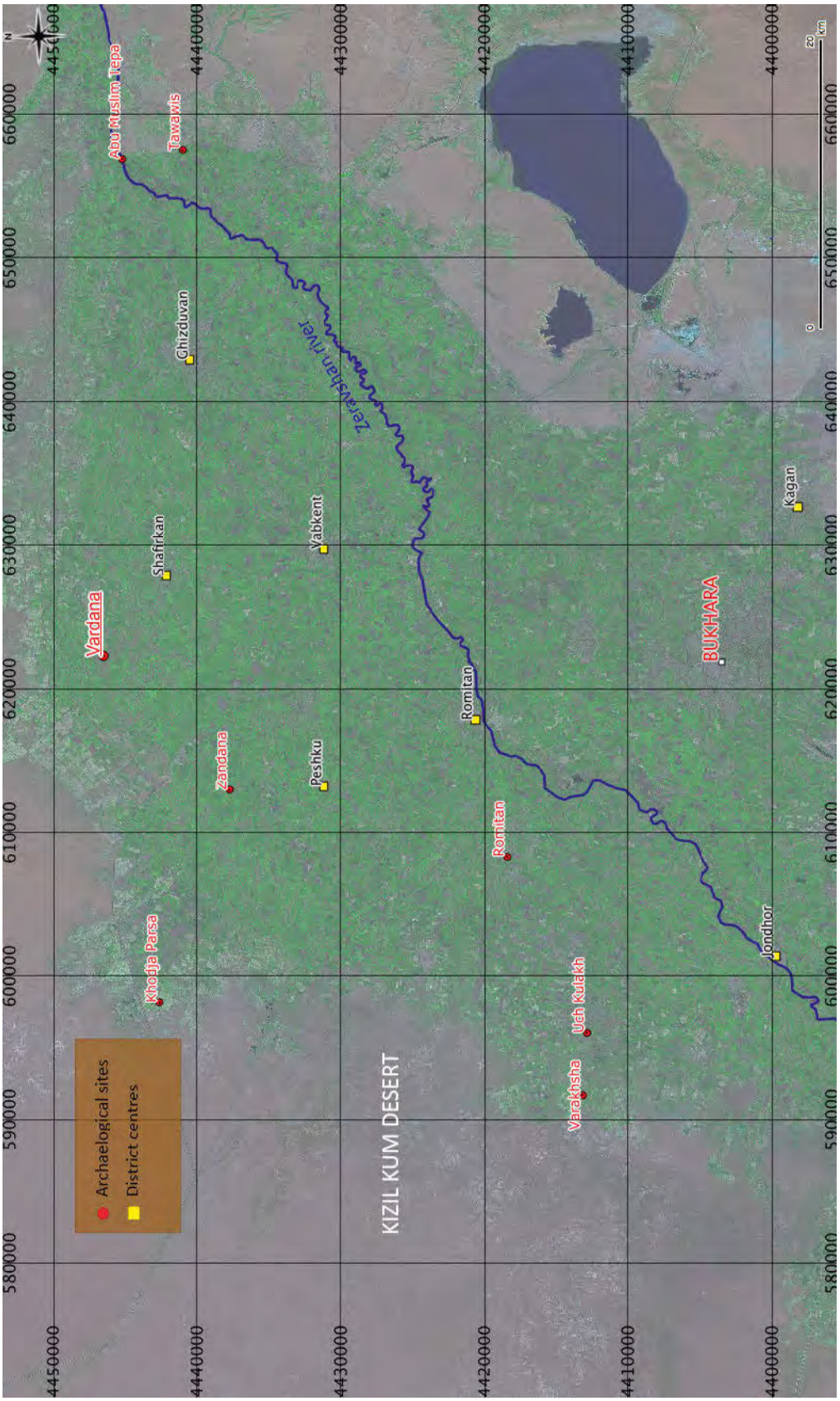


Fig. 1: Map of the Bukhara oasis (Bing satellite image background, QG is elaboration of the author).

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Fig. 2: Citadel of Vardāna (from top): southern side; eastern gate; detail of brickwork in the north-west corner (© The Society for the Exploration of EurAsia).

1 Geographical and historical outline

Locally known as Kurgan Vardanzeh (or simply Vardanzeh), this remote site located on the northern fringes of the Bukhara oasis (Uzbekistan) was one of the most politically relevant towns of the region during the pre-Islamic period, when it was known as Vardāna. Since 2009, this site has been subject to an extensive archaeological excavation by a Swiss-Uzbek expedition[1] promoted by The Soci-

na, I would like to express my gratitude to Dr Christoph Baumer, The Society for the Exploration of EurAsia, and to all the sponsors that have generously supported the archaeological excavation at Vardāna since 2009. Special thanks go also to Amriddin Berdimuradov, director of the Institute of Archaeology of the Academy of Science of Uzbekistan in Samarkand, to the co-director of the expedition Djamal Mirzaachemdov, and to all the colleagues that during these years participated in the expedition (Alexei Savchenko, Shukrat Adylov, Maxuma Niyazova, Siroj Mirzaachmedov, Munira Sultanova, Dilmurod Kholov, and Anvar Athakodhjaev). Finally, I would like to express my deep gratitude to Prof Bruno Genito (Naples University l'Orientale) for his scientific coordination and for his essential administrative support.

1 As co-director of the archaeological expedition at Vardā-

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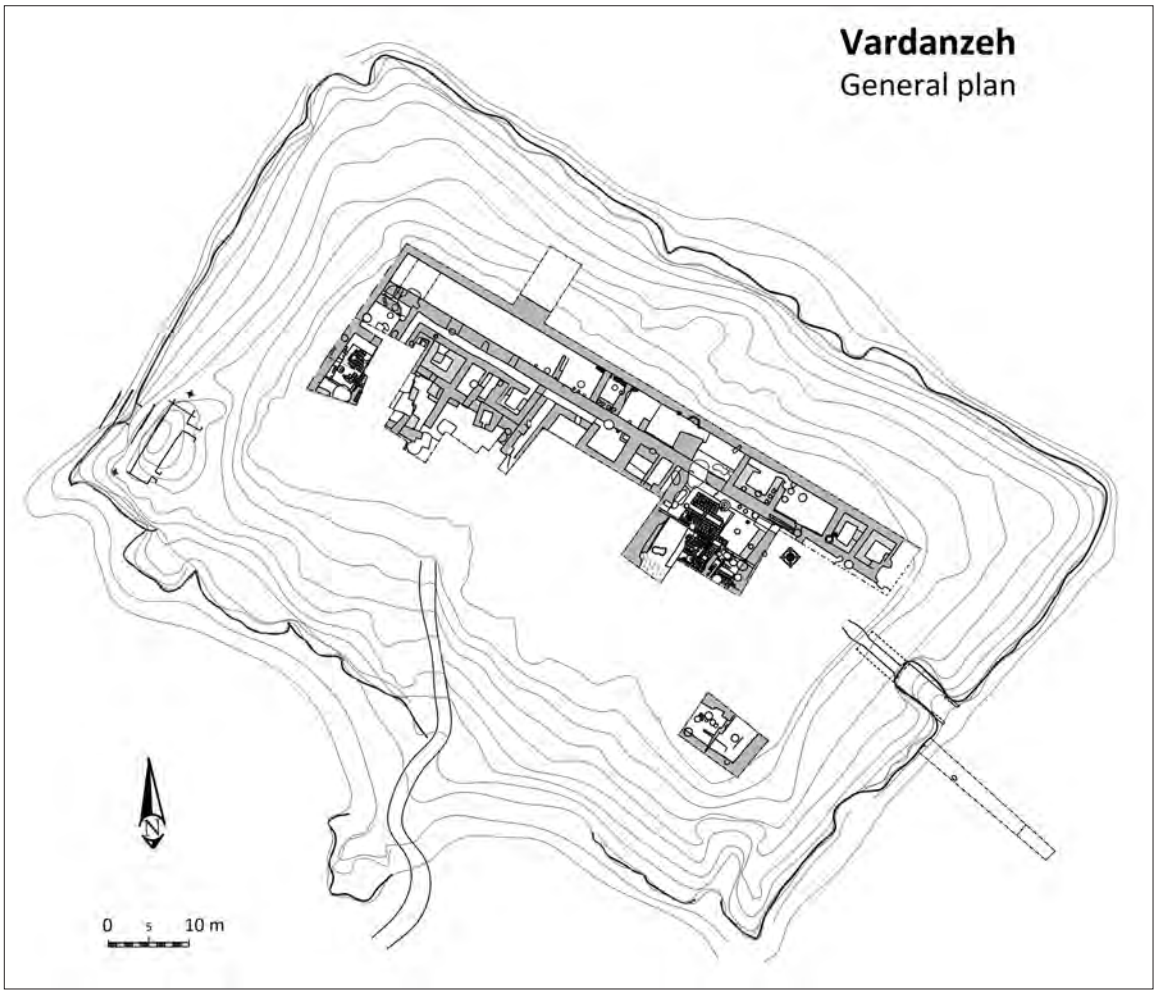


Fig. 3: Vardāna, general plan (from Cerasuolo 2009: fig. IV.34, updated by Mirzaachmedov).

ety for the Exploration of EurAsia in collaboration with the Institute of Archaeology of the Academy of Science of Uzbekistan, Samarkand. Vardanzeh (coordinates: 40°9′50.97″N, 64°26′16.80″E) belongs to the Shafirkan *tuman* (district), one of the eleven districts of the Bukhara region, and it is only 11 km from the present-day uncultivated lands, representing the northern most impressive archaeological monument of this area (**Fig. 1**).

The site was built at the end of the Shapurkham canal, recorded by the Islamic literary sources[2] as one of the ancient canals of the Bukhara oasis, still existing but now dried out in its last section. Currently, the proper site (ca. 7 ha) consists of a citadel and a lower settlement and appears isolated from the surrounding cultivated fields, as the Uzbek government, aware of its archaeological potential, has prevented the use of a large portion of the surrounding land (170 ha). The massive citadel, 15 m high, has a rectangular plan (0.8 ha) and its vertical walls, partially eroded by the forces of nature, still show the original brickwork (**Fig. 2**).

A ditch, now buried by the sand, once surrounded the whole citadel. A north-east to south-west oriented lower settlement extends from the citadel to the south, its morphology indicating that it has two different parts. The first is a walled *shahristan* of rectangular shape (2 ha), separated from the citadel by two depressions; the second (4.5 ha) spreads irregularly south of the first one and could be interpreted as a second *shahristan* or a *rabad*, the suburbs of the medieval city. The only modern structures are located in the eastern part of the lower settlement, on the border between the two *shahristans*, and consist of a mausoleum and in few annexed timber-frame constructions. The mausoleum, made of baked bricks, is named after Burk-i-Sarmast, a local Muslim sage, and is still visited daily by local people who offer devotional meals (*khudoi*) as thanksgiving to Allah. On top of the citadel stands a marble gravestone, also an object of local devotion.

The modern name of the site and its peculiar geographical location have facilitated its identification with the ancient town of Vardāna mentioned

2 Ibn Hauqal (Ibn Ḥawqal: 466–467), Naršaḫī (Naršaḫī: 31); Iṣṭakhrī (Al-Iṣṭaḫrī: 310).

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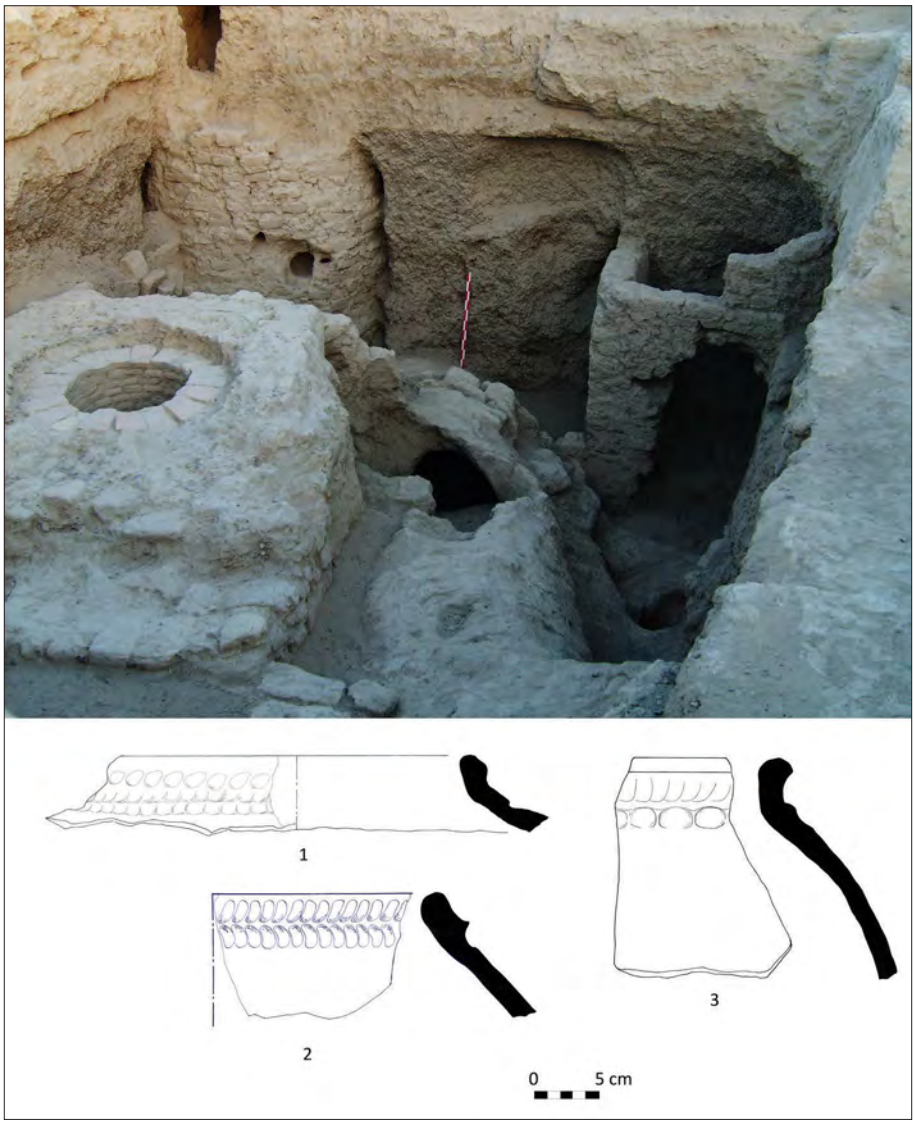


Fig. 4: Architectural structures found beneath fluvial pebbles (top, view from west): (**1**) Rim of a jar found inside the platform beneath the ancient building phase; (**2**) Rim of a jar found on the ancient floor; (**3**) Rim of a jar found on the ancient floor of the Early Medieval phase (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

in the works of Islamic historians and geographers such as al-Iṣṭakhrī (Al-Iṣṭaḫrī: 310), Ibn Hauqal (Ibn Ḥawqal: 466–467), Hamadani (Al-Hamadānī: 421) and as-Samani (Kamaliddinov 1993: 66). As pointed out by Marquart (1898: 62), and supported a century later by Naymark (2001: 209–212), Vardāna is also quoted in the "Travels" of Xuan Zang under the name of *Fa-ti* (Xuanzang: 35), one of the four political entities active in Bukhara oasis between the 7th and the 8th centuries CE. According to Naršaḫī (Naršaḫī: 16, 31–32), the author of *Tārīḫ-i Buḫārā* (The History of Bukhara), this important trading centre was located on the frontier with Turkistan and in the Early Medieval period[3] and was the capital of the Obavija Feud, governed by the Vardān Khudāh dynasty. The foundation legend narrated by the same author (Naršaḫī: 31–32) reports that the origins of this royal dynasty go back to a Sassanid prince who obtained these lands from the king of Bukhara. It is worth noting that this dynasty represents the only royal family besides Bukhār

3 This definition is used mostly in Soviet literature to indicate a period of time usually extending from the 5th and the 8th centuries CE, during which Sogdiana experienced a strong urban, commercial, and artistic development, together with a cultural homogeneity (see Brykina 1999: 5). The beginning of this period around the end of the 4th to the beginning of the 5th centuries CE coincides with the resurgence of Sogdiana after a period of economic crisis (on this, see Grenet 1996: 372) and ends in the 8th century with the Arab conquest of the region.

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Khudāh mentioned in the *Tārīẖ-i Buẖārā*. Its power increased significantly, especially at the time of the Arab conquest of the oasis, as confirmed by Ṭabari, who cites Vardān Khudāh as *malik* (king) of Bukhara (Ṭabarī: 150–151). It is also possible to infer from the records of Naršaẖī that Vardān Khudāh was an opponent of Bukhār Khudāh and usurped his throne between the 7th and the 8th centuries CE. This information accords well with the political landscape of Sogdiana during the Early Medieval period, which was characterised by a fragmentation of power and by local rivalries. Another aspect of Vardāna to be inferred from the literary sources, which correctly reveal the cultural and political scenario of Sogdiana in those centuries, is the Turkic origin of Vardān Khudāh (Naršaẖī: 10). In the middle of the 6th century CE, the first Turk Empire entered the political and economic affairs of Sogdian territories, laying the foundation of a long-lasting relationship with the Sogdian ruling class. The presence of Turks or rulers of Turkic descent governing Sogdian principalities[4] (De la Vaissière 2005: 200) is evidence of this relationship, as is the Turco-Sogdian military alliance, which was particularly active at the time of the Arab advance in Sogdiana.

2 Stratigraphy

The archaeological research carried out at Vardāna between 2009 and 2016 focused mainly on the citadel, where a stratigraphic sequence of occupation dating from the late 4th/beginning of the 5th to the late 19th/beginning of the 20th centuries, when the citadel was still used for burials and for temporary shelter, was identified. The more consistent and best-documented building period, which is the focus of the present paper, is represented by a structure with rectangular plan (probably a palace) discovered on top of the citadel[5] (**Fig. 3**); its excavation is still in progress. Currently, we are inclined to date the construction of this palace to the 5th to the 6th centuries CE (*first building phase*), while its abandonment could be placed around the 8th century CE. An important change of the original layout (*second building phase*) probably occurred between the 7th and the 8th centuries, even though the material unearthed so far is still not enough to formulate a more detailed chronology.

However, the most ancient structures detected so far at Vardāna can probably be dated to the beginning of the 5th century CE, if not earlier, at the end of the 4th century. The remains of this ancient building are still scarcely investigated, and the general layout of the structures is not clear. Nevertheless, the architectural structures, detected in several trenches, were always underneath a thick layer of fluvial pebbles and sand. The widest trench that displayed these ancient constructions is located in the central part of the citadel, where a wall 3 m high, oriented north-south, was identified. Some architectural structures located to the east of this wall, namely two underground tunnels, a well built with baked bricks, and a circular structure, possibly a tower, have also been found (**Fig. 4:1**). Here, the fluvial pebbles and sand buried the ancient structures up to 3 m deep and apparently no layers of debris were found on the ancient floor, so that the gravels were laid directly on it. The excavation of a test trench on this floor revealed the presence of an underlying deposit of very compact clay that contained sporadic *pakhsa* blocks. This deposit, excavated down to a depth of 4 m, probably constituted the platform on which the ancient structures were built.[6] The few pottery fragments retrieved from these earlier layers of occupation are similar to the pottery found in the oldest levels of occupation of the Early Medieval palace (**Fig. 4:2–3**), suggesting that there was not a prolonged period of abandonment between the two building periods. Part of a corridor following the external walls that belonged to the ancient building period was identified in the south-west corner of the citadel, also buried under a thick layer of fluvial pebbles and sand. It was most probably during the Early Medieval period that the external wall that delimited this corridor increased in thickness up to 5 m, as attested in the north-west external corner of the citadel thanks to the partial collapse of the brickwork. The use of such an impressive quantity of gravels and sand is not so frequently attested and it would imply the quick burial of the ancient structures. Interestingly, in the Bukhara oasis, this type of filling is attested in the core of one of the excavated sections of Kampirak, the long oasis wall that protected the territory of Bukhara. According to Stark and Mirzaahmedov (2015: 93), who excavated a section of this wall near Kizil Tepa, the rest can be dated to the end of 4th/beginning of the 5th centuries CE, a temporal framework that fits in well with the dating proposed for the discovered structures at Vardāna.

Early Medieval palace, first building phase

This construction (internally ca. 70 × 34 m), oriented east-west and occupying the whole upper surface of the citadel, was built on a platform formed by burying earlier structures (see description above) under a layer of fluvial pebbles and sand 3 m thick

4 On this, see also Stark 2007.

5 The later phases of occupation will be analysed in detail by Dž.K. Mirzaachmedov in his contribution to this publication.

6 This deposit was not entirely excavated; it was decided to stop at the depth of -10.85 m for safety reasons.

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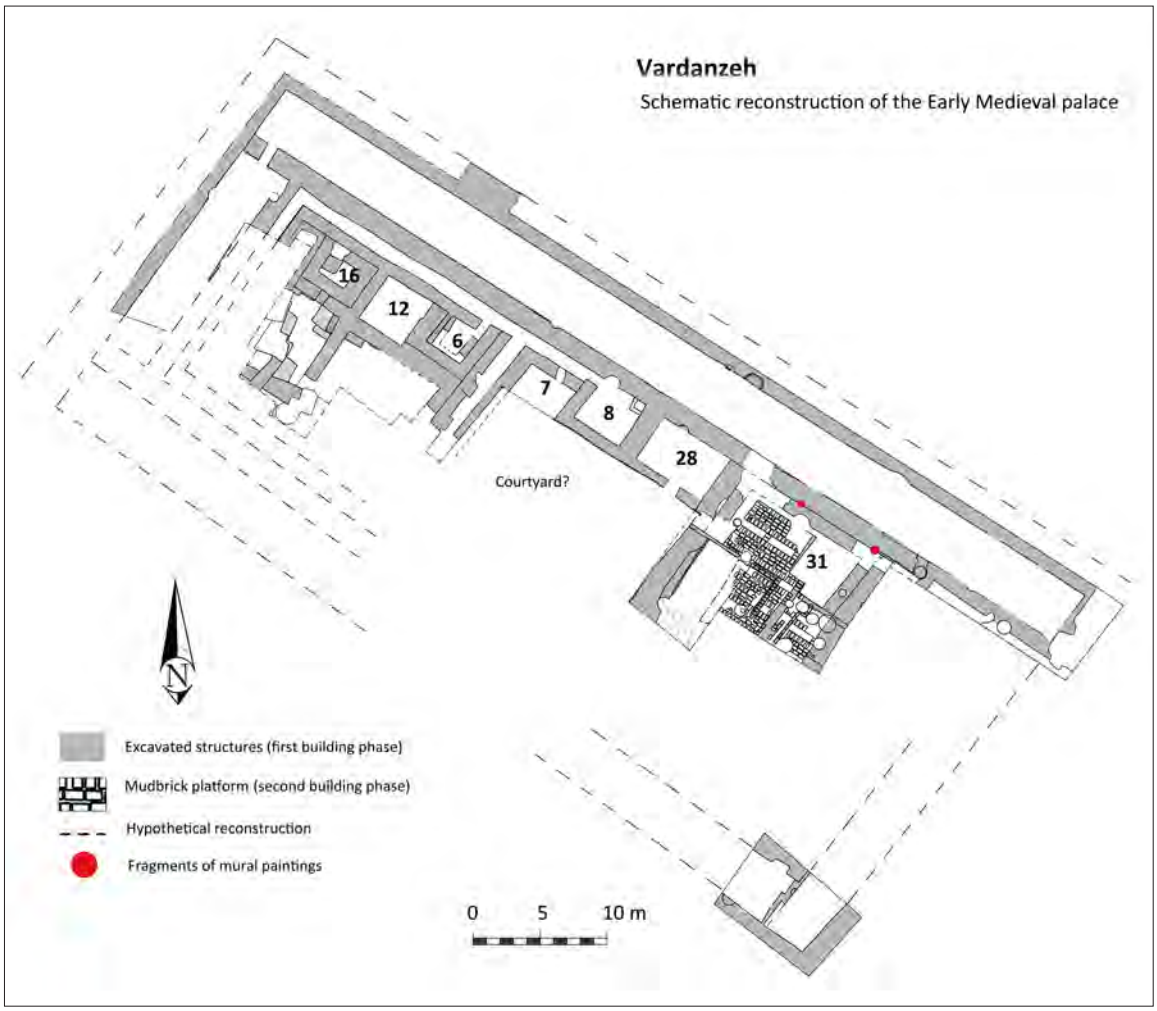


Fig. 5: Schematic reconstruction of the Early Medieval palace
(topography S. Mirzaachmedov on O. Cerasuolo 2009 general plan).

(**Fig. 4**). A middle layer of rammed earth around 0.50 m thick separated the pebbles and sands from the walls of the palace. So far, the team has unearthed the northern, western and south-eastern sides of the palace, revealing the presence of massive walls made of mud bricks and *pakhsa* blocks. The external profile of these walls is very eroded and the original thickness is still debated. On the northern side, the perimeter wall was almost 3 m thick, as attested by a small test trench; by contrast, the eastern side the wall, cut by two large holes, was thicker and probably extended up to the eastern limit of the citadel. The perimeter walls delimited an inner corridor 4 m wide that most likely characterised the whole perimeter of the palace, as can be inferred by its discovery on the western, northern and southern sides of the palace. Initially, the corridor functioned as a surveillance area and its western and northern sections were connected through a passage located in the westernmost part of the northern wing. The walls are preserved on the western side up to 2 m in height and 1 m on the northern side, and are without loopholes. Interestingly, three heaps of fluvial cobbles, each 8–10 cm long, were found at three points on the floor of the northern corridor. Each heap contained around 10–15 cobbles of reddish colour and can be interpreted as a reserve of projectiles for slings. The corridor encircled an inner dwelling area and no access to this inner part of the palace has yet been found on either section of the excavated corridor.

Currently, it has been ascertained that the proper dwelling area consisted of three *sectors* (hereafter named the *western*, *central* and *eastern sectors*), each of them showing specific features and spatial arrangements. The *western sector* probably represented the private rooms; side-corridors encircled it as well on the western, northern and eastern sides. The eastern side-corridor, oriented north-south, divided the western sector from the central sector. Two square rooms (6 and 12), one of them with *sufa*, opened northward into the northern side-corridor, while another room with *sufa* (16) opened south-

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Fig. 6: Mud brick platforms in the eastern sector (top); rooms created inside the northern surveillance corridor (below) (copyright The Society for the Exploration of EurAsia).

ward into a transit area (17) leading to a wide space located to the south of rooms 6 and 12.

The *central sector*, highly damaged by later burials and holes, consisted of a courtyard delimited on the northern side by three rooms (7, 8 and 28). Room 8 was connected to the western wing of the palace through the northern side-corridor, while the remaining rooms opened onto the courtyard, delimited to the west by the eastern side-corridor and to the east by a massive wall 2.8 m thick that divided the *central sector* from the *eastern sector*.

The *eastern sector*, where the last archaeological campaigns concentrated their excavations, originally housed a representative room (31), recognisable by the identification of two fragments of a mural painting that probably decorated a large portion of Wall 29, the long wall that divided the surveillance corridor from the dwelling area. The layout of the room that housed the mural paintings is still unclear as the area underwent a series of later reconstructions. Two fragments (33 × 29 cm, 72 × 57 cm) were removed from the wall for conservation purposes. They are both very badly preserved and unfortunately no clear decorative motif is recognisable on the white background, apart from few lines of red, black and light blue. The poor state of preservation is essentially due to two events that occurred in this area. At one point in time, the wall that supported the paintings was seriously damaged in its upper part, being preserved to a height of 1.90 m.

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Consequently, new masonry was built on top of it, replacing the missing parts. The restored wall was re-plastered, both in the older and in the new parts, and on that occasion the surface of the older wall that still displayed the remains of mural paintings was "scratched" to facilitate the attachment of the new mud plaster, damaging the paintings. The second event that undermined the conservation of the paintings was a fire that occurred in this area at a later time (see below). The new mud plaster that covered the mural paintings was completely scorched, causing the almost total disappearance of the underlying colours. To these events we can also add the destruction of the wall caused by the holes made later, which reduced even more the surface that might have preserved more traces of paintings.

Early medieval palace, second building phase

The *second building phase* attests to a re-building activity well documented both in the surveillance corridor and in the proper inner palace (**Fig. 6**). As far as the surveillance corridor is concerned, at one point in time the passage connecting the northern and the western wings was blocked, the floor level of the western corridor raised by 1 m, and two partition walls were built, creating two new rooms. The same situation was found in the eastern part of the northern surveillance corridor, where four new rooms were created. Three of these rooms had *sufa* and yielded a large quantity of pottery, in particular storage and table pottery. As in the surveillance corridor, the layout of the dwelling area also underwent important changes. In the *western sector*, part of the northern side-corridor was blocked off and Room 12 partitioned into two smaller rooms. In the *central sector*, Room 8 was sealed and Room 28 partitioned into three spaces. However, the most important changings occurred in the *eastern sector*, where the team unearthed some rooms used for storage and cooking, built on the earlier representative room decorated with mural paintings.

The storage function of this area is implied by the several jars (*khum*) found within the archaeological context, buried a few centimetres underneath the floor, and by the large quantity of pottery, organic burnt material (straw baskets, cotton fabrics and padding), bronze and iron tools, bone spindle whorls and millstones found on the floors. Partition walls divided the earlier space into three rooms (23, 26 and 27), where several burnt wooden beams were found on the floors still in their original location. Possibly they were part of some timber-framed construction used to create small partitions inside the rooms and their preservation is due to a large fire that put an end to the occupation of this area, the same fire that also caused the final destruction of the mural paintings. The excavation revealed that the storage rooms were built on mud-brick platforms whose brickwork followed a precise scheme. Each platform, only 0.30 m high, was made by an external row of stretchers, while the inner brickwork consisted of three parallel rows of headers. Empty spaces 0.55 m large separated each platform from the other, and all the platforms were levelled on top with rammed clay and had well-plastered lateral sides. Currently, it is difficult to ascertain if the platforms were built with the sole function of supporting the wooden beams that belonged to the overlying storage rooms (some of the beams in situ were found exactly in the middle of the platforms) or if they may have played other roles. Be that as it may, the remarkable functional reconversion of this representative space into a storage area would suggest that a significant change in the historical conditions of Vardāna might have occurred.

3 Pottery and artefacts

The preliminary dating of the pre-Islamic building periods identified in the citadel of Vardāna that we propose in this contribution is based mainly on pottery comparisons, though the specific local traits of this pottery do not always allow precise analogies. A few coins of Asbar type,[7] unfortunately never found on floors but inside the filling layers, as well as the results of C14 analyses[8] carried out on burnt wood from the storage rooms in the *eastern sector* of the palace, also helped to define the chronological framework of the palace to the Early Middle Ages (5th–8th centuries CE). In the following discussion, we shall focus on a selection of artefacts that have contributed to the fixing of some chronological moments that are particularly relevant to outlining the different cultural contributions recognisable in the material evidence unearthed at Vardāna. The ceramic material in the layers underneath the pebbles and sand is poor and consists mainly of fragments of modelled *khums* manufactured in a well-baked reddish clay (**Fig. 4:1–2**). The ornamental features of this production, characterised by rims decorated with finger impressions and black or red stripes of slip poured on the body of the vessels, are comparable with those in the northern area of the Bukha-

7 This series of coin started to circulate in the middle of the 5th century CE and their imitations were found up to the 8th century CE (see Naymark 2010: 25, Figs. 12–13).

8 C14 analysis was carried out on a single sample of burnt wood (KV 2013-SU 334) found in the storage room located in the eastern sector; more specifically, it consisted of a fragment of burnt wooden beam. The analysis was executed in 2014 in the Centre of Dating and Diagnostic (CEDAD), Department of Engineering of Innovation, University of Salento, Brindisi (Italy), under the direction of Prof L. Calcagnile. The calibrated dating indicates a frame between 410 and 610 CE.

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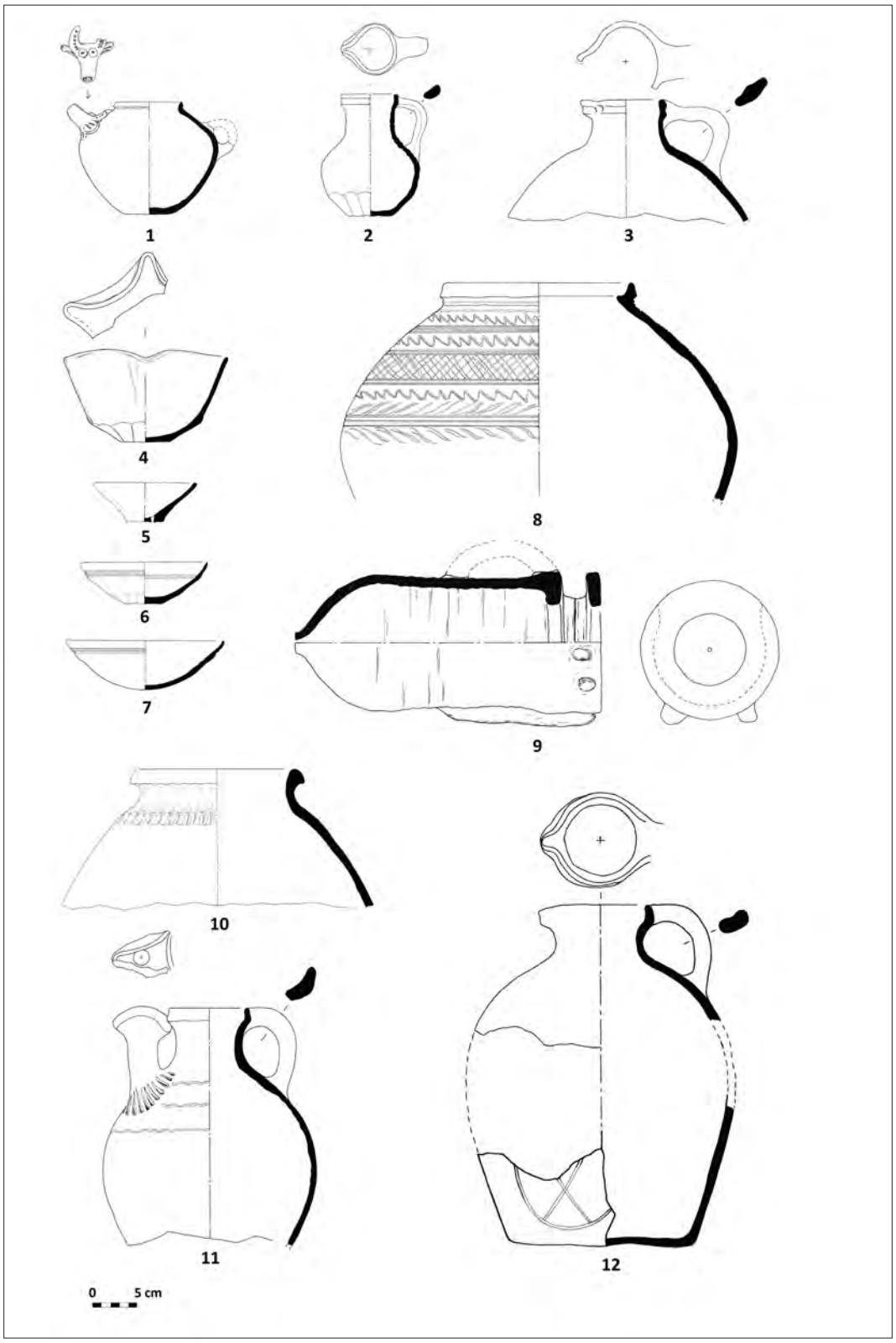


Fig. 7: Pottery from the Early Medieval palace: (**1**) small pot with bull *protome* spout; (**2**) juglet; (**3**) jug; (**4**) bowl with festoon-like rim; (**5**) filter; (**6, 7**) bowls; (8) globular jar; (**9**) mouse trap; (**10**) jar; (**11**) jug with moulded spout; (**12**) water jug (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

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ra oasis, for instance at the sites of Kizil Kir-Setalak (Kul'tura 1983: 33, 100). These sites date from the 3rd to the 6th centuries CE and their development is connected with the arrival of people from the regions of the Central and Lower Syr Darya area who belonged to the Kaunči and Djeti Asar cultures.[9] The variety of modelled rims found in the lower levels of Vardāna complicates any attempt to produce an effective typology. Considering all this, the suggested preliminary dating of this ancient building period is between the end of the 4th century CE to the beginning of the 5th. The first building phase of the Early Medieval palace yielded scanty ceramic fragments, mostly modelled jars and bowls[10] that would suggest a chronological framework not so distant from the earlier one (**Fig. 4:3**).

Our knowledge of the pottery production of the second building phase of the palace is considerably better thanks to three consistent ceramic complexes identified in the *eastern sector*[11] (**Fig. 7**). The rich variety of shapes allows us to date this phase to around the 7th to the 8th centuries CE. Similarities with the coeval urban productions of Sogdiana,[12] such as at Paikend (Muhamedžanov et al. 1988: 155–163) and Panjikent (Bentovič 1964: 265–298), are displayed in particular by the globular jars decorated with wavy lines, the bowls and the tableware characterised by petal-like cuts at the base of the vessels. A bowl with festoon-like rim imitating metal vessels (**Fig. 7:4**) and a globular pot with spout decorated with a bull *protome* (**Fig. 7:1**) represent two indisputable examples of classic "Sogdian" vessels dating to this period (Bentovich 1964: 284, 287). Besides the pottery that is in line with the more widespread Sogdian production of these centuries, there is a consistent bulk of pottery, mainly used for storage purposes, which seems to follow the pottery tradition of the earlier building phases. The predominant group is that of the *khums,* decorated with finger impressions, now made on the potter's wheel (**Fig. 7:10**). The fabric is coarser than the one attested in the earlier jars and the firing conditions were not uniform, as shown by the grey core and the red borders of the body clay visible in the fracture of the sherds. The vessels have an ovoid shape, a barely protruding neck, and a slightly convex or flat foot. The external surface is rough and usually of whitish colour, suggesting that the vessel surface was moistened immediately before the firing process. As with earlier specimens, stripes of slip are applied to the body, forming irregular streaks. The Kizil Kir traits already present in the earlier pottery production evolved into a characteristic local style in which the lower finger impressions became more elongated and slightly oblique. On the neck, the finger impressions, small and circular, are not very deep. Sometimes the rounded rim presents pinched horizontal decorations. Jugs and juglets probably used for storage purposes were made in the same material and present the red stripes of slip poured on the surface (**Fig. 7:11, 12**).

Another feature detected on the pottery from both Vardāna and Kizil Kir-Setalak[13] is the presence of incised symbols, commonly known as *tamgha/nishan*. There are connections with the Middle Syr Darya region again, in fact the most important repertoire of such symbols comes from Tashkent area (Gricina 1984, 86) and from Sidak, in the Turkestan oasis (southern Kazakhstan) (Smagulov/Âcenko 2014), though *tamgha* were also found elsewhere in Uzbekistan in earlier times (Ilyasov 2010: 213–223; Kabanov 1981: 20–22, 64). After many years of excavation, the repertoire of symbols found at Vardāna has become quite large, even if the symbols are not always complete (**Fig. 8**).

Most of them are incised on the shoulders of storage jugs and *khums*, but they can also be present on the lower part of the body of jugs and pots, on the lids, on the flasks and on the bowls. In one case, there were two different symbols incised on the same vessel, one placed on the shoulder and one on the lower part, while in two cases there were more symbols placed one next to the other. On one small jug, the same symbol was represented twice, in a specular way (**Fig. 8:23**). Some of them were simply traced using the fingers, while others were incised with a tool, possibly a wooden stick. The accuracy used in carving the symbols is also different. Interestingly, at Vardāna we identified some recurrent symbols. Concentric circles that ended in a pointed motif were found on two jars and on a jug (**Fig. 8:17–19**), while semicircles were identified on the lower part of a bowl (two semicircles) and on the lower part of a pot with rounded foot (three semicircles), all dating to the 7th to the 8th centuries CE. Interestingly, we identified a symbol that encompassed a broad period of time. It consists in a U-shaped motif cut by a horizontal line and was found both on two vessels (a pot and a jug) dating to the 7th to the 8th centuries CE (**Fig. 8:4, 5**) and on the shoulder of a large *khum* datable to the earlier period (**Fig. 8:3**). It is possible that some of the Vardāna symbols could simply be potter's marks, as in the case of the double appearance of symbols (one of them could be a potter's mark), but the others could be interpreted as talismanic signs or as family/clan heraldic displays,

9 On this, see Levina 1971 and 1996.

10 For comparisons, see Silvi Antonini et al. 2009: Figs. 19, 31–32. See also Kult'ura 1983: 100.

11 A complex of pottery was found on the burnt floor of the storage rooms; the other two were found in two rooms with sufa in the northern corridor.

12 For a general overview, see Sokolovskaâ (2015: 237–247) and Brykina (1999: 269–271).

13 At Kizil Kir-Setalak there were found 48 symbols incised on jars, jug and flasks. For further discussion, see Kul'tura 1983: 106–107.

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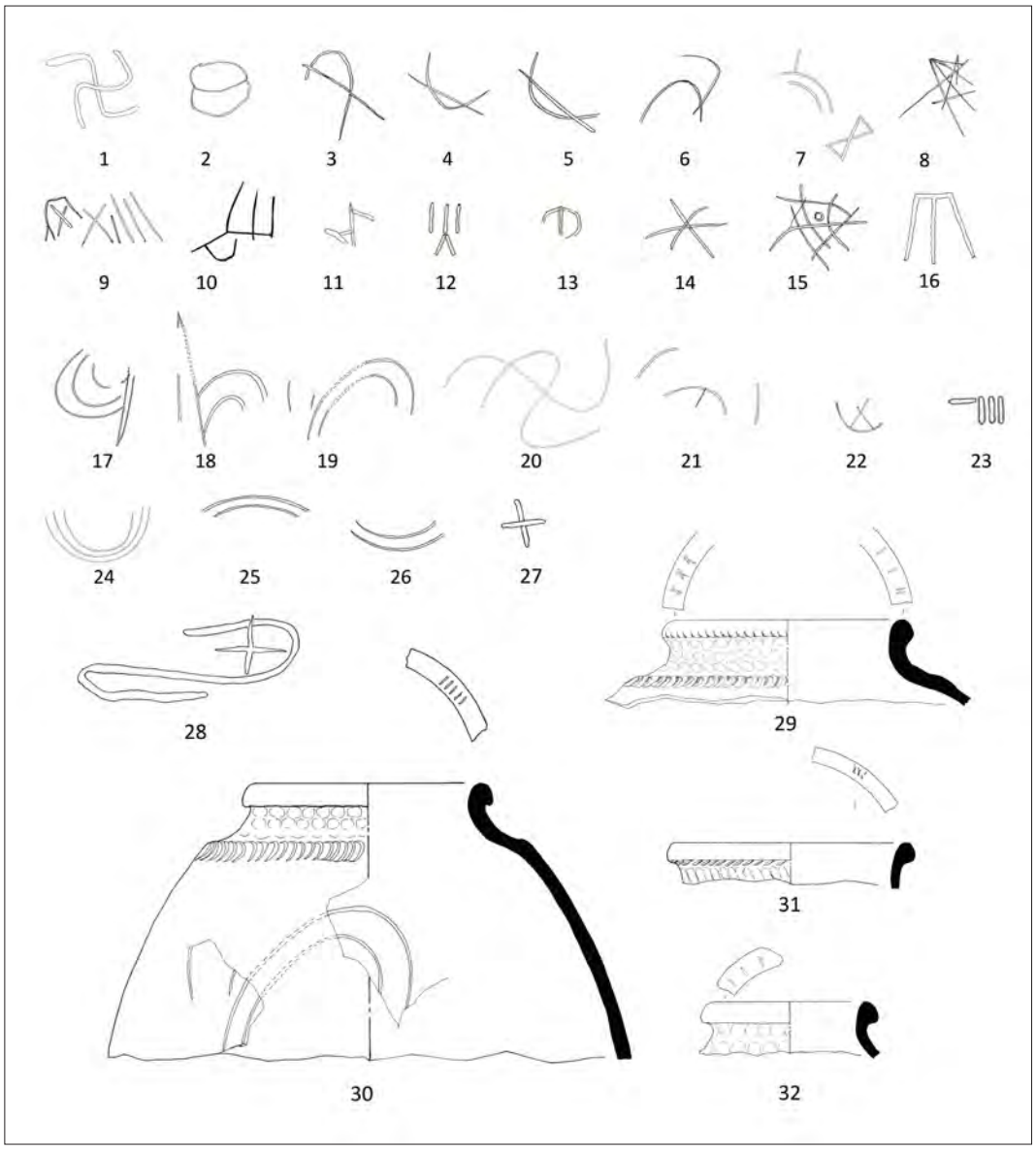


Fig. 8: Incised signs found on the pottery from Vardāna
(drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

similar to crests, as possibly the symbol detected on vessels belonging to different periods. We can also advance the hypothesis that some signs could display the capacity of the vessels or the contents, as in the case of the rims of *khums* marked with incised lines and crosses (**Fig. 8:29–32**). For instance, this kind of symbol could have had some function in the villages that had to pay taxes in the form of agricultural produce, as we can infer by the reading of the accounting texts found in Mount Mugh archives, where the quantities of each product delivered as tax are displayed (Smirnova 1970: 95–97).

Besides symbols, pictorial drawings could also be incised on the vessels, for example the bird incised on a jar found in the layers of filling of the Early Medieval palace (**Fig. 9:1**). The bird, probably a peacock, is represented schematically and holds something in its beak. An effective comparison comes again from Sidak (**Fig. 9:2**), where a bird very similar to the one discussed here was incised on a jar (Smagulov/Âcenko 2013: 214, Fig. 3). In that case, the bird is associated with a fish, suggesting it was part of religious symbolism. At Kyztepa, in southern Sogdiana, a bird is schematically represented on a clay disc (**Fig. 9:3**) while a small peacock can be seen on a cup found on the nearby site of Aultepa (Kabanov 1981: 106–108). Another strict comparison is with the Crimea, where a similar subject is depicted on a ceramic jug (**Fig. 9:4**) found in Avaric contexts (Bálint 1989: 75, Fig. 13). Apart from the incisions of birds on pottery, the most striking comparison within Sogdiana perhaps remains that of the "bird

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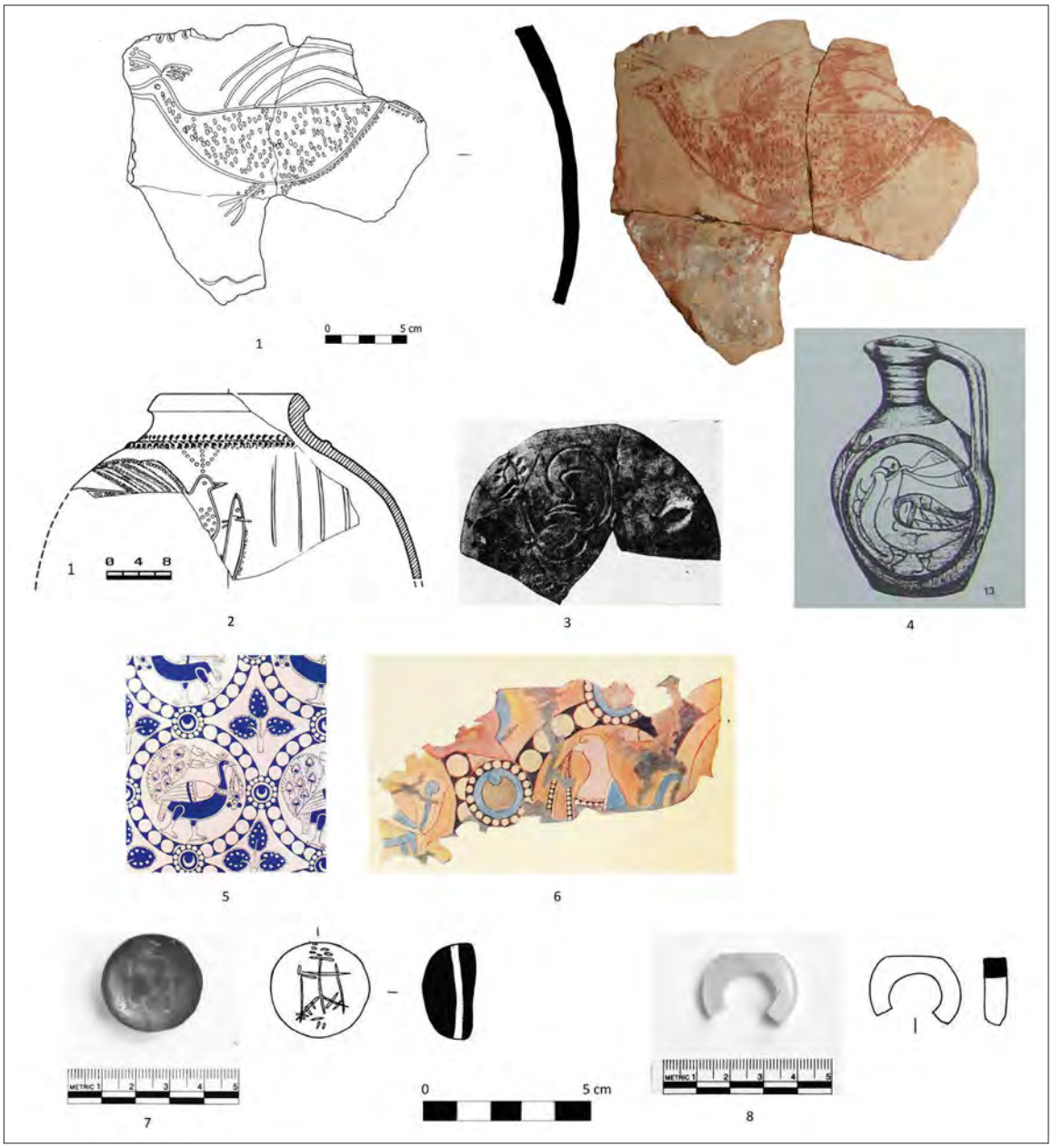


Fig. 9: (**1**) Bird incised on a ceramic vessel from Vardāna (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia); (**2**) Bird incised on a jar from Sidak (after Smagulov/Yatsenko 2013: 214, Fig. 3); (**3**) Bird incised on a ceramic vessel from Kyztepa (after Kabanov 1981: 108, Fig. 56); (**4**) Bird depicted on a jug from Crimea (after Balint 1989: 75, Fig. 36, n. 13); (**5**) Detail of peacocks on mural paintings from Afrasiab (after Al'baum 1975: pl. 55); (**6**) Detail showing peacocks on mural paintings from Varakshsha (after Šiškin 1963: Pl. 16); (**7**) Sealstone from Vardāna (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia); (**8**) Seal ring from Vardāna (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

with pearls", a widespread textile motif that recalls a Sassanid influence, used to decorate the clothes of several personages depicted on the Sogdian mural paintings of Afrasiab (**Fig. 9:5**) (Al'baum 1975: Pls. 6, 15, 30, 55), found also at Varakhsha (**Fig. 9:6**) (Šiškin 1963: Pl. 16) and at Qizil, in eastern Turkestan (in present-day Xinjiang, China) (Šiškin 1963: Pl. 16). Moreover, peacocks are represented on the wooden columns from an Early Medieval dwelling in Paikend (Semenov/Mirzaamedov 2002: Fig. 55). Naršaḫī narrates that in the village of Tawavis, located in the eastern part of Bukhara oasis, everybody kept peacocks in their house (Naršaḫī: 13). The several examples presented here suggest that this theme was widespread in different cultural traditions that used and displayed it on several mediums

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Fig. 10: (**1**) Bronze model of a stirrup from Vardāna (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia); (**2**) Iron stirrup from Samarkand (after Raspopova 1980: 100, Fig. 70, n. 2); (**3**) Iron stirrup from Kanka (after Bogomolov/Gendel'man 1990: Fig. 3, n. 33); (**4**) Bronze stirrup? (after Brusenko/Galieva 1982: 125, Fig. 1, n. 5); (**5**) Bronze stirrup (after Paroli/Ricci 2007: pl. 50, n. 3a–b); (**6**) Bronze stirrup (after Genito 2002: 246, Fig. 9); (**7**) Bronze stirrups (after Ceglia/Marchetta 2012: 229, Fig. 7); (**8**) Stirrup-like artefact (after Lőrinczy 1992: 85, Fig. 3, n. 7); (9) Iron stirrup (after Kiss/Somogyi 1984: pl. 9, grave 109-9); (10) Iron stirrup (after Ivanišević/Bugarski 2012: 275, Fig. 7, no. 1).

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and according to local fashion and cultural characteristics. This happened not only in high-level artistic representations such as mural paintings, but also at a popular level, as demonstrated by their presence on common pottery. Some Sassanid influence in the Bukhara oasis has been suggested several times, for instance on the basis of the adoption of one series of Sassanid drachms of Vahram V as models for the local Bukharkhuda coinage (Naymark 2010: 7–8), as well as by the Sassanid iconographic models detected on the mural paintings discovered at Uch Kulakh.[14]

Other artefacts that clearly displays a Sassanid influence are sealstones. Although Sassanid seal stones from archaeological contexts are rare, a distribution of this type of object is attested in the Bukhara oasis and includes two chalcedony artefacts[15] from Vardāna, a sealstone representing a "figure with sticks", used as amulet, and a plain seal-ring, both dated to the 7th to the 8th centuries CE (**Fig. 9:7, 8**). As well as being used as a seal, the sealstone from Vardāna could have been used as amulet, possibly with a protective function related to fertility. Interestingly, an almost identical sealstone representing a "figure with the sticks" was found in the palace of Varakhsha (Šiškin 1963: 66, Fig. 27).

Another artefact that contributes to the creation of a chronology of the palace and encourages discussion of the Turkic cultural presence in this part of the oasis is the puzzling bronze model of a stirrup found in the filling layers of the Early Medieval palace (**Fig. 10:1**). The stirrup is roughly circular and is only 6.6 cm wide. Interestingly, this item is characterised by an unusual quadrangular strap loop decorated with two protruding vertexes, and it was found broken in its lower part, possibly deliberately. Models of stirrups are rather rare and most of them come from southern Siberia and Altai, where they are always made of iron (Savinov 2005: 129–135). Functional iron stirrups from Sogdiana are extremely rare as well, and to our knowledge only one has been found. It comes from a tomb near Ulugh Bek observatory in Samarkand (Raspopova 1980: Fig. 70, n. 2) and probably dates to the Early Medieval period (**Fig. 10:2**). As far as the regions influenced by Sogdian culture are concerned, an iron stirrup was found in the *rabad* of Kanka (Tashkent area) and dates to the beginning of the 11th century CE (Bogomolov/Gendel'man 1990: 98, Fig. 3, n. 33) (**Fig. 10:3**). Another bronze artefact from the medieval layers of Kanka could be also an example of a model of a stirrup, even though the discoverers interpreted it generically as part of a horse harness (Brusenko/Galieva 1982: 125, Fig. 1, n. 5) (**Fig. 10:4**). According to Azbelev (2014: 315–319), stirrups evolved from aristocratic accessory to functional military items during the first Turk Khaganate. It was the prestige associated with this item more than its function that motivated its large-scale adoption among the Turks, who gradually transformed it into a widespread military innovation thanks to their specialisation in metallurgy and their privileged access to the iron mines of Altai. Bronze is a favourite material among the ornaments and amulets and we have not excluded the possibility that our find could have been owned as a symbol of the prestigious social status acquired by the Turks.

Some finds from Early Medieval cemeteries in Europe that yielded Avaric-type materials could represent pertinent examples of bronze stirrups used symbolically. Burial no. 41 from Castel Trosino (Italy) belonged to a girl and yielded a couple of small-size bronze stirrups (width 9.4 cm) decorated with two animal *protomae* (Paroli/Ricci 2007: Pl. 50, n. 3a–b) (**Fig. 10:5**). The so-called burial of the "young horseman" (no. 33) from Vicenne-Campochiaro in Italy (Genito 2000: 246, Fig. 9) contained two different stirrups, one in iron and another in bronze. The latter (**Fig. 10:6**), of modest dimensions (width 9.5 cm), was laid on a cobble at some distance from the horse, suggesting a symbolic deposition. The strap loop of this find recalls two more bronze stirrups from a male burial (no. 150) in Vicenne (Ceglia/Marchetta 2012: 229, Fig. 7), where the stirrups were not functional and rather demonstrated a technological innovation, a revolving strap loop (**Fig. 10:7**). An interesting example of a symbolic stirrup comes from Hungary: grave no. 1 excavated in Szegvár-Oromdülő, which contained the remains of a lady with a horse, yielded a stirrup-like artefact in bone of almost the same measurements as those of the stirrup from Vardāna (Lőrinczy 1992: 85, Fig. 3, n. 7) (**Fig. 10:8**). Leaving aside any stylistic discussion, it is useful to stress that the circular body of the stirrup found at Vardāna is similar to those of the Early Medieval period from southern Siberia[16] (early Turkic type) and Europe (early Avaric type). However, the bronze material and the suspension loop with protruding vertexes of our stirrup have no comparison with any of the examples from southern Siberia, but echo instead the bronze European models of stirrups mentioned above and two functional iron stirrups, one from the Avaric necropolis of Cikò in Hungary (Kiss/Somogyi 1984: 45, pl. 9, grave 109-9) (**Fig. 10:9**), the other from a probable Byzantine hoard found at Rujkovac in southern Serbia (Ivanišević/Bugarski 2012: 275, Fig. 7, no. 1) (**Fig. 10:10**). The stirrup found at Vardāna remains, for the moment, unique in Sogdiana and it is difficult to ascertain its prove-

14 See Silvi Antonini et al. (2009: 90–94), in particular the sub-chapter "Le pitture", by C. Lo Muzio.

15 For further discussion, see Pozzi 2014.

16 For more details on the stirrups found in Altai and southern Siberia, see Azbelev 2014 and Gavrilova 1965.

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nance. However, it is possible that this item originated from the cultural relationships that probably existed between Avars and Sogdians, at least as far as metal working is concerned. The existence of some activity of Sogdian goldsmiths among the Avars has already been suggested by Harmatta (1996: 112), who analysed the runic and Sogdian inscriptions incised on a silver-gilt strap tip from tomb no. 1280 at the Avaric Zamardi cemetery in Hungary. Interestingly, the Sogdian letters identified on the strap tip indicate the names of the two different owners of the belt, both of Turkish origin.

4 Conclusions

To conclude, the rectangular building discovered on top of the citadel of Vardāna represents an original example of a Sogdian royal palace dating to the Early Medieval period and its foundation could be probably interpreted as part of the "phénomene des fondations ou refondations urbaines" (Grenet 1996: 374) that Sogdiana experienced from the 5th century CE onward. The well-defined organisation of the spaces modulated according to a tripartite plan and the system of internal and external corridors constitute the original traits of this building. The rectangular plan is the result of an initial unitary project and is rather uncommon among the many Early Medieval Sogdian castles often characterised by a square plan, such as Kafirkala or Aultepe (Lebedeva 2000: 144–145, Figs. 1, 2). By-pass corridors are an architectural device found both in the above-mentioned castles with square plan but also in wider citadels such as Paikend (Mirzaahmedov/Omel'čenko 2013: 55, Fig. 2), even though they are usually developed in combination with bastions and loopholes or with an external ring of rooms. This is not the case at Vardāna, where the peripheral corridor is not characterised by any of these features. It imitates instead the blind corridor that encircled the castle of Aktepa at Junusabad (Tashkent), even though at Vardāna there are no angular towers or inner partitions and the internal layout of the two buildings is completely different (Filanovich 1983: Fig. 4). The inner side-corridor that encircled one part of the palace of Vardāna (the *western sector*) is also unusual. Side-corridors are present at the palace of Ikšid at Afrasiab, where the famous wall paintings were found, but they are present only outside two rooms (1, 3) and not the whole sector (Ahunbabaev 1999: Fig. 3). The palace of Erkurgan, though different in chronology and in the inner layout, has a side-corridor in the western part of the building and it could possibly be used for a comparison (Sulejmanov 2000: Fig. 53).

The palace of Vardāna lacked bastions and loopholes, but it adopted other features typically military in function, such as the reinforcement of the external walls and the elevation of the dwelling area. Vardāna was located in a strategic place, across the border of the oasis, and can be considered a "door" to the northern steppe, as described in some passages of the *Tārīḫ-i Buḫārā*, where Naršaḫī (Naršaḫī: 10, 16) states that Vardāna was located on the frontier of Turkistan and that Vardān Khudāh retreated to Turkistan several times during the Arab attacks. It is not excluded that the peculiar character of the architecture at Vardāna could be due to its peripheral position and to the possibly ambiguous role that this place played in relation to both the oasis towns and the nomads.

Each sector of the palace was probably used for specific functions: the western part housed the living areas, the central sector was probably connected with the entrance to the palace, while the eastern sector was used for representative purposes. During the last period of occupation (7th–8th centuries CE), the representative spaces of the palace, located in the *eastern sector*, were converted into a storage area, while many rooms and the western surveillance corridor were partitioned into smaller spaces. This change of layout could suggest a new arrangement of the military presence and the need to enlarge the storage spaces, confirmed also by the abundant presence of storage pottery. All these features suggest that the citadel was planning to resist eventual sieges. It is possible that during the 7th–8th centuries CE, this palace became a defensive outpost, relegating to secondary function the representation of political power. According to the combined analysis of coins and literature as carried out by Naymark (2001: 295), the usurper of Bukhār Khudāh, named Vardān Khudāh by Narshakhī and Ṭabari, has to be identified with Khunak Khudāh, a name found also on a particular series of silver Bukhār Khudāh coins. Since Narshakhī says that Khunak restored the palace of Varakhsha (Naršaḫī: 17–18), it makes sense to suppose that the representative function missing at Vardāna in the last period of occupation of the palace could have been transferred to Varakhsha, the traditional "seat" of the Bukhara king, which might explain why the palace of Vardāna had a prevailingly military character.

The material culture unearthed at Vardāna suggests a long-lasting cultural fusion between this area and the Middle Sir Darya region, as proven by the characteristic pottery, but also evident through ties with the Sassanid world. The presence of symbols and decorative motifs in the pottery highlights the importance of this medium in the transmission of cultural symbols and possibly also in the socio-political and economic interpretation of the archaeological evidence.

New considerations on the Turkic presence in Bukhara oasis could be also made in light of the discovery of the bronze model of a stirrup. Naršaḫī mentions a Turkish origin of the king of Vardāna in-

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

volved in the struggles with Arabs between the 7th and the 8th centuries CE (Naršaḫī: 10). Strangely, the lord of Vardāna was remembered with an Iranian title instead of a Turkish: it is possible, therefore, to propose the hypothesis that this leader, a usurper hoping to rule the whole oasis, preferred to maintain a traditional title in order to legitimate his position with the local rulers. Be that as it may, the model of a stirrup found at Vardāna, probably used symbolically, is archaeological evidence that confirms how deeply the Turkic heritage (mostly recognisable cultural traits and symbols) filtered into Sogdian culture during the Early Medieval period, which also stimulates the debate on the existence of wider contacts with the western world, mediated by others nomadic groups such as the Avars.

The material culture unearthed at present at Vardāna seems to fit well with all the legendary cultural influences echoed by Naršaḫī in the *Tārīḫ-i Buḫārā*, such as the Sassanid and the Turkish. Through the centuries new cultural elements certainly filtered through into the local substrate of Vardāna, showing how this peripheral town probably benefitted from the volatile political situation of Sogdiana both in terms of cultural openness and its ability to elaborate its own original identity. Further studies will advance our knowledge of the geopolitical role of borderline oasis towns similar to Vardāna and of their role in the transmission of culture throughout the different regions of Central Asia and farther afield.

Bibliography

Ahunbabaev, H.G.
1999: *Dvorec ihšidov Sogda na Afrasiabe*, Samarkand.

Al'baum, L.I.
1975: *Živopis' Afrasiaba*, Tashkent.

Al-Hamadānī, Ibn al-Faqīh
Abrégé du livre des pays. Traduit de l'arabe par Henri Massé, 1973, Damascus.

Al-Iṣṭaḫrī, Ibrāhīm ibn-Muḥammad
Viae regnorum. Descriptio ditionis Moslemicae. Edited by M. J. de Goeje (= Bibliotheca Geographorum Arabicorum 1), 1927², Leiden.

Al-Muqaddasī, Muḥammad ibn-Aḥmad
The Best Divisions for Knowledge of the Regions. Translated by Professor Basil Collins. Reviewed by Dr. Mohammad Hamid Alta'i, 1994, Reading, UK.

Azbelev, P.P.
2014: Eŝe raz o rannih stremenah, *Rossijskij arheologičeskij ežegodnik* 4, 297–322.

Bálint, C.
1989: *Die Archäologie der Steppe: Steppenvölker zwischen Volga und Donau vom 6. bis zum 10. Jahrhundert*, Vienna/Cologne.

Bentovič, I.B.
1964: Keramika verhnego sloâ Pendžikenta (VII–VIII vv.), in: Âkubovskij, A.Û. (ed.), *Trudy Tadžikskoj archeologičeskoj èxpedicii. 1954–1959* (= Materialy i issledovaniâ po arheologii SSSR 124), Moscow/Leningrad, 265–298.

Bogomolov, G.I./Gendel'man, P.I.
1990: Metalličeskie izdeliâ s gorodiŝa Kanka, *Istoriâ material'noj kul'tury Uzbekistana* 24, 93–106.

Brusenko, L.G./Galieva, Z.S.
1982: Materialy raskopok kvartala X–načala XI vv. na gorodiŝe Kanka, *Istoriâ material'noj kul'tury Uzbekistana* 17, 124–136.

Brykina, G.A. (ed.)
1999: *Srednââ Aziâ i Dal'nij Vostok v èpohu srednevekov'â. Srednââ Aziâ v rannem srednevekov'e,* Moscow.

Ceglia, V./Marchetta, I.
2012: Nuovi dati dalla necropoli di Vicenne a Campochiaro, in: Ebanista, C./Rotili, M. (ed.), *La trasformazione del mondo romano e le grandi migrazioni. Nuovi popoli dall'Europa settentrionale e centro-orientale alle coste del Mediterraneo. Atti del Convegno internazionale di studi, Cimitile-Santa Maria Capua Vetere, 16–17 giugno 2011* (= Giornate sulla tarda antichità e il Medioevo 4), Naples, 217–238.

Cerasuolo, O.
2009: Il rilievo del sito di Vardanzeh, in: Silvi Antonini, C./Mirzaachmedov, D. K. (ed.), *Gli scavi di Uch Kulakh (oasi di Bukhara). Rapporto preliminare, 1997–2007* (= Rivista degli studi orientali. Nuova serie 80, suppl. 1), Pisa/Rome, 211–216.

de la Vaissière, É.
2005: *Sogdian Traders. A History. Translated by James Ward*, Leiden/Boston.

Filanovič, M.I.
1983: *Taškent. Zaroždenie i razvitie goroda i gorodskoj kul'tury*, Tashkent.

Gavrilova, A.A.
1965: *Mogil'nik Kudyrgè kak istočnik po istorii altajskih plemen*, Moscow/Leningrad.

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Genito, B.
2000: Archaeology of the Early Medieval Nomads in Italy: The Horse-Burials in Molise (7th century), the Case of the Horse-Burials from South-Central Italy, in: Bálint, C. (ed.), *Kontakte zwischen Iran, Byzanz und der Steppe in 6.–7. Jh.* (= Varia archaeologica Hungarica 9), 229–247.

Grenet, F.
1996: Crise et sortie de crise en Bactriane-Sogdiane aux IVe et Ve siècles: de l'héritage antique à l'adoption de modèles sassanides, in: Accademia Nazionale dei Lincei (ed.), *La Persia e l'Asia centrale da Alessandro al X secolo: Convegno Internazionale, Roma, 9-12 Novembre 1994* (= Atti dei convegni Lincei 127), Rome, 367–390.

Gricina, A.A.
1984: K semantike znakov na keramike Kaunčiskoj kul'tury, *Istoriâ material'noj kul'tury Uzbekistana* 19, 84–94.

Harmatta, J.
1996: A zamárdi avar nagyszíjvég rovásírásos és szogd feliratai, *Somogyi múzeumok közleményei* 12, 107–112.

Ibn Ḥawqal, Muḥammad Abū'l-Qāsim
Configuration de la Terre (Kitab Surat al-Ard). Introduction et traduction, avec index par J.H. Kramers et G. Wiet, 1965, 2 vols., Paris.

Ilyasov, J.
2010: Nomad Heritage: Kushan Tamga-Signs from Southern Uzbekistan, in: Pim, J.E./Yatsenko, S.A./Perring, S.A. (ed.), *Traditional Making Systems: A Preliminary Survey*, London/Dover, 213–225.

Ivanišević, V./Bugarski, I.
2012: Les étriers byzantins: La documentation du Balkan central, in: Lazaris, S. (ed.), *Le cheval dans les sociétés antiques et médiévales. Actes des journées d'études internationales organisées par l'UMR 7044 (étude des civilisations de l'antiquité). Strasbourg, 6–7 novembre 2009* (= Biliothèque de l'antiquité tardive 22), Turnhout, 135–142.

Kabanov, S.K.
1981: *Kul'tura sel'skih poselenij Ûžnogo Sodga III–VI vv.*, Tashkent.

Kamaliddinov, Š.S.
1993: *"Kitab Al-Ansab" Abu Sa'da Abdalkarima Ibn Muhammada As-Sam'ani kak istočnik po istorii i istorii kul'tury Srednej Azii*, Tashkent.

Kiss, G./Somogyi, P.
1984: *Tolna megyei avar temetők* (= Dissertationes Pannonicae 3/2), Budapest.

Lebedeva, T.
2000: Genezis zamkovoj arhitektury Central'nogo i Ûžnogo Sogda v rannem srednevekov'e, *Istoriâ material'noj kul'tury Uzbekistana* 31, 141–155.

Lőrinczy, G.
1992: Vorläufiger Bericht über die Freilegung des Gräberfeldes aus dem 6.–7. Jahrhundert in Szegvár-Oromdülő. Weitere Daten zur Interpretierung und Bewertung der partiellen Tierbestattungen in der frühen Awarenzeit, *Communicationes Archaeologicae Hungariae* 1992, 81–124.

Marquart, J.
1898: *Die Chronologie der alttürkischen Inschriften*, Leipzig.

Muhamedžanov, A.R./Adylov, Š.T./Mirzaahmedov, D.K./Semenov, G.L.
1988: *Gorodiše Pajkend. K probleme izučeniâ srednevekovogo goroda Srednej Azii*, Tashkent.

Mirzaahmedov, D.K./Omel'čenko, A.V.
2013: *Otčet o raskopkah v Pajkende v 2011–2012 gg.* (= Materialy Buharskoj arheologičeskoj èxpedicii 12), St. Petersburg.

Muhamedžanov, A.R./Sulejmanov, R.H./Urakov, B. et al.
1983: *Kul'tura drevnebuharskogo oazisa, III–VI vv. n.è.*, Tashkent.

Naymark, A.
2001: *Sogdiana, its Christians and Byzantium: A Study of Artistic and Cultural Connections in Late Antiquity and Early Middle Ages*, unpublished PhD dissertation, Indiana University, Bloomington.

2010: Drachms of Bukhār Khudā Khunak, *Journal of Inner Asian Art and Archaeology* 5, 7–32.

Naršaḫī, Abū-Bakr Muḥammad ibn-Ǧaʿfar
The History of Bukhara. Translated from a Persian Abridgement of the Arabic Original by Narshakhī by Richard Nelson Frye (= Mediaeval Academy of America. Publication 61), 1954, Cambridge, MA.

Paroli, L./Ricci, M.
2007: *La necropoli altomedievale di Castel Trosino: bizantini e longobardi nelle Marche. Catalogo della mostra: Museo archeologica statale di Ascoli Piceno, 1 luglio–31 ottobre 1995*, Florence.

Pozzi, S.
2014: Sasanian-Style Sealstones from the Bukhara Oasis (Uzbekistan), *Rivista degli studi orientali* 87, 135–154.

Raspopova, V.I.
1980: *Metalličeskie izdeliâ rannesrednevekovogo Sogda*, Leningrad.

Savinov, D.G.
2005: Miniatûrnye stremena v kul'turnoj tradicii Ûžnoj Sibiri, in: Tiškin, A.A. (ed.), *Snarâženie kočevnikov Evrazii*, Barnaul, 129–135.

Semenov, G.L./Mirzaahmedov, D.K.
2002: *Raskopki v Pajkende v 2001 godu* (= Materialy Buharskoj arheologičeskoj èxpedicii 3), St. Petersburg.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Silvi Antonini, C. et al.
2009: Gli scavi di Uch Kulakh (Uzbekistan). Campagne 2008–2009, *Rivista degli studi orientali* 82, 59–96.

Šiškin, V.A.
1963: *Varahša. Opyt istoričeskogo issledovaniâ*, Moscow.

Smagulov, E.A./Âcenko, S.A.
2013: Graffiti Sidaka (Ûžnyj Kazahstan), *Izvestiâ Nacional'noj akademii nauk Respubliki Kazahstan. Seriâ obŝetvennyh i gumanitarnyh nauk* 289, 210–226.

2014: Novye nahodki serij doislamskih znakov/tamga/nišan v Turkestanskom oazise (gorodiŝa Kul'tobe i Sidak): svâz' s kočevym mirom, in: Erofeeva, I.V. (ed.), *Problemy izučeniâ nematerial'nogo kul'turnogo naslediâ narodov Kazahstana i Central'noj Azii: toponimika, èpigrafika, iskusstvo. Sbornik materialov meždunarodnoj naučnoj konferencii*, Almaty, 274–281.

Smirnova, O.I.
1970: *Očerki iz istorii Sogda*, Moscow.

Sokolovskaâ, L.F.
2015: *Neglazurovannaâ keramika srednevekovogo Samarkanda kak faktor èkonomiki gorodskogo remesla (po materialam gorodiŝa Afrasiab konca VII–načala XIII v.)* (= Arheologiâ Central'noj Azii. Arhivnye materialy 1), Samarkand.

Stark, S.
2007: Mercenaries and City Rulers: Early Turks in Pre-Muslim Mawarannahr, in: Popova, L.M./Hartley, C.W./Smith, A.T. (ed.), *Social Orders and Social Landscapes. Proceedings of the 2005 University of Chicago Conference on Eurasian Archaeology*, Newcastle, 307–333.

Sulejmanov, R.H.
2000: *Drevnij Nahšab. Problemy civilizacii Uzbekistana VII v. do n.è.–VII v. n.è.*, Tashkent/Samarkand.

Ṭabarī, Abū Ǧaʿfar Muḥammad b. Ǧarīr
The Zenith of Marwānid House. Translated and Annotated by Martin Hinds (= Bibliotheca Persica. The History of al-Tabarī 23), 1990, Albany (NY).

Xuanzang
Si-Yu-Ki. Buddhist Records of the Western World. Translated from the Chinese of Hiuen Tsiang (A.D. 629) by Samuel Beal, 1884, London.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Vardanzeh

The dynamics of settlement on the citadel based on the materials from medieval pottery complexes

Djamaliddin Mirzaachmedov, Silvia Pozzi, Shuxrat Adilov, Munira Sultanova, and Sirojiddin Mirzaachmedov

Abstract: Vardanzeh (ancient Vardāna) is one of the major urban centres of the Bukhara oasis, widely known through Arab-Persian written sources in connection to the location of the residence of the Early Medieval principality of the rulers known as Vardān Khudāh, which by legendary tradition was granted to the heirs of the imperial dynasties of the Sassanids and Hephtalites. In this paper, which is based on years of research on the citadel of the site involving pottery complexes of the 10th–19th centuries CE,[1] the dynamics of settlement on this site are considered. The chronological periodisation is based both on the archaeological finds and on written sources, which provide valuable information on the material culture of a region, as well as on its political, social and economic life.

Keywords: Bukharan Sogd, Vardanzeh, Zeravshan, Vardān Khudāh, stratigraphy, glazed pottery.

Резюме: Варданзе (древняя Вардана) является одним из крупных городских центров Бухарского Оазиса. Широко известен в арабо-персидских источниках в связи расположением здесь резиденции раннесредневекового княжества Варданхудатов, по легендарным сведениям относимых к наследникам имперских династий Сасанидов и Эфталитов. В статье на основе многолетних исследований цитадели городища с привлечением керамических комплексов X-XIX веков рассматривается динамика его обживания. Хронологическая периодизация основана как на археологических материалах так и данных письменных источников дающих ценный материал для освещения материальной культуры, политической и социально-экономической истории региона.

Ключевые слова: Бухарский Согд, Варданзе, Зарафшан, Варданхудаты, стратиграфия, глазурованная керамика.

1 Silvia Pozzi is working on the ceramics of the 5th to 8th centuries from Vardanzeh. This work is ongoing.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

1 Introduction

Western or Bukharan Sogdia was one of the most famous historical-cultural regions on the lower reaches of the Zeravshan River. It has played a significant role since ancient times, influencing the political, economic and cultural life of the surrounding regions of Central Asia. Its influence increased in the Early Medieval period (5th–8th centuries CE), when, being at the crossroads of intercontinental trade route arteries, it began to link not only the ancient civilisations of East and West, but also the proto-historical states of the south with the nomadic steppe and eastern Europe (Mirzaahmedov/Muhamedžanov 1990: 113).

Its central mediating position also contributed to significant ethnic migrations that were geographically conditioned – mutual penetration of the territory, settlement, and the assimilation of various nomadic tribes and peoples of the subcontinent.

Thanks to the concentration and accumulation of new technologies, as well as a cultural and ethnic symbiosis between nomadic and sedentary agricultural populations, it was there, at the crossroads of the Silk Road, that the great nomadic empires and agricultural civilisations were born and flourished, and where the major urban centres of the region, like Bukhara, Paikend, Rometan, Vardanzeh, Varakhsha, developed rapidly (Mirzaahmedov 2016: 70–73).

2 Results of research on the citadel of Vardanzeh

Vardanzeh, once located on the north-eastern outskirts of Bukhara oasis, was in ancient times strongly watered by one of the delta water channels from the Zeravshan River; it was covered by dense vegetation and abounded in animals for hunting. By the Late Middle Ages, due to the processes of oasis drying, there was a reduction in the water flow in the lower reaches of the Zeravshan; from the beginning of the 19th century the sand has increasingly encroached on Kyzyl-kum (Mejendorf 1975: 85), and by the third decade of the 20th century the site was completely covered by sand. According to the references in many Arabic and Persian written sources of the 9th to early 13th century, this site was one of the major urban settlements in Western Sogdia, the centre of the Early Medieval Obavija principality, and the princely residence of the local rulers known as Vardān Khudāh (Adylov/Mirzaahmedov 2001: 150–151). After the Arab invasion and the elimination of small semi-independent Early Medieval principalities, Vardāna became the centre of the agricultural *rustaq* (one of the "districts" in the medieval Bukhara oasis) of Shah Bakhsh and during the Middle Ages to some extent played the role of a transit point connecting Central Asia with Russia through Khorezm and the Caucasus.

The foundation of the city, according to historical chronicles and legendary oral tradition, is associated with the name of Shapur, a prince of the Sassanid dynasty who fled from the wrath of his father to the other side of the Amu Darya, to the lands of the epic king of Turan, Afrasiab. The latter arranged for Shapur to marry his daughter and gave him a dowry of land around Vardanzeh (the *rustaq* of Shah Bakhsh). Prince Shapur not only founded Vardāna, but also constructed the water channel from the Zeravshan that was named after him as Shapurkam (An-Naršaḫī: 29; Adylov/Mirzaahmedov 2001: 151). Furthermore, recent studies by orientalists and archaeologists have put forward the view that, following the death of the famous queen of Bukhara "Khatun" (Ḫātūn) in 695 CE, who was the regent of her infant son, Bukhār Khudāh Togshada, Vardān Khudāh usurped power from the latter and, presumably, put up stubborn resistance to the aggression of the Caliphate from 695 until 709 CE (the year of Vardān Khudāh death in the battle with Arab forces) (An-Naršahi: 196–197).

The many years of archaeological research that were conducted on the site show that it consists of a free-standing rectangular citadel covering an area of about 0.8 ha, and, to the south-west, of the *shahristan* (the city proper). The *shahristan*, which has an elongated shape, covers an area of about 7 ha. The citadel was surrounded on all sides by a deep and wide moat, partly covered by sand and only on the south-western side by a narrow isthmus-dam. It was connected with the urban area of the site by a bridge through which communication was conducted. The second, outer, gates of the citadel to the south-east were archaeologically and topographically identified (Mirzaahmedov et al. 2013: 130). The vast area of the *rabad* (suburban area) surrounding the mound is covered with drifts of sand. To the east, the remains of a Muslim cemetery come close to the site, covered by sand with occasional protruding marble tombstones of the 18th and 19th centuries. To the west of the mound, the remains of ceramic kilns of the first half of the 19th century, as well as traces of irrigation systems that once supplied it with water, were noted. In the course of research, in order to enhance reproduction of the historical monuments topography, photos were taken (Cerasuolo 2009: Fig. IV. 33). On these photos, the citadel is clearly seen to have a rectangular shape and, with some deviation, is aligned south-west to north-east.

The *shahristan* is divided into two parts, an elongated rectangular part by the citadel and a slightly oval part extending to the west. Thus, taking into account the rectangular shape of the citadel and the first part of the *shahristan*, as well as on the basis of available early ceramic complexes from the lower horizons of the citadel, their construction can

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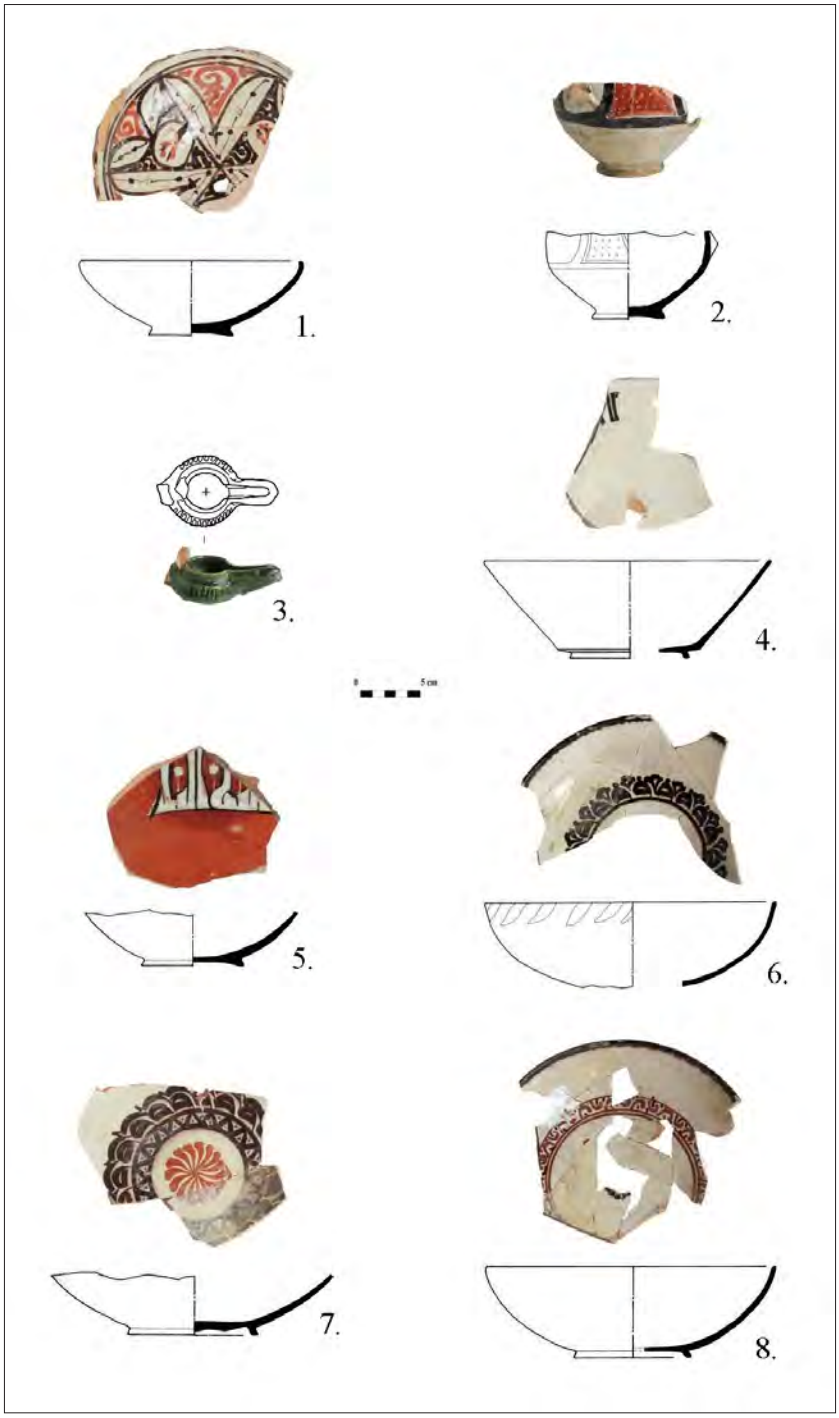


Fig. 1: Vardanzeh. Glazed pottery, 10th to early 11th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

be preliminarily dated to late antiquity. The second part of the *shahristan* could have been added later, in the medieval period. Over recent years, excavations here have been carried out with the support of the Swiss Society for the Exploration of EurAsia. The excavations are mainly carried out at the citadel and, based on their results, the following periods in the history of the settlement have been preliminarily identified.

4th–5th centuries CE: Earliest stages

Stratigraphic studies have shown that the earliest fortification on the site of the citadel, with a circular corridor around the perimeter of the original walls and the alleged courtyard, emerged in the mid 4th–5th centuries CE.

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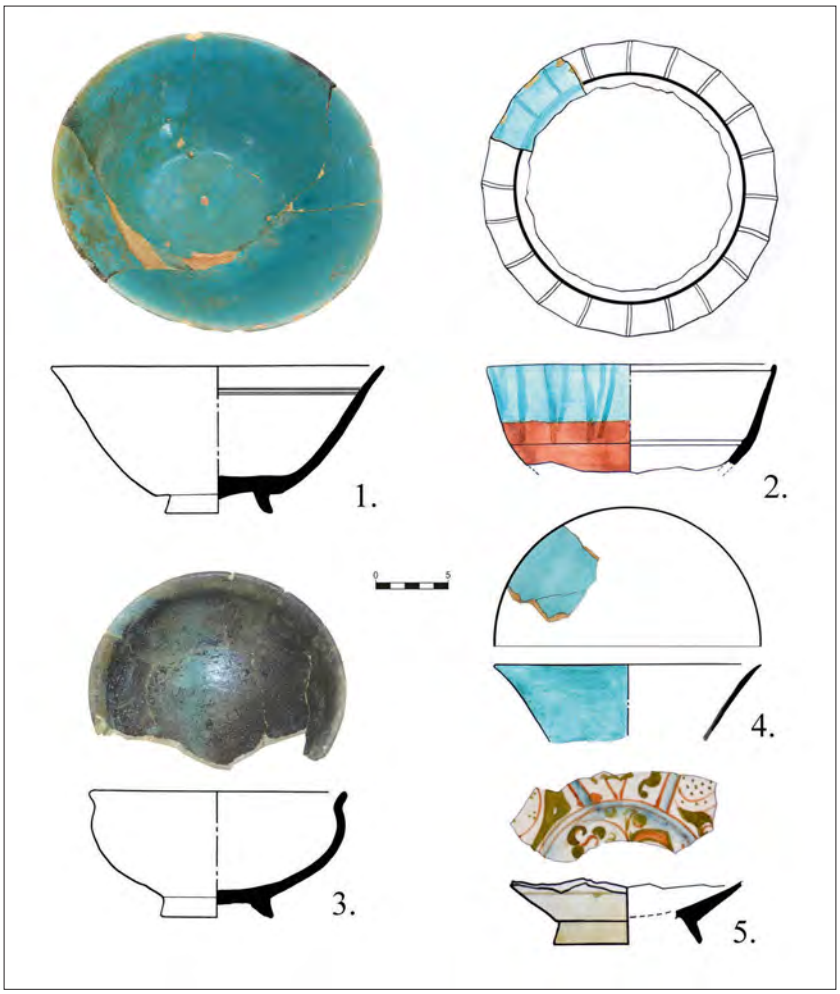


Fig. 2: Vardanzeh. Glazed pottery, second half of the 12th to early 13th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

5th–6th centuries CE: New building activities

Above the old fortification that was levelled by being filled with river gravel and sand at the end of the 5th–6th centuries CE, a new castle, with a retreat into a terrace, was constructed, the remnants of the old fortifications serving as a platform. The area of settlement in parts of the citadel was significantly reduced, though along its centre a rectangular courtyard was still located, along the perimeter of which rooms reserved for different purposes were revealed.

7th–8th centuries CE: Destruction after Arab aggression

For the 7th and the early 8th centuries CE, the analysis of the plan revealed two bypass corridors: the outer one about 4 m wide used for defensive purposes, and the inner one about 1.5 m wide used to communicate with premises opening onto it. Early in the 8th century CE (709 is the year of the final victory of the Arabs and the death of Vardān Khudāh), the citadel of Vardanzeh was destroyed as a stronghold of opposition to Arab aggression and lost its value as the administrative centre of the principality and as the centre of military and political resistance in the region.

10th–11th centuries CE: Partial resettlement

In the 10th to early 11th centuries CE, after nearly two centuries of desolation, there was a partial settlement of the citadel in its south-western and eastern sectors. This is indicated by a few remains of the walls, floor and drain holes (*tashnau*). A characteristic complex of pottery of this period was found in the western half of the monument in a small rubbish pit. It consists mainly of glazed tableware of bright polychrome types, mostly fragmented, that can be divided according to form into bowls, dishes, ewers, and oil-lamps. The complex is divided into two parts and includes typical pottery of the 10th cen-

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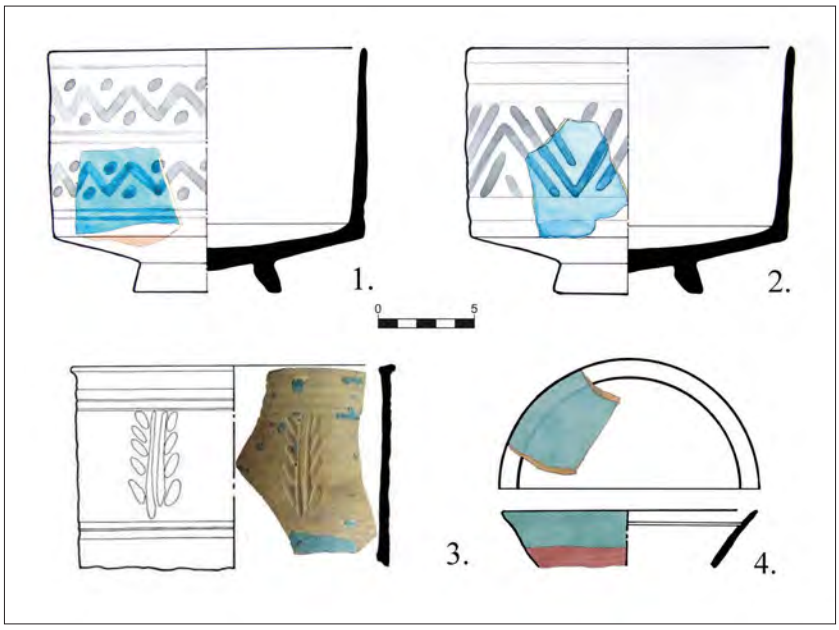


Fig. 3: Vardanzeh. Glazed pottery, second half of the 12th to early 13th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

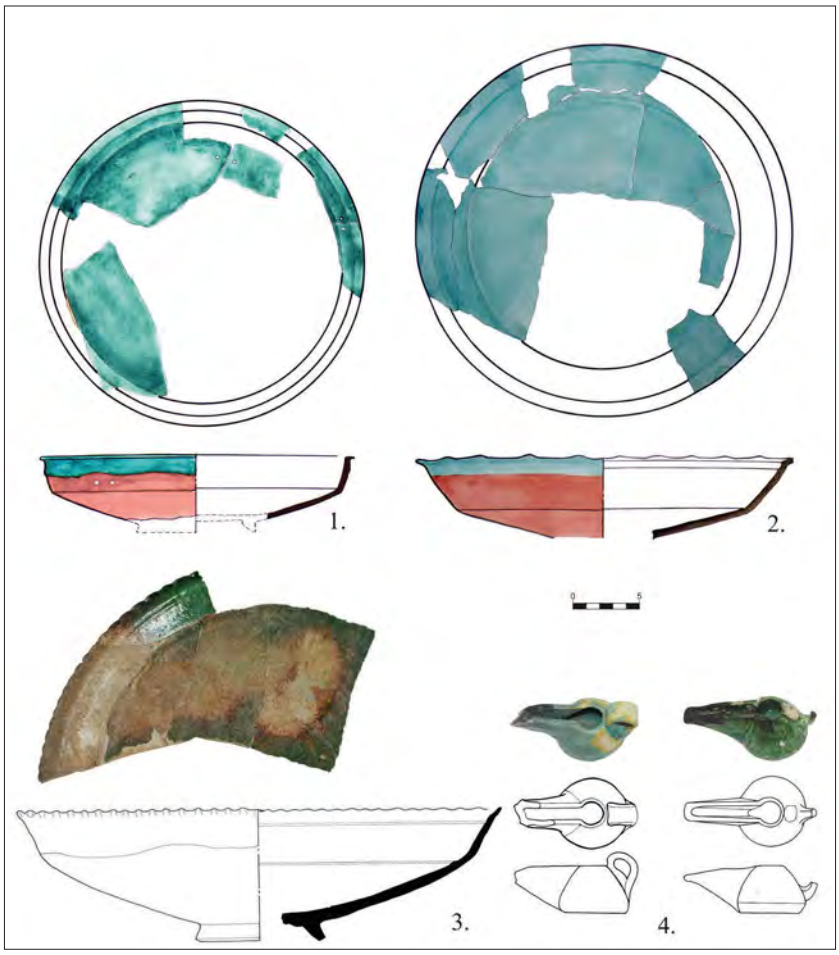


Fig. 4: Vardanzeh. Glazed pottery, second half of the 12th to early 13th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

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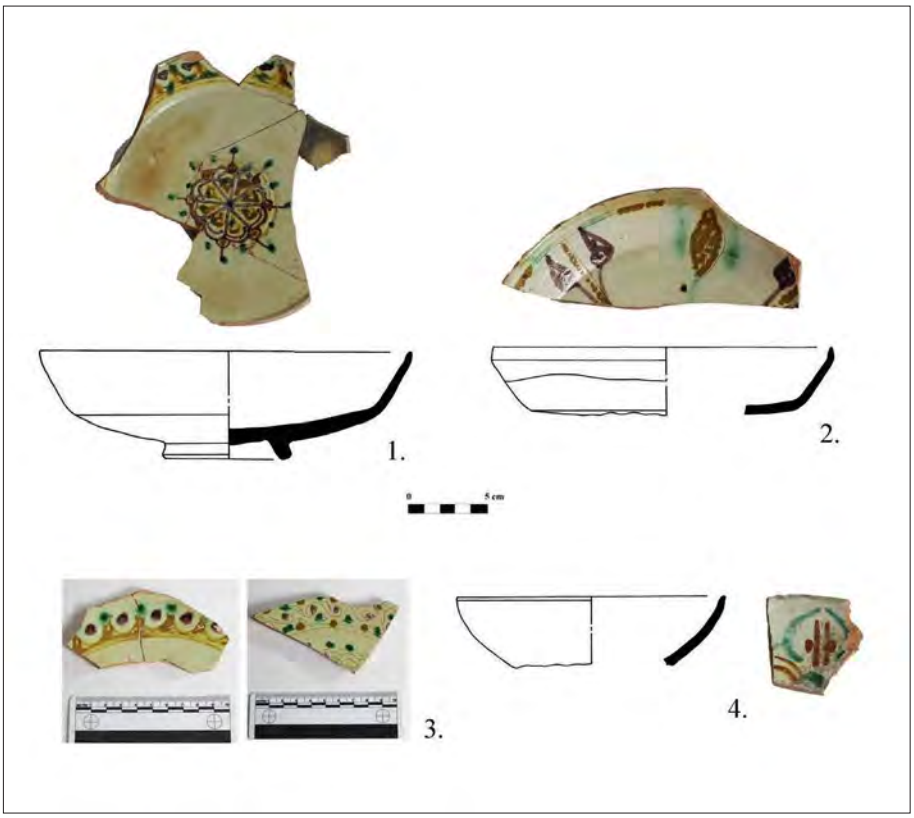


Fig. 5: Vardanzeh. Glazed pottery, second half of the 12th to the early 13th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

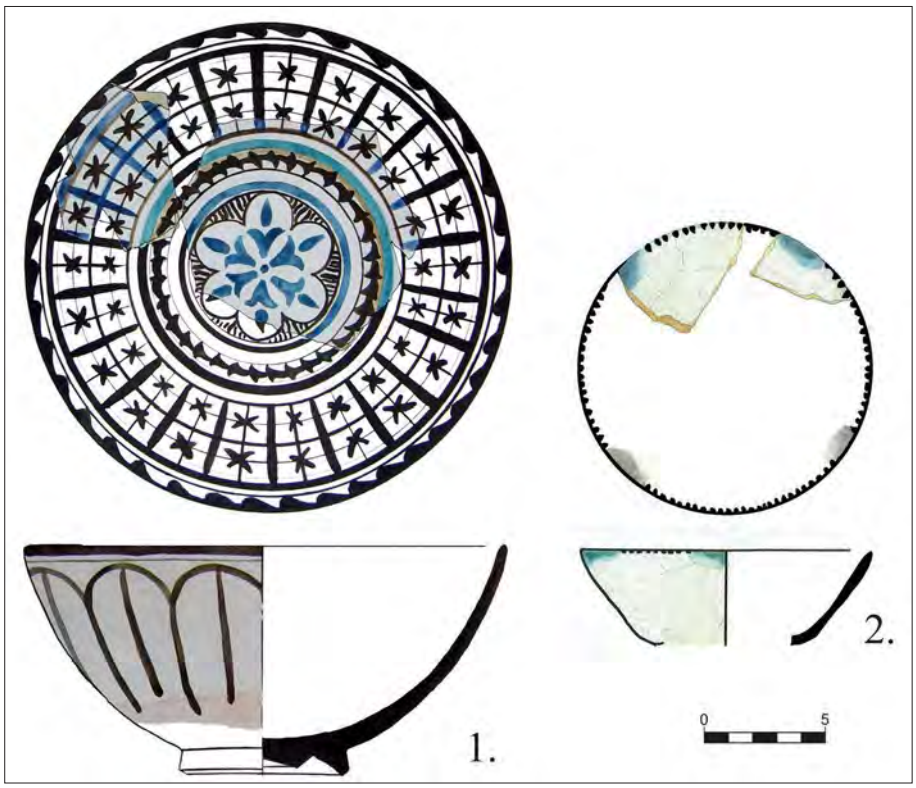


Fig. 6: Vardanzeh. Glazed pottery, second half of the 13th to the mid-14th centuries CE (drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

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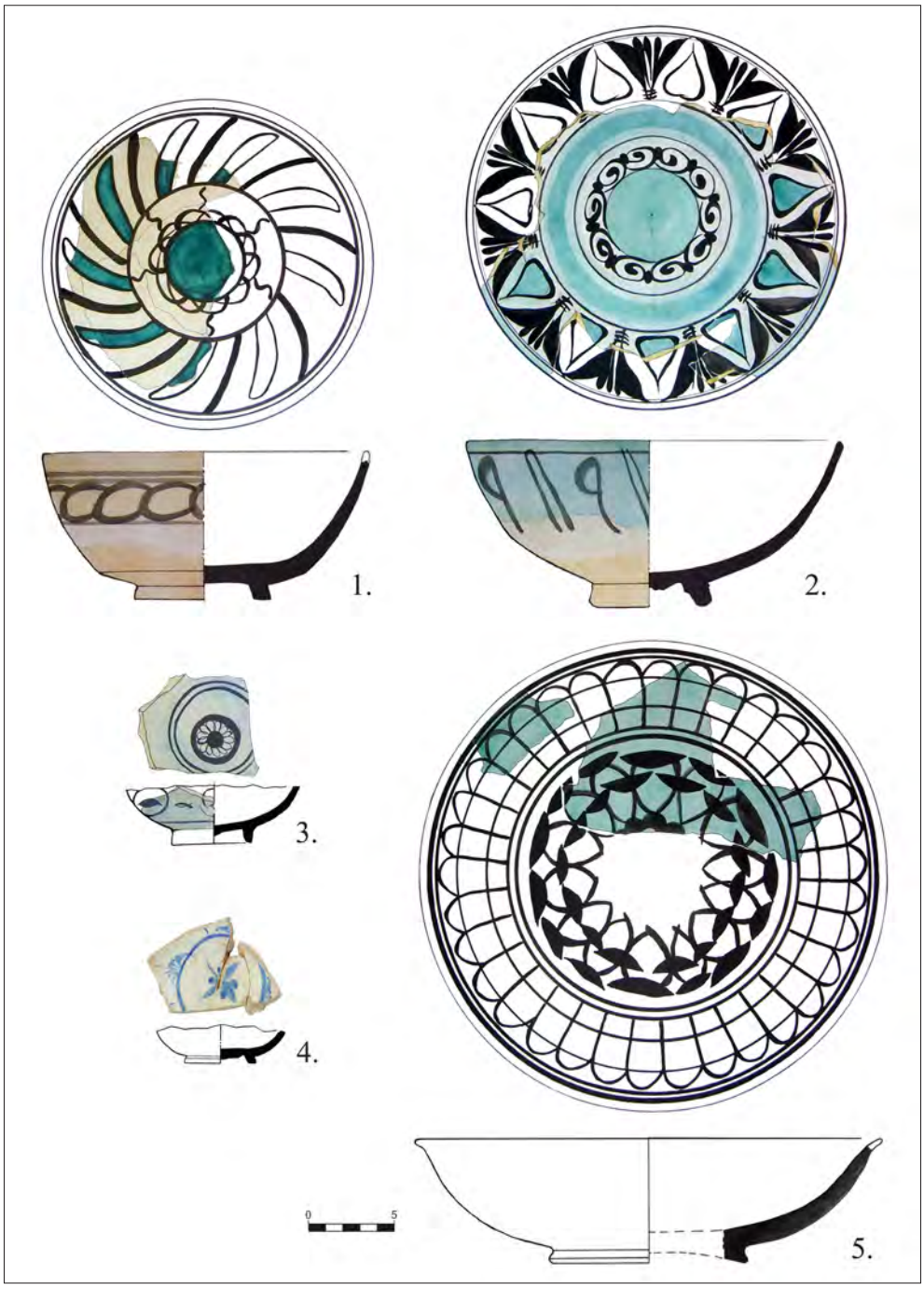


Fig. 7: Vardanzeh. Glazed pottery, 16th century CE
(drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

tury CE (**Fig. 1:1–3**), as well as of the late 10th to early 11th centuries (**Fig. 1:4–8**). The chronology of the finds is consistent with materials from neighbouring regions (Šiškina 1978: Table LXIII, Fig. 4; Table LXVII, Fig. 1; Grenet et al. 1992: Cat. 218; Mirzaahmedov 2013: Fig. 1: 2).

In general, it should be noted that after the death of Vardān Khudāh and the destruction of the castle by Arab forces, life there did not resume until the early 10th century. No traces of major rearrangements indicating the location of the administrative buildings of the Shah Bakhsh *rustaq* centre have been identified here, though this fact is noted in the written sources. Given that the references in the written sources account for a relatively peaceful period of political and socio-economic development in the region, it can be assumed that the administrative centre of the *rustaq* could have been located in the *shahristan*. The capital of the oasis, the city of Bukhara, where, in the early 10th century CE, the palaces

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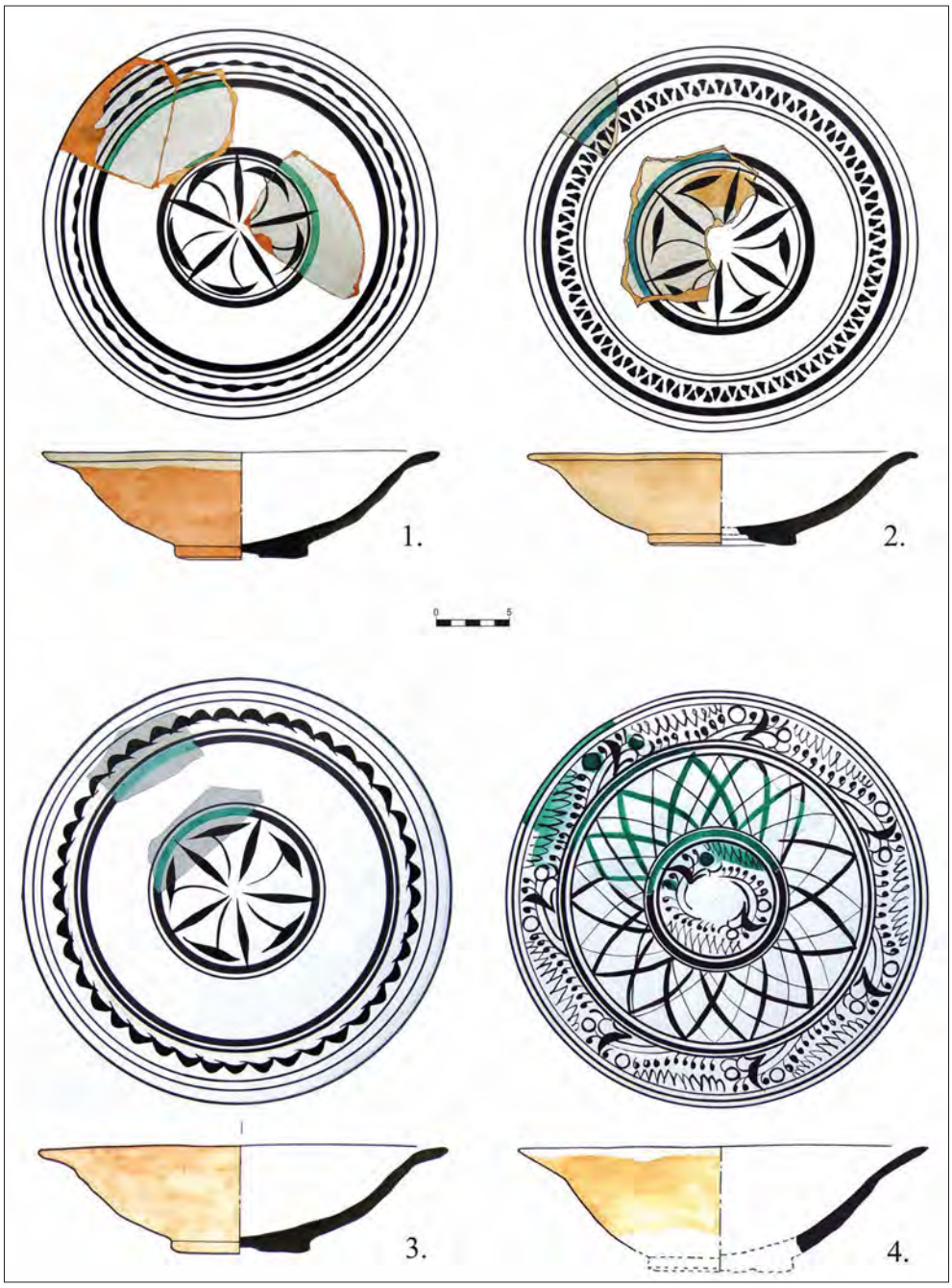


Fig. 8: Vardanzeh. Glazed pottery, 17th century CE
(drawings by M. Sultanova, copyright The Society for the Exploration of EurAsia).

of the Samanids and their administrative buildings were located on the Registan (public square) in front of the citadel, and furthermore Samarkand, where the Samanid palace was also located in the *shahristan*, can serve as examples (An-Naršaḫī: 36–37). In addition, the citadel of Vardanzeh had greater height, and climbing to it required some effort, so during peaceful periods, which were not subjected to any military threat, it was more convenient to locate the administrative buildings within the city.

12th–13th centuries CE: Pre-Mongol settlement

A relatively complete settlement of the entire surface of the citadel is observed a century later, during the second half of the 12th to the early 13th centuries CE. This was the last stage in the systematic settlement on the site along the upper horizon, characterised by traces of poorly preserved architecture. The walls in many areas have been destroyed by the digging of burial pits and by construction work in the following centuries. The state of architecture

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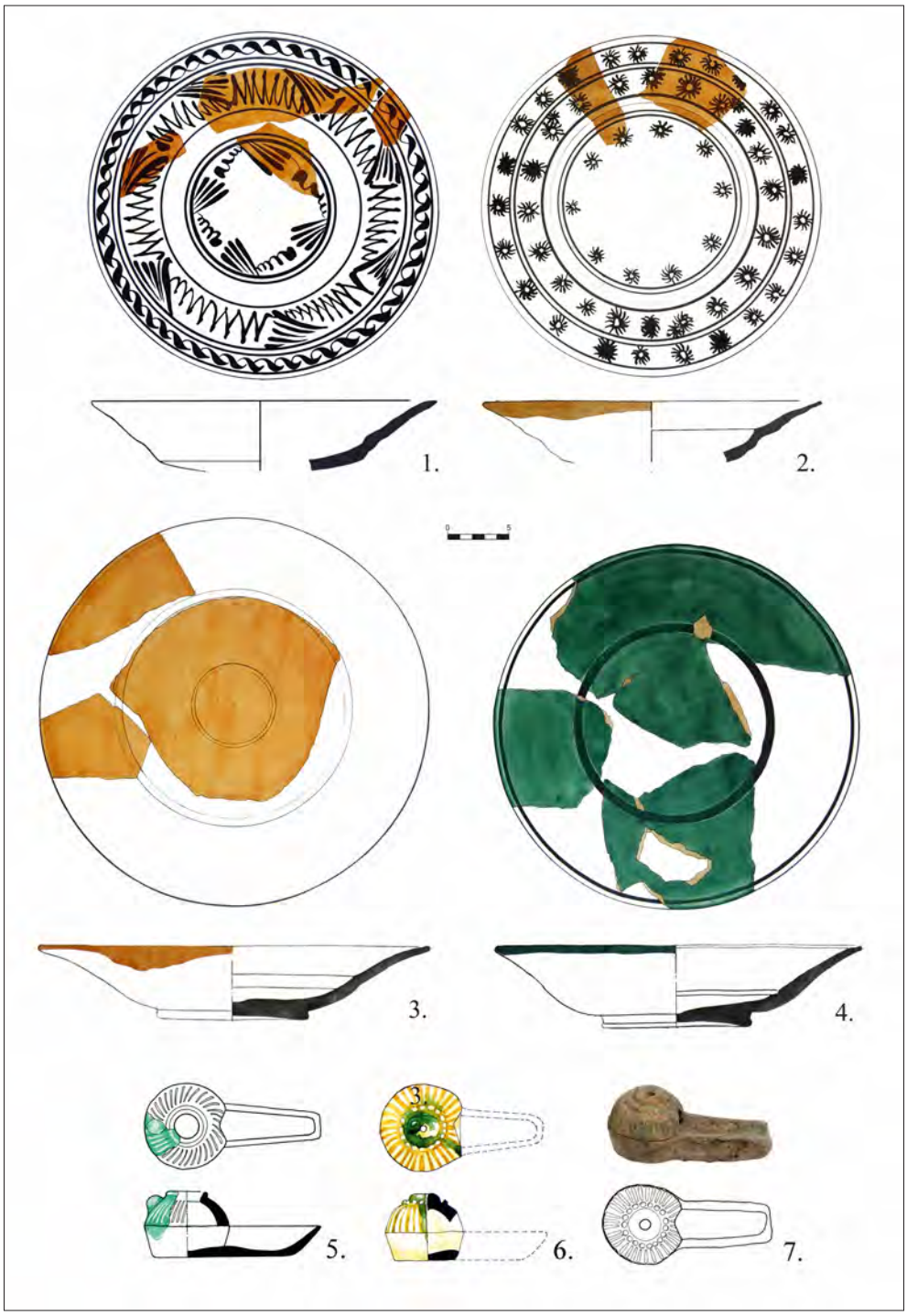


Fig. 9: Vardanzeh. Glazed pottery, first half of the 18th century CE
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and the quality of finds do not match the representative level for people managing the administrative apparatus of the *rustaq*, which, as we assume, continued to be located in the *shahristan*. At the top, the horizon is also characterised by a strong layer of burning, apparently linked chronologically with the Mongol invasion. At the same time, from the cultural layers of the period under consideration, a significant complex of glazed and unglazed pottery was found, which, to a certain extent, reveals the culture and everyday life of the inhabitants of the citadel. The most revealing in this respect is glazed tableware that, according to its shapes, can be divided into bowls (**Fig. 2**; **Fig. 3**) and small bowls (**Fig. 3:4**) of hemispherical (**Fig. 2:1–3, 5**), cylindrical (**Fig. 3:1–3**) and truncated conical forms

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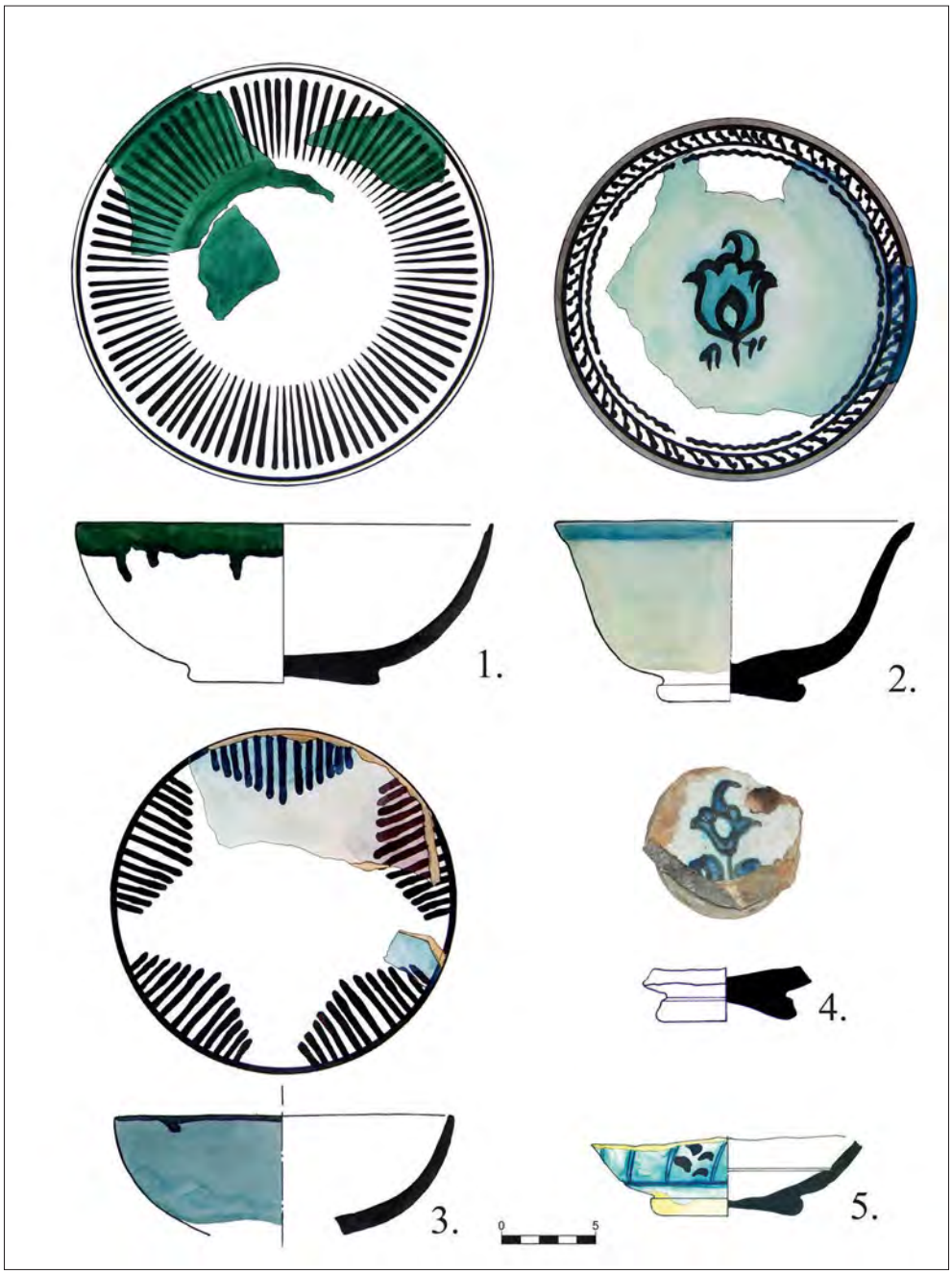


Fig. 10: Vardanzeh. Glazed pottery, late 18th to mid-19th centuries CE
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(**Fig. 2:4**; **Fig. 3:4**). The second largest group of the complex is made up of dishes (**Fig. 4**; **Fig. 5**) and oil-lamps (**Fig. 4:4**).

In general, the results of our previous studies, combined with the ceramic complex presented by us, show that glazed pottery of the second half of the 12th to the early 13th centuries CE is divided into a small group of "display" wares that were used for special occasions and large "common usage" samples, which were used in the everyday life of the population (Mirzaahmedov 2013: 367). The complex and expensive "display" wares are represented by one fragment of the underside of a bowl on a faience base, and by a white shard imitating porcelain and decorated with exquisite polychrome "*minai*", a type of Iranian tableware dated to the 12th–early 13th centuries, and likely imported from Iran (**Fig. 2:5**).

The second, very large group comprises objects, made on a simple clay base, that would have cost much less and were intended for the bulk of the middle and poor population. In turn, this "common usage" group of objects was also divided into two subgroups based on the colours that were used. The

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first, smaller, subgroup is composed of objects that continue the tradition of the preceding period. This is usually tableware with a glaze of light olive tones and painted decoration of spreading green, brown, yellow and reddish colours (**Fig. 5**). In contrast to the preceding period, they are characterised by the poor quality of flaking glaze, incised stylised ornamentation, and careless painting. The second subgroup of objects of "common usage" is represented by the vessels that are found in greater quantity and feature a monochrome glaze of turquoise or, in some cases, dark-green glazes without painting (**Figs. 2–4**). As we have already noted, these objects with characteristic turquoise glaze, created using a reddish-brown slip that covered the outer surface and often scalloped edges of the rim, repeat the widespread shapes and decoration of the imported Far Eastern *celadons* (Mirzaahmedov 1990: 72; Kwak 2009: Figs. 80, 81; The Institute of Archaeology, Chinese Academy of Social Sciences 1998: 114). Characteristic for both groups of vessels of this period was the use of neat pinholes found on many objects, indicating their repair and re-use (**Fig. 4:1**). Such repair pinholes were rare for glazed pottery of the 10th and 11th centuries. In the period under consideration, during the second half of the 12th century and the early 13th century CE, the standard of living of ordinary people was so low, apparently, that broken vessels had to be repaired and re-used (Mirzaahmedov 2004: Figs. 8, 9). Thus, the presence on many samples of glazed pottery from this period of small repair pinholes, plus a significant reduction and deterioration in the quality of the decoration, show that the "silver crisis", clearly characterised by the release of silver-plated copper dirhams, was detrimental to the economy of the region. Therefore, we consider the thesis put forward by Davidovič (1960: 116), that the period saw a rise in economic, commercial and craft activities in the cities and villages of Central Asia, is contradicted by the written sources, the poor state of pottery complexes, and the coins themselves.

13th–14th centuries CE: Mongol domination

For the period of Mongol domination in the 13th to the mid-14th centuries CE, no construction horizons within the settlement of the citadel were noted on the site of Vardanzeh. However, from time to time it could have served as a place of shelter from invaders for the surrounding population, as evidenced by finds such as glazed pottery of characteristic shapes and colours. Among the obtained material, revealing are the fragments of bowls and small bowls (**Fig. 6**) with elements of decoration occurring in the neighbouring regions (Akishev/Baipakov/Erzakovich 1987: Figs. 4–6), as well as on Chinese porcelain of the Song Dynasty (960–1279). On the small bowl (**Fig. 6**), it is an imitation of typical cracks (*tzek*), and on the larger bowl of lotus petals on the outer surface (Krečetova/Westfalen 1947: Tables 1–3).

16th century CE: Sheibanid dynasty

For the Sheibanid period (16th century CE), the installation of the prestigious burials with carved marble tombstones and wooden coffins in burial chambers is observed in the north-western part of the citadel. The excavations also revealed "random" burials without any external signs, including many of those belonging to children, and ocurring all over the monument's surface. However, they do not have a regular character, and apparently belong to a later period. Evidently, the emergence of a local saint cult of Burk-i-Sarmast, whose revered tomb is located in the southern part of the *shahristan*, can be identified with the same period. Undoubtedly, visitors could come and simultaneously venerate newly installed revered tombs on the citadel, as is still done now. In the course of excavations at these prestigious tombs, a small complex of fragments of bowls (**Fig. 7:1–2**), semi-bowls (**Fig. 7:3–4**) and one dish of hemispherical shape (**Fig. 7:5**) common to the pottery of the period were found.

17th century CE: Ashtarkhanid era

The period of the Ashtarkhanids (17th century CE) is characterised by small rooms and hearths of craftsman type that emerged to the south-east of the prestigious burials and were possibly somehow related to their service. Here, by the hearth, an interesting complex of original glazed tableware that defines the artistic style of the period was found. It is mainly represented by fragments of dishes with decoration of a limited, but characteristic, set of simple motifs that form unique compositions (**Fig. 8**).

18th century CE: Socio-economic crisis

According to the written sources, the period of general socio-economic crisis in the first half of the 18th century CE is marked in the Bukhara oasis by the raids of the nomads from the north, total economic disruption, flight, starvation and the extermination of a large part of the region's population (Čechovič 1956: 86; 1954: 72–73; Mirzaahmedov 1990: 7–10). For this period, many hidden places were revealed in the thick cultural layers of the site, where, apparently, the local population took refuge in times of nomad raids. Pottery with a predominantly yellow background and solar signs imitating wooden utensils, as well as oil-lamps in shapes that are specific to this period (**Fig. 9**), appear in frag-

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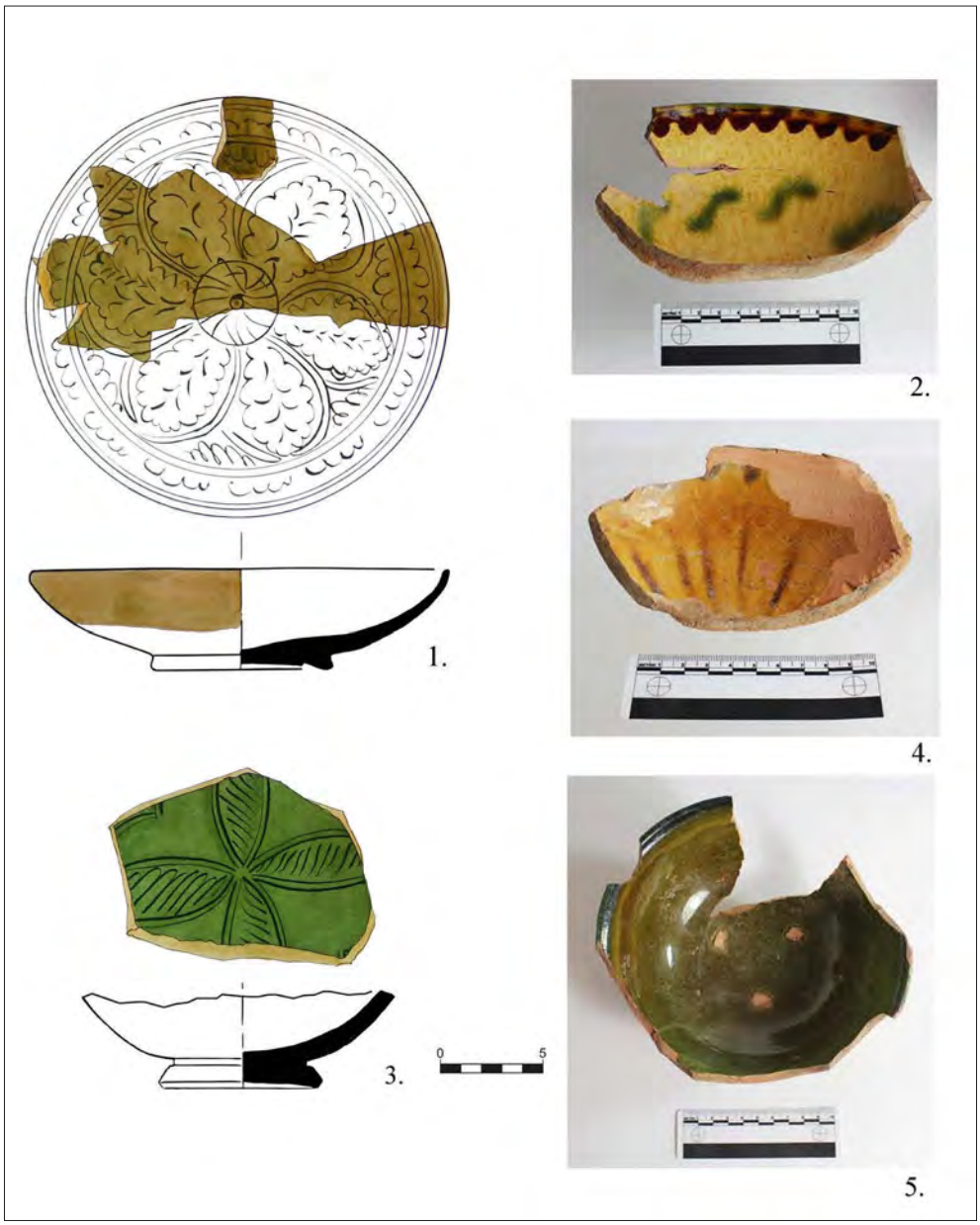


Fig. 11: Vardanzeh. Glazed pottery, late 19th to early 20th centuries CE
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ments throughout the site (Mirzaahmedov 1990: Figs. 1–10).

18th–19th centuries CE: Settlement limited to the *shahristan*

From the end of the 18th to the mid-19th century CE, the citadel remained abandoned, though individual pottery finds and ethnographic data show that the actual city – the *shahristan* – was still intensively settled. Nevertheless, it was from the early 19th century that we have the first sources of information on the beginning of the process of the drying up of the oasis and the active approach of the sands to the city, located on the border of the Kyzyl-kum (Mejendorf 1975: 75). For the same period, sources note the rise of the economy, the strengthening of the caravan trade through Vardanzeh to Russia, as well as the transformation of the city into a major ceramics centre of the region (Burdukov 1904: V–VI). Based on a small complex of tableware found here (**Fig. 10**), it seems that during this period the citadel continued to serve as a sacred place of worship for burials of revered persons.

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19th–20th centuries CE: Abandonment of the site

The last stage of settlement on the site occurred during the second half of the 19th century to the early 20th century. This period is characterised by the further advance of sand and a gradual migration of the city population to the inner parts of the oasis, a process that ended in the 1930s. Fragments of pottery found from the upper layers of the citadel and *shahristan* are identical in shape and character of decoration. They are covered with yellow and green glaze with the application of leaked ink and incised decoration characteristic of the period (**Fig. 11**).

3 Conclusions

In conclusion, it is necessary to emphasise once again that the foundation of the city of Vardāna and its flourishing fell into the periods of late antiquity and the early Middle Ages, when it played the role of a powerful defensive, economic and trading outpost, being an independent principality in the north-eastern outskirts of Western Sogd. After the tragic consequences of the Arab conquest and the destruction of the city, the citadel ceased to serve as a dynastic residence, though the city itself – the *shahristan* – continued to be the centre of the Shah Bakhsh *rustaq*. We can observe a new regular settlement on the citadel only in the second half of the 12th to the early 13th centuries CE. This initial chronological break, with partial or complete desolation of the citadel, seems to have also been connected with the shrinking of the oasis in the mid-11th century linked to a decrease in the flow of water to the lower reaches of the Zeravshan, and with new climate humidification, with the increase of the water level of the river and its admission to the lowest ducts noted for the second half of the 12th to the early 13th centuries. In the following centuries, we can observe only partial, episodic settlement on the citadel, and in the 16th century CE, with the emergence here of famous burials, a place constantly visited by pilgrims and people eager for healing (Mirzaahmedov 2016).

Bibliography

Adylov, Š.T./Mirzaahmedov, D.K.
2001: Iz istorii drevnego goroda Vardana i vladeniâ Obaviâ, *Istoriâ material'noj kul'tury Uzbekistana* 32, 150–157.

Akišev, K.A./Bajpakov, K.M./Erzakovič, L.B.
1987: *Otrar v XIII–XV vekah*, Almaty.

An-Naršahi, M.
Ta'rih i Buhara. Istoriâ Buhary. Perevod, kommentarii i primečaniâ Š.S. Kamoliddina. Arheologo-topografičeskij kommentarij E.G. Nekrasovoj, 2011, Tashkent.

Burdukov, N.
1904: *Gončarnye izdeliâ Srednej Azii*, St. Petersburg.

Čehovič, O.D.
1954: K istorii Uzbekistana v XVIII v., *Trudy Instituta vostokovedenija Uzbekskoj SSR* 3, 43–82.

1956: O nekotoryh voprosah istorii Srednej Azii XVIII–XIX vekov, *Voprosy istorii* 3, 84–95.

Cerasuolo, O.
2009: Il rilievo del sito di Vardanzeh, in: Silvi Antonini, C./Mirzaachmedov, D. K. (ed.), *Gli scavi di Uch Kulakh (oasi di Bukhara). Rapporto preliminare, 1997–2007* (= Rivista degli studi orientali. Nuova serie 80, suppl. 1), Pisa/Rome, 211–216.

Davidovič, E.A.
1960: Iz oblasti denežnogo obraŝeniâ v Srednej Azii v XI–XII vv., *Numizmatika i èpigrafika* 2, 92–117.

Grenet, F. et al.
1992: *Terres secrètes de Samarcande. Céramiques du VIIIe au XIIIe siècle.* Institut du monde arabe, Paris, 26 juin-27 septembre 1992, Musée de Normandie, Caen, 23 octobre 1992–25 janvier 1993, Musée des Augustins, Toulouse, 4 mars–7 juin 1993, Catalogue d'exposition, Paris/Caen/Toulouse.

Krečetova, M.N./Vestfalen, È.H.
1947: *Kitajskij farfor*, Leningrad.

Kwak, D. (ed.)
2009: *Royal Ceramics of Goryeo Dynasty*, Seoul.

Mejendorf, E.K.
1975: *Putešestvie iz Orenburga v Buharu. Predislovie N. A. Halfina*, Moscow.

Mirzaahmedov, D.K.
1990: *K istorii hudožestvennoj kul'tury Buhary*, Tashkent.

2004: K social'no-èkonomičeskoj istorii Buhary vtoroj poloviny XII–načala XIII vv., in: Alimova, D.A./Anarbaev, D.A. (ed.), *Arheologija i istoriâ Central'noj Azii. K 70-letiû so dnâ roždeniâ akade-*

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mika Akademii nauk Respubliki Uzbekistan Ûriâ Fedoroviča Burâkova, Samarkand, 102–110.

2013: K social'no-èkonomičeskim faktoram razvitiâ glazurovannoj keramiki Maverannahra IX–načala XII v., in: Lur'e, P.B./Torgoev, A.I. (ed.), *Sogdijcy, ih predšestvenniki, sovremenniki i nasledniki. Na osnove materialov konferencii "Sogdijcy doma i na čužbine", posvâšennoj pamâti Borisa Il'iča Maršaka (1933–2006)* (= Trudy Gosudarstvennogo Èrmitaža 62), St. Petersburg, 353–375.

2016: Krupnye gorodskie centry Zapadnogo Sogda – Buhara, Pajkend, Varakša – k dinamike urbanizacionnyh processov, in: Farmonov, Sh. (ed.), *Buhara – gorod na Velikom Šelkovom Puti, odin iz centrov vsemirnogo turizma*, Bukhara, 70–84.

Mirzaahmedov, D.K./Muhamedžanov, A.R.
1990: Buhara na transevrazijskih kommunikaciâh Velikogo Šelkovogo Puti, in: Askarov, A.A. (ed.), *Formirovanie i razvitie trass Velikogo Šjolkovogo Puti v Tsentral'noj Azii v drevenosti i sredenevekov'e. Tezisy dokladov meždunarodnogo seminara ÛNESKO*, Tashkent, 113–116.

Mirzaahmedov, D.K. et al.
2012: Issledovaniâ v Vardanze v 2012 g., in: Berdimuradov, A.È. (ed.), *Archeologičeskie issledovaniâ v Uzbekistane 2012. Vypusk 9*, Samarkand, 129–136.

Šiškina, G.V.
1979: *Glazurovannaâ keramika Sogda (vtoraâ polovina VIII–načalo XIII vv.)*, Tashkent.

The Institute of Archaeology, Chinese Academy of Social Sciences (ed.)
1998: *The Luoyang Branch of the Archaeological Museum Institute of Archeology, Chinese Academy of Social Sciences*, Beijing.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Archaeological Research at the Qarshovul Tepa Site, Uzbekistan

Konstantin A. Sheyko, Genadiy P. Ivanov, and Djangar Ya. Ilyasov

Abstract: This paper is devoted to some of the results of the archaeological excavations at the ancient settlement of Qarshovul Tepa. The site is situated in the south-western part of the Tashkent oasis, on the right bank of the Chirchiq River, near its confluence with the Syr Darya (ancient Iaxartes, medieval Saihun), and was one of the stopovers on the ancient caravan road connecting cities of the Tashkent oasis (ancient Chach) with Sogdiana. Archaeological excavations have been conducted here since 2010 with financial support from the Society for the Exploration of EurAsia (Switzerland). The survey included the fortification, a ritual-cult complex, and the necropolis, which date back to the 7th and the beginning of the 8th centuries CE.

Keywords: Tashkent oasis, Early Medieval Chach, excavations.

Резюме: Статья посвящена некоторым итогам археологических раскопок городища Каршовул Тепа. Городище находится в юго-западной части Ташкентского оазиса, на правом берегу реки Чирчик, недалеко от ее впадения в Сырдарью (древний Яксарт, средневековый Сейхун), и было одним из пунктов на древнем караванном пути, соединявшем города Ташкентского оазиса (древний Чач) с Согдианой. Здесь, при финансовой поддержке Общества по изучению Евразии, с 2010 г. ведутся археологические раскопки. Исследуются фортификация, ритуально-культовый комплекс и некрополь, относящиеся к периоду 7 – начала 8 вв.

Ключевые слова: Ташкентский оазис, раннесредневековый Чач, раскопки.

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Fig. 1:1: Qarshovul Tepa and Qarshovul 2 (Necropolis), Satellite picture by Google Earth.

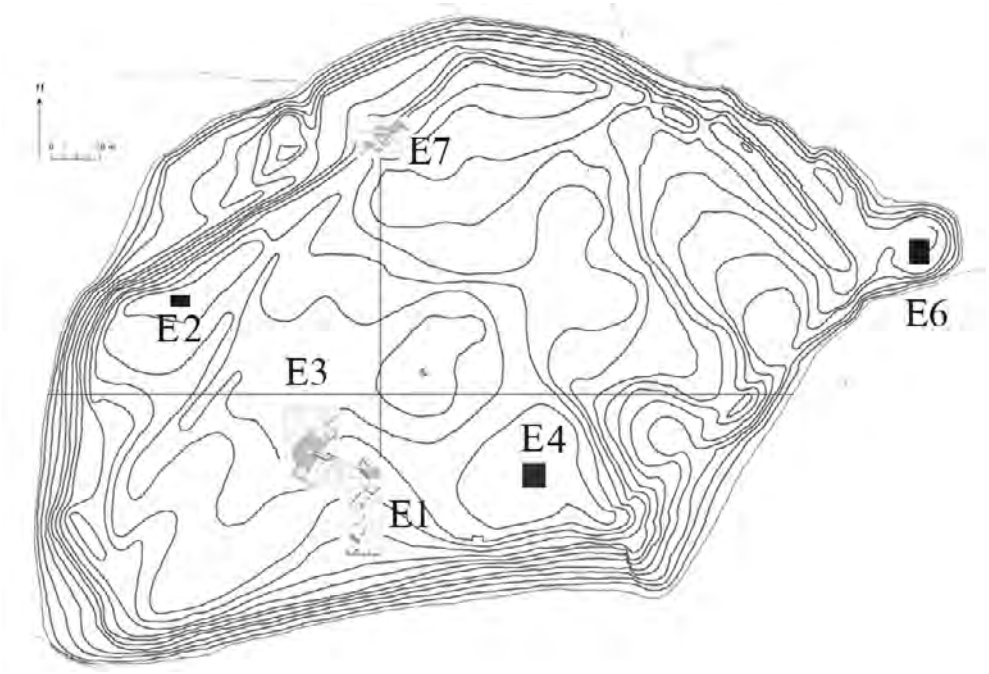


Fig. 1:2: Qarshovul Tepa, plan (elaborated by G. Ivanov).

1 Introductory remarks

Qarshovul Tepa site is located in the Tashkent region of Uzbekistan on the Chirchiq River (medieval name Parak), a right-bank tributary of the Syr Darya River. This is a territory in Chach, the ancient principality mentioned in the written sources beginning in the 2nd–3rd century CE (Poduškin 2005: 133–139; Sims-Williams/Grenet 2006: 95–111; Sims-Williams/Grenet/Podushkin 2007: 1005–1034; Sims-Williams 2009: 153–172). In the ancient Chinese sources, it is named "Shi" (石) (a sign meaning "stone"). In the medieval Arabic geographic and historic literature, this cultural and historic area is known as al-Shash (aš-Šāš from Persian Čāč).

The site forms an irregular pentagon aligned north-east to south-west and situated on natural high ground on the right bank of the Chirchiq (**Fig. 1:1**), 14 km north-east of the town of Chinaz. Its coordinates are: 40° 58′ 25.10″ N and 68° 54′ 35.11″. It covers an area of about 6 ha, being 330 m from west to east and 195–200 m from north to south.

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Fig. 2:1: Excavation 1, stratigraphic trench: View from the south (photo by the authors).

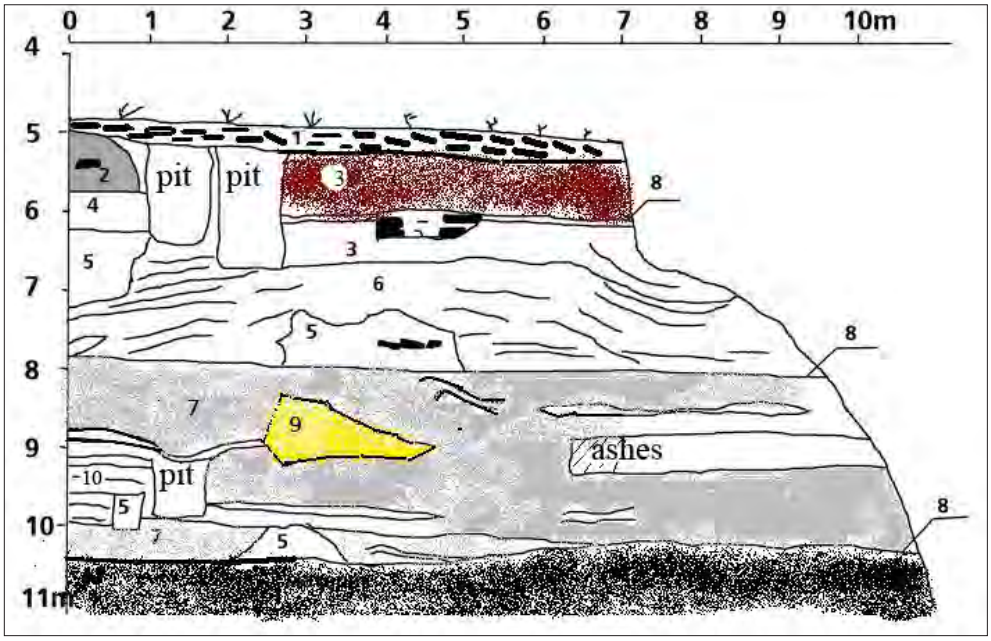


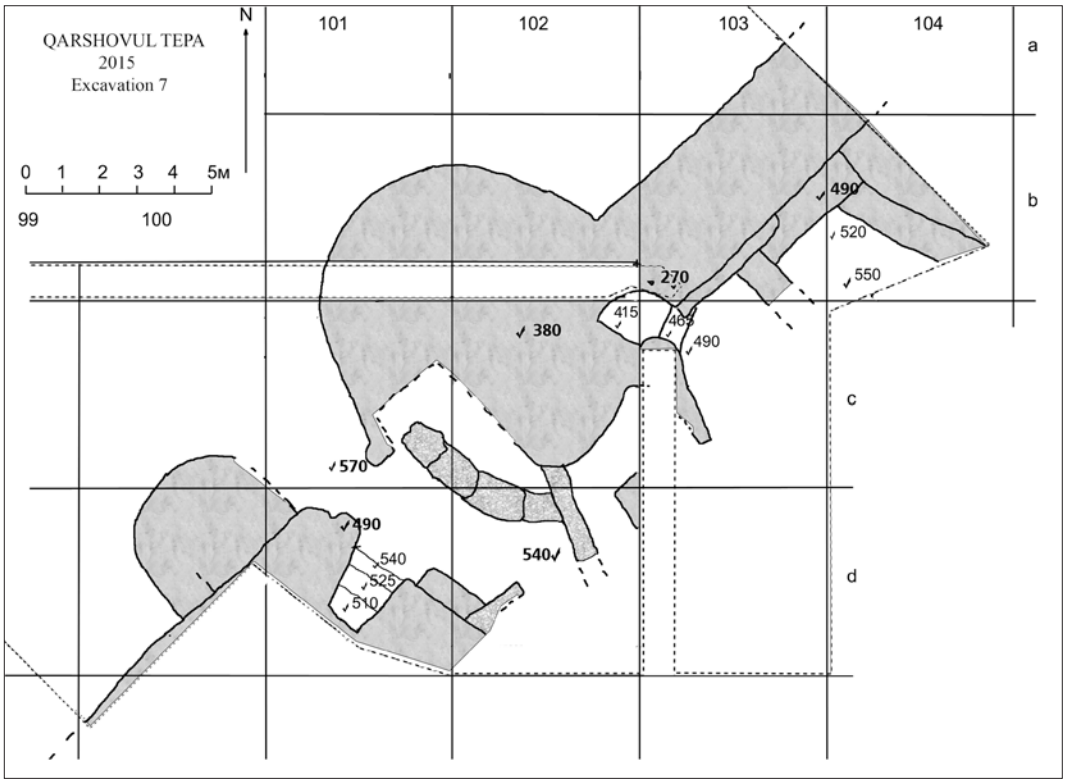
Fig. 2:2: Excavation 1, stratigraphic trench; **1**: soddy layer; **2**: *pakhsa*; **3**: friable layer; **4**: loess; **5**: dense layer of destructed wall; **6**: ashes; **7**: soil of medium density with ashes; **8**: floor; **9**: layer of medium density; **10**: layer of ashes (elaborated by G. Ivanov).

Formerly, the river flowed at the foot of the settlement and so the fortifications of the south-eastern side were built parallel to the riverbed. At some point, however, probably after the area had been abandoned, the course of the river changed from south-west to west, and, as a result, part of the river bank and the southern corner of the settlement were washed away by the river. Currently, the river-bed lies several hundred meters to the south-east.

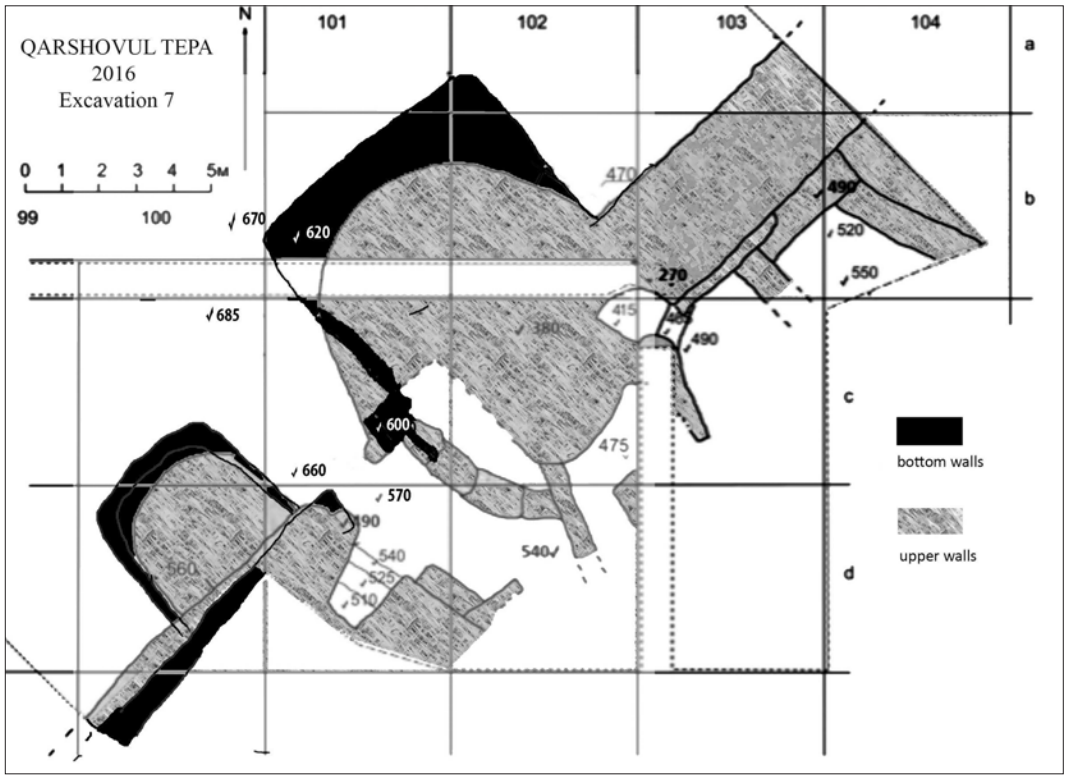
2 History of investigations

The Qarshovul Tepa site (*qarši ovul* means "opposite the located settlement" in the Uzbek language), also named Karshaul in the scientific literature, was mentioned by G.V. Grigor'ev in his 1935 report and located on the map he published. G.V. Grigor'ev studied the monuments on the right bank of the Chirchiq during his investigations in 1934, downstream between Tashkent and Chinaz (Grigor'ev 1935: 47). In 1968, the Bozsuv team of the Institute of History and Archaeology of the Academy of Sciences of

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Fig. 3:1–2: Excavation 7, Northern gate; **1:** The last stage of functioning; **2:** The earlier stage of functioning (© G. Ivanov).

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3

Fig. 3:3: Semi-circular tower of the northern gate (photo by the authors).

Uzbekistan (Ya.G. Gulâmov and G. Dadabaev) conducted some archaeological research (Burâkov/Kasymov/Rostovtsev 1973: 57). Unfortunately, the results were not published. In 2008, a small investigation was conducted by the archaeological team of Ikuo Hirayama's International Caravanserai of Culture of the Academy of Arts of Uzbekistan, headed by K.A. Sheyko. Since 2010, regular excavations have been carried out by the above team, with financial support from the Society for the Exploration of Eur-Asia (Switzerland).

3 The main objectives of the excavations

The main work at the Qarshovul site has been conducted in the southern sector (Excavation 1), at the so-called Platform (Excavation 3), at the Northern Gates (Excavation 7), as well as at the Necropolis (Excavation 5), located 200 m to the north-east of the settlement's fortifications (**Fig. 1:1, 2**).

4 Stratigraphy of the southern section (Excavation 1)

Excavation 1 is located in the southern part of the site at the cliff. The investigation of this area was undertaken in 2008 (when a bronze cross was found there, see **Fig. 9:5**), 2011 and 2015. The main aim in 2015 was to establish the stratigraphy. A vertical exploratory opening 6.5 m deep was dug down to the natural ground level (**Fig. 2:1, 2**). It revealed that this was an unbuilt area, used for utilitarian purposes. A large number of modelled ceramics, mostly kitchen pots and storage containers, were discovered. The ceramic material discovered in the lower layer allows a dating to the 4th–5th centuries CE, though there may be older layers in other parts of the site.

5 Gates and Fortifications Complex (Excavation 7)

As mentioned above, in plan the fortifications of Qarshovul Tepa form a pentagon aligned north-east to south-west. On the satellite image of the Qarshovul site dated 28 February 2016, published in the Google Earth System, the remains of the fortification walls can clearly be seen (**Fig. 1:1**). The longest wall (about 250 m) is the north-western, which goes almost straight from the northern corner of the fortress in the direction of the south-west until the southern edge of the cliff.

There is a gate in the north-western wall of the fortress situated about 50 m from the northern corner of the fortification. The local relief makes it clear that the gates were here, as there is a *pandus* (i.e. a gradual ascent without steps, an architectural and archaeological term from French *pente douce*, "gentle slope") rising at this point from the foot level of the site in a south-western direction. On the way up,

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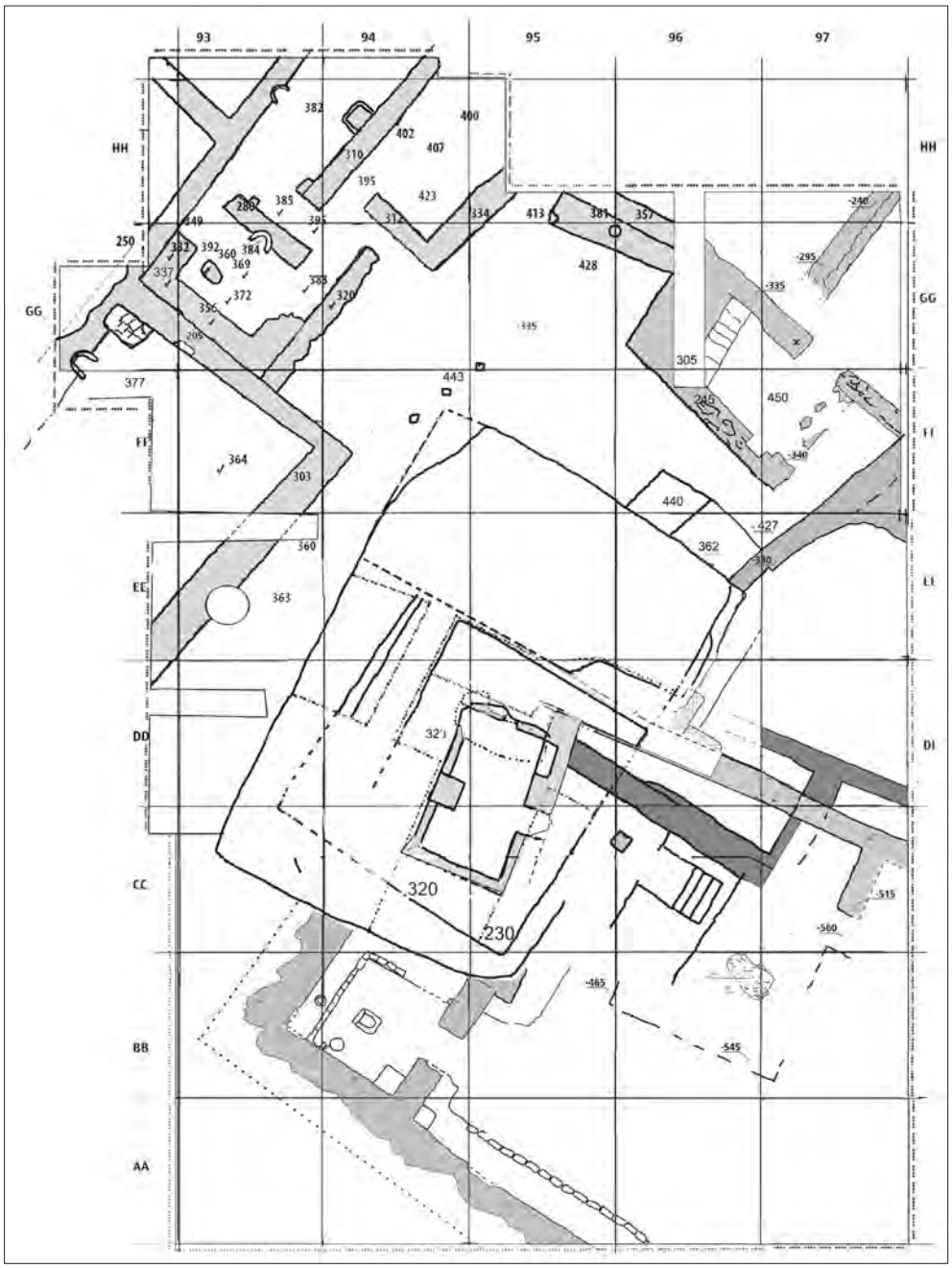


Fig. 4: Excavation 3, Plan of northern part (© G. Ivanov).

on the right side, there was the north-western fortification wall, and to the left was a secondary wall. In case of enemy incursion, this construction made it possible to defend the way to the gate from both sides.

Excavation of the gates and parts of the adjacent fortification walls began in 2014. This has established that in the last period of occupation, there was a gate 1.70 m wide, with a semi-circular tower (Tower 1) situated to the north-east. Built of *pakhsa* (beaten clay), Tower 1 was 8 m in diameter. On the other side of the gates there was another semicircular tower (Tower 2), 4 m in diameter (**Fig. 3:1, 3**). The fortification built of *pakhsa* was 3.20–3.60 m thick. Its outer surface was cleared for 8 m in a north-eastern direction. According to the results of the work in 2016, we can conclude that both of the towers that flanked the gates were rectangular with rounded corners (**Fig. 3:2, 3**). Tower 1 was 6.05 × 5.25 m, and Tower 2 much smaller, i.e. 4.30 × 4 m. Both the upper (i.e. latter) parts of the two towers, as well as then lower parts, were built of *pakhsa*. The distance between the rectangular earlier towers is 3.60 m. The gate is 1.80 m wide on the lower level. Further features of the gates and fortifications, as well as the questions of relative and absolute

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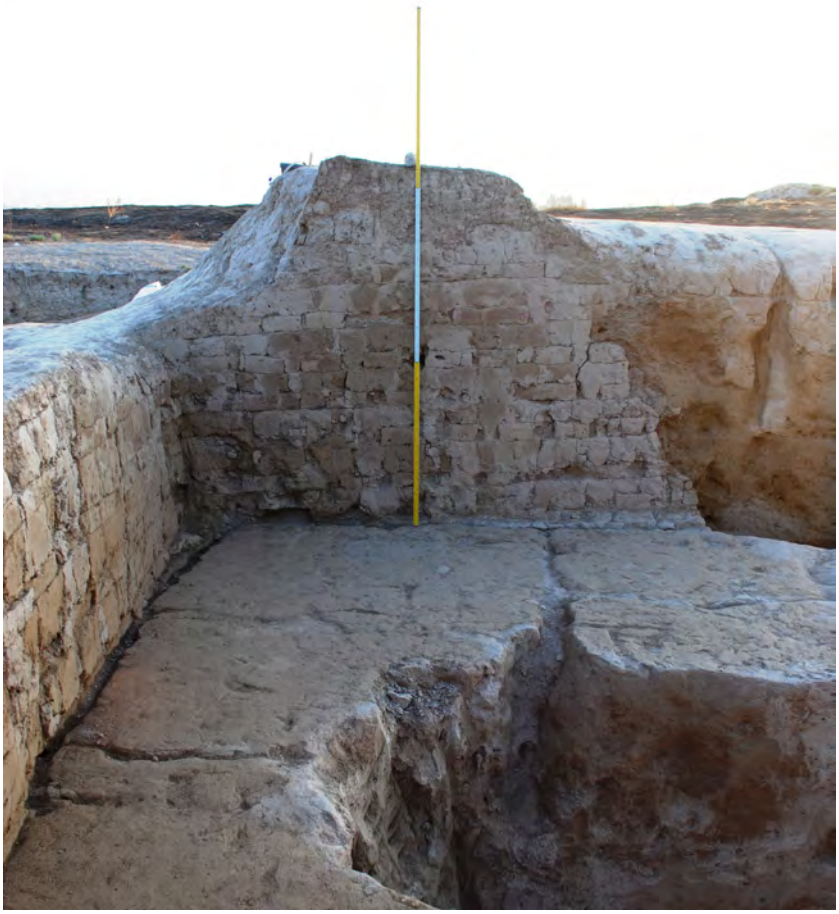


Fig. 5:1: Excavation 3. Highest part of the Platform (photo Dj. Ilyasov).



Fig. 5:2: Excavation 3. Rooms to the north from the Platform (photo by the authors).

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chronology, can be settled by forthcoming excavations.

6 Platform and courtyard (Excavation 3)

Excavation 3 includes the most intriguing structure of Qarshovul Tepa – the so-called Platform and the premises that surround it (**Fig. 4**). The Platform is located in the south-western part of the site, which is delimited by a north-western wall. The Platform is situated parallel to the latter (**Fig. 1:1**). The excavations revealed that there were at least three construction horizons, subdivided into various construction periods. The constructional horizons are numbered from the top down. Herebelow follow the most important details.

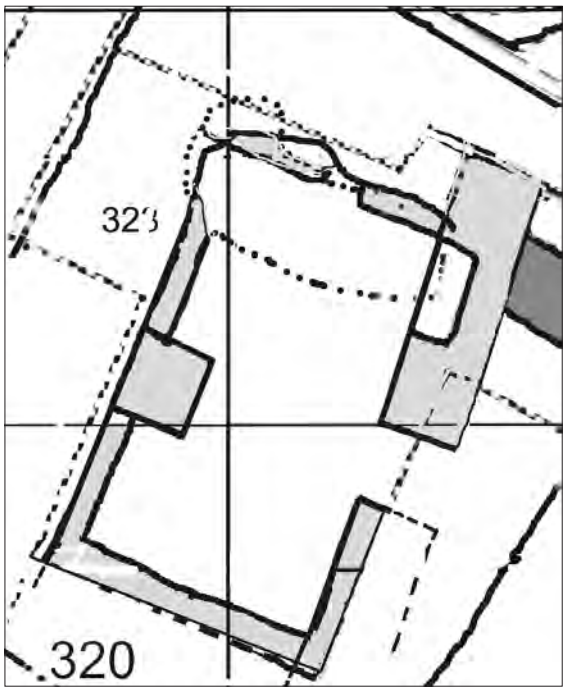
Construction Horizon I

This includes the Platform, the highest point of which is only 1.10 m lower than the highest point (i.e. zero point) of the entire site (**Fig. 5:1**). The Platform is rectangular, with corners orientated on the cardinal points. Its dimensions are: eastern side 16 m, western side 17.40 m, northern side 12 m, and southern side 11 m. In Construction Horizon I, the focus was on the main construction stage, as well as on at least two other functional periods.

Initially, a strong foundation made of clay was raised on the remains of the premises of the Construction Horizon II, its thickness 1.50 m on average. The smoothed top surface of this foundation was at a depth of -3.20 m from the zero point and the upper part of the Platform was erected over this flat surface. In the combined construction method, a layer of *pakhsa* 20, 25 or 35 cm thick alternated with a layer of mud brick laid over a layer of *pakhsa* without using any mortar (**Fig. 5:1**). This resulted in a flat surface that was used as the base for another layer of *pakhsa*. A binding clay solution was used only to grout the vertical seams between the bricks. The bricks used for construction are rectangular in shape, being 48–50 × 24–25 × 8–9 cm. This kind of masonry and this standard type of mud brick were typical in the architecture of Central Asia during the 6th–8th centuries, i.e. in the Early Medieval period (Nil'sen 1966: 204–207, 212, 226–229, Figs. 78, 79; Hmelnickij 2000: 34–36, Figs. 20–22). The preserved height of the Platform in its combined part is 2.10 m, so the total height of the Platform is 3.60 m. Considering the possibility of a washout of soil, we can surmise that the original Platform was about 4 m high. A mud-brick bench (*sufa*) about 40 cm high (four layers of brick) and about 1.50 m wide was situated on the south-eastern side of the clay body of the Platform. A similar structure was probably also connected to the north-western edge of the Platform. Structures had been added to the north-eastern and south-western sides of the Platform. Room 6, which joins the Platform on the south-west, is 4.95 × 3.50 m. The north-eastern wall of the room is actually the south-western edge of the Platform, composed of *pakhsa* blocks. Block sizes range from 60 ×60 cm to 90 × 90 cm. The height of the wall inside the room is 1.10 to 1.20 m. The length of the north-western wall is 4.95 m and reaches, at its highest undamaged state, 0.75 m. The south-western wall is less preserved than other walls. Its interior length is 4.60 m and its height is between 0.15 and 0.23 m. The south-eastern wall is also 4.60 m long and its current height 0.25 m. At its centre there is a doorway 1.25 m wide that connects the room with the big courtyard. The walls of the room, except the north-eastern one (i.e. the Platform) were laid out with mud bricks measuring 48–49 × 23–24 × 8–9 cm. There are *sufas* benches along the north-eastern and north-western walls, but not along the south-western wall. Only a small podium was identified in the southern corner. The construction of the *sufas* is as follows: the mud bricks are laid out in one row along the perimeter of the bench, and the space between the wall and the brick border is filled with soil and fragments of mud bricks. The *sufa* is 0.90–1.10 m wide. Walls and *sufas* are covered with a plaster consisting of clay mixed with straw. In the centre of the room, there was a square fireplace, and beside it (to the south-east) a copper coin bearing the image of a ruler was discovered. Another coin was discovered by the south-western wall; its state of preservation is poor, though a double portrait of a ruler and his wife can be discerned. The room was filled with wall debris lying on the burnt layer, which in turn lay on the last floor of the room. This period of occupation produced only a few not very expressive ceramic fragments.

A big complex of rooms surrounds the Platform on the north-east and north-west (**Fig. 5:2**). The walls of all these rooms are of mud brick. Rooms 7 and 8, which are only partly excavated, are located in the north-eastern corner of Excavation 3 and beyond. In Room 8, a ceramic fragment with an uncertain zoomorphic ornament was discovered. Pieces like this are called supports (for making *shish kebab*?) in Central Asian archaeology. Room 9 is located to the south-west of Rooms 7 and 8, its size 7.70 × 3.45 m. The south-western wall is only 6.35 m long, because it abuts the brick staircase that led to the upper floor or the roof, which has not been preserved. The height of the staircase is 0.90 m, the width 0.75 m. It has four steps, each 25 cm wide. Room 9 is connected to Room 8 by a passage. By the northern wall of Room 9, a fireplace was discovered at the lowest floor level. Room 10 (9.40 × 3.46 m) was added to the north-eastern face of the Platform, like Room 6. Its peculiarity is a mon-

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Fig. 6: Constructional Horizon II, Room No. 1; **1**: Plan (© G. Ivanov); **2:** View from north-west (photo by Dj. Ilyasov).

umental *sufa*, added to the Platform build of *pakhsa*; its length is 2.45 m, its width 1.83 m, and its height 0.60–0.65 m. The walls are made of mud bricks measuring 50 × 25 x 10–11 cm. Room 11 was probably an *iwan*, because it has no wall on the south-western side. The north-western wall is 4.60 m long, the north-eastern wall 5.40 m, and the south-eastern wall 3.50 m. Along the north-eastern wall, there is a *sufa* 1 m wide and 4.15 m long. This *sufa* does not reach the north-western wall. In the centre of *sufa* there is a round fireplace 30–35 cm in diameter. Room 12 has been only partially excavated. Located to the north-west of Room 11, it is 3.50 m wide. The north-western wall has been traced for 4.70 m. There is a doorway 1.05 m wide in the southern corner. The south-western wall is 2.50 m long. Discovered in the room were fragments of a large ceramic jar (*khum*) with a *tamgha* (individual or clan property mark incised into the clay before firing). Room 13 is located to the north-west of Room 12

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and is oriented south-west to north-east; it has been only partially excavated, because the northern part of the room is beyond the excavation site. The south-eastern wall has been traced for 6 m. The width of the room is 2.80 m. As in Room 11, there is no south-western wall here. There is a kind of communicating room which connects this room with Rooms 12 and 15. In Room 13, finds include fragments of big ceramic jars, and a modelled fire-resistant clay pot with two holders in the shape of roundish ledges. At the side of Room 13, we discovered, by the communicating room's wall, a thin-walled ceramic mug with polished surface and, under the handle, incised decoration in the shape of a cross inside a diamond. Room 14 is to the north-west from Room 13. Only its southern corner has been excavated so far, because the major part of the room is beyond the excavation area. Fragments of a *khum* with *tamgha* were found here. Room 15 has two passages into the communicating room and is located to the south-west. The north-western passage is 1 m wide, the second passage 1.30 m wide. The room is 5.20 × 3.50 m. Along the south-western and partially the north-western and south-eastern walls, there is a *sufa* between 0.90 and 1 m wide. The height of the *sufa* at the north-western wall is 37–39 cm; at other walls it is 23–25 cm. Closer to the western corner of the room there is a fireplace that rests on a brick base. Another fireplace, wall-mounted, was found on the wall that separates Room 15 from the communicating room. Traces of a powerful fire have been seen here: on the upper-floor level, there were found burnt wooden roof beams and the walls had been reddened by fire. In Room 15, fragments of *khums* were found, together with a modelled mug with relief decoration, polished red engobe and *tamgha* scratched under the handle before firing (**Fig. 9:1, 2**). Room 16, which is to the south-west of Room 15, is 10.45 × 7.50 m, which suggests it may in fact have been a courtyard. Here, at the level lower than the upper floor, we discovered circular-shaped ceramic jars with four loop handles, and relief polished decoration that made them look attractive (**Fig. 9:3, 4**). To the south-east of Room 16 there is a corridor 2.75–3.05 m wide that divides it from the Platform and has been named Room 17. So the area between Rooms 10, 11, 12, 15, 16 and 17 could have been used as an inner yard that included the *iwan* (that is, Room 11).

In the last period of the Platform's use, in its south-eastern part there was a spacious, complexly shaped yard with a floor area of about 600 sq m. A stairway made it possible to climb up to the *sufa* that surrounds the Platform from the earlier level of the courtyard. It was added to the outside of the walls of the second Construction Horizon phase which surrounded Room 2 or the inner yard (see below). The stairway consists of eight rows of mud bricks and has four steps, each of which is two bricks high; its length is 1.80 m along the northern and southern sides and it is 1.60 m wide. In later periods, the cultural layers of the settlement grew in depth and the stairway was gradually covered with a layer of friable greyish soil 45–50 cm deep. Along the south-western wall of the yard, which was a continuation of the south-western wall of Room 6, and which was traced for 7 m, there was a *sufa* 1.10–1.15 m wide. Possibly a similar *sufa* was also built along the north-eastern wall of the yard. This has led to the suggestion that members of the community could have gathered in this spacious courtyard for certain ceremonies, sitting along the perimeter of the courtyard.

The part of the courtyard linked to the Platform was covered with a layer 25–30 cm deep that appears to be the result of a fire. In the south-eastern part of the courtyard, away from the Platform, traces of fire damage were also discovered, though here not as extensive as in the area close to the Platform. Traces of intensive fire revealed by the red colour of brick walls, burned wooden beams and so on, have also been noted in the premises that surround the Platform. The fire caused serious damage in all the premises that surround the Platform. Judging by evidence of repair works, after only a little time the rooms and the Platform were reused, but for a short period only. No traces of serious redevelopments have been discovered, and the site, as well as the whole settlement, was soon abandoned.

Construction Horizon II

Before constructing the Platform, the upper parts of the walls of the building related to the second construction horizon were levelled. Under the central part of the Platform, Room 1 of the above-mentioned premises has been excavated. It is a rectangular room, its walls orientated mainly on the cardinal points, with a slight deviation towards the east (**Fig. 6:1, 2**). The layout of Room 1 on the level of the first (i.e. uppermost) floor (-5.22 m from the zero point) is typical of the throne or display (guest) rooms of Early Medieval palace and the castle architecture of Central Asia. Classic examples of the "throne room" are square in plan, though they can sometimes be rectangular. The best known examples are in northern Tokharistan, in Sogdiana and in Chach (Nil'sen 1966: Figs. 24, 50, 65, 66; Lunina 1984: 98–100, Fig. 28; Hmelnickij 2000: 57, Figs. 38, 54, 60; Il'âsova 2004: 207–213, Figs. 2, 3).

Room 1: the western wall is 5.40 m long, and the room's width along the southern *sufa* is 2.81 m. The room becomes slightly wider to the north: at 1 m to the north of the podium, its width is 2.90 m. Along the southern and western walls there are raised area (*sufa*) used for sitting. The height of this *sufa* is 50 cm in the south-eastern and 47 cm in the south-western corners, its width 44 cm. The height

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of the *sufa* along the western wall was 50 cm, the width 39–42 cm. Here, 1.66 m from the southern *sufa*, a "place of honour" was made. It was organised as follows: the *sufa* has a niche 90 cm wide, the back wall of which is angled at about 30 degrees. The northern side of the niche is 15 cm deep, the southern side 20 cm deep. A brick podium covered with the fine clay plaster on the sides and on the upper surface is attached to the niche; its dimensions are: southern side 50 cm, eastern side 94 cm and northern side 63 cm. The height of the podium is 39–40 cm. A space of 72–81 x 90–94 cm (which is the area of podium plus niche) made it possible for one person to sit here in greater comfort than the other people present at an event. The *sufa* continues to the north of the niche, but as a more complex structure: for 54-55 cm it is 50 cm high and 37–38 cm wide; then it is 8–10 cm lower because here there is one row of bricks less than in the other part. This forms a kind of armrest 55 x 38 cm long and 10 cm deep. At a distance of 1.10–1.20 m to the north of the podium, the *sufa* was cut by a robbers' pit which, coming down from the top of the Platform, partially destroyed the surface of the northern part of the western wall of Room 1. Because this pit completely demolished a significant part of the northern wall, together with the north-western and north-eastern corners of Room 1, there is no way to prove that the *sufa* continued along the northern wall, though this looks logical in terms of the planning schemes of this type. The "place of honour" is placed vis-à-vis the entrance to Room 1 on the eastern wall. Such a configuration is typical for the gala-halls, where the walls are lined with *sufas*, and opposite the main entrance there is a "kiosk", i.e. a widened part of the *sufa*. The entrance is 87 cm wide, and its southern face is 2.28 m away from the south-eastern corner of the room; the northern face is 2.15 m away from the northern wall. The entrance was closed off with mud bricks (46 × ? × 9 cm, ? × 23 × 10 cm). Under the bricks, there is a layer of fine, dark-grey soil 10–20 cm thick. The height of the brick layer at the entrance is 70–75 cm from the level of Floor 1. Above this is a layer of levelling fill, and above that, at a height of 84–85 cm, *pakhsa* had been used, serving as a Platform foundation.

Room 1 had another niche, which is on the northern side of the eastern wall, close to the north-eastern corner. It is 1.12–1.14 m wide and 46–48 cm deep, and the bottom of the niche is 5–6 cm higher than the level of Floor 1. The walls of the niche have survived only as high as 45 cm. Like the niche in the western wall, this niche correlated with Floor 1. We can assume that the niches were used for storing certain objects, like statues, ceramic or wooden containers, ceramic vessels and so on. But considering that the podium is right in front of the first niche, as well as the fact that the back wall of this niche has a sloping back, we can surmise that it was used as a "front seat" that was covered with mats, carpets and cushions. As for the niche in the north-eastern corner, it was most probably used for keeping the objects described above, so that they stood above the level of Floor 1 by several cm.

The above-mentioned robbers' pit, which was dug after the settlement had been abandoned, destroyed one-third of Room 1. The robbers started digging the pit to the west of Room 1. In plan, the pit was round, about 3 m in diameter at the top, and in section shaped like a funnel. At the depth of 3 m from the preserved top of the Platform, the pit changes into an elongated oval, because the robbers intruded into the *pakhsa* foundation of the Platform in the east. The persistent treasure seekers managed to break through the extremely tough Platform, demolished a part of the northern wall of Room 1, and broke through Floor 1, as well as through several lower floor levels related to Construction Horizon II. In Room 1, the size of the pit is 3 × 1.30 m. At about the level of Floor 4, which is located at the depth of -6.40 m from the zero point, the pit gets smaller and occupies the north-western corner of Room 1. Apparently, this part of the pit was initially the robbers' "mine", which they widened towards the east. It is hard to say what the robbers were looking for; maybe they thought that there would be something very precious underneath so solid a platform. In any case, the depth of the pit is at least 7 m from the zero point.

In Room 1, excavation at the level of Floor 2 (-5.76 m) has been partially carried out (**Fig. 6:2**). It seems that the floor plan at this level is somewhat different to the plan at the level of Floor 1 (-5.22 m); for instance, the entrance to the room was, possibly, different, as well as the disposition of *sufas*. This will be examined in the next season of excavations, during the gradual, level-by-level clearing of Room 1 and the adjacent premises.

In the stratigraphic trench, which links with Room 1 in the east, the structure and phases of the Platform construction can be traced, as well as the remains of Room 2 (or a small courtyard?) of Construction Horizon II, the northern wall of which joins the eastern wall of Room 1. It is built of mud bricks which are 49 x ? x 8 cm, 52 x ? x 8 cm, and ? x 26 x 9 cm, about 1 m thick, and has been traced 4.50 m to the east. After that, the wall turns to the north. Access to Room 1 was through this room (or yard). Details of the plan and attribution will be clarified during coming seasons.

Stratigraphic surveys reveal the following: at the level of the eastern wall that was cut as preparation for the Platform construction in Room 1, the floor was made up of several thin layers of clay identical to the fine plaster covering the walls of Rooms 1 and 2. This clay covering is between 5 and 25 cm thick. Evidently this was not the real floor, but a multilayer coating, spread through the premises of Construc-

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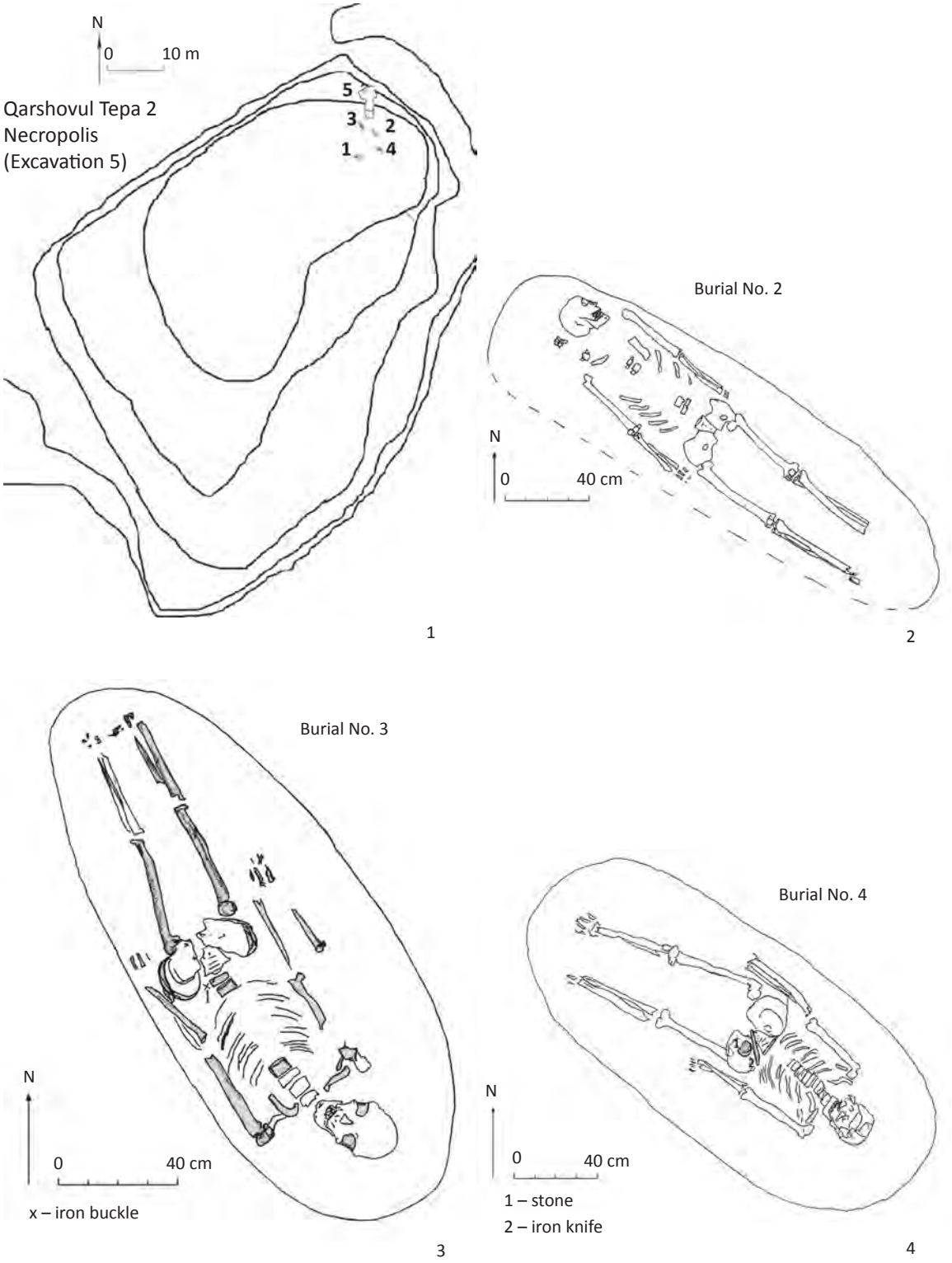
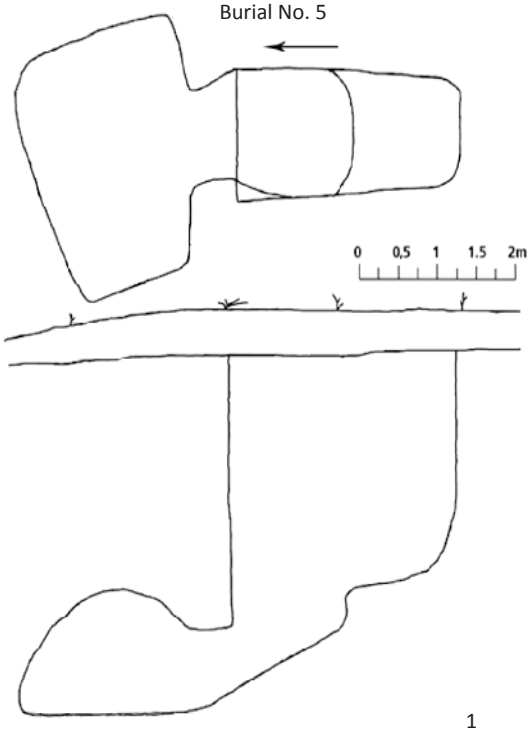


Fig. 7: Qarshovul 2 – Necropolis (Excavation 5); **1**: Plan of necropolis; **2:** Burial No. 2, plan; **3:** Burial No. 3, plan; **4:** Burial No. 4, plan (drawings by G. Ivanov).

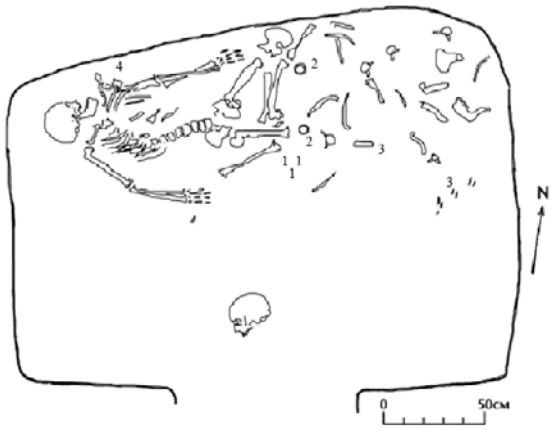
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Qarshovul Tepa
Burial No. 5



1

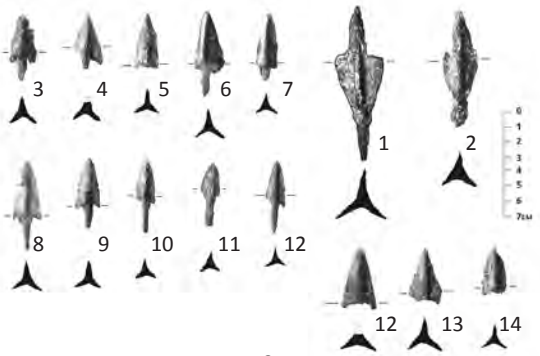
Qarshovul Tepa – 2013
Burial No. 5



1 – arrowhead (iron)
2 – big rings (iron)
3 – fragments of sword (iron)
4 – fragment of ceramic vessel

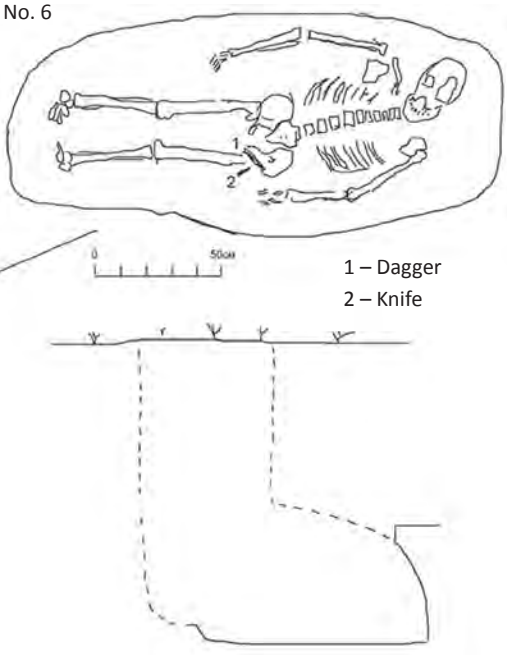
2

Burial No. 5
Iron arrowheads



3

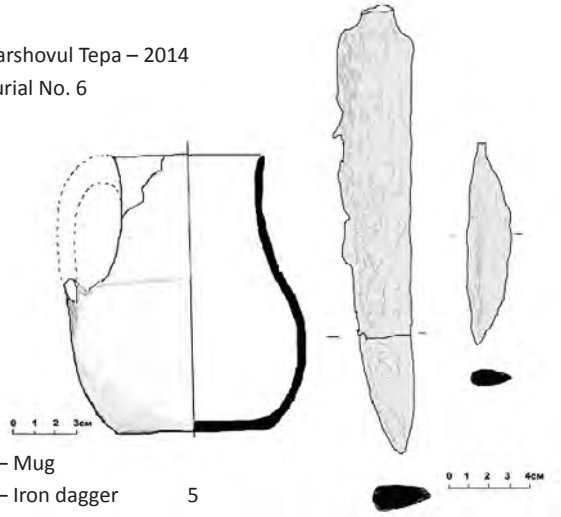
Qarshovul Tepa – 2014
Burial No. 6



1 – Dagger
2 – Knife

4

Qarshovul Tepa – 2014
Burial No. 6



1 – Mug
2 – Iron dagger

5

Fig. 8: Qarshovul 2 – Necropolis (Excavation 5); **1**: Burial No. 5, plan and section; **2**: Burial No. 5, plan of catacomb; **3**: Burial No. 5, iron arrowheads; **4**: Burial No. 6, plan and section; **5**: Burial No. 6, finds (drawings by G. Ivanov).

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tion Horizon II, that was applied over the friable layer of backfill in order to level the surface for the construction of the Platform. This level extends for 5 m to the south-east of the wall of Room 1 and is adjacent to a small brick wall (30 cm thick) that limits the courtyard (Room 2?) of Construction Horizon II to the east. At about 1 m from the wall of Room 1, the layer is horizontal, then it drops smoothly for 10–15 cm, then after 2.50 m it rises again. This lowering could have appeared because the fill and plaster sagged under the weight of the Platform that was initially built from this level. Underneath the layer of fill and plaster, about 40–50 cm lower down, Floor 1 was discovered, which coincides with Floor 1 in Room 1 (-5.20–5.22 cm from the zero point). It continues horizontally from the eastern wall of Room 1. The above-mentioned wall, which is one-brick thick, stands at the same level. Floor 2 is lower (-5.39–-5.49 m), its coating 5 cm thick. This floor has a fired surface, and supports another thin wall (40–45 cm thick) that limits a courtyard (or Room 2) to the east. This wall stands right under the first thin wall that was built 15 cm off. So the distance between this thin wall and the eastern wall of Room 1 is 4.85 m. These two thin walls are adjacent, with a stairway (related to Construction Horizon I) leading to the Platform (see above). On Floor 2, 85 cm to the west of the limiting thin wall and 3.45 m from the wall of Room 1, a square structure has been cleaned. It was possibly a base for the wooden (?) column that supported the roof or canopy. The coating of Floor 2 is 3–4 cm deep. Underneath Floor 2, there is a soft crumbling, dark-grey layer (6–8 cm deep) rich in ash. Farther to the east and south-east, this layer becomes the ground level of a spacious courtyard that is linked to the Platform. The lower ash layer continues to the east with a swell of 20–25 cm. Under the ash layer in Room 2 there is Floor 3. The coating here is 3–4 cm thick, underneath which are accumulation layers 25 cm deep, one of which is of greenish colour. Lower still is Floor 4, about 5 cm thick, and below that is a layer of lumpy soil about 10 cm thick. Underneath there is a layer of rubble about 25 cm thick. Below that, on the level of Floor 1, which belongs to Construction Horizon III, there is a dense layer of loam. Detailed investigation of this horizon is a matter for the future.

7 Necropolis Qarshovul 2 (Excavation 5)

The necropolis, which undoubtedly belongs to the Qarshovul Tepa site, is located 200 m to the north-east (**Fig. 1:1**). A natural hill standing on the banks of the ancient riverbed of the Chirchiq River was used for burials. Currently, it is partially preserved and has a triangular shape, for the original hill was cut from the north-west and south-west in the 20th century during land-reclamation (**Fig. 7:1**). Its dimensions are 60 × 40 m and its stands 4 m above the current ground surface.

The excavations of the necropolis were conducted between 2012 and 2015. Under the grassy surface, the top layer of the hill down 40 cm consists of a medium-density soil formed of dust and sand, held together by salt and grass roots. Lower, there is a thin layer of a heavily saline sand in which traces of graves could hardly be found. Most of the excavated burials could be identified as such only after the human remnants were discovered and cleaned. During the four field seasons, 11 burials were discovered. Ten of them can be attributed to the burials of the inhabitants of Qarshovul Tepa.

The design of the burial pits was difficult to establish in 6 cases out of 11. According to the disposition of the remains of the burial pits and skeletons, it can be concluded that they are so-called *podboy* burials, i.e. a rectangular entrance pit and vault in one of the long walls (**Fig. 7:2–4**; **Fig. 8:4**). The structure of the remaining five burials is clear: three of them are catacombs and two are *podboy* burials. The bodies were buried at the depth of 2 m maximum. During the excavations of Burial 2, it became clear that the vault was closed up with rectangular mud bricks sized 35 × 25 × 9 cm. In view of the fact that the butt-end of the bricks could have been partly cut during the excavation of the burials, the form of the brick is very close to that at Qarshovul Tepa (47–48 × 25 × 9–10 cm).

Three of the graves were of catacomb type and differed in size. In the largest of them (Burial 5), the lower skeleton was placed on the ground at a depth of 5 m below the current ground level.

Burial 6 was at a depth of 2.70 m, and Burial 11 at 1.70 m, below the current ground level. The burials are all differently orientated. This most probably illustrates the fact that the inhabitants of Qarshovul Tepa had no strict burial traditions.

The question of dating the necropolis is difficult. All in all, apart from the finds made in Burial 5, the finds were two ceramic vessels, two iron knives, a fragment of a dagger, and two round iron buckles. In more than a half of the excavated burials, no grave goods were discovered. But the objects found at the site cannot be used as dating material because similar objects were used over a very long period of time, from the middle of the 1st millennium BCE to the 8th century CE.

Burial 5, being a catacomb type, is different from the others both in construction and dating. The entrance pit is of a trapezoid shape and orientated north-south (**Fig. 8:1, 2**). It is 2.90 m long; its northern wall was almost perpendicular to the longitudinal walls, its width here being 1.50 m; in the southern part, the corners were rounded, and the width of the entrance pit is 1.25 m at the top and 1 m at the bottom. Under the southern wall, the pit is 2.25 m

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1



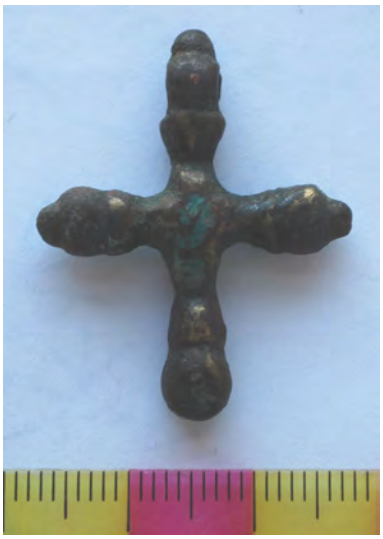
2



3



4



5



6

Fig. 9: Finds: **1, 2:** Ceramic mug, Excavation 3, Room No. 15; **3, 4:** Ceramic jars, Excavation 3, Room No. 16; **5:** Bronze cross, Excavation 1; **6:** Bronze ear-cleaner, Excavation 3 (photos Dj. Ilyasov).

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below the ancient surface. 1.75 m to the north of the southern wall, there is a step, and the bottom of the pit now descends to 3 m. Farther to the north, the bottom of the pit gets lower still, reaching a depth of 3.75 m under the northern wall of the grave's entrance pit. There is an archway into the dromos, 75 cm high, and it is slightly narrower than the width of the entrance pit. A 50 cm dromos leads to the catacomb. The floor of the dromos is inclined and connected with the catacomb 4.25 m from the ancient surface. Inside the dromos, there was just loose soil. The catacomb of Burial 5 stretches east-west and is located almost perpendicularly to the entrance pit and dromos. Deviation from the north-east/south-west orientation is not more than 10 degrees. The catacomb is trapezoidal in plan (**Fig. 8:2**), its western wall 1.40 m long, the eastern 2.10 m. The length of the chamber is 2.60 m. The walls are vertical for only 20–25 cm; above this height they are overarching. The floor at the depth of 5 m from the current surface is levelled and formed of rammed earth. At its highest point, the catacomb's ceiling reached about 1.40 m. The ceiling in the north-western corner has caved in (or most probably the hole was pierced at the time of the next burial at the same spot). On the floor, there were remains of an organic substance which is brown in colour (felt rug?). There have been two burials in this catacomb, and both times they were along the northern wall. The skeleton from the initial burial rested on the ground (on a rug?). But just the leg-bones have survived, because soil covered the legs when the ceiling fell in. According to the position of the legs, the body lay stretched on its back, the head turned east. The remaining bones of the skeleton from the pelvis and above were scattered around the entire north-eastern part of the catacomb. The skull was positioned towards the dromos. The leg-bones were covered with a layer of loose soil 15–30 cm deep that had crumbled through the hole in the ceiling. The second skeleton lay over this soil. It, too, lay stretched on its back, but its head pointed west, the face turned towards the north. Later (but not long after, because its tibia and fibula were not separated) the leg-bones of the upper burial were shifted towards the northern wall of the catacomb. Judging by the position of all the bones, the catacomb had been robbed twice. Initially, at the time of the second burial, the grave-diggers fell into the catacomb they presumably did not know about before. And this happened again soon after the second burial.

Finds from the necropolis

In Burial 5, south of the place where the hip-bones of both skeletons were, two iron rings, a fragment of a sword, and 15 three-bladed iron arrowheads were discovered (the arrowheads vary in size and condition). As practically no ceramic material was found, the arrowheads were used as the basis for dating the graves. Small three-bladed arrowheads with the point bent over were in use at the turn of our era (Litvinskij 1965: 78, Fig. 6). Larger arrowheads are usually dated after the 4th century CE. Tiered arrowheads like those discovered (**Fig. 8:3**) appeared in southern Siberia and on the Mongol steppe in the 2nd to 1st centuries BCE (Zaseckaâ 1983: 82). They are characteristic of the Hsiung-nu people, but by the end of the 1st century CE such arrowheads were known as far away as the North Pontic region (Simonenko/Lobaj 1991: 14, 45, Fig. 7: 5, photo 9; Simonenko 2010: 99–100, Fig. 68). The type of construction and the depth of the catacomb are characteristic for the monuments of the Central Asian nomads at the cusp of two eras. Based on the above, it seems possible to date the first of the burials in the catacomb to the end of BCE/first centuries of CE. As for the second burial, investigated together with all the other burials at the necropolis of Qarshovul Tepa, it dates to the Early Medieval period.

Summing up the results of the excavations of 11 burials during the four field seasons, it is still too early to offer any final conclusion. Conspicuous are the facts that:

1. The main burial (No. 5) is very different from all the others in construction and dating.

2. Other burials do not show stable skeleton orientation and more than the half of them had no grave goods at all.

3. The overwhelming majority of the burials coincide in time with the occupation of the Qarshovul Tepa settlement.

So we can surmise that the early catacomb was left by the nomads before the fortified settlement appeared on the neighbouring hills. Later in this area, the cemetery for Qarshovul Tepa inhabitants was organised. Apparently, the burials excavated reflect a not very stable burial ritual and belonged to the descendants of the nomads of the so called Kaunchi archaeological culture of Tashkent oasis who later settled in the area. In other words, these were a part of the Kangju tribes, among whom the massive sedentarisation process began in the 3rd–4th centuries. As for the religious affiliation of the buried people, it is still too early to draw any conclusions.

8 Finds from the site

The archaeological investigation carried out by the Ikuo Hirayama International Caravanserai of Culture of the Academy of Arts of Uzbekistan revealed various aspects of the material and spiritual culture

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Fig. 10: Excavation 3, stone object: **1:** Stone bead; **2, 3:** Stone pendants; **4:** Stone distributor, lapis lazuli; **5, 6:** Stone stamp with Sogdian inscription; **7:** Fragment of serpentinite vessel (mortar?); **8:** Stone guard; **9, 10:** Stone scabbard slide; **11:** Stone chape (?); **12, 13:** Details of engraved depictions of guards and scabbard slide, bone belt buckle, Orlat burial ground, Uzbekistan (photos by Dj. Ilyasov).

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of the local population of the Early Medieval period, mainly the 7th–8th centuries.

As usual, the main finds were fragments of ceramic vessels. The vessels discovered included both modelled forms (the majority of the finds) and those made on the potter's wheel. They can be subdivided into kitchen utensils (pots, frying pans, tables or so called *dastarkhans*), storage and transportation wares (*khum*, *khumcha*, wide-neck jugs with the horizontal handles for storing liquids), and tableware (polished spherical jars with the relief decoration over the orange-red engobe, jugs, jugs with spouts, mugs, bowls). Both the kitchen utensils and storage vessels had lids. *Khums* and *khumchas* all had a characteristic brownish engobe. A separate group of finds consists of incense burners and oil lamps.

The discovered ceramic material is very close to Chach ceramics, as well as to ceramics of the south Kazakhstan territories along the Syr Darya River, and may be dated to the 6th–8th centuries (**Fig. 9:1–4**).

A characteristic feature of Qarshovul Tepa ceramics is the *tamgha* or *nishan*. *Tamghas* were personal or clan/tribal signs of ownership. They mainly appear of the storage and transportation wares (*khums* and water jugs) and on the tableware (mugs). A good collection of *tamghas* is being steadily gathered, and a special paper will be dedicated to it.

Other finds

In 2008, a bronze cross was discovered on the site (Ashirov/Potorochina/Sheiko 2010: 40–43), found under a layer of sods at a depth of 15 cm, in the south-east corner of Excavation 1 (**Fig. 9:5**). It generated interest in view of the long-lasting discussion concerning the location of the Christian settlement of Winkerd, which, according to the Arabic geographers of the 10th century, was located in al-Shash (Bartol'd 1964a: 279; 1964b: 315–316; Sverčkov 1990: 101–102; concerning Christianity in Shash, see, Bogomolov 1994: 71–78). Similar crosses have been found at the Krasnaja Rečka site in Kyrgyzstan, dated to the 7th–8th century (Bajpakov/Ternovaja/Gorâčeva 2007: 202–205, Fig. 308: 10–12, Fig. 312: 4).

At Excavation 3, various metal objects have been found. They include a bronze ear-cleaner, 60 mm long and 12 mm wide, with a spoon-like shape at one end and a figural finial at the other (**Fig. 9:6**). It was made with a casting technique. The finial at the end of the stick shows a female figure in a double-breasted high belted coat and boots. In her left hand, held low, she is holding a jug (?), while between her raised right hand and her cheek there is an indistinct object (a bouquet? a bunch of branches?). Above the head, there is a hole for hanging the item. Such objects, which have been discovered in Early Medieval sites in Sogd (Hisorak) and northern Tokharistan, date back to the 7th–8th centuries. The example most like ours was found at Shirkent in southern Tadjikistan (Solov'ev 1997: 64, Fig. 16: 15; Solov'ev 2007: Fig. 50).

In Room 13, part of an iron spear was found, namely the pointed finial that was attached to the bottom end of a spear (*vtok* in Russian). In shape it is an elongated cone, its length 11.8 cm, the opening 3.5 cm in diameter.

Another very numerous group of finds after the ceramics are the objects made of various kinds of stone. Discovered in the fire layer in the courtyard linked with the Platform in the south-east, they were scattered over the courtyard. If we suppose that the Platform was used for some ceremonial or religious purposes, the fire layer may be evidence of the plundering and burning of the complex during one of the last periods of occupation at Qarshovul. In this case, the stone objects scattered around chaotically may be the remnants of the offerings that had originally been kept inside one of the premises that linked with the Platform. Seemingly, the robbers (solders of Qutayba ibn Muslim's army which, according to Ṭabarī, plundered and burned Shash in 713–714?) did not consider them valuable and so just threw them aside. Many stone artefacts, like beads, show the traces of burning.

Other stone objects include: a stamp with Sogdian inscription (**Fig. 10:5, 6**); the fragment of a mortar made of serpentinite (**Fig. 10: 7**); parts of a sword and scabbard (**Fig. 10:8–11**); a "distributor of laces/thongs" made of lapis lazuli (**Fig. 10:4**); rectangular and triangular pendants (**Fig. 10:2, 3**); and large beads (spherical, oval, cylindrical, and flat) (**Fig. 10:1**).

Let's look at some of these objects in a little more detail. The stamp, which is 4.7 cm, is made from a semi-translucent stone (chalcedony or jade?) that turned dark grey after being in a fire. It is square in transverse section (2.6 × 2.1 cm), becoming narrower at the top end, where a hole was drilled so that the stamp could be carried on a cord (**Fig. 10: 6**). On the flat bottom side of the stamp, which measures 2.5 × 2 cm, are carved two words: *βγy* and *prn*[1] (**Fig. 10:5**). A theophoric name *Vaγyfarn* ("Glory of god [s; of Mithra?]") can be found at different sources, including Sogdian letters and coins (Lurje 2010: 140–141 No. 289). It should be mentioned that the inscription was not cut very elegantly, probably by someone who was not a professional, and carved not as a mirror reflection, as it should be done on a stamp, but reading right to the left, as in ordinary Sogdian writing. Nevertheless, this does not mean that this item could not have been used as a stamp.

1 The authors would like to express their gratitude to Nicholas Sims-Williams and Pavel Lurje for reading the inscription.

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The fragment of a rim was part of a thick-walled vessel carved from a green stone with black spots, most probably serpentinite (**Fig. 10:7**). The cylindrical body is decorated on the outside with a relief carving depicting an elegant floral ornament. Judging by the thickness of the walls of the vessel (at its thickest 1.8 cm), it was a mortar with a diameter of about 12 cm. Overall, the fragment measures 6.2 × 3.1 cm. The discoveries of similar elegantly decorated objects are not known in Central Asia, though the Zoroastrian "Avesta" texts indicate indirectly that such pieces of art existed. One of the texts reads: "We worship the stone mortar, we worship a metal mortar" (Grenet 1987: 52). This attitude is connected with the worship of the sacred Zoroastrian drink "*haoma*": mortar and pestle were used for the preparation of this drink and were therefore considered sacred. There was probably also a link with more ancient fertility and phallic cults, the mortar and pestle being associated with the male and female reproductive organs. Such associations were still relevant even during the Middle Ages (Iľâsov 1993: 146). During the archaeological investigation of Persepolis, a stone mortar and pestle with an Aramaic inscription on them were discovered. They were kept in a treasury, not as functional items, but as objects of deep significance. A bronze mortar has also been found (Koch 2000: 168, Fig. 111; Abdullaev 2009: 75–76, Figs. 36, 37). Information on a bronze mortar with a Parthian inscription on it was recently published (Sims-Williams 2013: 106–110). The inscription reads: "I, Frahat, gave this mortar and pestle to the treasurer as a blessing for my own soul and for that of Warazak son of Waraz-framan." In Early Medieval Sogd, which had a pronounced religious and cultural influence on Chach, the images of personages holding mortars in their hands are known. They appear on the relief decoration on ceramic ossuaries discovered in Biyanaiman and Ishtykhan. The figures with different objects in their hands, depicted standing under an arcade, are interpreted as Amesha Spenta ("Immortal Saints"), or as clergy acting their role; they were considered personifications of holy elements venerated by the Zoroastrians. A woman holding a mortar and pestle above her left shoulder is, probably, personifying Haurvatat (Persian Hordad) ("Integrity"), a patron of water (Grenet 1987: 50–52). Thus the thick-walled vessel, made of a rare kind of stone and decorated with a carved relief, could very well be a ceremonial mortar, donated to the treasury of a sanctuary or temple at Qarshovul. But this does not mean that it was necessarily a Zoroastrian temple.

Among the stone finds, there are also several objects that were used as elements of military equipment, namely parts of a long horseman's sword set. The first of the items is a guard carved from a light-coloured, marble-like stone (**Fig. 10:8**). Its shape is reminiscent of that of typical Chinese guards, whose characteristic features are a rhomboidal plan, a rectangular cut in the top part that faces the sword's handle, and a triangular protrusion in its lower part facing the blade. Solid-cast bronze swords with a guard of this shape appeared in China during the Zhou dynasty (1046–256 BCE). During the Han dynasty (206 BCE–220 CE), the sword guards were removable and made from stone (mainly jade), bronze, or other materials.

The sword guards made of jade were often decorated with the carved reliefs; along with these, there were also cheaper made variants without any decoration. Chinese-made stone items reached the areas west of China by way of the trade routes, as well as spoils of war and official gifts. As they became popular outside China, locals began imitating them using the stones available in the area (like chalcedony). Often it wasn't possible to copy accurately all the details of the original, partly because of the nature of the material used for imitation, or, probably, because of a misunderstanding of certain details on the classic Chinese prototypes. This observation concerns the replicas dated to the 3rd–4th centuries. And the guard from Qarshovul Tepa is one of these imitations.

The second sword item found is a fragment of a scabbard slide that was attached to the outer side of the sheath and used for carrying the sword on a sword belt. The scabbard slide was cut from a streaked, light-coloured stone (jade or chalcedony) later darkened by being in a fire (**Fig. 10:9, 10**). Of the scabbard slide, only the lower part with a longish protrusion, sloping on the outer side and with a thickened inner side at the end, has survived. Judging by the presence of two perforations, the scabbard slide was repaired at some point. The broken edge was ground either before the repair was done or, more probably, the repair wasn't successful. A prototype for scabbard slides like this (as with the guard) were Chinese slides made of stone (mainly of jade), their classic shape being a flat rectangular plate with a hole bored through it for the belt; the short upper and long lower protrusion with "hooks" appeared during the Han dynasty. Unlike the guards, Chinese-made scabbard slides have been investigated in detail – W. Trousdale has published a remarkable monograph in which he analyses over 400 of them (Trousdale 1975). He concluded that production of Chinese classical scabbard slides (items made by the Chinese craftsmen who fully understood the purpose of each of the details) stopped after the 2nd century CE (Trousdale 1975: 68).

A set comprising a jade guard and scabbard slide that fits the classic concept, though they do not have richly carved decoration, was discovered in Samarkand Province, which, like Chach oasis, was part of the Kangju empire, founded by nomads. The set, discovered in a barrow (kurgan) at the Orlat burial ground, dated to the 1st–2nd centuries CE (Ilyasov/

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Rusanov 1998; Ilyasov 2003). In the same sepulchre, bone belt plates have been discovered. One of them has an engraving depicting a battle between groups of horsemen and dismounted warriors. There are detailed depiction of the guards and scabbard slides of the kind named above (**Fig. 10:12, 13**). In the 3rd–4th centuries, and probably up until the 5th century in some regions (such as Central Asia and southern Russia), imitations of the guards and scabbard slides in which a sword would hang vertically were being made. In the 7th–8th centuries, as we know, the manner of wearing a sword was totally different – the sword would normally hang on two straps of different length that were attached to two fixtures on the same side of the scabbard (Kageyama 2015: 199–212, Fig. 2ab). A sword would then hang nearly horizontally. This more progressive and comfortable way is shown in a great number of the Early Medieval images, such as on the 7th-century wall paintings in Afrasiab (Samarkand) (Al'baum 1975: Fig. 7). So the guard and the scabbard slide from Excavation 3 were definitely of a much earlier date than those of the second and first Construction Horizons of Qarshovul Tepa. Their presence in the 8th-century fire layer is evidence that the archaic sword with these details, or indeed just the details, could have been kept there as ancient rare objects. This idea fits the context of precious gifts kept in a treasure room of some sanctuary together with other donations. Examples of such treasuries in Central Asia are well known. We can cite the famous Oxus Temple at Takht-i Sangin in southern Tajikistan; it was built in the Graeco-Bactrian period, but continued functioning in the Kushan period, with gifts and donations dating from Achaemenid and Hellenistic times still being stored in it (Litvinskij/Pičikân 2000: 341–352). Another example, closer in time to Qarshovul Tepa, is known from the excavations at Paikend in Bukhara province, Uzbekistan. Here, in the south-eastern corner of the citadel, in the so-called "Premises with the wall-paintings", which were destroyed by fire, a real arsenal from much earlier times was discovered. Underneath the brick layer of the floor, over 30 daggers were found, dating back to between the late centuries BCE and the early centuries CE. The destructive fire is associated with the occupation and total devastation of the town by Qutayba ibn Muslim in 706–707 (Semenov (ed.) 2001: 8–13, Figs. 14–15).

There is a well-known example showing that the archaic details of the sword and scabbard were valued in later periods and could have been reused. To make the famous sword from the 5th century found in Altlußheim (Baden-Württemberg, Germany), a Chinese-style lapis lazuli guard was used to decorate the tip of the scabbard (Werner 1956: 39–40 Table 3: 1 b–c, Table 58: 4). The named guard could not be reused during the Great Migration era, as the sword of the period had a much wider blade. But the imported artefact made of a rare blue stone played the role of an exotic ancient amulet, having been used in the decoration of the scabbard.

An artefact made of lapis lazuli was also discovered at Qarshovul Tepa. This is a so-called "distributor for laces/thongs", made in a shape of a truncated pyramid with a square flat basis, 28 × 28 mm and with rounded corners (**Fig. 10: 4**); its upper area, which is round, measures 23 × 23 mm. Two through-holes (10 mm in diameter) were drilled horizontally and crossed in the centre. The item is carved from a light-blue lapis lazuli with white spots; but because of the fire the stone has darkened and at a glance looks dark grey. Another stone item could have been used as a tip for the scabbard (**Fig. 10: 11**).

During the years of excavations at Qarshovul Tepa, around 60 bronze coins of 6 types have been discovered. The majority date to the 7th and 8th centuries. Also, several coins were found that do not date back to the settlement's occupation, they clearly were lost by later visitors. Among the finds, a silver coin of Amir Temur can be mentioned. Numismatic finds will be described in a separate paper.

Another particular find to be mentioned separately is this gravestone (*qayraq*) found in one of the burials, with a cross scratched on its surface. The carving is not deep or skillful, as if made quickly shortly before the funeral.

9 Conclusions

Summing up, we can say that the long-term excavations at the site of Qarshovul Tepa demonstrate that this monument is of great interest in terms of the investigation into urbanisation in the Middle Syr Darya basin in the so-called contact zone between the settled and nomadic population in the Tashkent oasis. This relatively small area has allowed us to answer many questions, beginning with the urban planning and architecture of the site, its material culture and everyday life, as well as its ideology, religion, and the burial rituals of pre-Islamic Shash (Čāč) in the early Middle Ages. Further excavations at the site will undoubtedly bring new and exciting discoveries.

Translated from Russian by Ines Abalova.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Bibliography

Abdullaev, K.
2009: *Kul't haomy v drevnej Central'noj Azii*, Samarkand.

Al'baum, L.I.
1975: *Živopis' Afrasiaba*, Tashkent.

Aširov, S./Potoročina, E./Šejko, K.
2010: "Krest prorosšij", *Vostok svyše* 19, 40–43.

Bartol'd, V.V.
1964a: O hristianstve v Turkestane v domongol'skij period (po povodu semirečenskih nadpisej), in: Bartol'd, V.V., *Raboty po otdel'nym problemam istorii Srednej Azii* (= Sočineniâ 2/2), Moscow, 265–302.

1964b: Eŝe o hristianstve v Srednej Azii, in: Bartol'd, V.V., *Raboty po otdel'nym problemam istorii Srednej Azii* (= Sočineniâ 2/2), Moscow, 315–319.

Bogomolov, G.I.
1994: O hristianstve v Čače, in: Žukova, L.I./Pugačenkova, G.A./Burâkov, Û.F (ed.), *Iz istorii drevnih kul'tov Srednej Azii: hristianstvo*, Tashkent, 71–78.

Burâkov, Û.F./Kasymov, M.R./Rostovcev, O.M.
1973: *Arheologičeskie pamâtniki Taškentskoj oblasti*, Tashkent.

Grenè, F. (= Grenet, F.)
1987: Interpretaciâ dekora ossuariev iz Biânajmana i Miankalâ, in: Pugačenkova, G.A./Askarov, A.A. (ed.), *Gorodskaâ kul'tura Baktrii-Toharistana i Sogda*, Tashkent, 42–53.

Grigor'ev, G.V.
1935: *Otčet ob arheologičeskoj razvedke v Ângiûl'skom rajone UzSSR v 1934 g.*, Tashkent.

Hmel'nickij, S.
2000: *Meždu kušanami i arabami. Arhitektura Srednej Azii V–VIII vv.*, Berlin/Riga.

Il'âsov, D.Â.
1993: Srednevekovye stupki s gorodiŝa Budrač, in: Kameneckij, I.S./Uzânov S.A. (ed.), *Vestnik Šelkovogo puti 1*, Moscow, 135–155.

Ilyasov, J.
2003: Covered Tail and "Flying" Tassels, *Iranica Antiqua* 38, 259–325.

Ilyasov, J.Ya./Rusanov, D.V.
1998: A Study on the Bone Plates from Orlat, *Silk Road Art and Archaeology* 5, 107–159.

Il'âsova, S.R.
2004: Raskopki paradnogo kompleksa Aktepa Ûnusabadskogo, *Istoriâ material'noj kul'tury Uzbekistana* 34, Samarkand, 207–213.

Kageyama, E.
2015: Change of Suspension Systems of Daggers and Swords in Eastern Eurasia: Its Relation to the Hephthalite Occupation of Central Asia, *Zinbun* 46, Kyoto, 199–212.

Koch, H.
2000: *Es kündet Dareios der König: Vom Leben im persischen Großreich* (= Kulturgeschichte der antiken Welt 55), Mainz/Rhein.

Litvinskij, B.A.
1965: Sredneaziatskie železnye nakonečniki strel, *Sovetskaâ arheologiâ* 2, 75–91.

Litvinskij, B.A./Pičikân, I.R.
2000: *Èllinističeskij hram Oksa v Baktrii (Ûžnyj Tadžikistan). Tom 1. Raskopki. Arhitektura. Religioznaâ žizn'*, Moscow.

Lunina, S.B.
1984: *Goroda Ûžnogo Sogda v VIII–XII vv.*, Tashkent.

Lurje, P.B.
2010: *Personal Names in Sogdian Texts* (= Österreichische Akademie der Wissenschaften. Philosophisch-historische Klasse. Sitzungsberichte 808 = Iranisches Personennamenbuch 2/8), Vienna.

Nil'sen, V.A.
1966: *Stanovlenie feodal'noj arhitektury Srednej Azii (V–VIII vv.)*, Tashkent.

Poduškin, A.N.
2005: Novye pamâtniki pis'mennoj kul'tury Ûžnogo Kazahstana, *Shygys* 2, 133–139.

Semenov, G. (ed.)
2001: *Raskopki v Pajkende v 2000 godu* (= Materialy Buharskoj arheologičeskoj èkspedicii 2), St. Petersburg.

Simonenko, A.V.
2010: *Sarmatskie vsadniki Severnogo Pričernomor'a*, St. Petersburg.

Simonenko, A.V./Lobaj, B.I.
1991: *Sarmaty Severo-Zapadnogo Prichernomor'â v I v. n.è. (pogrebeniâ znati u s. Porogi)*, Kiev.

Sims-Williams, N.
2009: The Sogdian Inscription of Kultobe: Text, Translation and Linguistic Commentary, in: Janov-Janovskaâ, N./Rtveladze, È./Džumaev, A. (ed.), *Trudy Central'nogo Muzeâ. Tom 2*, Almaty, 153–172.

2013: An Early Parthian Inscription on a Bronze Mortar, in: Tohtas'eva S.T./Lur'e, P.B. (ed.), *Commentationes Iranicae. Sbornik statej k 90-letiû Vladimira Aronoviča Livšica*, St. Petersburg, 106–110.

Sims-Williams, N./Grenet, F.
2006: The Sogdian Inscriptions from Kultobe, *Shygys* 1, 95–111.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Sims-Williams, N./Grenet, F./Podushkin, A.
2007: Les plus anciens monuments de la langue sogdienne: les inscriptions de Kultobe au Kazakhstan, *Comptes rendus des séances de l'Académie des inscriptions et belles-lettres* 151, 1005–1034.

Solov'ev, V.S.
1997: *Severnyj Toharistan v rannem srednevekov'e*, Elets.

2007: *Iskusstvo rannesrednevekovogo Toharistana*, Elets.

Sverčkov, L.M.
1990: O lokalizacii hristianskogo seleniâ Vinkerd, in: Alimbaj, N. (ed.), *Tezisy dokladov VI iskusstvovedčeskoj konferencii molodyh učenyh*, Tashkent, 101–102.

2007: Syrdar'inskaâ step': puti i perepravy, in: Il'âsov, D.Â./Rtveladze, È.V. (ed.), *Transoksiana – Maverannahr*, Tashkent, 185–193.

Trousdale, W.
1975: *The Long Sword and Scabbard Slide in Asia* (= Smithsonian Contributions to Anthropology 17), Washington.

Werner, J.
1956: *Beiträge zur Archäologie des Attila-Reiches* (= Abhandlungen der Bayerischen Akademie der Wissenschaften, Phil.-Hist. Klasse N.F. 38–39), 2 vols., Munich.

Zaseckaâ, I.P.
1983: Klassifikaciâ nakonečnikov strel gunnskoj èpohi (konec IV–V v. n.è.), in: Skripkin, A.S. (ed.), *Istoriâ i kul'tura sarmatov: mežvuzovskij naučnyj sbornik*, Saratov, 70–83.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Nomadic Urbanism at Tashbulak

A new highland town of the Karakhanids

Farhad Maksudov, Elissa Bullion, Edward R. Henry, Taylor Hermes, Ann Merkle, and Michael D. Frachetti

Abstract: Archaeology from the newly discovered town of Tashbulak illustrates the development of a highland urbanism on the part of the Karakhanid (Qarakhanid) Empire, starting in the late 10th century CE. Located roughly 2,100 m asl, the architecture of Tashbulak covers 7 ha and its planning reflects urban principles common to known cities of the medieval period. From the results of our geophysical survey, we mapped major sectors of the town, including the citadel (and possible caserns), a lower town area with metallurgical workshops, and a large necropolis. Conspicuously absent at Tashbulak is a large and dense residential quarter and fortification wall, but at least one defensive tower is likely on the town's south-eastern corner. While the planning of this highland centre was broadly in line with lowland cities, the Karakhanids adapted their construction at Tashbulak in the highlands to better align with the nomadic political structure, land tenure, economy, craft and industrial development that prevailed across Central Asia's mountainous regions at the time. We argue that the Karakhanids innovated this unique form of highland "nomadic" urbanism, possibly to increase political integration of nomads across diverse geographic settings and to leverage a wider geographic range of demographic and economic resources fundamental to the growth and control of their empire. While still at an early stage of research at Tashbulak, we offer here a first look at nomadic highland urbanism and its relationship with the diverse institutional domains that defined the Karakhanid state.

Keywords: Archaeology, Karakhanids, highland nomadic urbanism, town planning, Tashbulak, Uzbekistan.

Резюме: Археологические исследования на недавно открытом поселении Ташбулак показывают развитие урбанизма в части Караханидской империи, начиная с конца X в. н. э. Расположенный на высоте около 2100 м н. у. м., Ташбулак имеет площадь примерно 7 га. Его топография отражает общие принципы планировки известных средневековых городов. В результате геофизических исследований нами нанесены на план основные части города, включая цитадель (возможно, с казармой), собственно городскую часть с металлургическими мастерскими и крупный некрополь. Выявлено, что на Ташбулаке отсутствовал крупный и плотно застроенный жилой квартал и крепостная стена, но в юго-восточном углу городища, по-видимому, имелась по крайней мере одна крепостная башня. Несмотря на то, что планировка этого горного центра в целом была аналогична планировке равнинных городов, караханиды устроили свои постройки на Ташбулаке так, что бы они были как можно лучше встроены в кочевую политическую структуру, землевладение, экономику, ремесло и производственное развитие, широко распространенные в горных зонах средневековой Средней Азии. Таким образом, мы полагаем, что караханиды развили эту уникальную форму горного «кочевого» урбанизма, видимо, для усиления политической интеграции кочевников, обитавших в различных географических зонах, а также для привлечения более широкого спектра демографических и экономических ресурсов, игравших важную роль в расширении империи и контроля над ней. Поскольку исследования пока находятся на ранней стадии, мы предлагаем предварительно рассмотреть кочевой горный урбанизм и его связь с различными государственными сферами, определившими Караханидское государство.

Ключевые слова: археология, караханиды, горный кочевой урбанизм, планировка города, Ташбулак, Узбекистан.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

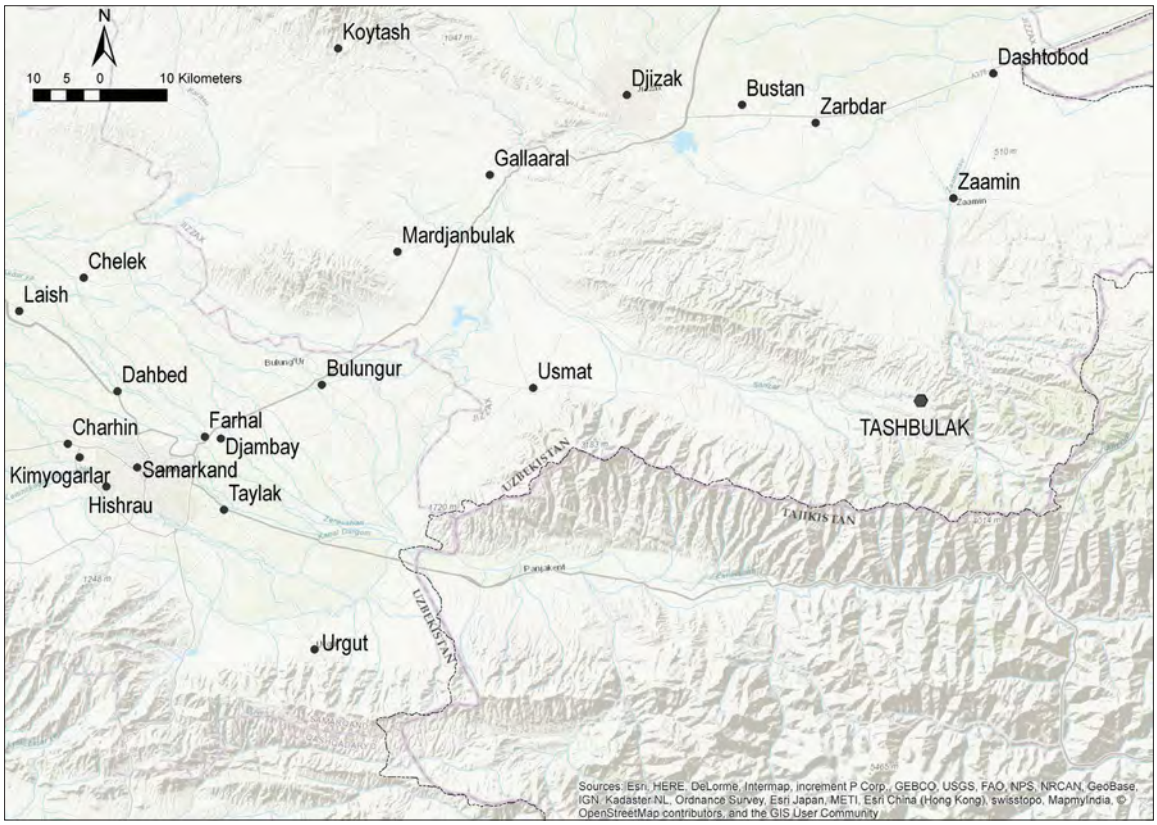


Fig. 1: The location of Tashbulak (image credit: Michael Frachetti).

1 Introduction

Historical scholarship situates the dominant drivers of the medieval Silk Road economy in urban centres of China, Central Asia, Iran, and the Middle East (Whitfield 1999). Sedentary, agricultural, and mercantile populations turned cities such as Xian, Kashgar, Samarkand, Bukhara, Shiraz, Baghdad, and others, into major centres of political power, industry, and trade from the 6th century to the 15th. In contrast, nomadic pastoralist societies are characterised as regional players whose political strength stemmed from raiding, extorting, and sometimes sacking these Asian cities in order to gain short-lived geographic and economic control over segments of the Silk Road and its intervening territories (Di Cosmo 2002). Although numerous scholars have worked to deconstruct the historically perceived dichotomy between urban agriculturalists and militant, mobile nomads (Beckwith 2009; Rogers 2009), there remains a lacuna of archaeological data to assess the demographics and diverse settlement patterns innovated by nomadic polities across medieval Central Asia. This gap in data has led to a fundamental misunderstanding of nomadic polities and institutions and of how these hegemonies were integrated across and influenced diverse communities in Central Asia (Honeychurch 2013; Sneath 2007; Frachetti/Maksudov 2014; Rezakhani 2010).

As current historical and archaeological materials across Central Asia illustrate, the Karakhanid Khanate, which was rooted in a nomadic political-economy, fostered the structural, economic, and social development of pre-existing urban centres in agricultural oases from the late 10th to the 12th centuries. New discoveries at high-altitude regions in south-east Uzbekistan, however, now show that the Karakhanids also developed a system of highland cities far from typical lowland oases. The medieval site of Tashbulak, a newly discovered town located at roughly 2,100 m asl (**Fig. 1**), presents a new archaeological picture of Karakhanid society as socially and economically integrated across both lowland and highland territories. Below we describe the preliminary results of recent archaeological analysis at this new highland centre and discuss comparative aspects of its urban planning. We argue that the Karakhanids devised a unique form of highland "nomadic" urbanism, possibly to increase political integration across diverse geographic settings and to leverage a wider geographic range of demographic and economic resources fundamental to the growth and control of their empire. The architectural planning of their highland cities was broadly organised in line with other lowland medieval cites, yet was adapted to function harmoniously with the nomadic political structure, land tenure, economy, craft, and industrial development that prevailed across Cen-

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tral Asia's mountainous regions at the time. While still at an early stage of research at Tashbulak, here we offer a first look at nomadic highland urbanism and its relationship with the diverse institutional domains that defined the Karakhanid state.

We first present a brief description of Karakhanid political organisation, religious ideology, and principles of urban planning in lowland zones. We then present our archaeological findings from surveys, geophysical investigations and mapping, and test excavations at Tashbulak. These data allow us to identify various sectors of the town and to shed light on how this highland Karakhanid centre integrated institutional aspects of both urban and traditionally nomadic systems. Finally, we discuss the potential intersection of Karakhanid politics, religion, and economic development from the perspective of Tashbulak, and propose directions for continued study of highland urban systems in the region.

2 Historical background to the Karakhanid Khanate

Brief history

The Karakhanids left few historical sources concerning their political and social structure. Thus, much of our knowledge of their legacy derives from medieval Arabic and Persian manuscripts and Karakhanid coinage. While these sources do not fully illustrate the complex political and social environment of the time (Bartol'd 1963), they trace the coalescence of the Karakhanid hegemony to Kul Bilga Qadir Khan, a descendent from the Turkic Qarluq (Karluk) tribe, who became the first Karakhanid ruler in 840 CE (Golden 1990; Kochnev 1996). Initially, the Qarluq tribe occupied Eastern Turkestan (West China), the Yettisu (Semirech'ye) region of present day Kazakhstan, in addition to the piedmonts and foothills of the Tien-Shan Mountains. Karakhanid economy was based on nomadic pastoralism and semi-sedentary farming (Klâštornyj/Sultanov 2004), bolstered by a well-developed military class of skilled cavalrymen.

At the time of Karakhanid consolidation, the south-western agricultural oases of medieval Central Asia were under the control of the centralised and urbanised state of the Samanids (819–999 CE). The majority of the Central Asian Samanid population lived in lowland villages and large towns like Akhsiket, Afrasiab (ancient Samarkand), and Bukhara, and were engaged in irrigational agriculture and trade with other regional "Silk Road" centres. A part of the broader Islamic Caliphate, the Samanids reached high levels of cultural integration and development throughout the Syr Darya and Amu Darya basins. By the end of the 10th century, however, the Samanids relinquished vast territories of Central Asia under the pressure of their north-eastern nomadic neighbours, the Karakhanids.

Throughout the 10th and 11th centuries, the Karakhanids increasingly conquered and integrated regions in present-day Uzbekistan, Kazakhstan, Kyrgyzstan, and Tajikistan – shaping a khanate based on nomadic political structures and institutions that transformed a region long ruled by sedentary Iranian hegemonies (Dankoff 1992; Golden 2006). By the mid-11th century, the Karakhanids ruled over one of the largest territories in Central Asia and effectively controlled the commercial spine of the Silk Routes (Bregel 2003). Karakhanid control over Central Asia waned during the 12th century as the state became increasingly fragmented and prone to incursions from other north-eastern nomadic groups. Some scholars argue that the decline of the Karakhanids resulted from the contradictions between their nomadically derived political systems and the territorial and economic constraints they faced in the region (Golden 2006; 1990). Nevertheless, the efforts of the Karakhanids left a lasting mark on the region, including the flourishing of monumental architecture, their ethnolinguistic influence,[1] and the local adoption of Islam. These cultural innovations, stimulated by nearly two centuries of successful expansion by the Karakhanids, indelibly transformed the social, economic, and political character of societies across Central Asia for centuries.

Political and economic structures

Karakhanid political organisation drew heavily on Turkic nomadic institutions, many of which emerged across Central Asia at least as early as the first centuries CE (Soucek 2000). Ethno-culturally, the Karakhanids were the successors of the Turkic Khaghanate, a semi-nomadic empire that reigned in the vast area of Central Eurasia in the Early Medieval period. Karakhanid military and political power lay predominantly in the hands of dynasty members, who ruled over decentralised tribal communities in most regions. The dynasty was divided in a bipartite east/west system, based on both genealogical and territorial histories. The dynasty head or *khaqan* (khan) was a member of the eastern Chigil branch, while there was a lesser *khaqan* who ruled the western branch of the Yaghma dynasty (Davidovich 1998; Golden 1990). However, dynastic khans did not directly rule all regions that fell under Karakhanid control. The Karakhanids captured important trade cities such as Bukhara and Isfijab from the Samanids and integrated them into the empire, but the management and rule of these cities was of-

1 The Karakhanids spread the south-eastern Turkic dialect – also known as the Khaqani or the Qarluq dialect – which later became the lingua franca in Eastern and Western Turkestan and from which the contemporary Uzbek and Uygur languages originated.

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ten left in the hands of the former political elite, be they Sogdian, Iranian, or Turkic (Davidovich 1998). The bureaucracy of the Karakhanid state appears to have been ethnically diverse. Many administrative positions were held by Iranian officials (Johanson 2006); the *Dīwān Luġāt al-Turk* refers to cities in which Turkic was spoken alongside Sogdian, Arabic, and Persian (al-Kāšġarī). Of course, it is likely that these rulers were beholden – at least in terms of monetary tribute – to dynastic power.

Even the division of power within the dynasty was a matter of constant negotiation, with members given the right to rule and collect revenue through a system of appanage land division (Davidovich 1998). Karakhanid use of the appanage system appears to have been an integral part of the empire's organisation from its emergence. The system supported, and in some ways also resisted, the absolute power of dynastic rule. Appanages were most commonly granted to dynasty members, including the head of the dynasty, but they could also be granted to political, religious, and military leaders as rewards. Certain rights, such as the retention of a portion of taxes, could be transferred to vassals who had more direct control over the collection of revenue (Davidovich 1998: 136–140). The people, land, and resources of the state were seen, in some sense, as a shared dynastic possession. Therefore, every member of the dynasty had a right to some of the revenue derived from these possessions. The Karakhanid administration of appanages, which were normally associated with a region or territory, was not necessarily rooted in exclusive domain over the physical territory per se. For example, Davidovich (1998) discusses many cases where shared revenue was derived by dynasty members from a common region, which meant that multiple members of the dynasty could claim (partial) ownership over production from the same appanage, through sub-divisional territories or sub-regional holdings.

The revenue produced by territorial estates was known as *iqtā'*, and it was the revenue that Karakhanid elites were technically granted, not the land directly. Appanages were not transferred through inheritance, and power over territory was not guaranteed for life. Their borders were not set, and often shifted as individuals struggled to control various regions. This led to a multi-tiered vassalage system that incorporated everyone from the dynasty members and officials, to the individuals farming, herding, crafting, or creating revenue in other ways (Davidovich 1998: 136–140). The complex political implications of this land/revenue system inherently, and likely productively, decentralised the Karakhanid economic system. For example, economic flexibility may, in turn, have led to the need to establish stable centres of administration in highland areas that were valuable for their rich potential as summer pasture, as well as their abundance of industrial raw materials such as iron ore and other commodities (e.g. wood). In fact, it is this nuanced relationship between political control and economic opportunity that, we argue, may have underpinned the establishment of Tashbulak.

Conversion to Islam

The Karakhanids were the first ruling Turkic group to declare Islam as their state religion. This transition occurred in the mid-10th century under Satuk Bughra Khan (Davidovich 1998; Golden 1990). In turn, the state sponsored the construction of mosques, madrasas, and mausoleums for prominent religious figures, such as those in Uzgen, Kashgar, and Bukhara, amongst many others (Davidovich 1998). The dynasty's new-found Islamic ideology is presented in one of the few remaining Karakhanid texts, the *Kutadgu Bilig*, or "The Wisdom that Conduces to Royal Glory", a narrative in the "mirror for princes" style (Ḥāğib). The text gives advice to a ruler through allegorical characters that espouse Islamic virtues and wisdom.[2]

Historical texts, architecture, and archaeological materials also indicate the presence, largely in urban oases, of other religious communities, including Buddhists, Manichaeists, Jews and Christians (Sinor 1990; Mélikoff 1996). Researchers have argued that outside of urban centres, traditional pre-Islamic "pagan" religions were still widely practised, though much of this is based on accounts of syncretism between Sufi and shamanistic practices during later centuries (Mélikoff 1996; Sinor 1990). But during the Karakhanid period there is only indirect evidence for religious syncretism – the incorporation of Islamic rites with local, non-Islamic religious practices, documented in the *Kitāb al-Siyar*, or Book of Nations, from the legal works of Qadi Khan. This text refers to individuals who both read the Qur'an and worship idols, differentiating between what constitutes a proper Muslim in the conduct of war, and how that relates to taking captives (Biran 2001). Despite references to mixed religious practices and differential rates of conversion, the archaeology from Tashbulak – namely burial practice – illustrates that Islam was adopted across highland sectors of the Karakhanid populace, possibly rapidly after state conversion.

2 For example, it states: "And the Khan of the Turks has put it even better: Do not punish the messenger for the message; he deserves neither punishment nor death so long as he truly reports what he heard; rather a messenger, as the ambassador of peace is inviolable, and if he transmits the message that was entrusted to him, then praise and reward are his due." (Dankoff 1981). This passage would evoke, for any practising Muslim, the Qur'anic verse 5: 92 from the Surat al-Ma'idah, or the Table Spread: "It is only for the Messenger to deliver the Message."

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3 Urbanism in the Karakhanid period

Through their conquests over the Samanid dynasty, the Karakhanids expanded their borders towards south-west Central Asia, eventually occupying territories as far as the borders of modern day Iran and Afghanistan (Kočnev 2006). Their nomadic rulers attempted to gain full control over the newly conquered sedentary oases, where they were challenged to integrate urban societies with long-standing political, economic and social systems. Archaeological investigations conducted on lowland urban and rural settlements of this period (e.g. Akhsiket) show little evidence of the destruction of local infrastructure by the Karakhanid newcomers, who instead invested in and developing extant cities across Central Asia. This approach was likely the result of their diverse population, which straddled the ideological, economic, and political worlds of nomadism, Islam, and pre-existing Iranian socio-political structures.

Central Asian cities during the Karakhanid period reflected Samanid urban planning principles, often established even long before Karakhanid rule. Major lowland towns in Shash (Čāč), Fergana, Ustrushana, and the Zerafshan oases (and elsewhere) typically consisted of three main sections: a citadel, inner town, and suburbs. This spatial organisation is characteristic of most medieval urban centres of the Middle East and Central Asia.

The citadel was the residence of a ruler, as well as where the caserns for escort troops and the mints were located. Archaeological excavations conducted in Akhsiket, the medieval capital of Fergana, for instance, uncovered in the citadel a casern with numerous living rooms (Anarbaev 1981). Medieval citadels were often surrounded by fortress walls, outside of which moats were typically constructed.

Large Friday mosques, quarters of wealthy clergy, aristocrats, craftsmen, and merchants, as well as central markets were also located in the fortified inner towns (*shahristan*). Beyond the inner town, the suburbs (*ribāt*, or *rabad*) were places where trading and production workshops, along with related residential quarters, were located (Belenitskij et al. 1973). In the most developed medieval cities, fortress walls sometimes surrounded the suburbs as well. Typically, each part of the town had several gates with specific names.

Archaeological excavations at medieval cities like Afrasiab, Bukhara, Akhsiket and Quva show that during the 10–12th centuries the classic medieval Central Asian town were centres for the concentration of political, economic, and cultural life. Towns were socially diverse and had high-density populations. Major centres were built-up with public buildings, numerous central and secondary streets, elaborate water and sewage systems (made of ceramic pipes put in deep tunnels throughout the entire urban area), markets with lines of shops, specialised workshops of craftsmen (e.g. metal-working, pottery making, etc.), public baths, and religious buildings (Anarbaev 1981).

New urban centres, which were ostensibly Turkic in linguistic and cultural character, also appeared in north-eastern principalities of the Karakhanid territories by the beginning of the 11th century CE. Local Karakhanid leaders recognised the supremacy of the *khaqan* but had considerable control over these principalities, which became increasingly independent through time. Their independence was especially evident when they were pulled into political competition and conflicts with their kin-allied neighbours, and may account for the large number of Karakhanid administrative centres with mints that produced coins proliferating the titles of local princes.

Unlike the Samanids, who had administrative hubs primarily in large lowland urban centres, the Karakhanids established new ruling centres in the foothill zones, often with mints such as at Osh and Kasan in Fergana, at Zamin in Ustrushana, and at Tunket in the Chach-Ilaq region (Kočnev 2006: 43). This kind of settlement pattern may have stemmed from the desire to draw support and resources from highland populations, who still played an important role in the wider Karakhanid economy. These resources may have included livestock as well as metal ore. Metal mines are documented throughout the mountainous regions of Central Asia at this time, including in Ustrushana where many iron mining sites such as Kuh-i-Ohan and Mīnk have been recorded (Stark 2008). Archaeological research shows that the settlements located in the foothill zone were economically less important during the Samanid period but flourished with the arrival of the Karakhanids (Maksudov 2012).

In spite of their integrative approach to urban centres in the lowlands, the Karakhanid political power did not initially post their own elites within the cities they conquered. Early on, the political leadership more commonly lived in army encampments (*ordo*, *urdu*) located on the fringe of urban centres or in highland refuges. Coins were minted with the inscription *Qara Urdu* and *Quz Urdu*, reflecting the prominence of this nomadic institution (Davidovich 1998: 122–123). At the same time, it appears that the Karakhanids strove to integrate their political economy in a way that would allow them to take advantage of the already established local mercantile networks.

Despite the arrival of the Karakhanids, the material crafts of oasis societies continued to flourish, often with limited shift in style or technology (Belenitskij et al. 1973). Yet even though lowland commodities were traded and consumed across the

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Fig. 2: View of site extent, looking south-east (photo by: Thomas Malkowicz).

whole of the Karakhanid territory, the archaeology from highland centres like Tashbulak illustrates an emerging highland urban system and rich tradition of ceramic production that was unique and distinctive to the nomadic population. Our research in high-altitude settings provides insights in to a previously unknown aspect of Karakhanid political economy that expands our current understanding of how empires integrated nomadic traditions with sedentary infrastructure and economies to increase authority over vast territories.

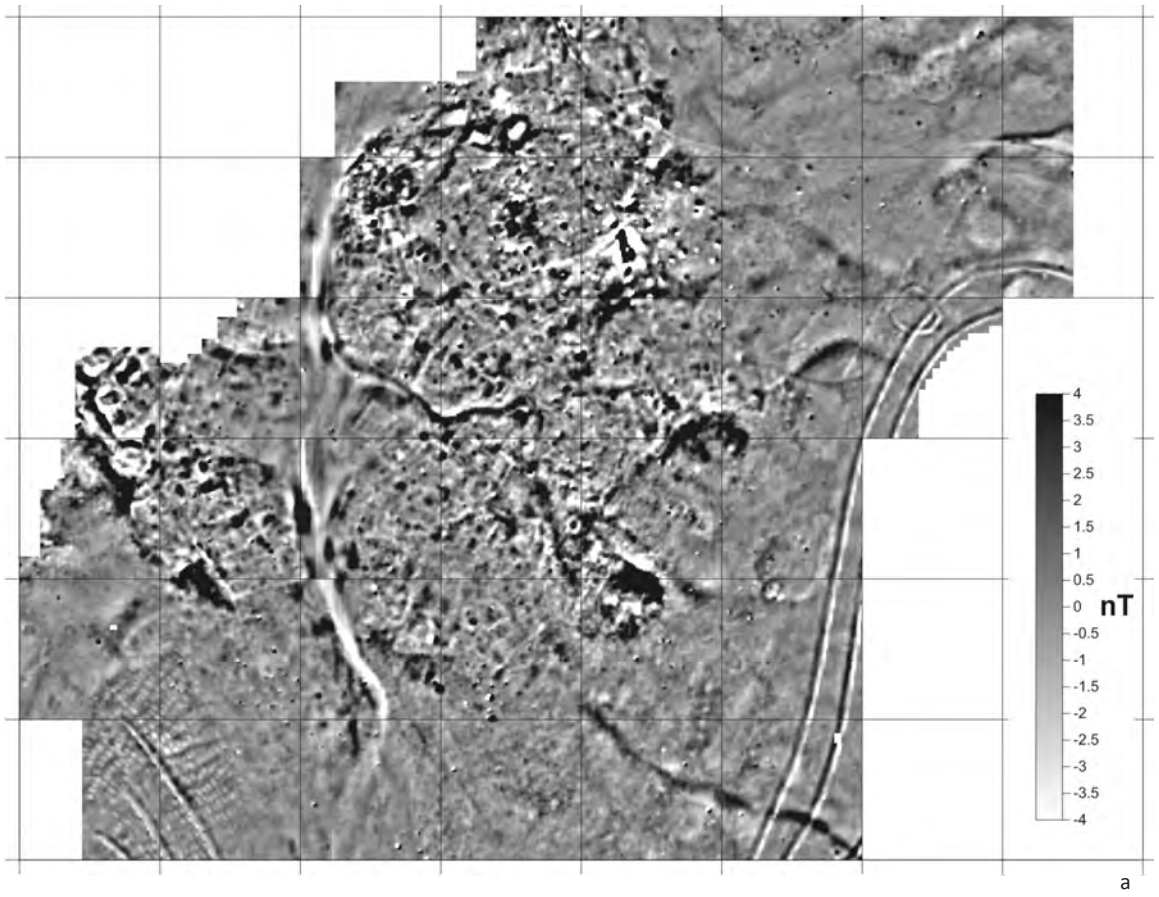
4 Highland urbanism and archaeology at the town of Tashbulak

The urban history of the Karakhanid state is almost exclusively derived from evidence gathered from lowland urban centres (cf. Sverčkov 1991). However, in 2011, an international team of archaeologists from Washington University in St. Louis and the Institute of Archaeology in Uzbekistan discovered the town of Tashbulak, buried high in the Malguzar Mountains of Eastern Uzbekistan (**Fig. 2**) (Frachetti/Maksudov 2014). Situated over 2,000 m asl, the location, size, and architectural character of Tashbulak make it one of the region's rarest medieval discoveries in recent years.

In 2012, the *Archaeology Research of the Karakhanids* (ARQ) project[3] carried out test excavations which provided evidence of substantial stone foundations and a rich diversity of material culture (e.g. glazed and painted pottery, glass, metals, beads, etc.), which (along with coinage discussed below) help to date Tashbulak to the period of Karakhanid rule. Field campaigns in 2013 and 2015 at Tashbulak employed geophysical remote sensing surveys (i.e., magnetometry and ground-penetrating radar [GPR]) to document the subsurface remnants of the town (e.g., wall foundations, necropolis, etc). Imagery produced from data collected during these surveys reveals a detailed map of the architecture and general spatial layout of Tashbulak, including various urban districts (**Fig. 3a, b**). Using the GPR and magnetometry maps as guides, we identified various urban sectors, including a citadel, lower town, western town, tower fortification, and necropolis (**Fig. 4**). In 2015 our international team undertook targeted archaeological excavations of a portion of the residential structure on the citadel, a blacksmith's workshop in the lower town, a midden, and five burials in the necropolis. Besides its ar-

3 Co-Principal Investigator: Michael Frachetti and Farhod Maksudov.

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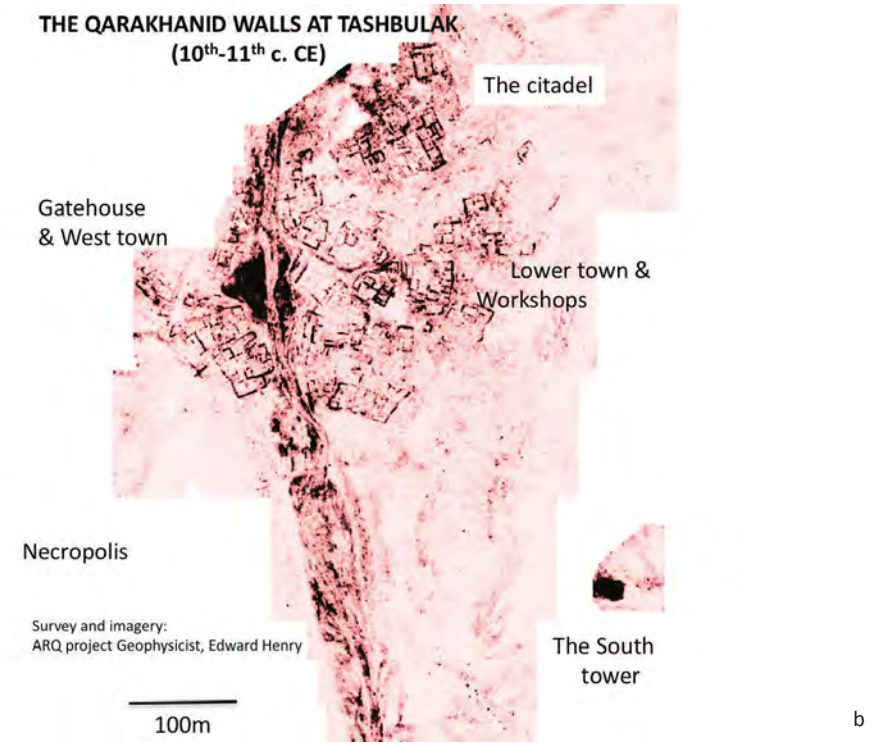


Fig. 3: (**a**) Architectural plan of Tashbulak from magnetometry survey. Grid squares are 40 × 40 meters (image credit: Edward Henry); (**b**) Architectural plan of Tashbulak from GPR survey. Subsurface walls are shown in black with the citadel or "palace" structure and other urban areas of the town denoted (image credit: Edward Henry and Michael Frachetti).

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Fig. 4: Digitised architectural plan of Tashbulak showing the topography of the site, main sections of the site, and the area encompassed by the necropolis. Solid black lines are wall lines and dotted lines indicate probable wall lines and boundaries (image credit: Michael Frachetti after image by Edward Henry).

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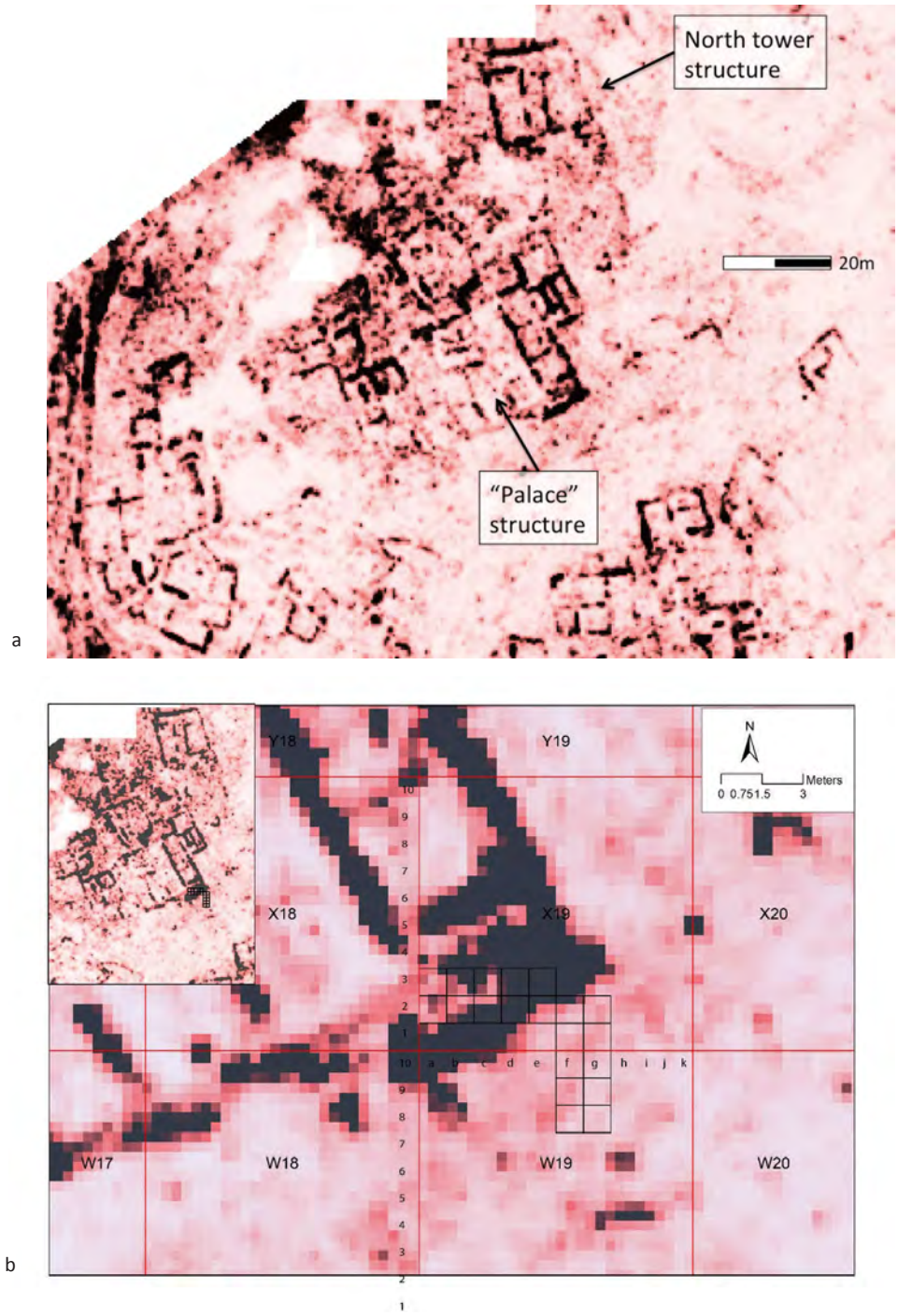


Fig. 5 (**a** and **b**): Position of excavation units X19 and W19 on the citadel mound as delineated by GPR survey (image credit: Edward Henry & Michael Frachetti).

chitectural comparisons with other medieval cities (discussed below), our excavations documented the function and character of different parts of this highland town and provided preliminary data to discuss Tashbulak within the broader Karakhanid political landscape.

Excavations on the citadel mound (trench X19/W19)

To understand the chronology and architectural development of the citadel building, we placed an L-shaped trench across the south-eastern outer wall, identified on the architectural plan (**Fig. 5**). This trench provided important data concerning the construction sequence, architectural technology,

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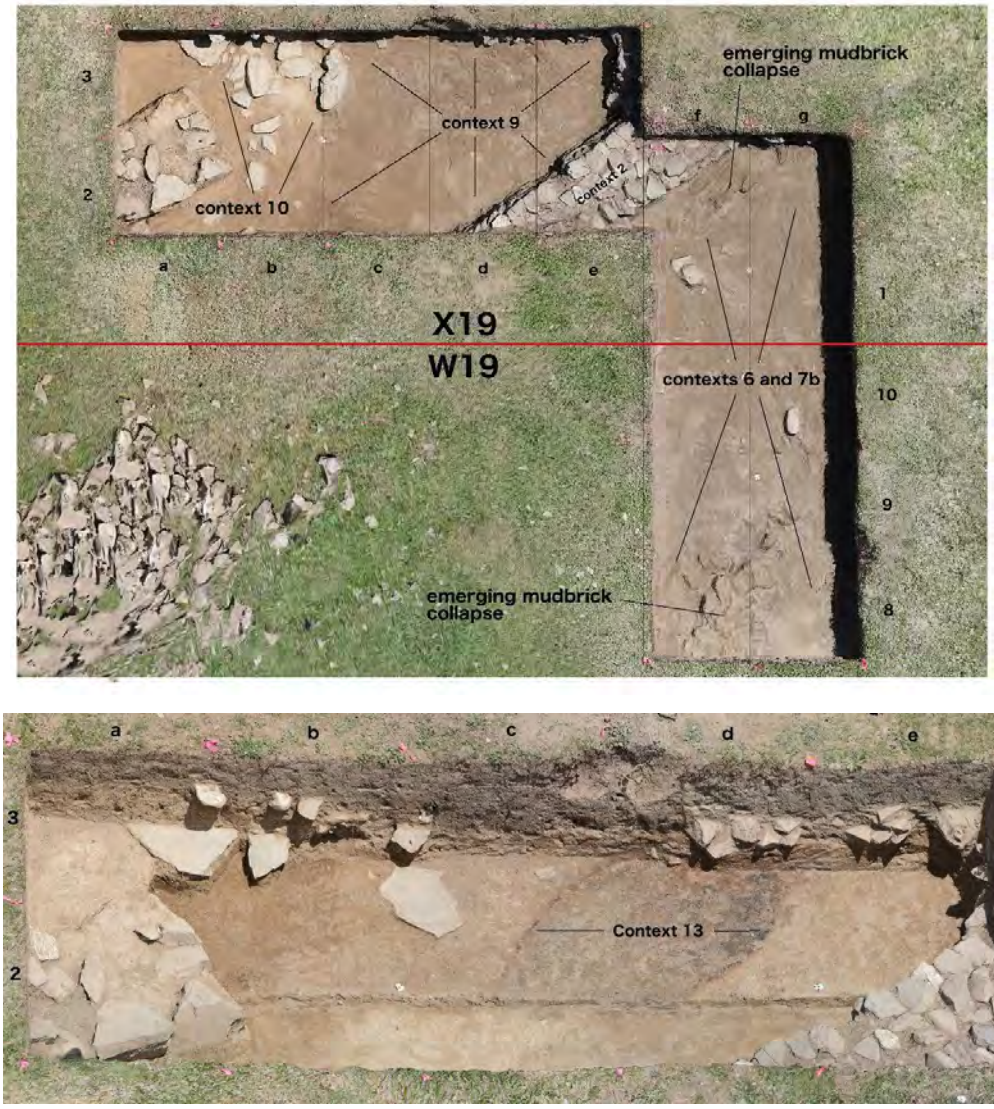


Fig. 6: (**a**) Plan view of X19 and W19, showing burn layers (contexts 6, 7b, and 9) associated with the collapse of the mudbrick structure; (**b**) hearth feature (context 13) below context 9 in X19 (image credit: Michael Frachetti).

spatial organisation, and chronology of Tashbulak's central building structure and offered preliminary insights into the possible political organisation of the town.

The central building on the citadel was constructed with a stone foundation measuring 60–70 cm wide and approximately 40–50 cm high, based on a reconstructed height (**Fig. 6**). Excavations of its outermost wall line did not, however, show defensive characteristics or buttressing. It is clear from the collapsed fill that the superstructure of the citadel was constructed of mudbrick, though little in situ mudbrick remained on the foundations. Analogies of such construction are well known at nearby mountains sites (within 5 km) such as Myk (or ancient Mīnk) (Sverčkov 1991).

The stratigraphic details of trench X19/W19 show the citadel structure was centrally planned and regularly remodelled, and that eventually it collapsed in a fire. Burned levels both inside and outside the wall foundations suggest that the upper portions of the walls (and roof?) failed due to fire and collapsed, while subsequent erosion caused the infilling of the rooms and areas immediately surrounding the building. Below the collapse, we uncovered the interior floors of the structure, which were made with mudbricks and sealed with mud-based plaster. The floors inside the citadel structure were remodelled at least three times, using mud or daub plaster and occasionally integrated with large flat flagstones, perhaps functioning as steps or landings in areas of high foot traffic. In the centre of the room we exposed an oval fireplace, rich in ash and charcoal content ringed in burned mudbrick (**Fig. 6b**). Based on its stratigraphic position, this central burn feature reflects either a hearth or fireplace built around the time of the building's construction. Beneath the floors was a series of gravel and sand construction

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Fig. 7: (**a**) Decorated and glazed ceramics, 10–12th century CE, Tashbulak; (**b**) handmade pottery sherds with geometric red slip paint, 10–12th century CE, Tashbulak (photos by: Michael Frachetti).

fills (ca. 25 cm thick) used to level the uneven bedrock surface of the mounded outcrop underlying the citadel structure. The citadel structure was not formally rebuilt or occupied after the collapse, though evidence for short-term camping on the citadel was present. In all, the citadel test trench indicates a single building phase of the central structure, with probably less than 100 years of occupation before

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Fig. 8: Rims and handles of handmade pottery from Tashbulak (10th–12th century CE) (photo by: Michael Frachetti).

the collapse. This hypothesis is supported both by the stratigraphic details and pottery.

A host of fine-ware glazed ceramics recovered from inside the citadel building may suggest a residential rather than military function of the central structure. A diversity of well-known glazed and wheelmade forms provide chronological analogies from the 10th–12th century CE (**Fig. 7a**), though the largest percentage of Tashbulak pottery was handmade, decorated with scrolling and geometrical designs painted in red slip (**Fig. 7b**). Forms included plates, bowls, open and closed vessels, spouted jars, storage containers, and a range of medium to large sized jugs with handles (**Fig. 8**). At this early stage, the pottery has not yet been formally analysed or assembled to generate a general typology of Karakhanid ceramics at Tashbulak. This work will be forthcoming and is an important component of our planned work in future field seasons. Small finds from outside the wall include a spherical granite stone, similar in form to a "sling-stone" (**Fig. 9a**), beads of polished ceramic, quartz, and glass (**Fig. 9b**), as well as a ceramic *tuyère* (**Fig. 9c**). Metal artefacts include a few slag fragments along with iron pins and nails, as well as a small iron (or steel) blade fragment. Abundant ceramic material, organic remains of charred seeds, animal bone, and wood charcoal were recovered from pits and fire features inside and outside the structure's foundation.

The archaeo-botany of charred material from the citadel and midden excavations speaks to the richness of the population's diet and their engagement in commerce with Silk Road trade. The project's archaeo-botanist Robert Spengler has identified the remains of a wide range of stone fruits and nuts, including peaches, cherries, and pistachios, which could have arrived only at this mountain city as trade items (Spengler et al. 2018). Charred grains recovered by flotation show that the diet of the city's population included wheat and barley, staples likely supplied to Tashbulak from lowland agricultural zones. Preliminary faunal analysis by Taylor Hermes indicates that domestic livestock typical of Central Asian nomadic populations – juvenile and adult cattle, sheep, and goats – were presumably used for meat and secondary products like milk and wool, rounded out the subsistence economy and craft industries at Tashbulak.[4] Carbon and nitrogen stable isotopic data from four individuals excavated from the site's necropolis are consistent with a diet based on C3 crops and products of animals that were herded in the surrounding mountain zone (Hermes et al. 2018).

The chronology of the citadel building appears to be continuous from the initial construction phase to the collapse. The recovery of typical 10th- to 12th-century glazed pottery is in chronological

4 We have tentatively defined an area on the outskirts of the city that appears to have been used as stables, either for the use of the townspeople or as a staging area for moving animals to market. Further investigation is required to validate this hypothesis.

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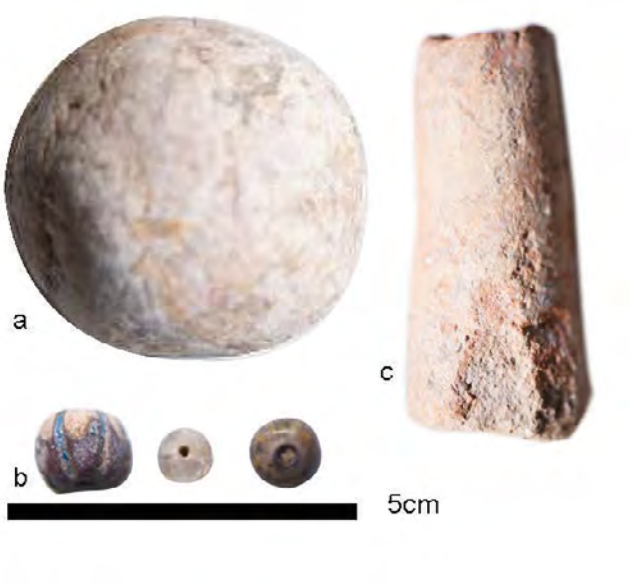


Fig. 9: **(a)** Polished granite "slingstone"; **(b)** ceramic, quartz, and glass beads from Tashbulak (11th century CE); **(c)** ceramic *tuyère* (furnace nozzle) (photos by: Michael Frachetti).

agreement with coinage found at the site (below), and thus we place this occupation phase to the late 10th and early 11th century CE. The overall form, location, and size of Tashbulak's citadel structure conform to regional palace designs. Below we discuss some of the comparative aspects of its layout with other political centres of the period. The increased percentages of fine-glazed plates on the citadel might indicate the presence of elites, as well as the recovery of imported foods. Both would have been expensive commodities at the time. More extensive excavations of the citadel are necessary to establish the functions of the many rooms that constitute this central structure.

The metallurgical workshop (trench R14)

Our excavations in Tashbulak's lower town and workshop area (trench R14) produced clear evidence for metallurgical production and commerce in the city. Tashbulak's medieval metal workers produced objects in iron, bronze, and silver, both for local use and trade. Abundant slag, metal artefacts, and medieval coins found within the workshop illustrate the diversity of production in the city. The coins, dating between ca. 976–1020 CE,[5] range in their mint of origin from Khoresmia, Bukhara, and Ustrushana, suggesting that the population of Tashbulak took part in exchange networks that spanned across the region (**Fig. 10 a–c**). The coins' mints (identified by A. Atahodjaev) show participation in extensive economic circulation and trade between Tashbulak's population and their regional partners.

The primary goal of the R14 trench was to determine the architecture, technology and function of structures in the lower town and to relate the construction of the building to the overall organisation and chronology of Tashbulak. Trench R14 was situated over a rectangular room hypothesised as a metallurgical workshop based on the magnetometer data. This trench partially extended over areas of two adjoining rooms to the north and south of the proposed workshop (**Fig. 11**). Stone foundations enclosed the central room on the north, south, and east sides, while the western side was not bounded by a wall foundation. The eastern wall foundation was the most substantial, with at least 10 courses of stone measuring 1.2 m high and roughly 70–80 cm wide. The central area of the room was constructed as a semi-subterranean structure, with its lowest floor levels falling below the bottom courses of the stonewall foundations (**Fig. 11b**).

In the central room we documented a number of charcoal pits and fire features (**Fig. 12**). Many of these small fire features (ca. 15–30 cm in diameter) were lined with broken ceramics and were rich in iron slag and vitrified ceramic. These features either reflect the possible production of intake/exhaust pipes or represent ceramic foundations for crucibles. When exposed to a hand magnet, the soils in

5 These dates precede the period during which the Karakhanids are believed to have occupied southern Uzbekistan. The continuity of material culture and population at Tashbulak may indicate the presence of a proto-Karakhanid occupation in this mountainous region that continued through the consolidation and expansion of the polity.

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Fig. 10: Three coins from the late 10th to early 12th c. CE recovered in situ from the metallurgical workship (photo by: Michael Frachetti).

the central room area were all magnetically sensitive, suggesting they contained raised content of iron filings. Deeper stratigraphic levels show evidence for mudbricks that would have been used to construct the outer structure of a furnace or functioned as layered brick floors.

Inside the northern room area, we uncovered a considerable amount of unburned wood logs, fairly well preserved and in situ. The logs appeared to be stacked, likely as fuel for the furnaces in the central room. In the southern room, roughly 1 m from the surface, we documented a thin yet broad concentration of charcoal ash – finely pulverised and deposited in a 3-cm-thick oval concentration dug into a sterile clay floor level. The ash concentration had no sign of in situ fire, and is interpreted as a charcoal ash dump – possibly waste from the furnaces in the central room.

The excavated structure can be confidently designated as a metal smithy used for the secondary working and fabrication of iron (possibly steel) implements, as well as other precious metals such as copper and silver. The technology of metal working in this workshop was carried out using small smelting fireplaces, which appear to be multi-staged with clay or ceramic chambers on the upper levels. These upper levels may be stands for crucibles or platforms of small-scale ovens used to reheat the metal before it was cast, annealed, and hammered. The workshops appear to be arranged in small room units, roughly 2 × 2 m, with each room designated for different purposes like wood storage, firing and hammering, and ash disposal.

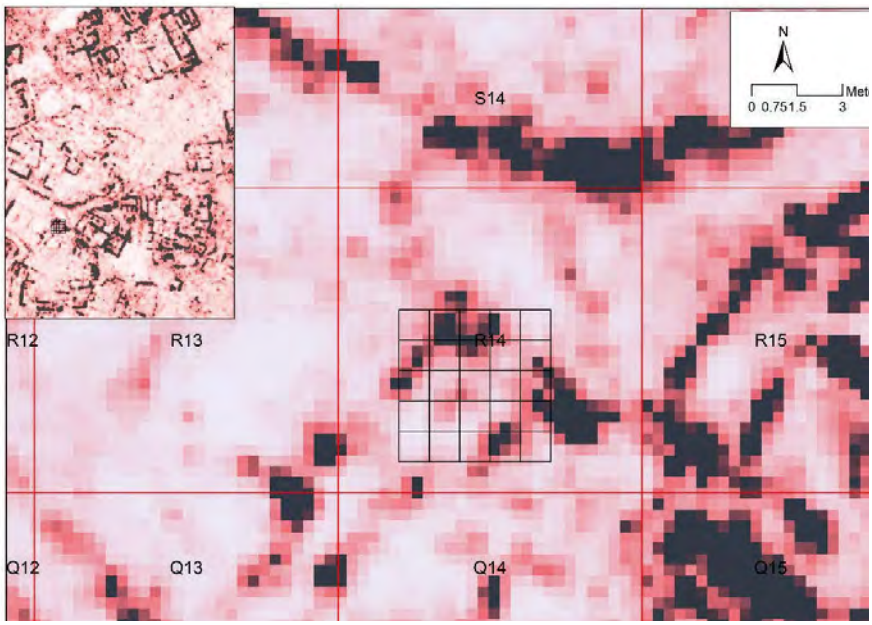
The artefacts collected throughout trench R14 provide some important insights into the function and chronology of this proposed workshop. Abundant slag remains were recovered in the furnaces and fire pits. A detailed publication of the slag analysis (by Thilo Rehren and Myrto Georgakopoulou) is forthcoming. Iron objects were also found with some frequency in trench R14. Broken implements such as blades, nails, and small iron fragments were found most frequently in the area of the central room, as well as outside the wall on the eastern periphery of the building. Ceramics – primarily handmade vessels with slip paint, characteristic of the non-glazed pottery found on the citadel, were also recovered.

The cemetery of Tashbulak

Results of the magnetometer survey along a hill and slope southwest of the citadel identified a necropolis where over 300 individual graves were arranged in linear rows and columns at the edge of the urban centre (**Fig. 13**). Five burials (four adults and one infant) were excavated and analysed in 2015. Two 3 × 4 m excavation units (F6 and J6) were opened up, each placed to cover two burials visible in the magnetometry imagery. J6 was placed near the north edge of the necropolis, about midway up the slope, in the middle of one of the rows, while F6 is located near the top of the slope, toward the southern boundary of the cemetery. After removing approximately 50 cm of sterile colluvium, we exposed the ancient surface and the tops of the burial shafts. Each shaft was marked by a change in sediment colour and texture aligned parallel to the slope, confirming our interpretation of the magnetometry imagery.

The 2015 excavations revealed nearly identical burial practices in four adult burials: a rectangular grave shaft (ca. 1 × 2 m), approximately 50–80 cm below the ancient surface with no additional struc-

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a



b

Fig. 11: (**a**) Location of R14 trench in lower portion of Tashbulak overlaid onto GPR imagery (image credit: Edward Henry and Michael Frachetti); (**b**) bisected central room (workshop) and southern room (bottom of image) showing the charcoal ash deposit (image credit: Michael Frachetti).

tural elements that led to a niche cut into of the western wall of the shaft (**Fig. 13**). The niches were excavated slightly below the base of the initial shaft, their entrances blocked by 4–5 nearly identical (ca. 42 × 10 cm) mudbricks. All adults were found in extended position on their backs (supine) with their heads to the north and faces turned generally toward the west (**Fig. 14**). The infant burial, not visible in the magnetometry imagery, was recovered from the north wall of the J6 unit in a simple pit with a single mud brick placed next to the infant. No burial offerings were found in any of the graves.

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Fig. 12: Small fire features located in the furnace area of the workshop (image credit: Michael Frachetti).



Fig. 13: Aerial reconstruction of excavation trench J6a5, showing BR-1 with the remains of Individual 1 exposed, as well as the completely excavated burial shaft and niche of BR-2 (image credit: Elissa Bullion).

The excellent preservation of the excavated human remains allowed extensive osteological analyses. Summary results from our osteological analyses indicated that all of the adults excavated in 2015 were probably females. In addition to the presence of an infant, the adults ranged in age from as young as 18 to one individual likely over 55 years old. Thus we suggest that the population buried at Tashbulak was not restricted to, say, only soldiers or (male) artisans. While we cannot characterise the entire

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Fig. 14: Photo of exposed remains of Individual 1 in Burial 4 (photo by: Elissa Bullion).

population from these five individuals, our results do provide an initial sense of the demographic diversity of persons buried at Tashbulak. People at all stages of life were interred at Tashbulak, yet were not necessarily residents of the town itself. As discussed below, there are limited residential quarters within the town, which may also suggest that the highland rural population was connected to its ruler through genealogical or tribal ties. Their interment in the necropolis may also be related to adopted Islamic burial institutions on the part of (presumably) highland nomadic groups. Further investigation will allow us to better understand the range of activities, interactions, and social structures that characterise Tashbulak's urban and surrounding populations.

5 Comparative urban elements and nomadic character of Tashbulak

While the extent of architectural remains at Tashbulak spans no more than 7 ha, a number of key spatial and typological aspects of urban planning can be identified based on our geophysical surveys and limited excavations. These characteristics allow us to compare (and contrast) Tashbulak with other medieval cities in the region. Summarised above, the spatial layout of Central Asian lowland cities from the 10th to the 12th century CE typically focuses around an administrative citadel – often with a palace built upon it – and sometimes with residential quarters immediately surrounding the elite residence. Beyond the citadel (and typically at a lower elevation) is the *ribāt* or workshop/suburban area. Outside this zone may be other features such as stables, or other variously purposed constructions. Another important defining element of medieval cities are civic constructions, such as religious buildings, cemeteries, etc. These zones within medieval cities reflect areas of access to the wider population associated with the polis itself. In many cases, walls surrounded these urban sectors, with gates and roadways to facilitate, prevent, and/or channel movement and access between various areas. In addition to such control points, towers and bastions also typically define the outer defences of Central Asian cities in this period (Mantellini 2003). Although we are still at an early stage of excavation at Tashbulak, our geophysical survey and test excavations allow us to draw some preliminary conclusions about Tashbulak's layout that situates it within the wider rubric of medieval towns and cities.

The citadel

First, the central mound of Tashbulak defines a citadel surmounted by an organised residential structure, which we liken to an elite residence, or "palace". Around the edges of this structure, but still on the citadel mound, are smaller uniform structures that likely functioned as subsidiary residences, perhaps for members of the city's administration, or possibly even soldiers. The wall foundations of these peripheral buildings enclose circular magnetic anomalies visible in the magnetometer imagery (**Fig. 3a**). Al-

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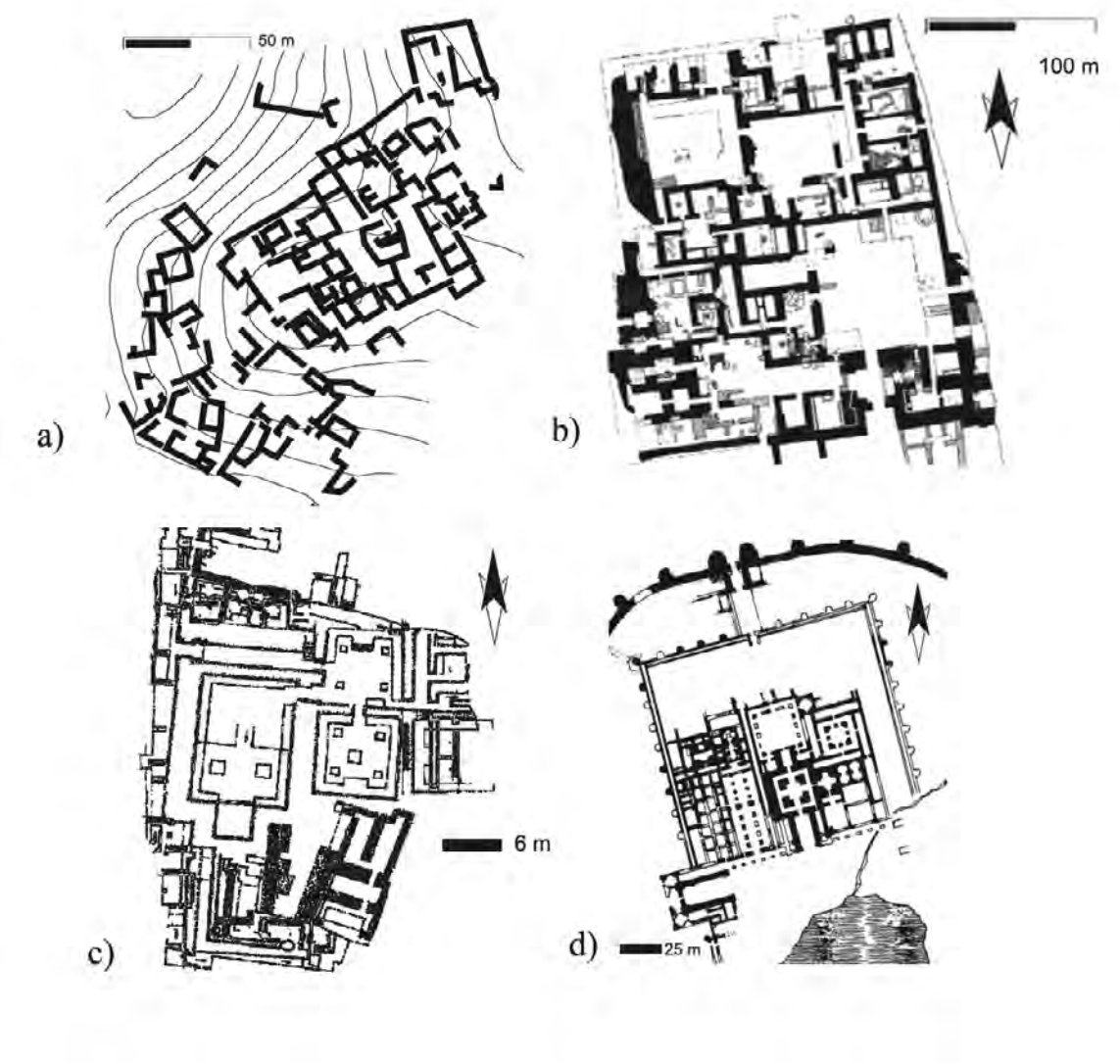


Fig. 15: Comparative architectural layouts, (**a**) Tashbulak (image credit: M. Frachetti after image by E. Henry); (**b**) residential structure at Afrasiab (Sirin 2010); (**c**) palace at Panjikent (Sirin 2010); (**d**) palace at Takht-i Sulayman (Huff 2002).

though excavations in these structures surrounding central citadel have not yet been conducted, archaeological excavation elsewhere on site show that such anomalies correlate with fire features, such as central hearths.

The preliminary plan of Tashbulak's citadel compares favourably with other contemporary Central Asian and Iranian architectural examples (**Fig. 15**), such as the citadel at Afrasiab (old Samarkand). There, a donjon stands higher than a surrounding lower structure that features residences and administrative spaces. These administrative areas and the citadel's donjon are separated by roughly 50 m to the west from a sacred space where the mosque was located. While unfortified and considerably smaller in scale, Tashbulak also generally reflects this layout. We should note that at Tashbulak, too, there is sector west of the citadel, which we provisionally labelled the "Western Town". Excavations have not yet been carried out there.

The two-part citadel structure is typical of Central Asian centres, and even existed in pre-Islamic times (Karev 2013). The town of Takht-i Sulayman in the western Azerbaijan region of present-day Iran shows ancient Sassanian structures that were eventually appropriated and expanded upon by the Mongol Ilkhanids in the late 13th century. Like Tashbulak, it is situated at a high elevation, over 2,000 m, which leads Huff to suggest that is was intended as a summer palace for the Ilkhanid ruler Abaqa (r. 1265–1282) (Huff 2006: 96). The palatial site included residential quarters, artisan workshops and an expansive, open, walled-in space that leads to a throne room. Boundary walls surround and dominate all three of these comparative sites. A wall has not yet been found at Tashbulak, though foundations of what appear to be two towers, large rectan-

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gular structures, are evident in the north-east and south-east of the city. Perhaps due to its isolated location and diffuse pattern of community residency, the town of Tashbulak may have had little need for extensive fortifications.

Of course, not all Karakhanid period citadels reflect the two-part citadel shape. The citadel of Bukhara, for example, was uniquely composed of separate sections – public buildings were separated from a larger area reserved for private, royal use (Karev 2013). The citadel itself was positioned next to the *shahristan,* and not the actual walls of the city, as is more typical (Sobti 2005). A prominent citadel, separate from the *shahristan* and other aspects of the city, is a feature typical of Central Asian cities after the spread of Islam (Sobti 2005). During the Karakhanid period, the citadel at Bukhara was primarily constructed out of baked brick (Karev 2013). Yury Karev suggests that this semi-impermanent style of building was intentional, in contrast to contemporary Ghaznavid and Ghurid monumental architecture. He writes that, in the case of the Karakhanids, "… some connections with their nomadic past are not impossible: to build beautifully but fast, to settle down but to move on if needed without much trouble" (Karev 2013: 136).

Another example is ancient Panjikent (Penjikent), which lies 60 km east of Samarkand, in present-day Tajikistan. Founded in the 5th century CE and inhabited as a major Sogdian centre until the 770s, its layout is comparable to that of Tashbulak. In Panjikent, a fortified citadel rested on a hilltop, separated by a ravine from the *shahristan* and the *ribāt*. The citadel was fed by a spring, dividing it from the main city, and its distinctly non-concentric layout likens it to that of Tashbulak and Bukhara (Marshak 2002; Sobti 2005). Sobti (2005) and Barthold (1963) suggest that Panjikent's prominent position as the chief town in the Ustrushana province, which stretched between Samarkand and Khojend, meant that despite its medium size (a perimeter of 1,750 m, not including the citadel), its form was the norm, and not the exception.

Ribāt

Beyond the citadel at Tashbulak we documented a small (ca. 2 ha) lower town sector, which conforms to the residential and workshop area – what we liken to a *ribāt*. Survey and excavations in the lower town illustrate an extensive zone of industrial activity, with at least five building complexes surrounding internal courtyards that mimic the form and layout of the iron smithy described above. Of course, we cannot say at present whether these were are all forges, but with our current state of archaeological insight we interpret this zone of the city as occupied by craftsmen and merchants. While the broad layout of this part of the town is similar that of larger cities such as Akhsiket, it is important to note the comparatively small size of the workshop area at Tashbulak. Tashbulak's small scale and apparently limited number of houses means that it is unlikely that any more than small residential population lived within the town itself. In fact, it is this lack of urban residency that, we argue, distinguishes Tashbulak as a highland "nomadic" centre from comparable lowland models.

Necropolis

Lowland cities of the Karakhanid period were characterised by specific types of spaces not only for the living, but also for the dead. Excavations at the Tashbulak cemetery confirm parallels to lowland Karakhanid city cemeteries. The presence of a large necropolis is another element that Tashbulak shares with lowland Karakhanid cities. In historically sedentary regions of Central Asia, populations concentrated their dead in large cemeteries near settlements as early as the Bronze Age, at sites like Djarkutan and Sapalli-tepe (Bendezu-Sarmiento 2013). While archaeologists have documented some large cemeteries associated with nomadic groups across Central Asia, most appear to contain only a subset of the population and rarely have hundreds of individuals, unlike many of the sedentary necropolises (Frachetti 2006; Allard et al. 2002). By the Karakhanid period, lowland sites such as Afrasiab, Bukhara, and Tok-Kala (among many others) had cemeteries spanning multiple centuries and individuals from multiple religions (Nemtseva et al. 1977). Tashbulak differs in this aspect, as its short-lived nature probably yielded burials during a limited occupational time-frame. However, the location, size, layout, and burial practice of the Tashbulak necropolis are similar to those of cemeteries at lowland Karakhanid urban sites.

The necropolis at Tashbulak is located to the south-west of the site's citadel and *ribāt*. If we compare this placement to necropolises in lowland cities, we find a similar trend in urban planning. At both Bukhara and Afrasiab, the main necropolis is located south(west) of the citadel and inner city. In the case of Tashbulak and these lowland cities, the necropolis is close to or contiguous with the rest of the city, but it is not integrated into the other areas. At least 300 burials have been identified at the Tashbulak necropolis based on the magnetometry survey. While not matching the vast numbers of graves at large centres such as Bukhara and Afrasiab, the number of burials at Tashbulak is large when we consider its small architectural scale. For comparison, Tashbulak is similar in size to cemeteries such as Tok-Kala and Mizdakhan, both of which are associated with much larger, lowland centres (Amirov 2010). Graves at Tashbulak are arranged in a series of rows and columns, with no clear centre or sepa-

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ration of groups. This type of organisation has been mapped elsewhere in the Islamic world, including in contemporaneous Islamic cities including Mizdakhan, located politically outside of the Karakhanid realm but within Western Turkestan (Âgodin/ Hodzhajov 1970).

The burial form, body treatment, and organisation of the cemetery are consistent with burial practices recorded at many early Islamic cemeteries and some lowland Karakhanid cemeteries. Although not exclusively an Islamic tradition, the niche burial structure at Tashbulak is consistent with grave forms found in other Islamic necropolises including Mizdakhan and Kran-Tau (Amirov 2010). The use of mudbricks to seal the catacomb niche may represent adherence to the Islamic belief that soil should not be put on the face of the deceased (Halevi 2007). In terms of the treatment of the body, the extended supine body position is typical of Islamic burial, as is the burial of bodies within chambers that protect the face of the deceased, and without accompanying grave goods (Halevi 2007).

Residential quarters?

The lack of a large and densely constructed residential quarter is the most significant way in which Tashbulak differs from other Karakhanid cities of the region. Arguably, it may be one compelling reason to *not* classify it as a city at all – at least in the canonical sense. Indeed, even if we counted every (visible) four walled room at Tashbulak and ascribed it a minimum number of occupants (4), the total resident population of Tashbulak would not exceed 500 inhabitants (roughly 120 rooms in total). Given that not every structure is visible, we might generously allocate a population not to exceed 750–1000, which is likely an overestimate.

Nevertheless, if we consider the disproportionate number of graves in the city necropolis (over 300) and the likelihood that Tashbulak was not occupied for more than a century, it suggests that intramural residency was not a requisite for association with the town itself. In fact, given the prevalence of the nomadic economy that would have dominated this high-altitude region, we should expect that Tashbulak served as the political and productive centre for advanced crafts, had a mercantile role and functioned as a site of religious identity for a population that might have extended diffusely across the highlands. Considering the high-altitude location and the needs of the nomadic economy at Tashbulak, this extramural occupation was likely seasonably dependent. The atypical relationship between the proposed social and political institutional functions of Tashbulak and its referential (rather than residential) importance as a site for political identity (on the part of pastoralists living in its environs) that elicits its consideration as a "nomadic" city.

As mentioned above, the relationship between political power, land investment, trade, and the generation of revenue was uniquely structured amongst the Karakhanid elites to function in sedentary farming centres as well as it did in highland towns, where nomadic groups were integrated productively through socio-political networks rooted genealogically or tribally with local rulers. The establishment of a political seat for such elites would have facilitated the state's institutional apparatus by introducing a range of mandates and structures to all those who worked and occupied a particular appanage.

6 Discussion/conclusions

Not only were the Karakhanids the first nomadic state in Central Asia to adopt Islam, but it appears that their ability to control both lowland agricultural zones as well as highland (pasture and mining) territories was important for the economic, ideological, and productive development of their empire. The archaeology of Tashbulak provides a new perspective of highland urbanism in relation to the Karakhanid's political, social, and economic organisation, specifically their use of urbanism as a way of fixing a political stronghold within operative highland nomadic networks, facilitating religion, metallurgy, trade, and more. The town's general architectural layout mimics lowland cities of the period and served to sanction state Islamic conversion across nomadic populations living beyond lowland oases. The foundation of a political stronghold at high elevation also illustrates the broader geographic reach and investment in metallurgy and trade on the part of the Karakhanid rulers, merchants, and craftsmen.

If we consider again the appanage system used by the Karakhanid elite to generate revenue, we might easily explain the foundation of this mid-sized town as an important political and economic centre to gain control over valuable high-altitude wood and ore resources, and as a socio-political investment to integrate mountains pastoralists within the flourishing ideological and political structure of the dynasty. Significantly, the pastoralist demographic sector also provided a range of commodities and services ranging from wool and meat to horses and skilled cavalry – all of which were essential to the military and economic growth of the empire.

Without substantial fortifications – such as those documented at nearby site of Myk (ancient Mīnk) – Tashbulak does not appear to be a fortress or castle refuge. Tashbulak appears, rather, to have served administrative, economic, and social functions. The city was occupied by a cross-section of the population (men, women, children), some of whom were engaged in pastoralism while others practised metallurgy, including the production of iron, (probably) steel, copper and bronze, and silver work. From the

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late 10th to the 11th century CE, merchants and craftsman (likely on behalf of elites) engaged in trade and commerce with Silk Road partners spanning from Ustrushana (Tajikistan, Uzbekistan) to the Aral Sea and Bukhara. Numismatic evidenced recovered at the site and the wide range of exotic fruits and nuts, which could have arrived at this mountain city only as trade items, speak to this wider economic interaction. Although still at an early stage of documentation, in hindsight it makes sense to think that the Karakhanids, whose elites and aspiring leaders ruled from outside the oasis centres, would utilise their political and social currency amongst highland nomads to develop more substantial strongholds from where they could increase their economic, political, and religious control over a range of communities.

Silk Road economic growth was only outmatched by religious expansion in the region, particularly evident in the spread of Islam throughout Central Asia in the 10th and 11th century CE. For the Karakhanids, religious conversion around 950 CE fostered improved relationships with the Near East, where the Islamic Caliphate (in Baghdad) increasingly sought iron and steel to support its military and ideological expansion. Our work shows that the population of Tashbulak had adopted Islamic burial practices, probably soon after state conversion. Tashbulak burials (to date) reflect a common Muslim interment practice across gender and age ranges, thus we may speculate that religious conversion spread rapidly to the largely nomadic population in the highlands, living under Karakhanid rule.

While high-altitude urbanism is little known for nomadic societies of this time period, again it now seems unsurprising to find that the Karakhanids had established mountain centres after converting to Islam, placing them in a unique position to control trade and the production of iron (and other metals) across a newly forged and wide-ranging Islamic network. The integration under the Karakhanids of nomadic populations into the greater economic network and trans-continental trade network certainly helped fuel their economic and cultural fluorescence across the region. Tashbulak offers an unprecedented window on the economic, architectural, ideological, and political development of the Karakhanid Khanate, and expands our understanding of role of nomadic hegemonies in economic production, religion, and governance along the Silk Routes.

Bibliography

Âgodin, B.H./Hodžajov, T.K.
1970: *Nekropol' dvernego Mizdahkana*, Tashkent.

Allard, F./Erdenebaatar, D./Batbold, N./Miller, B.
2002: A Xiongnu Cemetery Found in Mongolia, *Antiquity* 76, 637–638.

Amirov, S.S.
2010: Archaeological Aspects of the Early Islamic Period in Khorezm, *Archäologische Mitteilungen aus Iran und Turan* 42, 59–66.

Anarbaev, A.A.
1981: *Blagoustrojstvo srednevekovogo goroda Srednej Azii (V–načalo XIII v.)*, Tashkent.

Bartol'd, V.V.
1963: *Sočineniâ*, 8 vols., Moscow.

Belenickij, A.M./Bentovič, I.B./Bol'šakov, O.G.
1973: *Srednevekovyj gorod Srednej Azii*, Leningrad.

Bendezu-Sarmiento, J.
2013: Archéologie funéraire et bio-anthropologie à Ulug dépé et Dzharkutan. Âge du bronze au Turkménistan et en Ouzbékistan, *Cahiers d'Asie centrale* 21/22, Paris, 501–532.

Biran, M.
2001: Karakhanid Studies: A View from the Qara Khitai Edge, *Cahiers d'Asie centrale* 9, 77–89.

Bregel, Y.
2003: *An Historical Atlas of Central Asia* (= Handbook of Oriental Studies 8 = Central Asia 9), Leiden/Boston.

Dankoff, R.
1992: Qarakhanid Literature and the Beginnings of Turco-Islamic Culture, in: Paksoy, H.B. (ed.), *Central Asian Monuments*, Istanbul, 73–80.

Davidovich, E.A.
1998: The Karakhanids, in: Asimov, M.S./Bosworth, C.E. (ed.), *History of Civilizations of Central Asia. Volume IV. The Age of Achievement: A.D. 750 to the End of Fifteenth Century. Part One. The Historical, Social and Economic Setting*, Paris, 119–144.

Di Cosmo, N.
2002: *Ancient China and its Enemies: The Rise of Nomadic Power in East Asian History*, Cambridge.

Frachetti, M.D.
2006: The Dzhungar Mountains Archaeology Project: Reconstructing Bronze Age Life in the Mountains of Eastern Kazakhstan, in: Peterson, D.L./Popova, L.M./Smith, A.T. (ed.), *Beyond the*

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Steppe and the Sown (Proceedings of the 2002 University of Chicago Conference on Eurasian Archaeology), Leiden/Boston, 122–141.

Frachetti, M.D./F. Maksudov
2014: The Landscape of Ancient Mobile Pastoralism in the Highlands of Southeastern Uzbekistan, 2000 B.C.–A.D. 1400, *Journal of Field Archaeology* 39, 195–212.

Golden, P.B.
1990: The Karakhanids and Early Islam, in: Sinor, D. (ed.), *The Cambridge History of Early Inner Asia*, Cambridge, 343–370.

2006: Turks and Iranians: An Historical Sketch, in: Johanson, L./Bulut, C. (ed.), *Turkic-Iranian Contact Areas: Historical and Linguistic Aspects* (= Turcologica 62), Wiesbaden, 17–38.

Ḥāğib, Y.Ḫ.
Wisdom of Royal Glory: A Turco-Islamic Mirror for Princes. Translated, with an Introduction and Notes by Robert Dankoff, 1983, Chicago.

Halevi, L.
2007: *Muhammad's Grave: Death Rites and the Making of Islamic Society*, New York.

Hermes, T.R./Frachetti, M.D./Bullion E.A./Maksudov F./Mustafokulov S./Makarewicz, Ch.A.
2018: Urban and Nomadic Isotopic Niches Reveal Dietary Connectivities Along Central Asia's Silk Roads, *Scientific reports* 8(1), 5177.

Honeychurch, W.
2013: The Nomad as State Builder: Historical Theory and Material Evidence from Mongolia, *Journal of World Prehistory* 26, 283–321.

Huff, D.
2006: The Ilkhanid Palace at Takht-i Sulayman: Excavation Results, in: Komaroff, L. (ed.), *Beyond the Legacy of Genghis Khan*, Leiden/Boston, 94–110.

Johanson, L.
2006: Historical, Cultural and Linguistic Aspects of Turkic-Iranian Continuity, in: Johanson, L./Bulut, C. (ed.), *Turkic-Iranian Contact Areas: Historical and Linguistic Aspects* (= Turcologica 62), Wiesbaden, 1–14.

Karev, Y.
2013: From Tents to City: The Royal Court of the Western Qarakhanids between Bukhara and Samarqand, in: Durand-Guédy, D. (ed.), *Turko-Mongol Rulers, Cities and City Life* (= Brill's Inner Asian Library 31), Boston, 99–147.

al-Kāšġarī, M.
Compendium of the Turkic Dialects (Diwān luġāt at-Turk). Edited and Translated with Introduction and Indices by Robert Dankoff in Collaboration with James Kelly, 1982–1985, Cambridge, MA.

Klâštornyj, S.G./ Sultanov, T.I.
2004[2]: *Gosudarstva i narody Evrazijskih stepej. Drevnost' i srednevekov'e. Vtoroe izdanie, rasširennoe i dopolnennoe*, St. Petersburg.

Kochnev, B.D.
1996: The Origins of the Karakhanids: A Reconsideration, *Der Islam* 73, 352–357.

Kočnev, B.D.
2006: *Numizmatičeskaâ istoriâ Karahanidskogo kaganata (991–1209). Čast' 1. Istočnikovedčeskoe issledovanie*, Moscow.

Maksudov, F.
2012: Batı Türkistanda Karahanlı Kentlerinin Gelişimi Üzerine, *IIB Intl. Refereed Academic Social Sciences Journal* 3/5, 339–351.

Mantellini, S.
2003: The Dargom Canal and the Early Settlement of the Middle Zeravshan Valley, in: Pagani, S. (ed.), *Italo-Uzbek Scientific Cooperation in Archaeology and Islamic Studies: An Overview*, Rome, 41–48.

Marshak, B.I.
2002: Panjikant, *Encyclopædia Iranica, online edition*, 2016, available at: http://www.iranicaonline.org/articles/panjikant, accessed on 20 September 2016.

Mélikoff, I.
1996: From God of Heaven to King of Men: Popular Islam among Turkic Tribes from Central Asia to Anatolia, *Religion, State and Society* 24, 133–138.

Nemtseva, N.B./Rogers, J.M./Yasin, A.
1977: Istoki kompozitsii i etapy formirovaniya ansamblya Shakhi-Zinda (The Origins and Architectural Development of the Shāh-i Zinde), *Iran* 15, 51–73.

Rezakhani, K.
2010: The Road That Never Was: The Silk Road and Trans-Eurasian Exchange, *Comparative Studies of South Asia, Africa, and the Middle East* 30, 420–433.

Sinor, D.
1990: The Establishment and Dissolution of the Türk Empire, in: Sinor, D. (ed.), *The Cambridge History of Early Inner Asia*, Cambridge, 285–316.

Sneath, D.
2007: *The Headless State: Aristocratic Orders, Kinship Society and Misrepresentations of Nomadic Inner Asia*, New York.

Sobti, M.P.
2005: *Urban Metamorphosis and Change in Central Asian Cities after the Arab Invaisons*. Doctoral Dissertation, Georgia Institute of Technology, Atlanta.

Soucek, S.
2000: *A History of Inner Asia*, Cambridge.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Spengler, R.N./Maksudov, F./Bullion, E./Merkle, A./Hermes, T./Frachetti M.
2018: Arboreal Crops on the Medieval Silk Road: Archaeobotanical Studies at Tashbulak, *PloS one* 13(8), e0201409.

Stark, S.
2008: Approaching the Periphery: Highland Ustrūshana in the Pre-Mongol Period, in: de la Vaissière, É. (ed.), *Islamisation de l'Asie centrale: processus locaux d'acculturation du VII–XI siècle* (= Studia Iranica 39), Paris, 215–238.

Sverčkov, L.M.
1991: *Poselenie Myk – istočnik po istorii srednevekovoj Ustrušany.* Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata istoričeskih nauk, Samarkand.

Whitfield, S.
1999: *Life Along the Silk Road*, Berkeley/Los Angeles.

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Sanjar-Shah: A Sogdian Town in the Zeravshan Valley

Some preliminary results of the recent archaeological investigations

Michael Shenkar and Sharof Kurbanov

Abstract: This paper presents some preliminary results of the excavations conducted at the site of Sanjar-Shah in 2014 and 2015. Sanjar-Shah is located 12 km to the east of the Sogdian city of Panjikent in Tajikistan and seems to be roughly contemporary with it (5th–8th centuries CE). The previous excavations in 2001, 2003 and in 2008–2013 have mostly concentrated on the Round Tower (Area 1) in the north-western corner of the site and on Area 2 in the eastern part of the town. Some important finds have been made in the Round Tower in 2008–2009, including a well-preserved cotton shirt and fragments of Arabic letters written on paper. These fragments are dated to the 8th century CE, which makes them the earliest known Arabic texts written on paper. The results of the recent excavations suggest that all the rooms uncovered so far in Area 2 belong to two different households separated by a large open courtyard and a wide street. Furthermore, it appears that this part of Sanjar-Shah was most probably a living-craftsmen quarter. In addition, this paper discusses the possible ancient name of Sanjar-Shah and its relations with the neighboring city of Panjikent in light of the evidence of the Mount Mugh documents.

Keywords: Sogdian, Panjikent, Sanjar-Shah, Tajikistan, Arabic epigraphy.

Резюме: В данной статье приводятся предварительные результаты раскопок на городище Санджар-Шах в 2014-2015 годах. Городище Санджар-Шах расположено в 12 км к востоку от древнего Пенджикента в Таджикистане и видимо синхронно с ним (пятый-восьмой века н.э.). Предыдущие раскопки в 2001, 2003 и в 2007-2013 годах проводились главным образом на Объекте 1 (Круглая Башня) в северо-западном углу городища, и на Объекте 2 в его восточной части. При раскопках Башни в 2008-2009 годах были сделаны важные находки, включающие в себя хорошо сохранившуюся детскую рубашку из хлопка и фрагменты арабских писем написанных на бумаге. Эти письма датируются восьмым веком н.э., что делает их древнейшими арабскими документами написанными на бумаге дошедшими до наших дней. На основании результатов раскопок можно предположить, что помещения открытые на Объекте 2 относятся к двум домовладениям разделенным площадью и широкой улицей. Эта часть городища по-видимому являлась ремесленным кварталом. Кроме того, в статье обсуждается возможное согдийское название Санджар-Шаха и его связи с Пенджикентом в свете данных документов с горы Муг.

Ключевые слова: Согдиана, Пенджикент, Санджар-Шах, Таджикистан, арабская эпиграфия.

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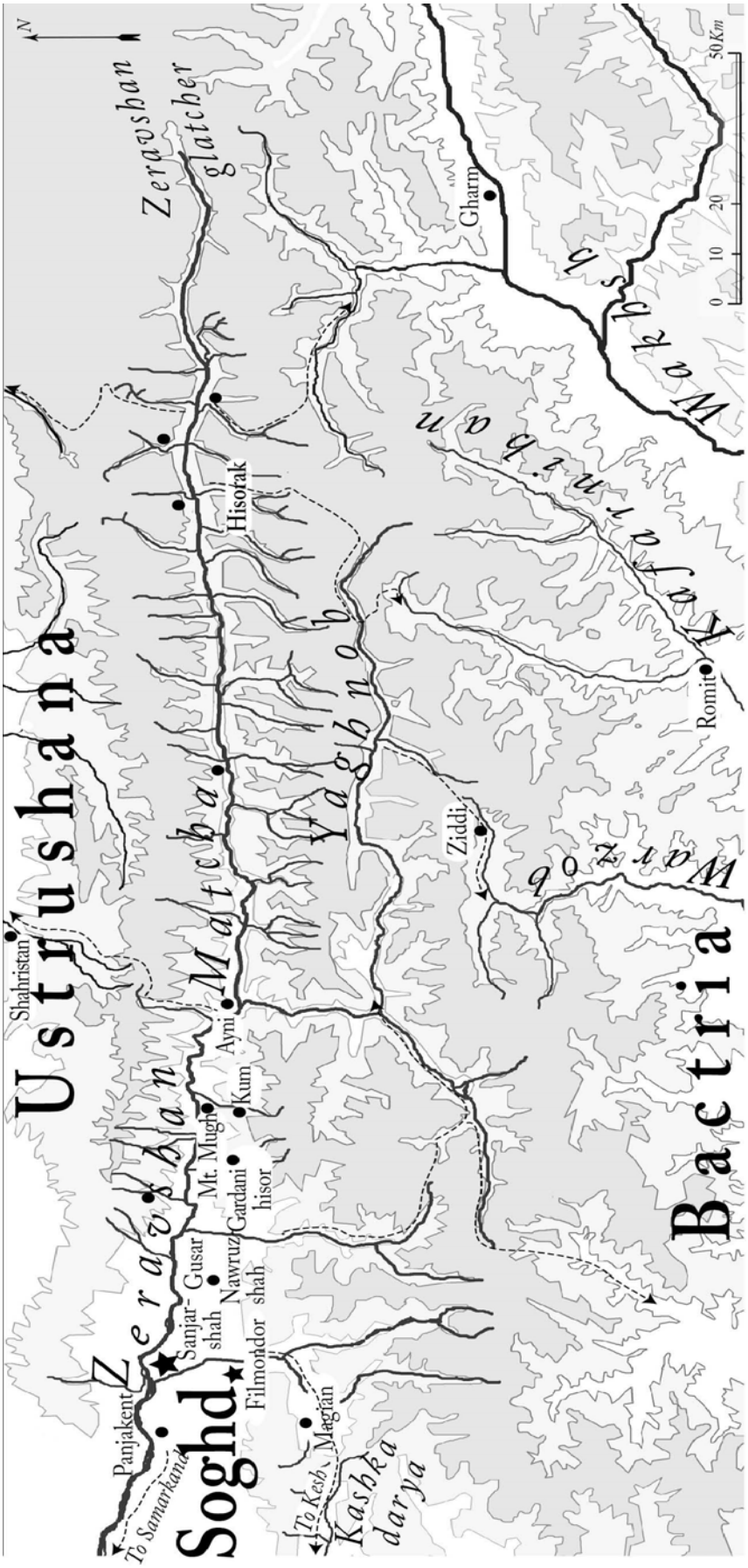


Fig. 1: Map of the Upper Zeravshan Valley (courtesy of Pavel Lurje and Alexey Akulov).

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1 Site and name

The archaeological site of Sanjar-Shah is located on the southern outskirts of the present-day village of Sujina, 12 km to the east of Panjikent in north-western Tajikistan (**Fig. 1**). Sanjar-Shah has been known since 1947, when a survey was conducted at the site by Olga Smirnova and her team (Smirnova 1950: 71–72). However, the first excavations took place only in 2001, when a German-Tajik archaeological team directed by Gerd Gropp and Sharof Kurbanov worked at Sanjar-Shah for two seasons in 2001 and 2003 (Gropp/Kurbanov 2007). In 2008, a new excavation project was initiated by Sharof Kurbanov and Alexey Savchevko, with the financial support of the Society for the Exploration of EurAsia.[1] Since 2014, the excavations have been directed by the present authors – Michael Shenkar and Sharof Kurbanov. This article will present a general overview of the site and some of our preliminary findings during the 2014–2015 seasons.[2]

Sanjar-Shah covers around 5 ha and seems to have been roughly contemporary with the neighbouring Sogdian city of Panjikent that existed between the 5th and 8th centuries CE. The site comprised three distinct parts (**Fig. 2**). The Round Tower in the north-western corner, and the town itself (*shahristan*), which is divided into western and eastern parts. The town was protected by walls except from the northern side. During the 1950s and the 1970s, virtually the entire surface of the site was levelled for agriculture, though the inner wall and the moat separating the two parts of the *shahristan* were still preserved when Smirnova visited the site and they are clearly visible on the plan she published in 1950. The town probably had at least two gates: one in the western part of the southern wall, and a second supposedly located in the south-eastern corner.

The site's name – Sanjar-Shah – was used by the local Uzbek population after a Seljuk ruler of the 11th century, but what was the ancient Sogdian name of the town? According to Early Medieval geographers, one of the 12 districts (*rustāqs*) of Samarkand was called Sanjarfaghān (Bartol'd 1963: 144).[3] It was, however, situated to the west of Panjikent, while Sanjar-Shah is located to the east, and thus it cannot be associated with Sanjarfaghān. Nevertheless, the fact that the component *sanjar* is already attested in a Sogdian toponym in the same region[4] suggests that the same component might lie behind the modern name Sanjar-Shah. There seem to be no local traditions or folk stories connecting the site with the Seljuk Sanjar-Shah, and it is possible that the original place-name of the Sogdian town was reinterpreted by the Turkic-speaking population who settled around the site in the 19th century as the name of the Seljuk ruler (and hence the addition "shah").

Sujina – the name of the local village adjacent to the site from the north and from the west – seems to derive from the Sogdian *swcynk* ("burned"),[5] but this toponym is also absent from the Mount Mugh documents, which record dozens of even small settlements in the Upper Zeravshan region (Livshits 2015). Interestingly, describing the campaign of Qutaybah ibn Muslim in the Kashka Darya Valley and his capture of Nakhshab and Kesh, Ṭabarī also mentions that the Muslim general burned a certain *F.ryab*, which was from then on called "The Burned" (Hinds 1990: 175–176). While the described events take place in the Kashka Darya Valley and cannot be connected to Sanjar-Shah, it provides a context within which the name *swcynk* could have been created. It is plausible that it is the name given to Sanjar-Shah after it was conquered by the Arabs in one of their numerous campaigns in the region in the 8th century.[6]

Sanjar-Shah is by far the largest settlement in the vicinity of Panjikent, and it is therefore difficult to explain its absence from the Mount Mugh documents. These documents consist, for the most part, of two archives: that of Dēwāštīč, ruler of Panjikent, and of *Framāndār Ūt* (*prm'nδ'r 'wtt*) (Livshits 2015). *Framāndār* ("order holder"), appears to have been the highest administrative authority in the region, after Dhēwāshtīch. His domain is not indicated in the letters and it has been suggested that it was located in the area of the Magian Darya River, near the modern village of Filmondor, whose name is derived from *framāndār* (Livshits 2015: 111–112), or located in the castle excavated in the present-day village of Kum (Âkubov 1988: 95). However, both are small and appear inappropriate for a seat of such a high-ranking official. While the Filmondor castle might well have been a *framāndār*'s "weekend retreat" (or a marker of the southern border of the region administered by him), the main residence of the *framāndār* was probably Sanjar-Shah, located only 11.1 km (as the crow flies) downstream from Magian Darya – approximately only one hour on

1 We would like to thank the Society for the Exploration of EurAsia and its director, Dr Christoph Baumer, for their help and constant support.

2 Several reports have been published so far: Kurbanov 2010; 2012; 2014. Brief annual excavations reports are published on the website of the Society for the Exploration of EurAsia: http://www.exploration-eurasia.com/EurAsia/inhalt_english/projekt_5.htm

3 We are grateful to Yury Karev, with whom we consulted on the geographical matters discussed below.

4 Lurje compares it with the Persian *sangar*, "entrenchment", and thinks that the Sogdian word must have been identical; Lur'e 2004: 213.

5 We are grateful to Pavel Lurje for this information.

6 It is worth noting that parts of the Western Household in Area 2 (especially Room 21) were clearly destroyed by fire. See below.

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Fig. 2: Sanjar-Shah, aerial view (photo by Pavel Lurje).

horseback. As the second largest settlement after Panjikent, Sanjar-Shah would have been a perfect candidate for the seat of the second-ranking official after the ruler of Panjikent. There is no doubt that Sanjar-Shah was a place of special significance for whoever controlled Panjikent. If the identification of Sanjar-Shah as the principal seat of the *framāndār* is to be accepted, the "*framāndār* archive" of the Mount Mugh documents in fact originates from Sanjar-Shah.

Between the 5th and the 8th centuries CE, Sogdiana was a classic "city-state culture" (as distinct from a territorial "macro-state") as defined by the Copenhagen Polis Centre.[7] The country was divided into independent principalities, each being a separate civic community (*nāf*). We do not possess any written evidence that both Panjikent and Sanjar-Shah belonged to the same polity (*Panch*), though this seems likely, due to their close proximity to each other. The Mount Mugh documents also demonstrate that the sphere of Dhēwāshtīch's activities and interests extended far beyond Sanjar-Shah, into the mountainous areas of the Upper Zeravshan Pargar region. It is therefore plausible that Sanjar-Shah was part of the city-state of Panjikent (*Panch*), and that the *framāndār* was in fact appointed by the Panjikent prince. We can even speculate that the populations of Panjikent and Sanjar-Shah were perhaps considered to be part of the same civic community. Interestingly, even into the first half of the 20th century, the local inhabitants of Panjikent identified Sanjar-Shah as the site of "Ancient Panjikent" (instead of Kaynar-su, where excavations have revealed the remains of the city of Dhēwāshtīch) (Smirnova 1950: 71).

2 Area 1: The Round Tower

To date, excavations have for the most part concentrated on the Round Tower in the north-western corner of the site (Area 3) and on Area 2 in the eastern part of the town (**Fig. 3**). Together with the area along the southern wall (Area 4), these are the only places at the site that have not been affected by levelling. The tower excavated in Area 1 is round and divided into two parts (**Fig. 4**; **Fig. 5**). The central two-storey section of the tower (11.2 m in diameter) consisted of two rooms on the upper floor. It was constructed of sun-dried mud brick and the walls were preserved up to 6.80 m. In the 7th century, the tower was surrounded by a one-storey circular gallery with 11 additional rooms, bringing the overall diameter of the tower to 24 m. During the last phase, the tower probably served as a granary and a barn, which created unique conditions

7 "A city-state culture arises when a region is inhabited by a people who have the same language (or a common lingua franca), the same religion, the same culture and the same traditions, but is divided politically into a large number of small states, each of which consists of a city and its immediate hinterland." Hansen 2006: 9.

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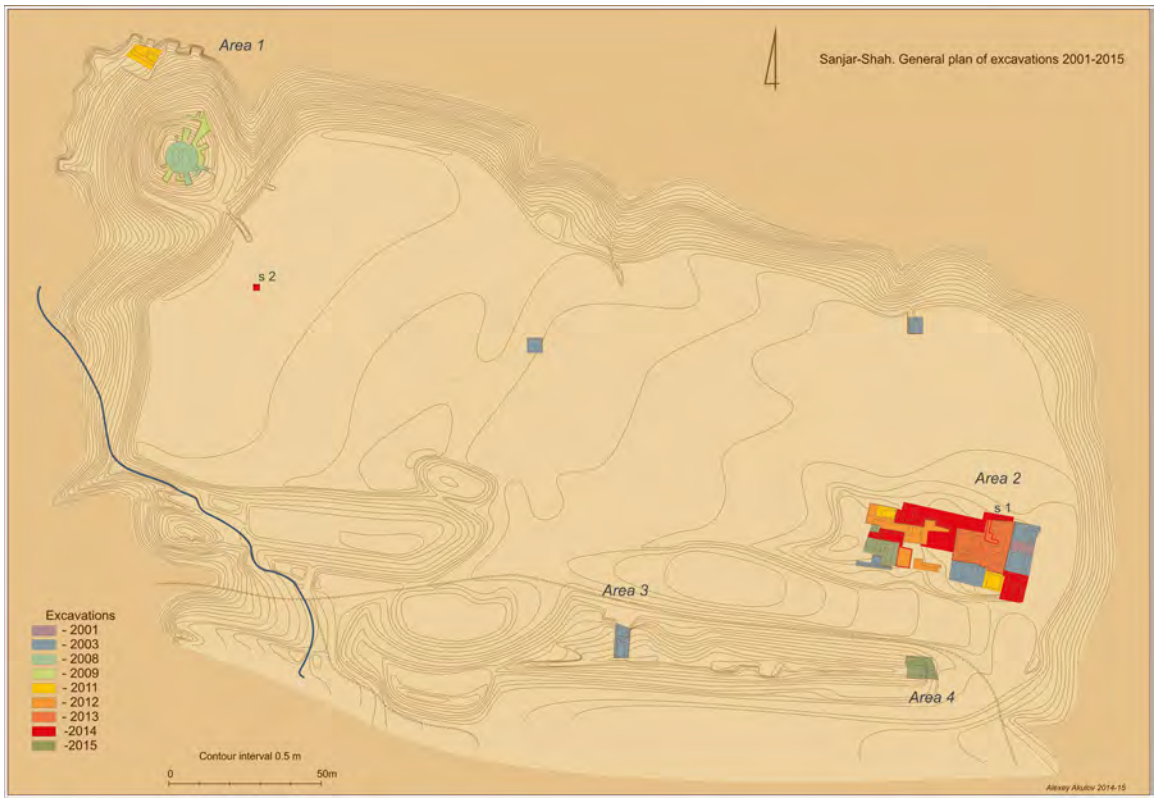


Fig. 3: Plan of Sanjar-Shah showing excavated areas (drawing by Alexey Akulov).

for the preservation of organic materials sealed by a stratum of dung. Some important finds were made there in 2008–2009, including numerous fragments of cotton and silk fabrics, leather, woven baskets, a well-preserved child's cotton shirt (Kurbanov/Teplyakova 2014), and fragments of three Arabic letters written on paper (Haim/Shenkar/Kurbanov 2016). Excavation of the inner rooms of the tower was not completed because of the danger of collapse.

Together with Chilkhudjra castle in Ustrushana (Pulatov 1975), the Sanjar-Shah tower is one of the best-preserved examples of Sogdian architecture. The original tower had no living quarters and therefore probably served as a watchtower, providing a perfect view and control over the road to Panjikent and further south to the Kashka Darya Valley along the course of the Magian Darya. To our knowledge, the architectural layout of the Sanjar-Shah tower is unique, and there are no comparable free-standing circular towers among known Sogdian fortifications (Semenov 1996). The Sogdian castles of this period are usually square, with rectangular or square towers (Semenov 1996: Figs. 67, 68). An interesting comparison is provided by a circular fort (45 m in diameter) excavated by the French-Uzbek Archaeological Mission in Sogdiana at Sangyr-tepa near modern Shahr-i Sabz in the Kashka Darya Valley and dated to the 4th century CE (Grenet 2010: 268–270). Although the inner layout of the Sangyr-tepa fort is completely different from that of the Sanjar-Shah tower, the general circular shape – which is otherwise unattested in Sogdiana – and their close chronological proximity may suggest some connections between the two. Interestingly, Sanjar-Shah also controls the road along the Magian Darya via which the Shahr-i Sabz oasis is easily reached.

Also important for our discussion is the citadel of the town of Khoja-Ajvandi-tepa in the Bukhara oasis, which is now being excavated by the Uzbek-American Mission. The excavators describe the fortifications of the citadel as circular, featuring rectangular towers, and note that such a plan is unique for Bukhara. The oldest phase of the fortifications that have been reached to date can be dated to the 4th century CE (Stark 2015: 7).

In his classic study of Sogdian fortifications, Semenov established that between the 3rd and 5th centuries CE, Sogdian fortifications were characterised by square towers (Semenov 1996: 137). In the Samarkand region, the replacement of rectangular towers with circular ones occurs from the beginning of the 6th century (Semenov 1996: 185). Thus, in the 6th century, round towers replaced rectangular ones in the Panjikent fortifications (Semenov 1996: 170). The semi-circular tower built in the corner of the southern wall in Panjikent (Area V) has almost the same diameter as the Sanjar-Shah tower – approximately 10 m (Semenov 1996: 45). This tower and the adjacent wall are dated to the 6th cen-

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Fig. 4: The Round Tower (Area 1) after the excavations in 2009 (photo by Sharof Kurbanov).

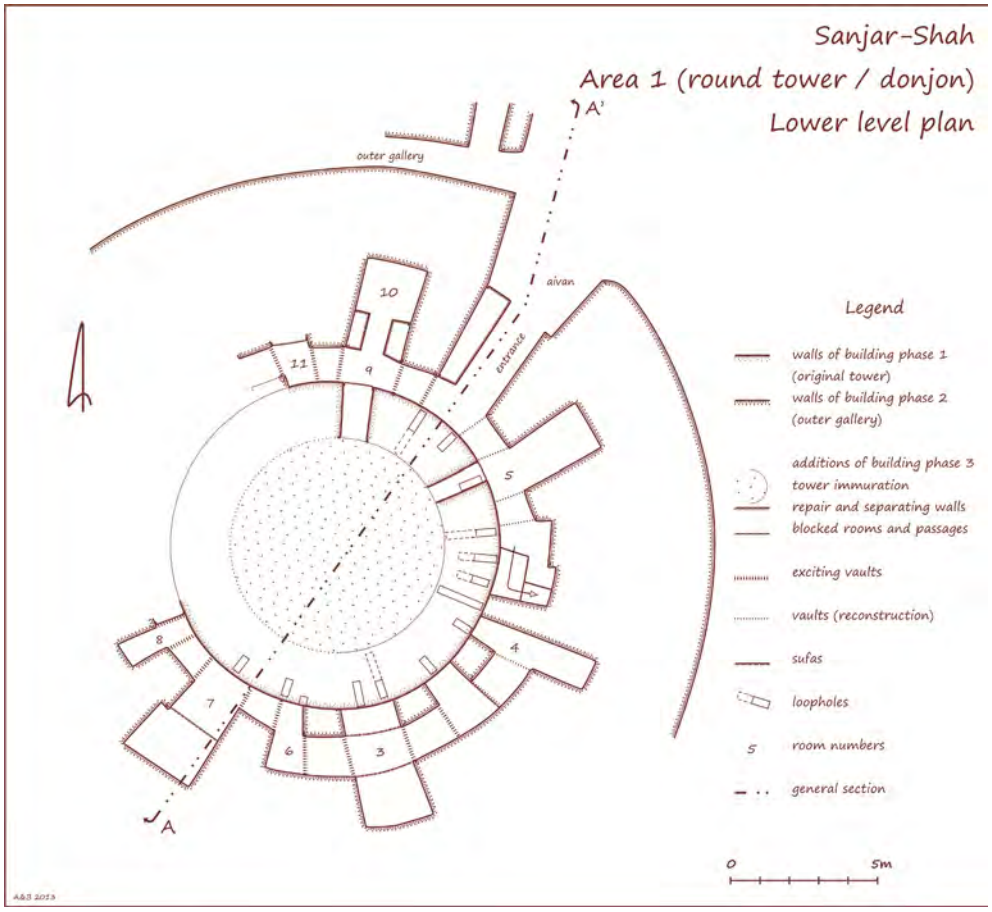


Fig. 5: Plan of the Round Tower, Area 1 (drawing by Alexey Akulov).

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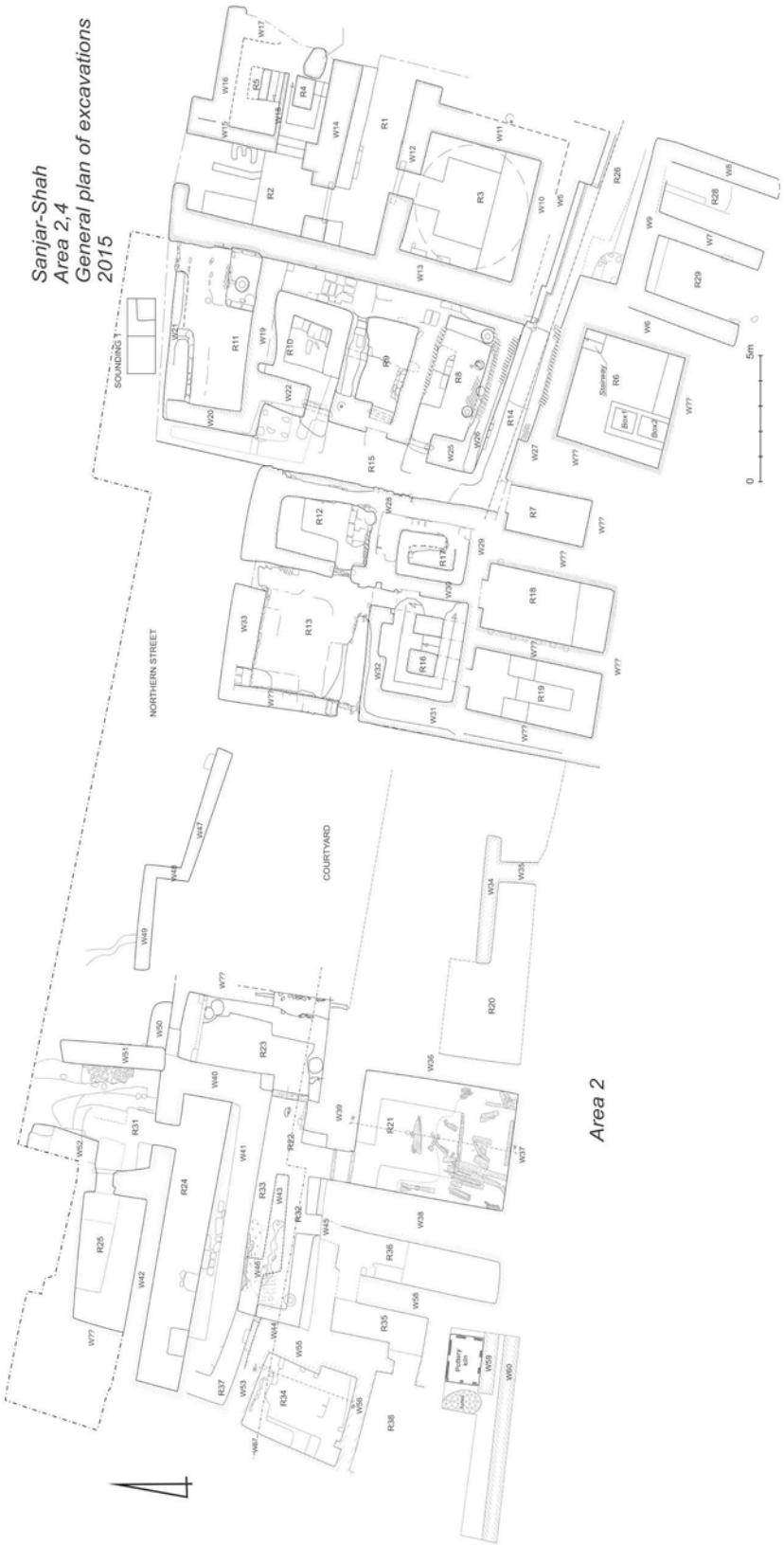


Fig. 6: Plan of Area 2 (drawing by Alexey Akulov).

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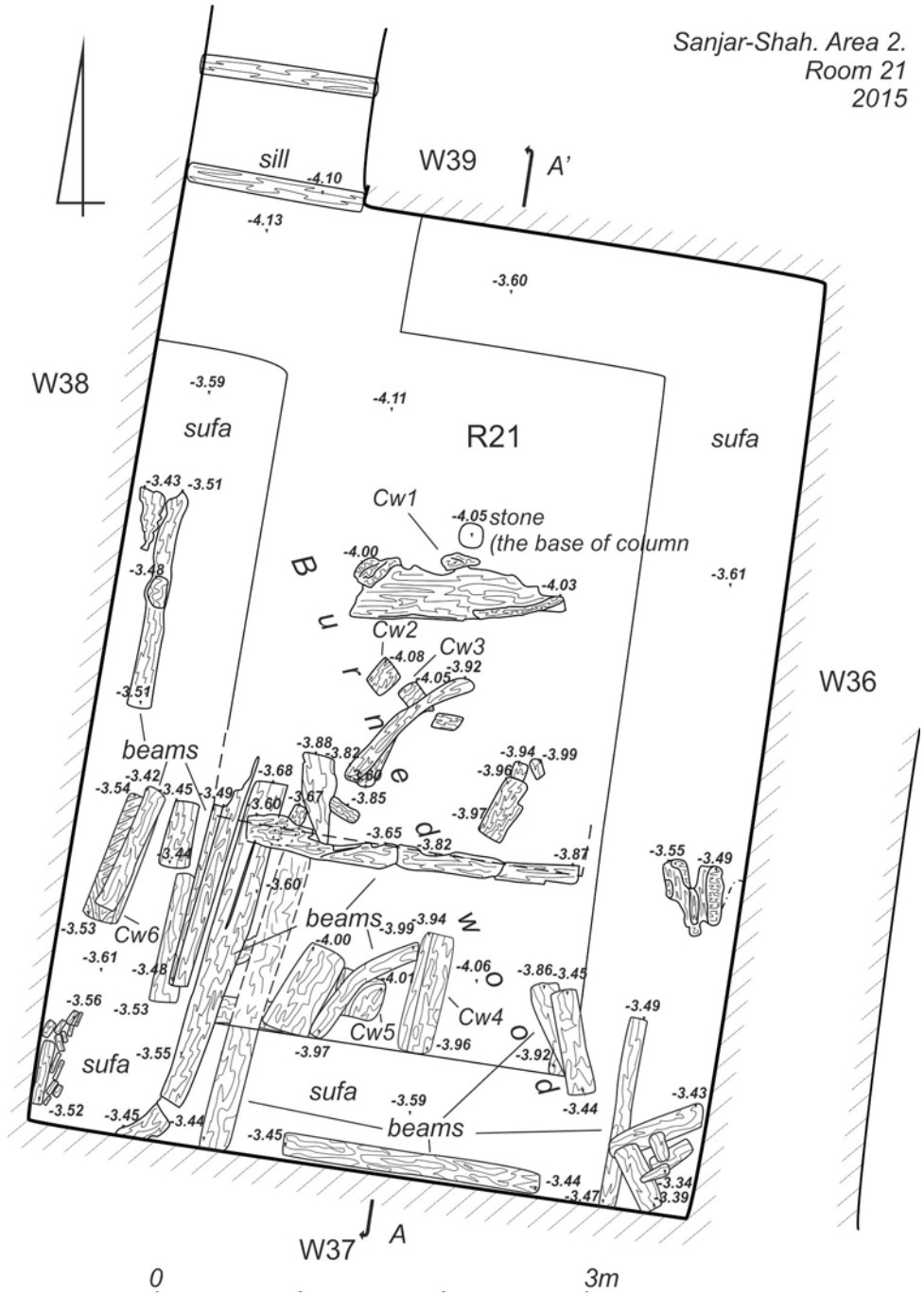


Fig. 7: Plan of Room 21, Area 2 (drawing by Alexey Akulov).

tury (Semenov 1996: 46). In the southern part of the city, two additional circular towers were excavated (Semenov 1996: 86). The fortifications of the Afrasyab citadel constructed in the 5th to 6th centuries also had round towers. The only exception seems to be Jartepa-II, where semi-circular towers preceded the rectangular ones built in the 5th century (Semenov 1996: 170).

In southern Sogdiana, the change from rectangular to circular towers took place earlier, and is already apparent by the end of the 3rd and the beginning of the 4th century (Semenov 1996: 195). At the walls of Erkurgan, semi-circular towers existed before the 4th century, when they were replaced by square ones (Semenov 1996: 164). In Ustrushana, too, round towers were prevalent in the 4th and 5th centuries (Semenov 1996: 181).

Given the close ties of Sanjar-Shah with Panjikent, and the striking similarities in shape, appearance and diameter to the semi-circular tower excavated at Panjikent, it seems that the Sanjar-Shah tower was in fact a "full-circle" version of the semi-circular

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Fig. 8: Room 21 after excavations (photo by the authors).

towers in the Panjikent city walls. The topography of the north-western corner of the terrace on which Sanjar-Shah was built, and the presence of a natural hill forced the builders to make an unorthodox decision and construct a free-standing defensive tower instead of one incorporated into the town's wall. It seems that at a later stage the tower was connected to the city wall. Thus the earliest section of the Round Tower should most probably be dated to the beginning of the 6th century CE. It is possible that it was preceded by an earlier structure or structures, since the excavations on the terrace immediately below the tower have revealed structures with ceramic complexes from the late 5th century CE.

3 Area 2: The "Craftsmen's Quarter"

Area 2 of Sanjar-Shah was most probably the quarter of the town where various craft industries were located and the craftsmen and their families resided (**Fig. 6**). This is confirmed by traces of forging and the pottery kiln excavated in the western part of the Area 2 in previous years, as well as by small finds such as a bone scraper probably used in the manufacture of lather, and an iron knife used for cutting wood. Its location in the easternmost part of the town is also indicative. In pre-modern cities, industries that created unpleasant odours were placed in the part of the city that was farther away downwind. The prevailing wind at Sanjar-Shah blows from west to east, which explains the location of this quarter on the eastern edge of the town.

The rooms uncovered to date in Area 2 probably belong to at least two different households separated by a large open courtyard and a wide street – the "Western" and the "Eastern". Especially noteworthy is Room 21 (4.5 × 6.45 m), which we have called the "Wooden Room" (**Fig. 7**; **Fig. 8**). In this room, with a layout indicating that it was a reception hall, there are numerous fragments of burned wood that were originally part of the ceiling. The burned wood can be divided into three categories: 1) long beams; 2) wide, thin planks; 3) small carved panels. Of the fragments of panels, six were carved. Five of them have geometric designs. The most interesting is a rectangular panel decorated with diamonds inside a frame (**Fig. 9**). Also noteworthy is a panel decorated with rows of quinquefoliate flowers. Exact parallels to such flowers are known from wooden panels uncovered in Panjikent and Shahristan (Voronina 1959: Figs. 16, 18, 25, 26). Southern Wall 37, located opposite the entrance, was decorated with wave-like and tree-like ornamentation, which was made with a tool with three dentations (**Fig. 10**). In the eastern part, there are "trees" and in the western part there are "waves". In the centre of the wall, the plaster is not preserved. From the typical layout and the presence of carved wood and wall decoration, it is clear that Room 21 was the "Reception Hall" of this household. Furthermore, the walls of the adjacent corridor (Room 22), which provided the only passage to Room 21, were also decorated with similar "trees" and "waves" ornamentation. Such "waves" are known from Panjikent (Voronina 1953: 131, Fig. 23). Interestingly, the same "trees" ornamentation was found in Room 13 of the Varakhsha Palace

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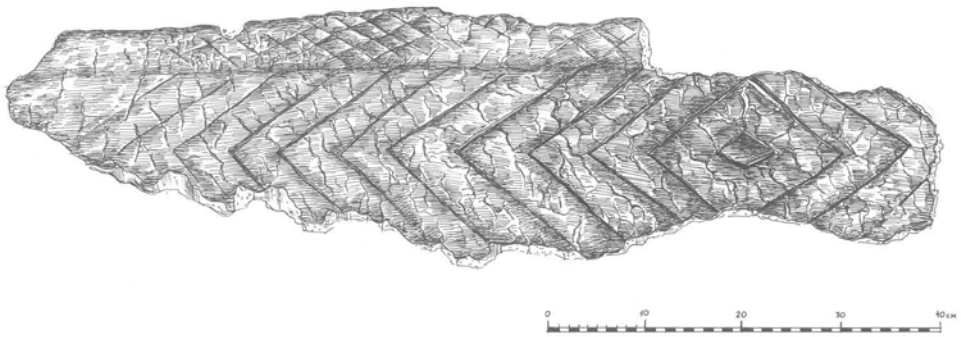


Fig. 9: A rectangular wooden panel decorated with diamonds inside a frame, Room 21 (drawing by Maria Gervais).



Fig. 10: Decorations on Wall 37, Room 21 (drawing by Maria Gervais).



Fig. 11: Room 34, Area 2 (photo by the authors).

in the Bukhara oasis (Šiškin 1963: 60, Fig. 22). This falls within the well-known pattern from Panjikent, where paintings are usually found both in the Reception Hall and the corridor adjacent to it. On our site, despite comparable dimensions and construction techniques, the impressive and valuable figural paintings that reflected the elevated position of the house-owner in the social hierarchy were replaced with simple and unsophisticated ornamentation. Modest geometric and floral designs of the wooden ceiling also indicate that the owner of this "Western Household" did not belong to the upper classes of Sanjar-Shah, but was rather trying to emulate the decoration principles of aristocratic houses within

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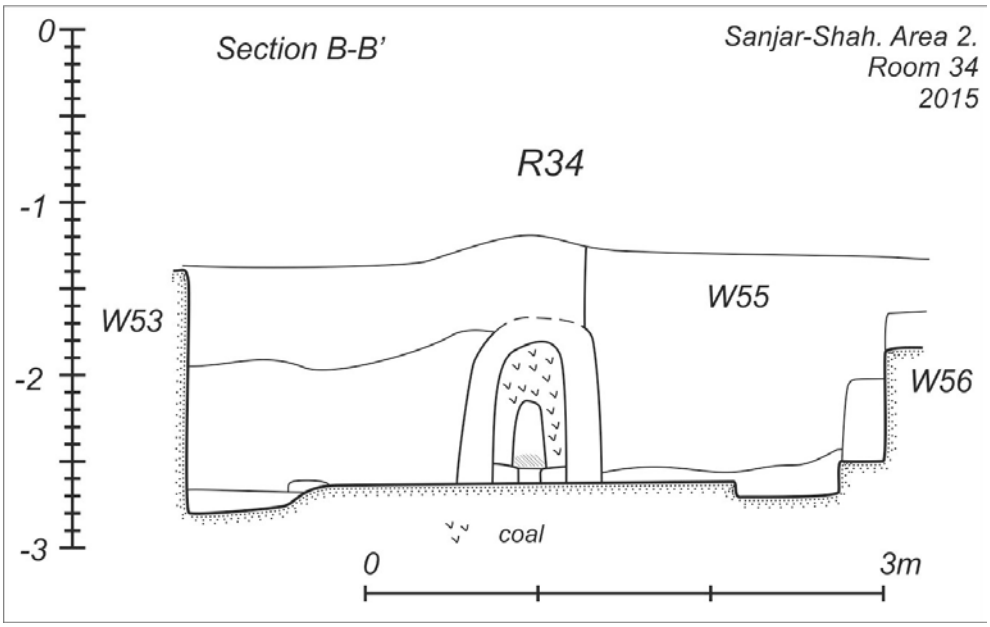


Fig. 12: Room 34 (Section), Area 2 (drawing by Alexey Akulov).

the limits of his rather restricted finances. However, compared with other rooms in Area 2, it seems clear that Rooms 21 and 22 stand out both for being the only decorated rooms and for their solidly built walls. It appears that they belonged to one of the wealthier individuals in this neighbourhood.

Also noteworthy is Room 34, which is of relatively modest dimensions (3.9 × 3.6 m), located in the western part of the Western Household (**Fig. 11**; **Fig. 12**). A hearth was found adjacent to the eastern wall, flanked by two columns. The right-hand column has arboreal decorations with pomegranates painted in red and white (**Fig. 13**). The back of the hearth itself was also repeatedly plastered and painted. There are more than 20 layers of plaster, painted with red circles, which probably also represented pomegranates. This motif appears on the column of a domestic hearth from Samarkand (Ahun-babaev 1999: Fig. 68). Such rooms with similar hearths are well-known from Sogdian sites in the Zeravshan Valley (Panjikent, Hisorak, Gardani Hisor, etc.). Traditionally, they were interpreted as private "house-chapels" and the hearth was seen as a domestic fire-altar. However, it has recently and convincingly been demonstrated by Pavel Lurje that these rooms should be rather understood as "winter rooms", where the extended family would live during the winter (Lur'e 2014).

In 2014, we also conducted limited investigations in Room 3 ("Domed Hall"), partly excavated by the German-Tajik mission in 2003. This room was interpreted by Gerd Gropp – the director of the mission – as a "fire-temple" (Gropp/Kurbanov 2007). In order to understand the context of this room, we also investigated the unexcavated area immediately adjacent to Room 3 from the south. During our work,

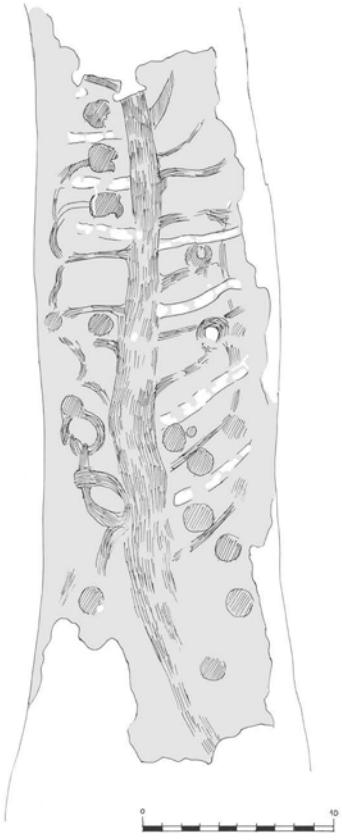


Fig. 13: Decoration on the right column of the hearth. Room 34, Area 2 (drawing by Maria Gervais).

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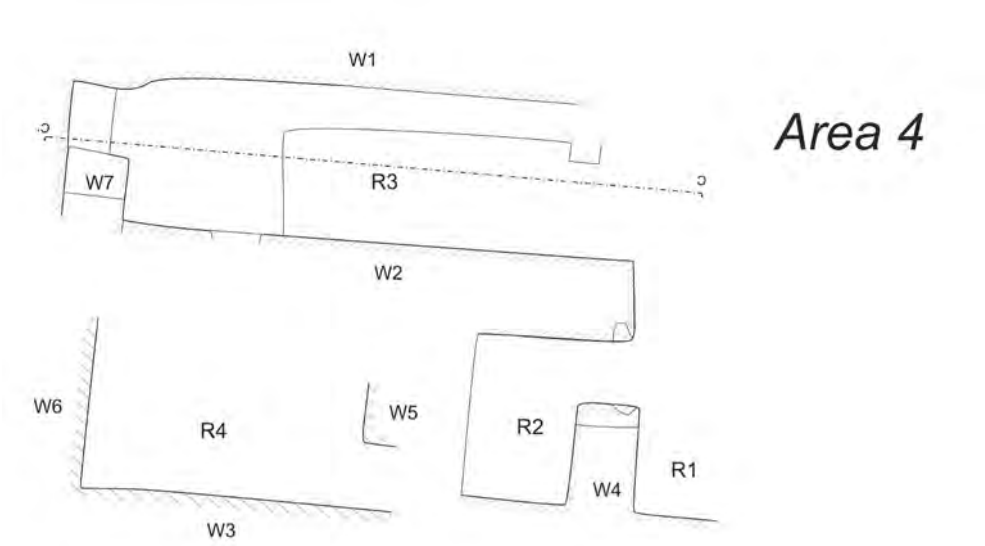


Fig. 14: Plan of Area 4 (drawing by Alexey Akulov).



Fig. 15: Room 2, Area 4 (photo by the authors).

no traces of any ash layers or "fire-altars" described by Gropp were found. Instead, we uncovered a third *sufa* along Wall 10 in the corner of Rooms 10 and 11, which was not fully excavated by the German team. Therefore, Room 3 with its three *sufas* appears to have a typical Sogdian reception-hall layout. The dome that covered this hall cannot be taken as sufficient argument for its cultic function, since such domed halls, though rare, are nevertheless attested in Sogdian secular architecture, for example at Afrasyab (Baimatowa 2008: 409–413).

Unlike Panjikent, the stratigraphy at Sanjar-Shah in Area 2 is very complex. We have tentatively identified several building stages that indicate that the rooms in this area were continuously repaired and rebuilt. Rooms 9 and 10, and the walls in Sounding 1, belong to the earliest building period. The ceramic finds dated to the 4th–5th centuries CE in the sounding made by the German-Tajik Mission in 2003 in Room 1 suggest that during this period a small settlement probably already existed in this part of Sanjar-Shah.

The second building phase took place during the "heyday" of Sanjar-Shah. It is to this period that Rooms 21–25 of the "Western Household" belong. They are characterised by a high-quality building

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technique and décor. Later periods differ significantly, and the building quality is much lower. In the last building phase, public spaces, like certain parts of the Northern Street and the Courtyard, were enclosed by walls, which seem to be evidence for the general decline of public life and the city administration when the institutions of the civic communities were destroyed by the Arabs. According to the coin finds, we may date the upper level of the Courtyard and the Northern Street level to the last quarter of the 8th century CE. Therefore we have reason to believe that Sanjar-Shah was abandoned shortly after Panjikent, probably in the late 770s or 780s.

4 Area 4

In 2015, we started excavations in the new area (Area 4) in the south-eastern part of the site immediately adjacent to the southern wall of the town (**Fig. 14**). The area along the southern wall, together with the Round Tower (Area 1) and Area 2, was not levelled during the Soviet period. In 2003, limited excavations were made close to the middle of the southern wall (Area 3; Gropp/Kurbanov 2007). The architecture here is preserved to an exceptional height of up to 4 m and therefore has great potential for archaeological investigation. So far, four rooms have been excavated. Especially noteworthy is Room 2, preserved to a height of 4 m (**Fig. 15**). It is built from solid *pakhsa* blocks. The room was vaulted and its original height, including the vault, rose to 4.7–4.8 m.

Many walls in Sanjar-Shah are built on a foundation of river boulders undoubtedly brought from the nearby Magian Darya. In general, the construction of walls from *pakhsa* or mud brick on a stone foundation is a distinctive feature of Sanjar-Shah architecture, which is almost non-existent in nearby Panjikent (located farther from the Zeravshan River).

In 2014, two soundings were made in the western and in the eastern part of the site in order to determine the depth of cultural levels there, and to determine whether there was enough potential for excavation. Bedrock level occurs at a depth of 2.25 m in the eastern part and at a depth of 2.40 m in the west. In Sounding 1 in the eastern part, four, unfortunately very small (3 cm), fragments of paintings were found. They are coloured blue, red, white and brown. One fragment bears clear traces of a delicate, thin, black outline, which seems to have belonged to figural paintings. Unfortunately, the source of these wall paintings is not clear and we have not yet been able to find a wall to which they could have belonged. This is the first time that fragments of wall paintings have been found at Sanjar-Shah and it gives us hope that larger fragments and perhaps even entire sections of painted walls will be discovered in the future.

Our priorities for the forthcoming seasons are to continue excavating along the southern wall and to investigate the western part of the site, which until now has not been excavated. Since the excavations below the round tower in 2011 did not yield remains of any administrative buildings or the palace of the Sanjar-Shah ruler, they were probably located in the western part of the town. Sounding 2, which was made in this part of the site in order to determine the depth of the cultural layers, revealed these areas to be some 2 m deep and therefore excavations here will be possible.

5 Arabic documents

The fragments of Arabic letters are undoubtedly the most remarkable finds made so far at Sanjar-Shah.[8] They are dated to the 8th century CE, which makes them the earliest known Arabic texts written on paper. Before the discovery of the Sanjar-Shah letters, the earliest Arabic documents written on paper were those dated to the 9th century (Bloom 2001: 58–59). In total, there are seven fragments of three different letters (**Fig. 16**). Their formulae and script are typical of the 7th and 8th centuries, though they show differences from the script of the famous Arabic letter from Mount Mugh (Kračkovskaâ/Kračkovskij 1934). The layer in which they were found is dated to the 8th century CE based on ceramic finds, but unfortunately more precise dating is hardly possible since no coins have been found.

The letters seem to be official correspondence. Unfortunately, they are very fragmentary and badly preserved; and, as it happens, all the important historical data is in the lacunae, while we are left mainly with the polite formulae. Nevertheless, the first letter (L1) (**Fig. 16**) mentions an *amīr*, a certain Abū Masʿūd, "our brothers" and "our companions" and the general impression one gets from it is that we are probably dealing with the correspondence between commanders of the Arab forces in the region. It is possible, therefore, that the *amīr* in L1 was not necessarily a provincial governor, such as the governor of Khurāsān. He may have been a lower-ranking official, such as a governor of a town or a region, or the commander of an outpost or of an army.

From other letters, we also have partially preserved names of the sender and of the addressee. Curiously, like Abū Masʿūd, all of them appear to be *kunya* – an honourable but less formal means of address in the official correspondence of the 7th and 8th centuries. The term *kunya* was often used to show special favour and to mark the addressee out, especially in official relationships. Its use may

8 For the *editio princeps* and detailed commentary, see Haim/Shenkar/Kurbanov 2016, on which this section is based.

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Fig. 16: Letter 1 (photo by Anastasia Chizhova).

indicate special informal relationships and a certain degree of intimate acquaintance between the two persons. However, in certain cases this could have also been interpreted as a sign of familiarity and disrespect. Unfortunately, we have been unable to identify Abū Masʿūd or any of the other names with known historical characters active in Sogdiana in the 8th century. The name of the sender of the second letter (L2) ends with Yaḥya, which may be a part of a *kunya*. Yaḥya was the patronymic of four Abbasid officials active in the second half of the 8th century.[9] The first two are Ǧibrāʾīl ibn Yaḥyā al-Bağalī, the governor of Samarkand (appointed in 159 H/775 CE) during the revolt of al-Muqannaʿ (d. 163 H/779 CE or later), and his brother Yazīd. The third official is al-Aśʿaṯ ibn Yaḥyā al-Ṭāʾī, who was one of the supporters of the Abbasids during the revolt of ʿAbd al-Jabbār ibn ʿAbd al-Raḥmān al-Azdī in 141 H/758 CE. He is also known from coins he minted in 143 H/760–761 CE (Bukhara) and in 144 H/761–762 CE (Samarkand) on behalf of the heir apparent to the caliphate at that time, al-Mahdī Muḥammad ibn al-Manṣūr. The fourth is Saʿīd ibn Yaḥyā, also an Abbasid supporter and the local governor of Shash (Čāč), who minted coins there in 149 H/765–6 CE. He may have been the brother of al-Aśʿaṯ al-Ṭāʾī.

Two governors of Khurāsān in the 2nd H/8th century CE were Ǧunayd ibn ʿAbd al-Raḥmān al-Murrī (111–116 H/729–734 CE) and Saʿīd ibn ʿAmr al-Ḥaraśī (103–104 H/721–722 CE). It is, of course, tempting to connect the letters with al-Ḥaraśī, who is famous for the role he played in capturing the Mount Mugh fortress and for executing the last ruler of Panjikent, Dēwāštīč. If the sender of L1 is indeed Saʿīd ibn ʿAmr al-Ḥaraśī, then the letters should be dated to 102–104 H/721–723 CE and closely related to his campaign in Sogdiana, which is also reflected in the Mount Mugh documents. Unfortunately, there is no additional evidence to support this assumption.

According to the famous story told by Ṭaʿālibī (d. 429 H/1039 CE), paper was introduced to the Islamic world by Chinese papermakers taken prisoner after the battle of Talas in 133 H/751 CE, who began to manufacture paper in Samarkand. The paper analysis carried out by Anna-Grethe Rischel and Michelle Taube from the National Museum of Denmark in Copenhagen demonstrates that the paper of the Sanjar-Shah letters is an imported Chinese paper (Haim/Shenkar/Kurbanov 2016: Appendix). Therefore, beyond being important new evidence for early Arabic epigraphy and a new source for the history of Sogdiana in the 8th century, the fact

9 A recent comprehensive discussion of the historical characters mentioned in this section is provided in Karev 2015.

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that there are fragments of three different letters indicates that the use of paper by the Arabs started earlier and was more widespread than has been hitherto assumed.

Bibliography

Ahun-babaev, H.G.
1999: *Dvorec ihšidov Sogda na Afrasiabe*, Samarkand.

Âkubov, Û.
1988: *Rannesrednevekovye sel'skie poseleniâ gornogo Sogda*, Dushanbe.

Baimatowa, N.
2008: *5000 Jahre Architektur in Mittelasien. Lehmziegelgewölbe vom 4./3. Jt. v. Chr. bis zum Ende des 8. Jhs. n. Chr.*, Mainz.

Bloom, J.M.
2001: *Paper Before Print: The History and Impact of Paper in the Islamic World*, New Haven/London.

Grenet, F.
2010: A View from Samarkand: The Chionite and Kidarite Periods in the Archaeology of Sogdiana, in: Alram, M. et al. (ed.), *Coins, Art and Chronology II: the First Millennium C.E. in the Indo-Iranian Borderlands*, Vienna, 267–283.

Gropp, G./Kurbanov, S.
2007: Erster Vorbericht über die Ausgrabungen in Sandžar Šah (Magian), Tadžikistan, *Archäologische Mitteilungen aus Iran und Turan* 39, 91–126.

Haim, O./Shenkar, M./Kurbanov, S.
2016: The Earliest Arabic Documents Written on Paper: Three Letters from Sanjar-Shah (Tajikistan), *Jerusalem Studies in Arabic and Islam* 43, 141–191.

Hansen, M.H.
2006: *Polis. An Introduction to the Ancient Greek City-State*, Oxford.

Karev, Y.
2015: *Samarqand et le Sughd à l'époque 'abbāssside: histoire politique et sociale*, Paris.

Kračkovskaâ, V.A./Kračkovskij, I.Û.
1934: Drevnejšij arabskij dokument iz Srednej Azii, in: Akademiâ Nauk SSSR, Institut vostokovedeniâ i Tadžikistanskaâ baza (ed.), *Sogdijskij Sbornik. Sbornik statej o pamâtnikah sogdijskogo âzyka i kul'tury, najdennyh na gore Mug v Tadžikskoj SSR*, Leningrad, 52–90.

Kurbanov, Š.F.
2010: Otčet o rabotah Vostočno-Sogdijskoj arheologičeskoj èkspedicii na gorodiše Sanžar-Šah, *Arheologičeskie raboty v Tadžikistane* 34, 278–299.

2012: Arheologičeskie raskopki na gorodiše Sanžar-Šah (Pendžikentskij rajon) v 2009 godu, *Arheologičeskie raboty v Tadžikistane* 35, 274–304.

2014: Otčet o rabotah na gorodiše Sanžar-Šah v 2011 godu, *Arheologičeskie raboty v Tadžikistane* 37, 241–270.

Kurbanov, S./Teplyakova, A.
2014: Textile Objects from the Citadel of Sanjar-Shah, *Bulletin of Miho Museum* 15, 167–177.

Livshits, V.A.
2015: *Sogdian Epigraphy of Central Asia and Semirech'e. Translated from the Russian by Tom Stableford, edited by Nicholas Sims-Williams* (= Corpus Inscriptionum Iranicarum. Part 2: Inscriptions of the Seleucid and Parthian Periods and Eastern Iran and Central Asia 3–4), London.

Lur'e, P.B. (Lurje, P.B.)
2004: *Istoriko-lingvističeskij analiz sogdijskoj toponimii*, unpublished PhD dissertation. St. Petersburg.

2014: Eše raz o "kapellah" Pendžikenta i verhnego Zeravšana, *Rossijskaâ arheologiâ* 2014/1, 88–100.

Pulatov, U.P.
1975: *Čil'hudžra* (= Material'naâ kul'tura Ustrušany 3), Dushanbe.

Semenov, G.L.
1996: *Sogdijskaâ fortifikaciâ V–VIII vv.*, St. Petersburg.

Šiškin, V.A.
1963: *Varahša. Opyt istoričeskogo issledovaniâ*, Moscow.

Smirnova, O.I.
1950: *Arheologičeskie razvedki v bassejne Zeravšana v 1947 g., Trudy Sogdijsko-Tadžikskoj arheologičeskoj èkspedicii. Tom 1. 1946–1947 gg.* (= Materialy i issledovaniâ po arheologii SSSR 15), Moscow/Leningrad, 67–81.

Stark, S.
2015: Between Steppe and Sown: Archaeology in the Borderlands of Bukhārā, *ISAW Newsletter* 12, 7–8.

Voronina, V.L.
1953: Arhitekturnye pamâtniki drevnego Pândžikenta, in: Âkubovskij, A.Û. (ed.), *Trudy Tadžikskoj arheologičeskoj èkspedicii. Tom 2* (= Materialy i issledovaniâ po arheologii SSSR 37), Moscow/Leningrad, 99–133.

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The Study of Ceramics from Sanjar-Shah

Technological, cultural and administrative connections with Panjikent

Sharof Kurbanov

Abstract: This paper offers some preliminary observations on the ceramic assemblages from the excavations of the Sogdian town Sanjar-Shah in northern Tajikistan (5th–8th centuries CE). It discusses some characteristic vessels and shapes and compares the data obtained from Sanjar-Shah with the abundant ceramic material from neighbouring Panjikent.

Keywords: Sanjar-Shah, Panjikent, Sogdian, ceramics, pottery, Tajikistan.

Резюме: Данная статья содержит предварительные заметки по поводу керамических комплексов выявленных в результате раскопок на городище Санджар-Шах в северном Таджикистане (V-VIII вв. н. э.). В статье обсуждаются керамические сосуды типичные для Санджар-Шаха, которые рассматриваются в сравнении с керамическими изделиями из соседнего Пенджикента.

Ключевые слова: Санджар-Шах, Пенджикент, Согд, Керамика, Гончарное производство, Таджикистан.

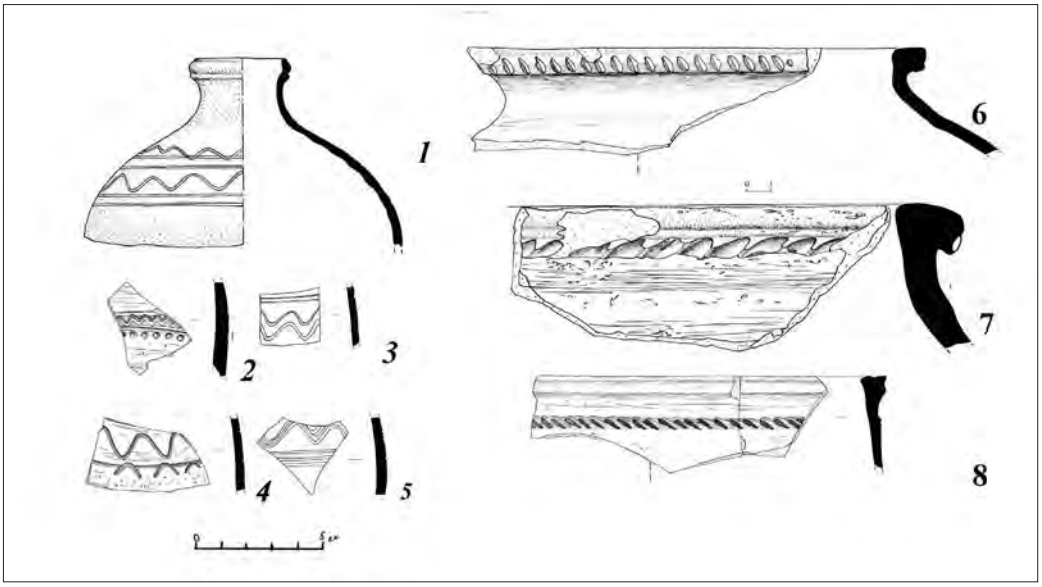


Fig. 1: Representative ceramics from Sanjar-Shah. **1**: The upper part of the aquifer jug with wavy lines, Sanjar-Shah 2012, Area 2, Room No. 24; **2–5**: Fragments of a pitcher with straight and wavy lines, Sanjar-Shah 2012, Area 2, Room No. 21; **6**: Fragment of a wide-mouthed jug with strokes under the rim, Sanjar-Shah 2012, Area 2, Room No. 21 (from the floor); **7**: Fragment of a storage-jar with strokes under the rim, Sanjar-Shah 2012, Area 2, Room No. 21. (from the floor); **8**: Fragment of "*taghara*", Sanjar-Shah 2012, Area 2, Room No. 21 (from the floor) (after Kurbanov/Pulotov/Aminov 2016a, drawings by Sh. Kurbanov and O. Vorobeva).

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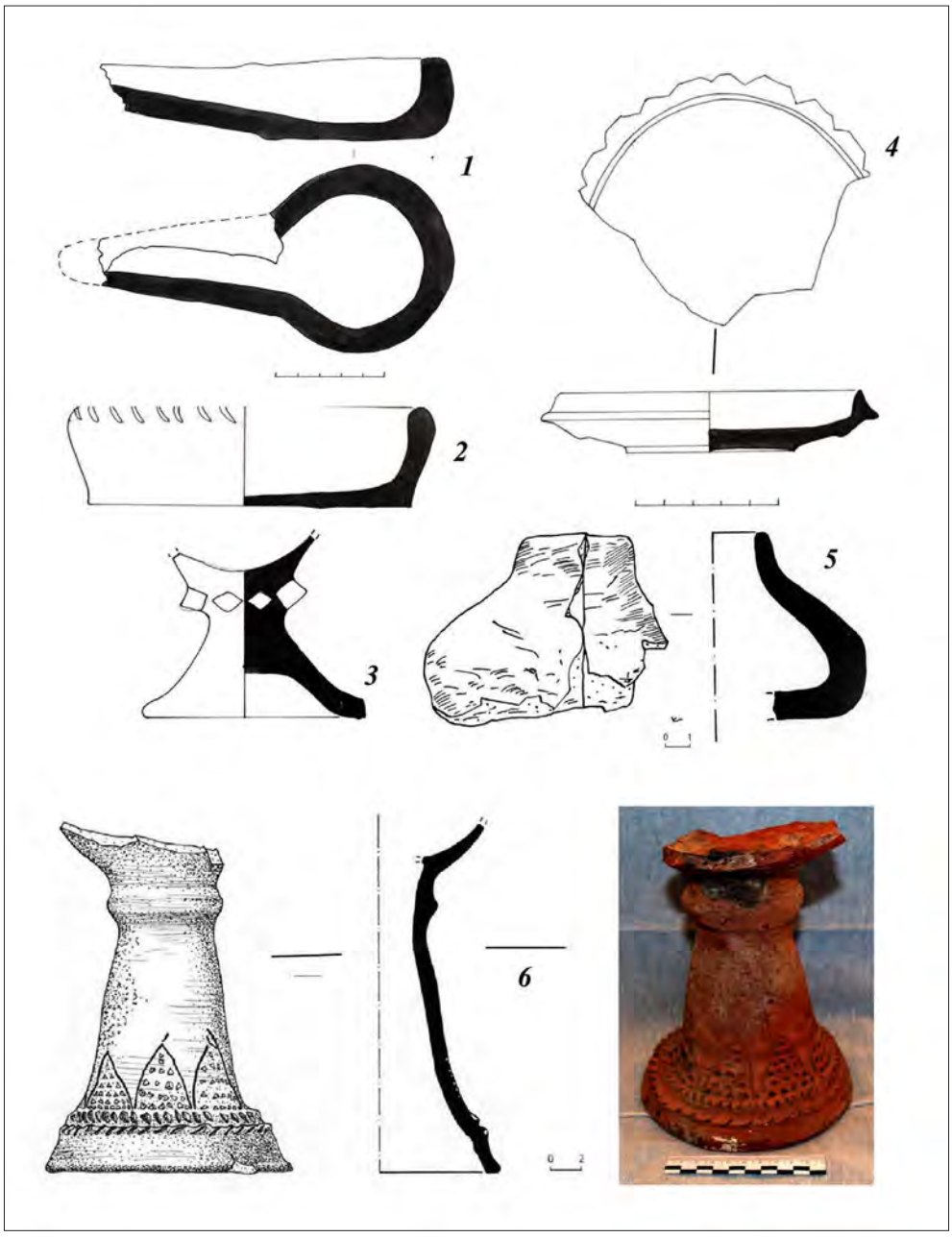


Fig. 2: Lamps. **1**: Lamp (cylindrical form of the tank with the extended nose), Sanjar-Shah 2009, Area 1, Room No. 9 (from the fill); **2**: Hand-made lamp, Sanjar-Shah 2013, Area 2, Room No. 9 (from the fill); **3**: Hand-made miniature lamp (*mijmar*), Sanjar-Shah 2013, Area 2, Room No. 10 (from the fill); **4**: Lamp (wheel-made), Sanjar-Shah 2013, Area 2, Room No. 13 (from the first floor); **5**: Hand-made lamp, Sanjar-Shah 2012, Area 2, Room No. 21 (from the first floor); **6**: Lamp – burner (wheel-made), Sanjar-Shah 2012, Area 2, Room No. 21 (from the fill) (after Kurbanov/Pulotov/Aminov 2016a, drawings by Sh. Kurbanov and O. Vorobeva, photo by M. Shenkar).

In marked contrast to Panjikent, where during more than 60 years of continuous archaeological investigations no evidence for pottery production has yet been found, a pottery kiln has been uncovered at Sanjar-Shah in Area 2 (Gropp/Kurbanov 2007: Fig. 32).[1] From this kiln, and from other areas, an impressive ceramic assemblage dated to the Sogdian period (5th–8th centuries CE) has been assembled (**Fig. 1**). The aim of this paper is to analyse the ceramic assemblages from Sanjar-Shah and Panjikent and to single out similarities and discrepancies

1 For the preliminary results of the recent excavations at Sanjar-Shah, see Shenkar/Kurbanov this volume.

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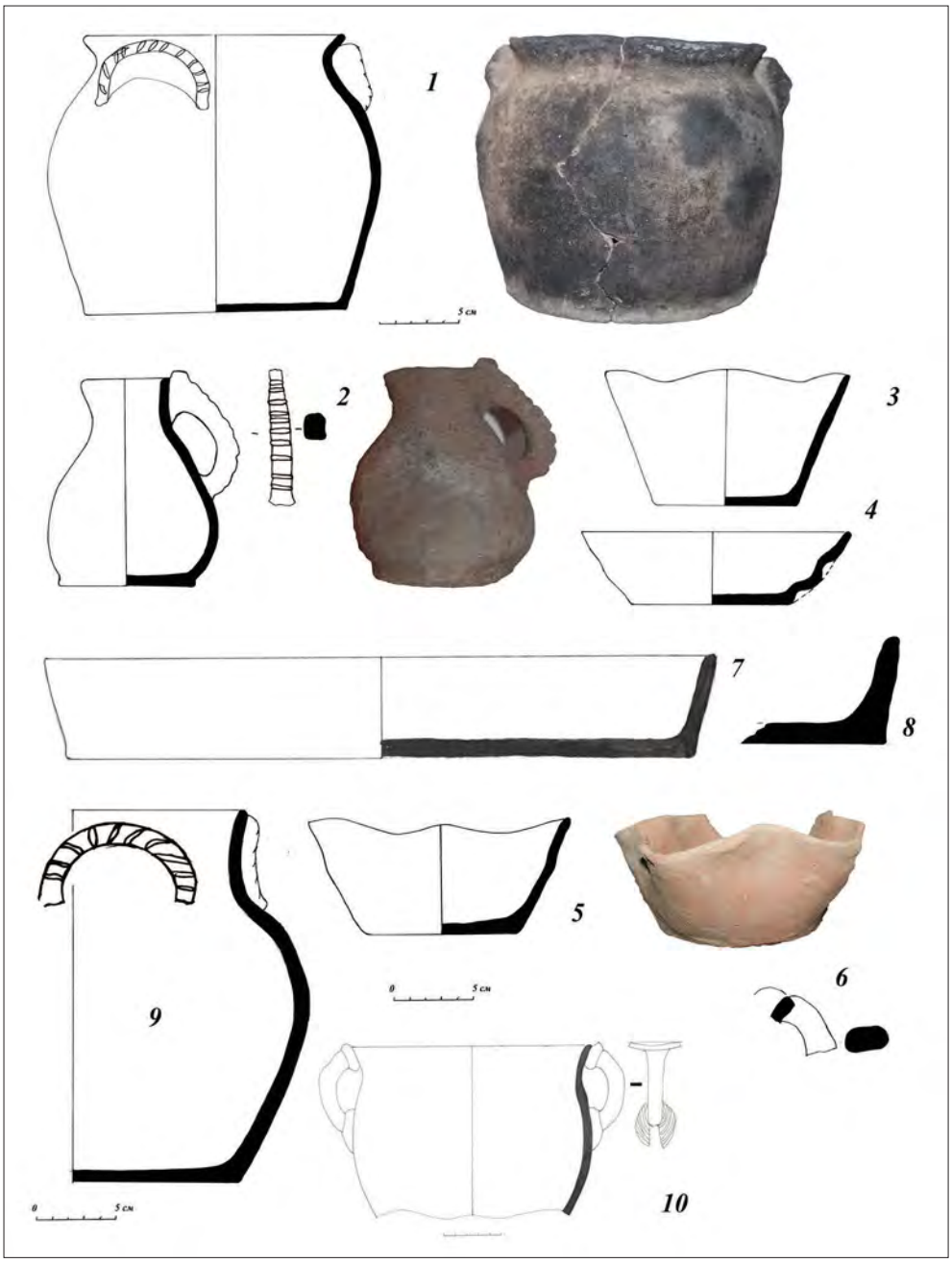


Fig. 3: Hand-made ceramics. **1**: Complete hand-made kettle, with two (horseshoe) handles, Sanjar-Shah 2015, Area 2, Room No. 35 (from the fill); **2**: Complete hand-made jar with ribbed handle, Sanjar-Shah 2015, Area 2, Room No. 35 (from the fill); **3**: Complete hand-made cup with wavy rim, Sanjar-Shah 2015, Area 2, Room No. 36 (from the fill); **4**: Complete hand-made bowl, with embossed rim (with fingers), Sanjar-Shah 2015, Area 2, Room No. 36 (from the fill); **5**: Complete hand-made cup with wavy rim, 7th–8th centuries, Sanjar-Shah 2015, Area 2, Room No. 34 (from the second floor); **6**: Fragment of the handle of the hand-made mug, Sanjar-Shah 2015, Area 2, Room No. 36 (from the fill); **7**: Hand-made pan, Sanjar-Shah 2013, Area 2, Room No. 8 (from the first floor); **8**: Fragment of a brazier, Sanjar-Shah 2015, Area 2, Room No. 36 (from the fill); **9**: Complete hand-made kettle, Sanjar-Shah 2015, Area 2, Room No. 34 (from the fill); **10**: Hand-made kettle with two handles, Sanjar-Shah 2013, Area 2, Room No. 10 (from the *sufa* surface) (drawings and photos by the author and A.G. Pulotov).

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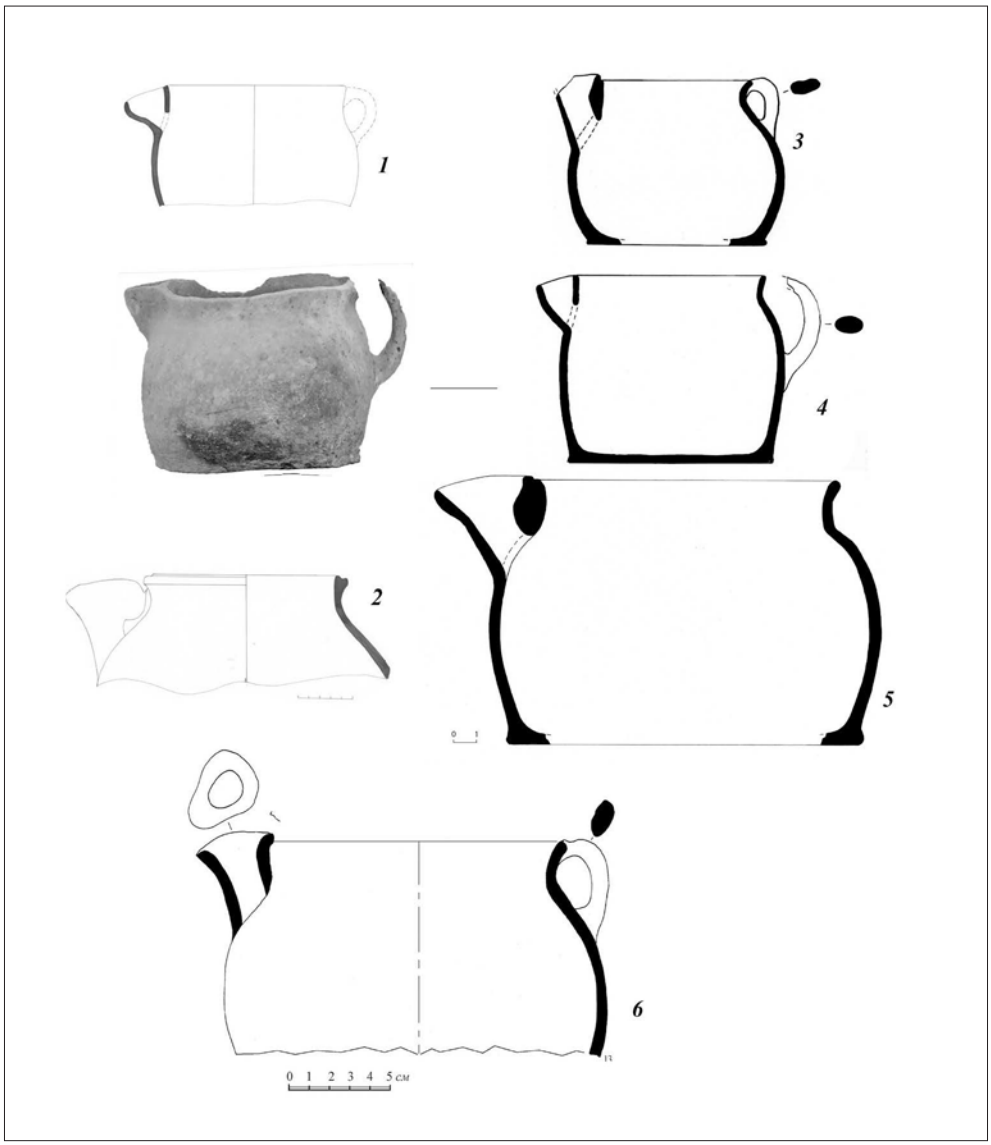


Fig. 4: Hand-made kettles or "*Choynush*". **1**: Hand-made kettle with handle and drain, Sanjar-Shah 2013, Area 2, Room No. 10 (*sufa* surface); **2**: Wheel-made kettle, Sanjar-Shah 2013, Area 2, Room No. 14 (from the fill); **3–5**: Hand-made kettles (wide-mouthed) with handle and drain, Sanjar-Shah 2012, Area 2, Room No. 20 (from the fill); **6**: Hand-made kettle from Panjikent, Panjikent 2009, Area XXVI (26), Room No. 33 (from the first floor) (after Kurbanov/Pulotov/Aminov 2016a, drawings by Sh. Kurbanov and A. Pulotov, photo by M. Shenkar).

which could shed light on the relations and connections between the two neighbouring Sogdian cities.

The Sanjar-Shah ceramics can be divided into hand-made and wheel-made. The clay from which they were made is saturated with admixtures of quartz, sand, chamotte, shale and small pebbles. After the formation of the vessels on the wheel, they were cut free with a knife. The entire surface of the vessels, or certain parts, were often coated with red, rose, brown or black slip.

In many cases, pottery was decorated with ornaments pressed on by the fingers before it was fired in the kiln. Usually, such an ornament, often in combed-shaped bands, was placed just beyond the rim of the storage jars (*khums*). Upper parts of the jugs were decorated with three wave-shaped and straight lines as well as with strokes made with a small, sharp stick.

1 Hand-made

Hand-made clay items can be divided into the following categories: weaving and other accessories, figurines, musical instruments, toys, lamps, ossuaries and storage vessels. The main type are massive supports for domestic fires, and spindle weights (sometimes made of fragments of pottery vessels).

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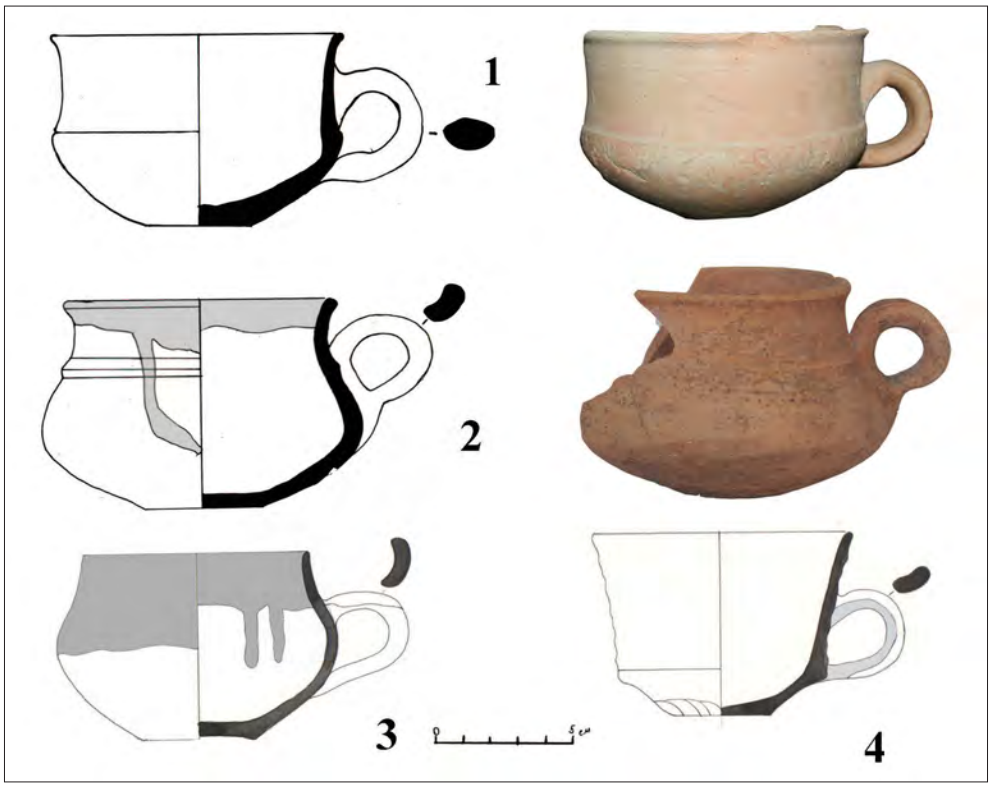


Fig. 5: Mugs. **1**: Complete mug with a loop-like handle, Sanjar-Shah 2015, Area 2, Room No. 35 (from the fill); **2**: Complete mug with a loop-like handle with "S"-shaped profile ledge (boat), Sanjar-Shah 2014, Area 2, Room No. 22 (from the third floor); **3**: Complete mug with a handle, Sanjar-Shah 2013, Area 2, Room No. 10 (from the fill); **4**: Complete mug with ribbed walls curved handle, Sanjar-Shah 2013, Area 2, Room No. 10 (from the *sufa* surface) (drawings and photos by the author).

There are also several fragments of ossuaries and terracotta figurines.

Hand-made lamps can be divided into two types: those with support in the form of a stem with dentate ornament just below the lamp, and shallow lamps with an elongated mouth (**Fig. 2**). Of course, the most numerous group is that of ceramic wares, characterised by a wide diversity of types (**Fig. 3**). We have cooking pots with flat base, frying pans, jugs, bowls, braziers with low rim, mugs with flat base and loop-shaped handle, miniature jugs (their bases were often reused as lamps). We can single out kettles of the "*choynush*" type – large, wide-mouthed vessels with flat base, small loop-shaped handle and a spout attached to the rim (**Fig. 4**). Interestingly, in Panjikent the spouts of such kettles are not attached to the rim. We should also note hand-made thin-walled mugs with flat base.

2 Wheel-made

The wheel-made pottery can be divided into three groups according to their function: lamps and fragments of incense burners, moulded figurines, and vessels. The last category is the most numerous and diverse. There are massive and heavy storage jars, and mid-sized storage jars, flat-based vats that were used for laundry and in the preparation of pastry. Cooking pots with flat base and with round base, jars of several types, such as those with zoomorphic spouts, vessels for filtering, churns, vessels with a hole in the base, bowls, bowls with cross-like ornament inside, mugs with loop-shaped handle and rounded or conical body, jugs and cups (**Fig. 5**; **Fig. 6**). Similar vessels with zoomorphic decorations have been found in Panjikent (**Fig. 7**).

The cups on a high stand and small, flat cups with elongated spout were probably multifunctional. Depending on the contents (oil or resin) they served as lamps or as incense burners. Another possible function was to transport fire from one place to another.

In Sanjar-Shah as well as in Panjikent, wheel-shaped pottery predominates over the hand-made.[2] This was already established for the Panjikent material by Bentovich in 1953. According to our calculation, the percentage of the wheel-made pottery in Sanjar-Shah is 86%. In Panjikent, where only the early ceramics assemblages were comprehensively

2 For the Panjikent ceramics, this was established already by Bentovich. See Bentovič 1953: 144; 1964: 265.

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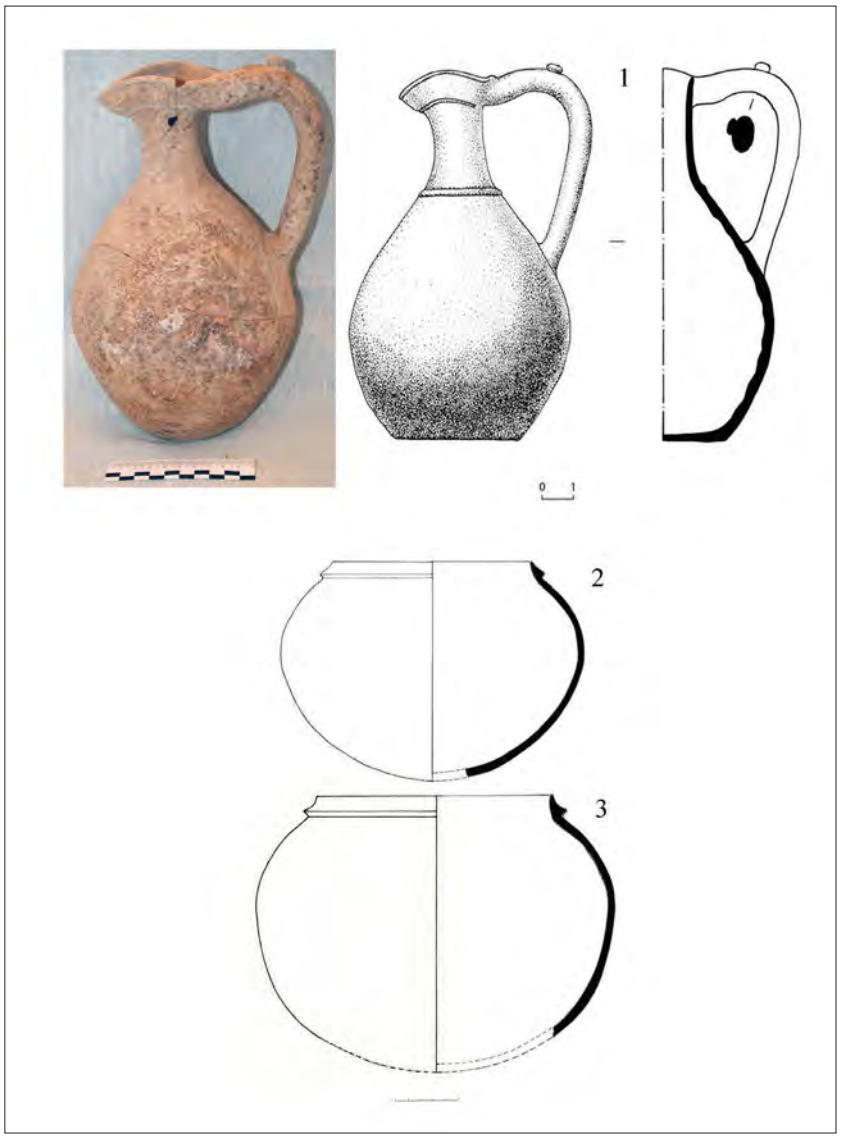


Fig. 6: Thin-walled cattle and jug. **1**: Complete table jug (*oinochoe*) with a handle, Sanjar-Shah 2012, Area 2, Room No. 24 (from the fill); **2–3**: Wheel-made cooking pot, boilers with thin round bottom, Sanjar-Shah 2013, Area 2, Room No. 8 (from the first floor) (after Kurbanov/Pulotov/Aminov 2016b, drawings and photo by the author).

studied by Boris Marshak, the figure ranges from 79 to 86% (Maršak 2012). In the pottery assemblages from 2014, the proportion remained virtually the same: handmade pottery 11%, wheel-made pottery 89%. However, changes must be made following our work in 2015, when we started excavating in Area 4. Thus, as of 2015, the percentage is 22% for handmade pottery, and 78% for wheel-made. This is the general picture. Of course, the next step is to enlarge our scope and to compare ceramics from different Areas and even different rooms.

What characterises the Sanjar-Shah pottery is the abundance of well-made, thin-walled cooking pots with round bases. In Panjikent, the number of such cooking pots is lower. It is worth noting that the quality of manufacture of Sanjar-Shah bowls is also higher than in Panjikent. Dating the Sanjar-Shah ceramic assemblages without other finds (such as coins) is only possible based on the parallels from other sites, the most important of which is undoubtedly neighbouring Panjikent. Certain ceramic types in Sanjar-Shah and Panjikent show remarkable similarity and consistency. For instance, bowls with a cross and cup-like goblets keep the same form from the 5th to the 8th century (**Fig. 8**). In both Sanjar-Shah and Panjikent, there are examples of bowls with a cross from both early and late layers. Interestingly, such bowls are not attested anywhere in Sogdiana except for Panjikent and Sanjar-Shah. They have not been found, for example, at the neighbouring Navruz-Shah, Mugh-tepa, Shotorak, or Ok-tepa.

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Fig. 7: Zoomorphic decorations on ceramics. **1**: Fragment of the rim of baby stroller, plum with the image of a mountain goat, Sanjar-Shah 2012, Area 2, Room No. 23 (from the fill) (drawing and photo by the author); **2**: Fragments of pottery with zoomorphic image from Panjikent (see Lurje 2015: 207; Fig. 168) (drawing by D.A. Zhulina); **3**: Archaeologically complete mug with a drain (for filtering) with zoomorphic image (the end 7th/early 8th century CE), Sanjar-Shah 2013, Area 2, Room No. 9 (from the fill); **4**: Ornamental jug with zoomorphic decorations (from Panjikent), Hermitage Museum (after Kurbanov/Pulotov/Aminov 2016b, drawings by Sh. Kurbanov, photos by P.B Lurje and M. Shenkar).

According to the coin finds, the majority of Sanjar-Shah pottery is dated to the 5th to the 8th century. Pottery is often found together with the bronze coins of the kings of Sogd, the coins of the rulers of Panjikent, the *bukharkhuda* coins, and the Arab *fulus* finds of the 8th century.

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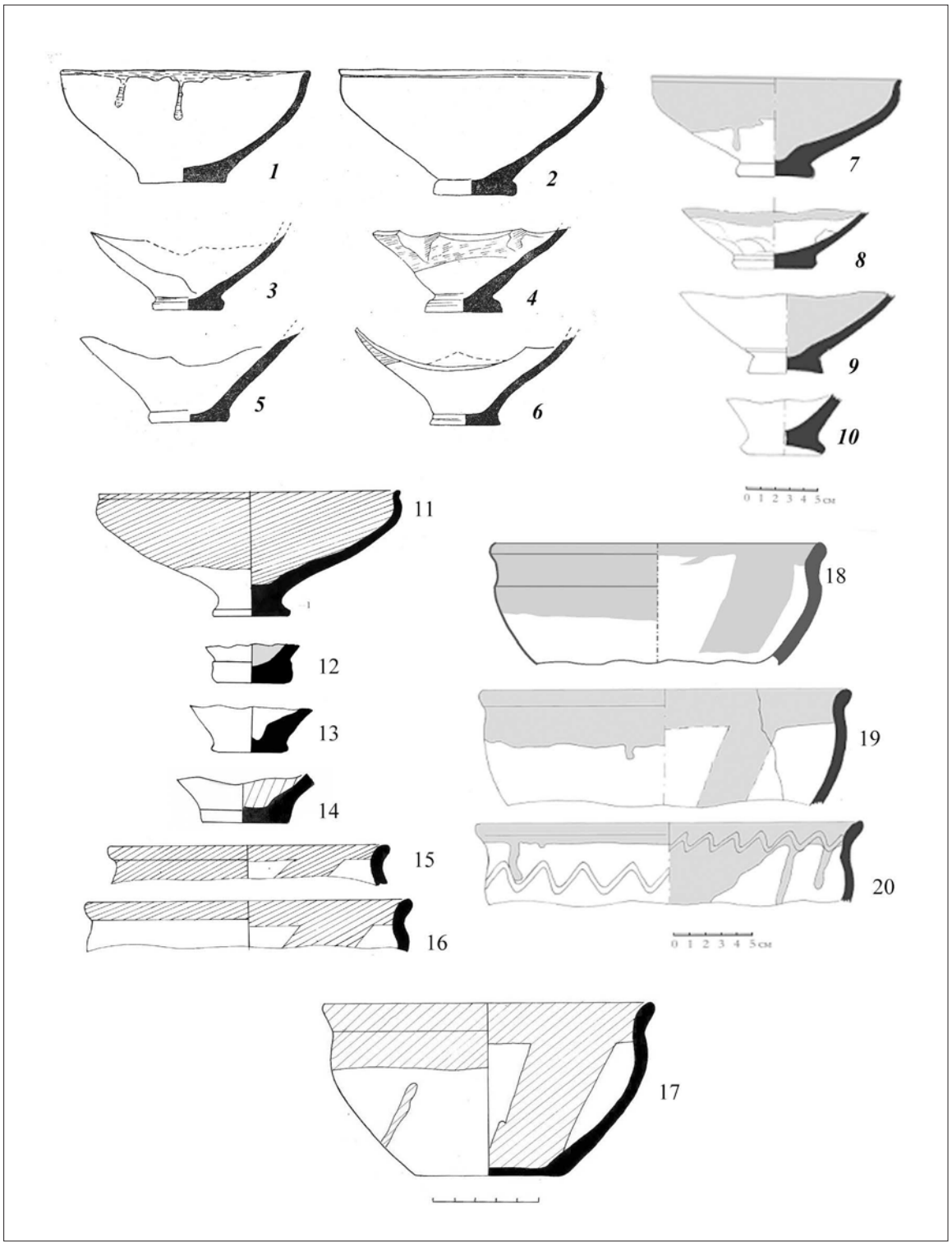


Fig. 8: Bowls with a cross and cup-like goblets. **1–6**: Cup-like goblets from Panjikent (see Bentovich 1953: 140; Fig. 7); **7–10**: Cup-like goblets from Panjikent, materials from the complex earlier ceramic layer (6th–7th centuries) from Panjikent (Qaynar) (see Lurje 2011: 27–33; Fig. 81); **11–14**: Fragments of a cup-like goblets (5th–6th centuries) from Sanjar-Shah; **15–17**: Fragments of bowls with a cross from Sanjar-Shah (5th–6th centuries); **18–20**: Fragments of bowls with a cross from Panjikent (5th–6th centuries) (see Lurje 2011: Fig. 81; Kurbanov/Semenov 2011: Fig. 30: 1) (drawings by the author).

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The earliest ceramic assemblage identified so far at Sanjar-Shah comes from the terrace below the Round Tower (Area 1). These types are dated to the late 5th/early 6th centuries. Pottery from the same period was found also in Sounding 1 in Area 2. The rest of Sanjar-Shah pottery is dated to the 7th to 8th centuries. After that, it seems that Sanjar-Shah was abandoned and its inhabitants moved to Muborak-Shah.

3 A comparison

Let's now look more closely at the local similarities and differences between the ceramic assemblages from Sanjar-Shah and Panjikent. According to our calculations, the most numerous and widespread type of hand-made ceramics in Sanjar-Shah are cooking pots: among the hand-made pottery, 42%. Storage jars are the predominant type in wheel-shaped pottery: 31%. It is interesting that in Panjikent the predominant type of hand-made pottery are bowls: 21%; and the prevalent type of wheel-made pottery are mugs: 36%. It should be noted, however, that this data is from the early layers; the later ceramic assemblages from Panjikent are yet to be systematically analysed. It is very interesting that at Sanjar-Shah jugs were the predominant type, while in Panjikent it is bowls.

Acknowledgments: I would like to thank Abdurahmon Pulotov, who is currently working on a PhD dissertation on Sogdian ceramics at the Hebrew University of Jerusalem, for his help with the preparation of this paper.

Bibliography

Bentovič, I.B.
1953: Keramika Pândžikenta, in: Âkubovskij, A.Û. (ed.), *Trudy Tadžikskoj arheologičeskoj èkspedicii. Tom 2* (= Materialy i issledovaniâ po arheologii SSSR 37), Moscow/Leningrad, 133–145.

1964: Keramika verhnego sloâ Pendžikenta (VII–VIII vv.), in: Âkubovskij, A.Û. (ed.), *Trudy Tadžikskoj arheologičeskoj èkspedicii. Tom 4* (= Materialy i issledovaniâ po arheologii SSSR 124), Moscow/Leningrad, 265–298.

Gropp, G./Kurbanov, S.
2007: Erster Vorbericht über die Ausgrabungen in Sandžar Šah (Magian), Tadžikistan 2003, *Archäologische Mitteilungen aus Iran und Turan* 39, 91–126.

Kurbanov, Š.F.
2014: Otčet o raskopkah na gorodiše Sandžaršah v 2011 g., Bubnova, M.A. (ed.), *Arheologičeskie raboty v Tadžikistane. Vypusk 37*, Dushanbe, 241–270.

Kurbanov, Š.F./Pulotov, A.G./Aminov, F.Š.
2016a: Otčet o raskopkah na gorodiše Sandžaršah v 2012 g., in: Karimova, G.R. (ed.), *Arheologičeskie raboty v Tadžikistane. Vypusk 38*, Dushanbe, 102–145.

2016b: Raskopki na gorodiše Sandžaršah v 2013 g., in: Karimova, G.R. (ed.), *Arheologičeskie raboty v Tadžikistane. Vypusk 39*, Dushanbe, 139–156.

Kurbanov, Š.F./Semenov, N.V.
2011: Raskopki na ob''ekte XXVI, in: Lur'e, P.B (ed.), *Materialy Pendžikentskoj arheologičeskoj èkspedicii. Vypusk 13*, St. Petersburg, 4–17.

Lur'e, P.B. (Lurje, P.B.)
2011: Kajnar, in: Lur'e, P.B (ed.), *Materialy Pendžikentskoj arheologičeskoj èkspedicii. Vypusk 13*, St. Petersburg, 27–34.

2014: Tablica monet, raspredelennyh po hronologii i mestu zaleganiâ, in: Lur'e, P.B (ed.), *Materialy Pendžikentskoj arheologičeskoj èkspedicii. Vypusk 17*, St. Petersburg, 53–55.

Lur'e, P.B. et al.
2015: Raskopki ob''ekte XI–V v 2014 g., in: Lur'e, P.B (ed.), *Materialy Pendžikentskoj arheologičeskoj èkspedicii, Vypusk 18*, St. Petersburg, 19–31.

Maršak, B.I.
2012: *Keramika Sogda V–VII vekov kak istoriko-kul'turnyj pamâtnik. K metodike izučeniâ keramičeskih kompleksov*, St. Petersburg.

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The Early Medieval Martshkat (Hisorak) in Upper Matcha and its Bactrian Connections

Pavel B. Lurje

Abstract: This paper deals with the regional connections of the site of Hisorak — Early Medieval Martshkat in the highland area of the Zeravshan Valley. First, we provide a brief description of the site, its position and its connections to the more fertile lands of Transoxiana. The position of Hisorak between Sogdiana to the west, Ustrushana to the north and Bactria to the south – as well as particular highland features of the area – are mirrored in elements of its archaeological material. We briefly describe the elements of Sogdian and Ustrushana culture attested in Hisorak, as well as features it has in common with other sites of Central Asian highlands and concentrate on Bactrian, or Tokharistan connections. They can be seen in certain individual finds, in some pottery shapes, and in architecture. The technique of making mud-brick arched doorways in Citadel II (garrison castle) as well as pottery assemblage of the constructive floor there both show Bactrian connections and hint at the possibility that the castle was erected by a Bactrian team of builders. Contacts with surrounding areas are also mirrored in the wall-painting from the palace of Hisorak.

Keywords: Hisorak, Martshkat, Upper Matcha, regional connections, Sogdiana, Ustrushana, Bactria, Tokharestan, pottery, architecture, Early Middle Ages.

Резюме: В статье рассматриваются региональные связи городища Хисорак – раннесредневековый Мартшкат в горной части зеравшанской долины. В начале статьи приводится краткое описание памятника и его географическое положение, связи с плодородными областями Трансоксианы. Положение Хисорака между Согдианой с запада, Уструшаной с севера и Бактрией с юга, а также особенности его расположения в горах – отражены в тех или иных арехологических материалах с памятника. Мы кратко описываем элементы согдийской и уструшанской культурных традиций на Хисораке, а также то, что объединяет его с другими памятниками горных областей Средней Азии, и концентрируемся на бактрийских (тохаристанских) связях. Их можно видеть в отдельных индивидуальных находках, некоторых керамических формах, и в архитектуре. Техника сырцовой кладки арочных проходов Цитадели II (гарнизонного замка) и комплекс керамики из соответсвующих конструктивных полов имеют бактрийские связи и намекают на вероятность, что замок был построен бактрийской строительной бригадой. В росписи из дворца Хисорака видно взаимодействие с разными культурами окружающих областей.

Ключевые слова: Хисорак, Мартшкат, Горная Матча, региональные связи, Согдиана, Уструшана, Бактрия, Тохаристан, керамика, архитектура, ранее средневековье.

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1 Hisorak – Martshkat

The site of Hisorak, or Qal'a-i Hisorak, is located on a terrace on the southern shore of the Matcha River, the main source of the Zeravshan, in the Mountain Matcha district of Tajikistan. It stands 2,250 m asl, and some 100 m above the river at the foot of its cliffs. Its position is 39°26′32.52″ N / 69°41′11.02″ E, around 1,500 m, as a crow flies, from the centre of the modern village of Madrushkat, and 750 m from its closest borough. Madrushkat, one of the largest villages in the Mountain Matcha district, is located on the opposite bank of the river, which today is not crossable here, and does not have other known ancient or medieval settlement nearby, so one can hardly doubt that Hisorak corresponds to the placename *mrtšk/mrtškt* in the documents from Mount Mugh, the archive of Panjikent (Panjakent) prince Dēwāštīč, written by Arab scholars in 722 (Lurje 2011).

The site occupies an area of around 7 ha, so is the largest settlement to the east of Panjikent in the Zeravshan Valley (**Fig. 2**). We call its largest part the *shahristan*, i.e. "city proper"; to the north-west, there are three separate smaller hills, labelled "Citadel I, II and III". Both *shahristan* and citadels represent separate buttes of the terrace over the Matcha River. The *shahristan* was defended from the south by two walls built on the separate oblong meandering cliffs, and some inhabitation has been noted on a slope to the north of *shahristan*. A necropolis comprising stone-chest burials was found to the south-west of the site proper, and a small fortification with pottery of the Hisorak type was discovered in 2012 on the northern bank of the Matcha, immediately opposite Hisorak.

The presence of significant ancient ruins at the place called Qal'a-i Hisorak ("Castle of the small fortress" in Tajiki) was always known to the local population, who narrate legends about it. Among scholars, however, it was Ol'ga I. Smirnova who first visited the site in 1948 and published a brief description of it, together with sketch plans and a record of the construction details visible at the surface (Smirnova 1953: 181–183). Ju.Ja. Jakubov made some excavations in 1981, and in 1998 a joint Russian-Tajik archaeological expedition, led by B.Ja. Staviskij and Jakubov, conducted investigations at Citadel I, which yielded very interesting finds, in particular carved wooden ornaments, loess ornaments, fragments of musical instruments and wall-paintings (Staviskij et al. 2000a; 2000b). The excavations revealed one of the most important features of Hisorak: as in some other mountainous sites in Central Asia, but not in most of the lowland sites, the organic finds, such as wood, textiles, leather, straw, etc., are often preserved almost intact.

The Panjikent archaeological expedition, organised by the State Hermitage museum and institute of history, archaeology and ethnography named after Ahmad Donish at the Academy of Sciences of Tajikistan, made a first survey trip to Hisorak in 2008. In 2010, the expedition, in a collaboration with Jusuf Jakubov, made a plan of the site and extracted decorative panels which had been left in debris by the expedition of 1998. Since 2011, the Panjikent expedition has excavated the site for two to three weeks each season. The yearly reports of the excavations have been published in the series Materials of Panjikent Archaeological Expedition, along with special studies of Hisorak pottery (Smirnova 2014), textiles (Teplâkova 2013; 2014), and textual sources (Lurje 2011). In other places, Sogdian documents (Lurje 2012), dwelling types (Lurje 2014), wall painting (Lurje/Semenov/Stepanov 2017), wooden construction elements (Semenov 2015) from Hisorak have been published. In the present paper, we attempt to take a closer look at the regional connections of Early Medieval Martshkat. This study is based on the results of the team work of archaeologists, architects, conservators, illustrators of the Penjikent archaeological expedition; the present author, however, is solely responsible for the conclusions. I would also like to acknowledge the advice of Franz Grenet, Sergei Bolelov, Asan Torgoev, Aleksandr Naymark on several issues addressed in this paper.

2 Brief description of the investigated plots in and around Hisorak

Excavations have been conducted on several sectors in and around the site. The main work was concentrated on Citadels I and II, but one of the biggest habitations in the *shahristan*, together with the adjoining street, have also been partially exploited, and there have been excavations on the defensive walls and water-supply system of the site, as well as on the necropolis.

The necropolis, located on uneven slopes to the south-west of the site, comprises stone-chest burials, three of which were investigated. Human bones found there were neither complete nor in anatomical order. In one of the stone-chests, a Muslim silver dirham issued in in Mesopotamia in 714–715 CE was found (Âkubov 2012). It probably reached this location in connection with the military expedition led by Yazīd b. Muhallab to Buttam (highlands between Syr and Amu Darya basins) in 717–718, according to Muslim historian al-Balādhurī (MPAÈ XIV, 5).

The water supply in Hisorak came from the south-west, probably from the spring called Chashmai Lolakhon; a local legend about the destruction of the site claims as much, and here probably mir-

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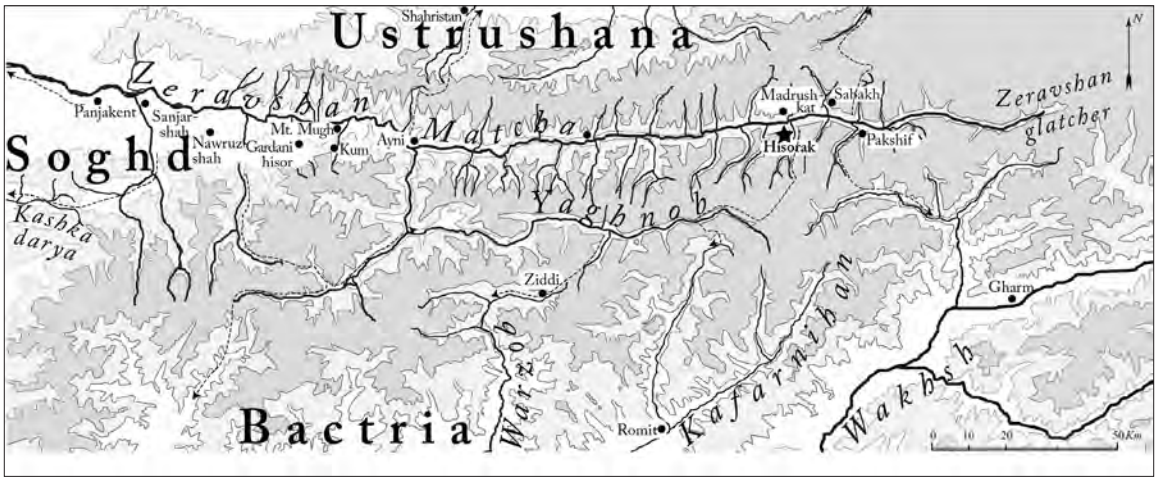


Fig. 1: Map of the Upper Matcha region with its regional connections (by N.V. Semenov and the author).



Fig. 2: View of Hisorak from above in colour (aerial photo by the author).

rors the historical reality. Parts of the canal are still traceable at the surface, and the remains of a building overlooking the spring have been discovered. A tank made of stones is located in front of the outer wall of the site from its southern side, and on the wall the traces of a supposed aqueduct have been discovered (Âкубов 2012).

Excavations on one of the biggest hillocks in the *shahristan* area (L.O. Smirnova, F.Sh. Aminov) revealed part of a large household. To date nine rooms have been excavated there: a square inner yard with 5 m sides; two storage rooms, or cattle shelters, with stone walls; four living-rooms with mostly mud brick, plastered walls and fire-places attached to the wall, screen walls and *sufas* (podiums) along other walls, the largest being 5 × 3 m; and two corridors, one of them with a fire-place. The walls are preserved to the height of 2 m maximum. No traces of the upper floor have been detected. A section of the principal north-south street of the site, ca. 5 m wide and with no more than 50 cm of cultural strata, located to the east of the hillock, and an entrance to the household, were excavated in 2016.

On Citadel I (N.V. Semenov), excavations continue the works of the Tajik-Russian expedition of 1998 and are concentrated on the south-western part of the hill. The research of 1998 revealed parts of four rooms, including the central square building with sides of 10 m and walls up to 2 m above the modern surface, a section of the southern intermural corridor, and two rooms of the so-called "chapel" type, probably the winter living rooms adjusted for the cold climate of Matcha (Lurje 2014). One of these chapels was decorated with impressed and coloured floral designs at the fire-place and tambour wall, another one had carved wooden ceiling of the lower floor, also with floral designs.

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Work from 2010 to 2016 finalised the excavation of the "chapels", where other examples of carved wood as well as wall painting (see below) were found; the corridor leading from one of the chapels to the yard; an open storage chamber in the south-western corner of the hill; and part of a reception court. Much effort went into examining the T-shaped corridor, or couloir, 16 m long and 2.5 m wide, to the south of the central ruin, with walls up to 4 m. From there, passages led to the western court, probably the eastern court (both possess wooden thresholds; see Semenov 2015), the central ruin and two "chapels", the excavated one to the west, and the as yet still unexcavated one to the east. The entrance to the latter has solid remains of wall-painting, while only tiny fragments of paint were found on the walls of the eastern court.

The surface of Citadel II (P.B. Lurje) already indicated that its western half was a "comb"-shaped castle. The corridor along its southern cliff, almost 20 m long, led to five identical vaulted rooms oriented north-south. The rooms were quite high, and traces of the upper floor are visible on the walls; small pieces of wall-painting of the upper floor were found in the debris. Three more rooms of the same dimensions were located to the east of the corridor, one of them divided into two by a secondary wall. An open space with veranda and balcony was at the western extremity of the hill, and in its debris ornamented bricks of the façade were found. There was probably a winding staircase at the south-eastern end of the hill, and its eastern part was occupied by another court (the eastern part of the citadel is as yet unexcavated)[1].

In many places, both Citadels I and II preserved intact organic materials, including straw, twigs, utensils made of vine, fragments of clothes, wooden devices, wooden ceiling elements and carved wood (chiefly Citadel I), the mummy of a greyhound, and Sogdian documents written on wood (Citadel II).

3 The position of Hisorak and the main paths to it

In order to better understand the regional connections of Hisorak, we have to take a closer look at the position of the site and its accessibility (**Fig. 1**). The valley of the Zeravshan River can be divided into two parts: the upper course in the east and the lower course in the west. The Upper Zeravshan, or Matcha River, originates in the Zeravshan glacier in the heart of the Alai Mountains, and flows west through narrow gorges. Many tributaries join Upper Zeravshan from the Turkestan mountain range to the north, and the Zeravshan range to the south. The latter are usually more full-flowing, the biggest tributary being the Fan Darya, originating in Yaghnob Valley and Lake Iskanderkul, which joins the Matcha River near modern Ayni; geographers apply the name Zeravshan in the strict sense only to the river below the confluence of the Matcha and Fan Darya, but in common usage the Matcha River is usually also called the Zeravshan. The more or less narrow valley of Zeravshan starts to become wider around 50 km to the east of Panjikent, and in Samarkand, 60 km to the west of Panjikent, the mountains can be seen only in good weather. The river flows through the lowlands to the north-west and then to the south-west, before disappearing into sands to the west of Bukhara; in some historical periods, however, the water of the Zeravshan reached Amu Darya. The Upper Zeravshan Valley is in quite a cold zone, with strong winds and significant rainfall. The Lower Zeravshan is hot and dry. The average temperature in Aini is 10.5 °C and annual precipitation 617 mm; in Bukhara, it is +15 °C and 156 mm, respectively.[2] The soils of the Upper Zeravshan are gravels; in the Lower Zeravshan, loess.

The different geography dictates different economies. The Upper Zervashan Valley was, and still is, poor land. The economy is based on irrigation agriculture and migratory cattle-breeding (i.e. cattle stay in the village in winter and on alpine pastures in summer). The irrigational canals have sources in the mountain streams and not in the Zeravshan, the bed of which is usually much lower than the arable lands. Despite high precipitation, the poor stony soils of the valley and short daylight (especially on the southern, shadowy, side of the valley) do not allow dry farming (the non-irrigated cultivation of crops); harvests are late and only few fruit trees can grow here. The Lower Zeravshan Valley, by contrast, has excellent conditions for agriculture: drylands can be used for cereals, and a great variety of fruit, vegetable, etc. are produced in the irrigated areas. According to medieval Persian definitions, and modern Tajik usage, the term *Suγud*, evidently relates to Sogdiana, Sogd meaning "lowland rich in waters" (Hromov 1989). The water comes from large canals fed by the Zeravshan proper (the uppermost canals of this type begin at the Uzbek-Tajik border, at present Raboti Khoja). Just 20 km upstream, in Panjikent, the canals take water from the Magian and other secondary rivers. The surrounding steppe is used for migratory cattle breeding. Large cities, like Samarkand and Bukhara, and many satellites, which have existed in the lower parts of the Zeravshan Valley for more than 2,500 years, contrast with the small villages and castles of the Upper Zeravshan.

1 The paper is based on the materials from Hisorak excavated prior to 2016. The later three seasons produced much material which could not be included here for obvious reasons; this new data does not contradict the main arguments presented below.

2 Data taken from http://ru.climate-data.org on 5 October 2016.

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Even today there is no town in the Zeravshan Valley above Panjikent, and Hisorak, with its almost 7 ha, is the largest settlement to the east of Panjikent (which is over 13 ha). Why this relatively large city appeared in the highland part of the Zeravshan Valley is an unsolved question. Other sites in the region of the same date (Kum, Gardani Hisor) are much smaller and located in less remote places. One can think of the crossroads location of Hisorak (see below) and the richness of natural resources. Even today, certain locals wash for gold in the river in immediate neighbourhood of Hisorak. Al-Balādhurī (the 9th-century Muslim historian) describes golden idols which were present once in Buttamān, the historical region including and surrounding Matcha, and which were later plundered by the Arabs (Balāḏurī: 425/491). Along with these favourable conditions, it was doubtless the will of some Early Medieval local leader that led to establishment of the site.

The most evident road from Hisorak to the more civilised lands would be the one downstream of the Zeravshan River to Sogdiana proper; the distance by road to Panjikent is 240 km. The road is difficult and involves many climbs and descents. The historical road which led mostly along the southern (shadowy) shore of the river, and was traversable only by pack animals and humans, included a number of bridges, fords and paths suspended along the sides of steep rock faces. Travelling from Matcha to Panjikent took more than a week, even in summer.

The Zeravshan River is located in the so-called Central Asian Mesopotamia: the lands between Amu Darya (Oxus) on the south and Syr Darya (Iaxartes) on the north, both rivers flowing from the Pamir and Tienshan mountains in the south-east to the Aral Sea in the north-west. The population of the Zeravshan Valley had intensive contacts with the inhabitants of Amu Darya and Syr Darya basins, i.e. the historical Bactria or Tokharistan on southern side, and Chach, Ustrushana, and Fergana on the northern side. The upper part of Zeravshan Valley too had paths leading through mountains to Bactria or Ustrushana and Fergana, traversable only in summer. If paths leading to the south, after penetrating mountain ranges, reached highland pastures and villages of the upper reaches of the Vakhsh and Kafirnihan Rivers, and, only after that, led down to the well-developed lowland areas of Northern Bactria, the passages to the north led, after shorter uninhabited areas, into irrigated lands of Ustrushana and Fergana.

The maps show the path to be, at its highest point, 3,729 m asl, leading from Pakhshif, 30 km to the east of Hisorak, to Gharib, upstream of Surkhob in the Vakhsh River basin. The local informants describe another pass, along the river Valghun, located immediately to the east from Hisorak, to the direction of "Dushanbe". It took two days and apparently led to the upstream of the Yaghnob River and then through the Zakhob Pass to the Ghuskef River, a tributary of the Kafirnihan. The pass from Sabagh, approximately 15 km to the east of Hisorak, led to what is now south-western Kirgizia, to the town of Isfana, and from there to the south-west of the Fergana Valley, not far from Khujand and Kanibadam. The Yangisabakh Pass is 4,185 m asl and it takes a day to travel through it; a border control post is located on its path today.

In general, the regions of the Upper Zervashan had links with the more developed lands to the west (Sogdiana), to the south (Bactria or Tokharestan), and to the north (Ustrushana and Fergana), and the position of Hisorak, with its good visibility, allowed control of the roads in all these directions. It would not be surprising to find cultural elements of all these zones in the archaeological material from Hisorak. In the present paper we deal only with short-distance contacts of Hisorak, not the more distant. When speaking of Sogdiana, we mean primarily Panjikent and Samarkand, and far less Bukhara; in Bactria we mostly concentrate on the northern side of the Oxus. Dealing with Ustrushana and south-west Fergana, we ignore the regions farther to the north and north-west – Chach (Tashkent oasis), Semirechie, Northern Fergana. One must also take into account the local culture of the highlands of Zeravshan, which is not unlike other mountain cultures of Central Asia, that of the Pamirs in particular.

4 Hisorak and the highland cultures of the Pamir-Tienshan area

Many common features can be recognised between the materials from Hisorak and other highland regions, especially other locations in the Upper Zeravshan Valley. They are dependent on similar lifestyle, natural conditions, and close linguistic and anthropological kinships.

The principal architectural solutions, to start with, are identical with those in present-day Matcha: the walls of utility spaces are made of boulder masonry on clay mortar, while the rooms of inhabited areas have mud-brick walls on clay mortar with boulder foundation. The mud-brick architecture is praised today in Central Asia for its temperature regime, making a room warmer in winter and cooler in summer. Loess for making bricks is scarce in the mountains, while boulders are abundant.

The structure of a common room-type – with low ceiling, fire-niche along the longer wall, *sufas* along the other walls, and tambour wall at the entrance, probably a winter residence room – is common at other sites in the Upper Zeravshan area (see details in Lurje 2014). The general outlines of the pottery assemblage of Hisorak are quite similar to those of

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other contemporaneous monuments in the Upper Zeravshan Valley. Most characteristic is the percentage of handmade pottery as compared to those produced on a potter's wheel. Some 60% to 70% of pottery finds from the assemblages of Hisorak are handmade; and among those made on a wheel, about half are *khums*, large storage vessels (see Smirnova 2014). The same figures are valid for Gardani Hisor and Kum (Âkubov 1988: 197). The author collected some surface pottery from the surroundings of the castle on Mount Mugh in 2014, and the "impression" of these potsherds was quite similar to that of Hisorak finds. In Panjikent, the amount of handmade pottery varies between 16% and 27% (Savvonidi 1992: 9), and the majority of handmade vessels are cauldrons; at Afrasiab, it constitutes a minority of the pottery (Sokolovskaâ 2015: 68), while it seems not to be attested at Kafyr-kala near Samarkand (Marshak 2012: 242). The boulder socles with mud-brick walls and a predominance of handmade pottery are typical also for Pamir cultures (Bubnova 1999: 148–149).

From the *primary* or *direct cultural* relations, we have to discern the ones which have a *secondary*, or *accidental* character. One of these factors is the excellent state of preservations of organic finds in Hisorak and other parts of Pamir and Tienshan mountains. We find, e.g., wooden bowls in Hisorak, on the Mount Mugh and in Kenkol, the *Völkerwanderung* period burial in the upstream Talas. It does not mean that wooden bowls were typical for these cultures, unlike others. Wooden bowls obviously existed in the lowland parts of Central Asia but did not survive there because of different soil and climate. However, the roundel of single pearls surrounding floral motif of a carved wooden block, found both at Hisorak and at Gardani Hisor, could be a local decorative model. Another secondary similarity is bound to the isolation of the mountain regions and their backwardness as compared to the lowlands. The excavations of Citadel II revealed the remains of a flat loess roof attached to willow twigs. The same type of flat roofs is found very often in Matcha today, while in Panjikent or Samarkand we see gable iron or slate roofs. Some 50 years ago, however, Panjikent was all covered with flat loess roofs. With the development of more modern lifestyles in Panjikent, these simple roofs were mostly replaced with slates in the last Soviet decades, and now slate has given way to iron. These new types of roof have still not really spread into mountain regions.

5 Hisorak and its connections to Sogdiana

For the present author, who conducts fieldwork on no more than two sites – ancient Panjikent (the sample Sogdian site) and Hisorak – it is difficult to find similarities between these two. The "eye" is naturally more inclined to find differences between these two closely related sites. One can mention probably the bowls or wide cups with lobed rim. This pottery type is typical for Panjikent, Kafyr-kala, Sanjar-Shah, Hisorak, other Upper Zeravshan sites, but is much less widespread in Bactria and in Ustrushana. One can point to the peculiar case of the greyhound mummy found in 2013 in the debris of Citadel II, which looks, especially in the shape of the ears, similar to the depictions of a dog in Panjikent currently in the National Museum of Dushanbe, and in a later, 12th-century painting from Afrasiab. The absence of this type of a dog in archaeological discoveries in the other parts of Central Asia is no doubt due to the lack of finds.

6 Hisorak and its connections to Ustrushana and southern Fergana

In many cases, the materials from Hisorak demonstrate close relations to the synchronous cultures of the Syr Darya Valley, especially the oasis of Shahristan with its numerous monuments (Kalai Kahkaha I and II, Chilkhudzhra, Urta-Kurgan).

The stone-chest burials near Hisorak have pendants both in Pamir barrows (Bubnova 1999: 150) and in Western Fergana *kurums* (surface sepulchres made of stones) (Litvinskij 1972: Figs. 109, 110). The oil-lamp discovered in the late occupation layer in Citadel II has the closest parallel with the one found in Kalai Kofar near Dakhkat to the east of Shahristan, as well as with one in Kalai Sar, above Shahristan (Pulatov 1993: 81). The Sogdian documents discovered in 2011 in Citadel II are very close to the texts found at Chilkhudzhra castle (Livshits 2015: 217–226) both in layout and in the "heavy" form of final letter *y*.

Although the excavations of the palace at Citadel I are far from being finished, the ground plan of the central part is very similar to the plan of the castle Urta-Kurgan near Shahristan (Negmatov et al. 1973: 7–103). The palace is formed by a large T-shaped corridor with *sufas* leading to other rooms. In the traverse of the corridor, the remains of wooden lantern ceilings were discovered at both sites. The entrances are slanting along the walls, with tambours, the dimensions of the palace – 20 m east-west the case of Hisorak and 26 m in the case of Urta-Kurgan – are very similar, as are the almost 2-m-wide walls (**Fig. 3**).

The only coin coming from the site of Hisorak proper (a surface find from Citadel I) is in very poor condition, but seems to bear the Ustrushana *tamgha* (sign). The early Muslim geographers considered Masḫā (i.e. Masčā) one of the cantons of Ustrushana

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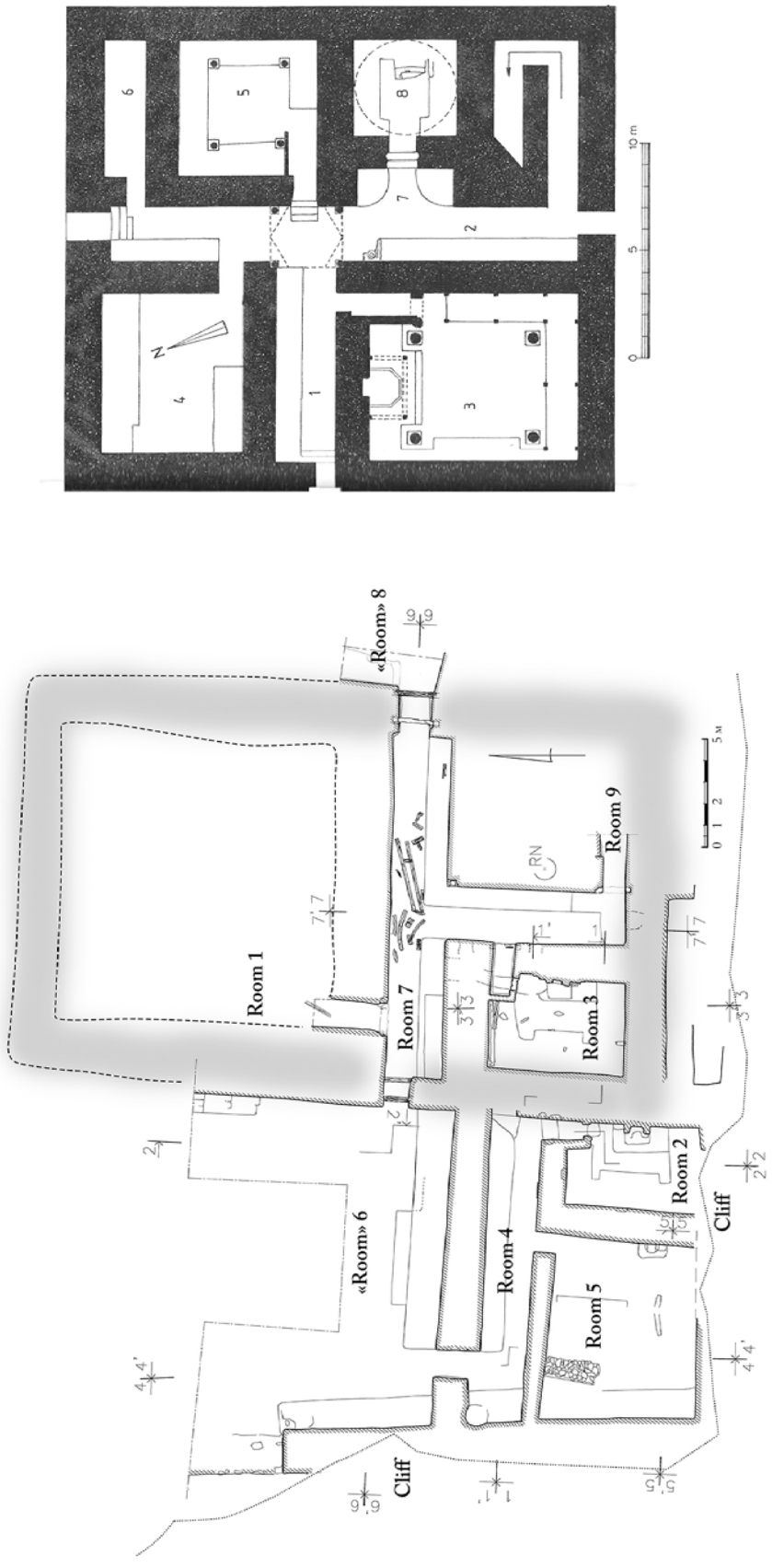


Fig. 3: The ground plans of Citadel I (left; by I.O. Gurov, E.P. Buklaeva, central rectangle marked in grey) and Urta-Kurgan (right; after Hmelnickij 2013: 229).

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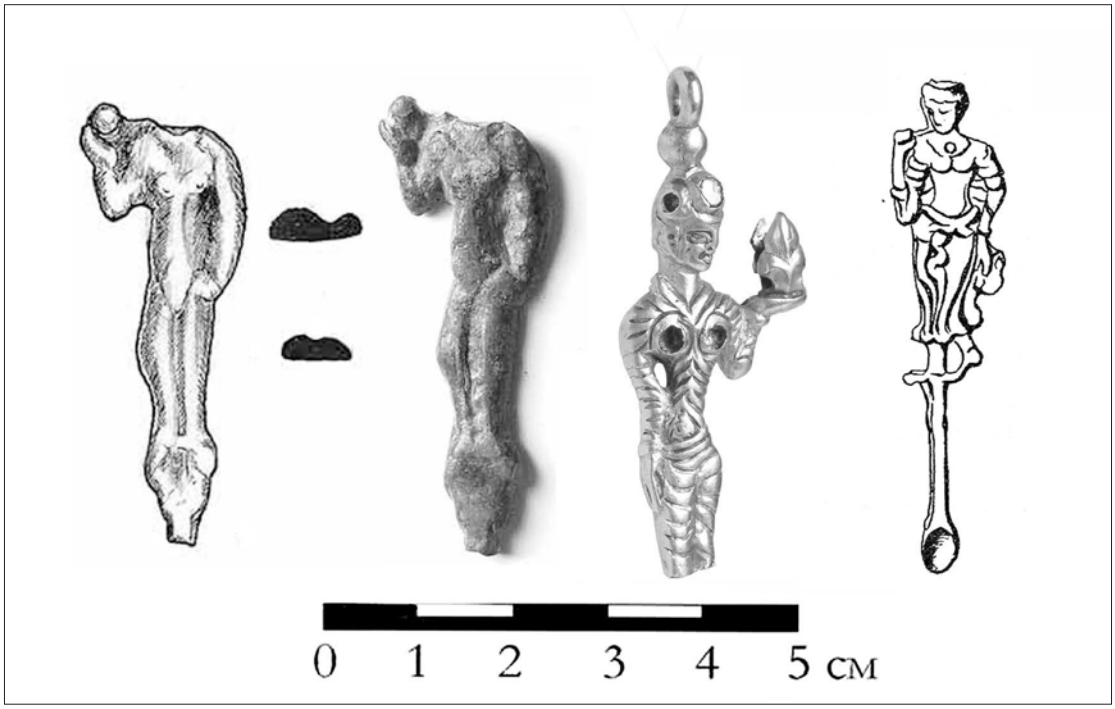


Fig. 4: Handle of ear-cleaner from Hisorak (left; drawing D.O. Zhulina, photo by the author) and its parallels from Khait (middle; State Hermitage Museum, SA-15934, after Omelchenko 2014: 227, photo L. Heifits) and Shirkent (right; after Solov'ev 1993: 331).

and to this day the principal bazars used by inhabitants of Matcha are in Ura-tyube and Khujand, in the historical Ustrushana region.

7 Hisorak and its connections to Bactria (Tokharistan)

Before dealing with the southern connections of Hisorak, one has to point out that the lands previously discussed – Sogdiana, Ustrushana, and the Upper Zeravshan region – are closely related to one another and have more distant ties to Bactria. Bactria had a different language using a different script (though coins with Sogdian legends were issued in Northern Bactria in the 7th and 8th centuries CE), it was first Hellenised and then deeply influenced by the Buddhist faith, and the differences in the material culture of Sogdiana and Ustrushana on the one hand and Bactria on the other are obvious. Nevertheless, some elements of Bactrian culture can be found in Hisorak.

Individual finds: an ear-cleaner

One find is the handle of a bronze ear-cleaner in the form of a female figurine. She is naked and her left hand rests on her hip; her right forearm is elevated and she holds a round object at her shoulder. The head is lost (**Fig. 4**). This handle has similarities with silver ear-cleaners from Kos-tobe in Talas Valley (Bajpakov 1998: 102, 208, colour inlay), as well with bronze ones from Konyr-tyube in Southern Kazakhstan (Bajpakov et al. 2005: 58, Fig. 1.48) and from Qarshovul tepa in Chach (Sheyko/Ivanov 2015: Fig. 14). More elaborate are figurines found incidentally at Novopokrovka in Northern Kyrgyzstan (Stavisky 1998: 130–132), which represent bodhisattvas, and Buddhist affiliations seems also to be true for the Kos-tobe ear-cleaner, on which the male figure, wearing a long robe, his right hand raised in a gesture of blessing; the Konyr-tyube example is also close to the latter. The Qarshovul figurine seems to be male, wearing skirt or dhoti, and holding a branch in his right hand, so one can cautiously attribute it to Buddhist art as well (one has to take into account of course that on such small utilitarian objects as ear-cleaners, the decorative value obviously shadows religious significance).

Three ear-cleaners have been found in Northern Bactria. The one from Bit-tepe (to the south of Hissar) is too damaged to be analysed (Zejmal'/Rtveladze 1999: Table 86). An excellent golden example (6 cm high) originates from the Khait hoard in Garm district to the north-east from Dushanbe (**Fig. 4**). The figurine has a suspension ring at the top, the face is rendered in detail, there are small depressions for stones on her forehead and breast, and the garment with trousers and long sleeves is rendered with draperies; she holds a cup with a flower bud, trefoil or burning fire in her left hand (Omelchenko 2014: 227). Another ear-cleaner comes from Shirkent, the

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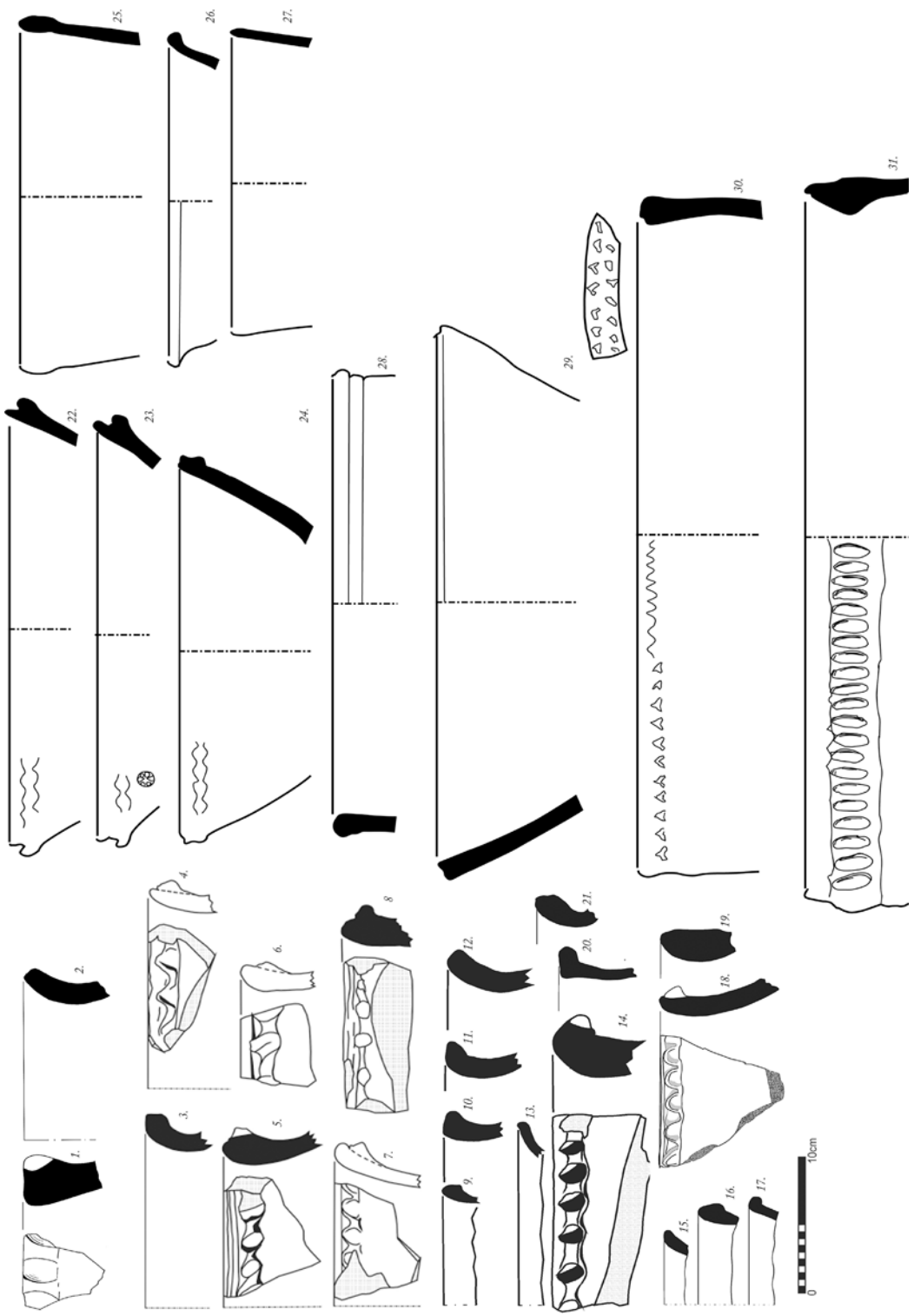


Fig. 5: Selected *tagharas* of Hisorak (1–8: surface finds; 9–14: *shahristan*; 15–17: Citadel I; 18–21: Citadel II: drawings by L.O. Smirnova, N.V. Semenov and the author) and the material from Tavka (20–25; after Rahmonov 2001; scale tentative) and Ajina-tepe (28–31; after Litvinskij/Zejmal' 1971: 24).

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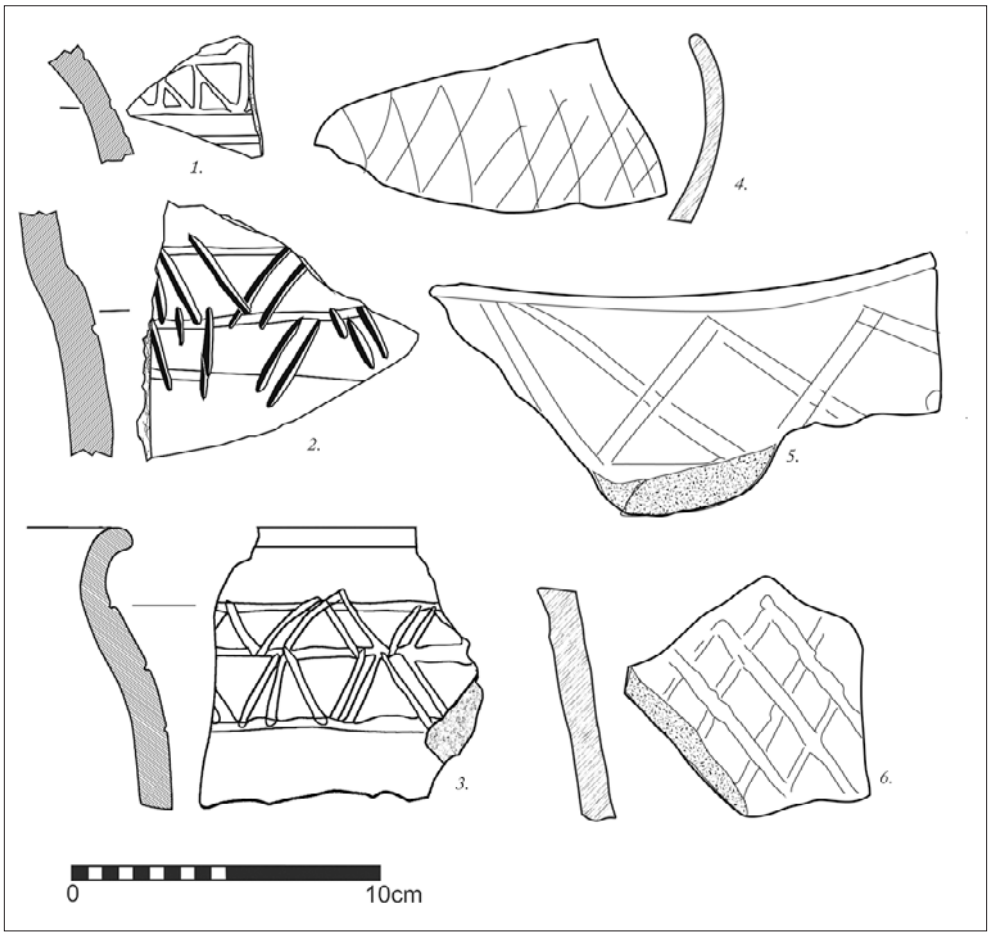


Fig. 6: Table-top vessels with network ornaments from Hisorak (**1–3**: Citadel I, drawing by N.V. Semenov, D.O. Zhulina) and their parallels from Zar-tepa (**4**: Annaev 1998: Table II), Kobadiyan IV (**5**: Zejmal' 1969: Fig. 24), Challa-tepa (Solov'ev 1996: Fig. 6; scale tentative).

southern slopes of the Zeravshan range, to the north of Hissar. It is bronze female figure (3.4 cm high) in clinging garments raising an apparently empty hand to her right shoulder. Her legs, rendering in vivid three-quarters, are quite similar to those on our figure; a secondary suspension hole was bored into the chest. The discoverer thinks it is the image of a *yakshini* (female mythical being) (Solov'ev 1993: 331; 2007: 107).

The ear-cleaner from Hisorak with female figurine thus has close parallels, in geography and rendering, to the finds from Bactria. However, it is unique in having a naked figurine. These bronze items, much like moulded terracottas in Sogdiana (see Marshak 1972), were replicated easily: a bronze or silver ear-cleaner could be used to make clay matrix which in its turn could be used to produce new ear-cleaners. In this sequence, the detail and quality of original diminish with every new casting; some new features could be added, etc. The ear-cleaner from Hisorak is an example of such a sequence.

Pottery

Small items like ear-cleaner could of course be moved easily from one place into another, so one is on firmer ground when speaking of pottery assemblages. Among the pottery shapes of Hisorak, we can distinguish elements which have close parallels in Bactria. In this section we find it logical to put together potsherds discovered at different sectors of the site as well as surface finds; later on, we shall deal with one separate assemblage.

Among the relatively small variety of forms of pottery at Hisorak we find open basins, locally called *taghara*. They are both wheel- and hand-formed, the thickness of walls is about 1 cm and the diameter 20 cm or more, and they have conical or vertical sides, often with a flat protruding rim. According to my calculation, of the 265 fragments with rims discovered between 2008 and 2014, 57, or more than 20%, can be considered fragments of *tagharas*.

This form is not very typical for Panjikent or Sanjar-Shah, where it is in the minority; a limited number of this shape can be found at Kum and Gardani Hisor (Âkubov 1998: 261, 264–265), and a handful

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of items come from the Shahristan oasis (Pulatov 1975: Figs. 27, 34). In Bactria, by contrast, *tagharas* are one of the leading pottery shapes (Solov'ev 1996: 60). The *tagharas* from virtually all sites in Northern Tokharistan show quite close affinity to Hisorak types (**Fig. 5**).

We often find at Hisorak a very simple decoration consisting of a series of finger impressions immediately under the rim of a vessel. They are made either directly on the body of the vessel or on a clay band attached to it; sometimes they form a kind of sequence of arches. This type of decoration appears in the latest layers of Panjikent (Savvanidi 1992: 13) and in Samarkand materials of the late 8th century (Sokolovskaâ 2015: 168–169); it is quite widespread in the Upper Zeravshan Valley (Âkubov 1998: 171ff.) and in the Shahristan oasis (e.g. Pulatov 1975: Fig. 30). In the case of all later sites, however, we attest to this decoration only in large storage vessels, *khums* or *khumchas*. In the case of Hisorak, it is very often attached to the rim of a *taghara*. The same pattern is again known from Tokharistan: Ajina-tepe, Tavqa, Hosiyatteppa.

Another type of decoration we see in Hisorak consists of incised diagonal and horizontal lines on table-top vessels around the shoulder that form a net of triangles and rhombs. It is present in three fragments (one of them being almost complete), all hand-shaped and all coming from Citadel I. The same pattern is known from the pottery of Hosiyat-tepa (Solov'ev 1996: Fig. 8), Kobadiyan IV (Zejmal' 1969: Fig. 24), probably also Challa-tepa in Northern Bactria (**Fig. 6**). In other sites of Northern Bactria, the same pattern appears in engobe decoration.

Construction technique of Citadel II and associated pottery

As it was noted above, Citadel II represents the well-known type of the "comb-shape" castle. It was erected fully formed, and only some internal attached walls represent secondary additions. Most of the rooms have only one inhabited floor. Almost all passages between rooms in the thick walls (up to 2 m wide) have survived, and in all of them we see the identical model of arch. The passages are 1.6–1.8 m high in the centre and 0.8–1 m wide. The length of the passage can be more than 2 m (**Fig. 7**).

Arches are formed by bricks of standard Hisorak size (52–55 × 25–27 × 10 cm), and the flat surface of the brick is set inside the arch. There are four layers bridging this arch: the innermost layer is of 4 bricks (often with a fragment of brick as a keystone), the outermost of nine bricks. So far, we have encountered nine passages formed with bricks with flat side set inside, not unlike half a cabbage head. Regretfully, the arches of passages on other excavated spots at Hisorak have not survived and we cannot say whether these "cabbage-head" arches were typical of the site. In Citadel I, in any case, most of the passages were higher.

This type of arch is unknown in Panjikent and neighbouring sites. In Samarkand, it is limited (to my knowledge) to niches and passage in only two constructions, one of them of the late 8th century and probably a Muslim shrine, the other similar in plan but with a less clear date (Baimatova 2002: 202–204, 209–211, Table 137, 145, with earlier literature). In Varakhsha, one passage of approximately the same type (among dozens) has been attested (Nil'sen 1966: 249). In one case, the type identical to that at Varakhsha was used in the entrance of Kalai Kahkaha II at the Shahristan oasis (Negmatov/Hmel'nickij 1966: 54–55). The same type of arch is found at Ak-tepe of Tashkent oasis (among other ones, see Baimatova 2002: Table 94, with literature), and it is common also in Ak-beshim (Northern Kyrgyzstan), both in Buddhist and Christian constructions (Baimatova 2002: Table 116; Semenov 2002: 53–58).

This type is very common in Tokharistan. We encounter it in Kafyr-kala, in Kalai Kafirnihan, on Zang-tepa (Baimatova 2002: Table 85, 98 with literature; Nil'sen 1966: 239). It is interesting to note in passing that these arches are very often associated with domed chambers (which are again not known in Panjikent but attested in other parts of Central Asia).

Altogether, the parallels most numerous and closest geographically to these arches of Hisorak are those from Tokharistan sites. As it was said above, Citadel II is a one-layer site. Under the living floors, however, we find constructive floors, which were unearthed in four trenches going through four vaulted rooms. These constructive floors rest on the virgin soil. They comprise a sequence of flat bricks on a base, up to 20 cm thick, of pebbles, clay and straw. A small but expressive assemblage of pottery has been collected from the constructive floor (**Fig. 8**). It comprises the top of a hand-shaped jar with a hole under the rim, a spout, and a wheel-made shoulder with a horizontal band. More important are the fragment of a handle made of good clay with engobe and erasing caruncle from the centre to the top, and the lower part of a well-fashioned, wheel-made jug with a closed top. It has brown engobe with vertical varnish and the well-shaped discoid base with prominent ring and retruded central part. Discoid bases are attested for another two times (Smirnova 2014: 65), and once horizontal varnish was attested. Both these forms have parallels in antiquity period pottery of Central Asia but also in the assemblages of Early Medieval Tokharistan: at Hosiyat-tepa (Annaev 1998: Table XI, XII), Tepei Shodmon (Solov'ev 1996: Table 36, 18) Kobadiyan II and IV (Zejmal' 1969: Figs. XX, XXIV), etc. Discoid bases are fairly common in the bowls of Early Medieval Tokharistan,

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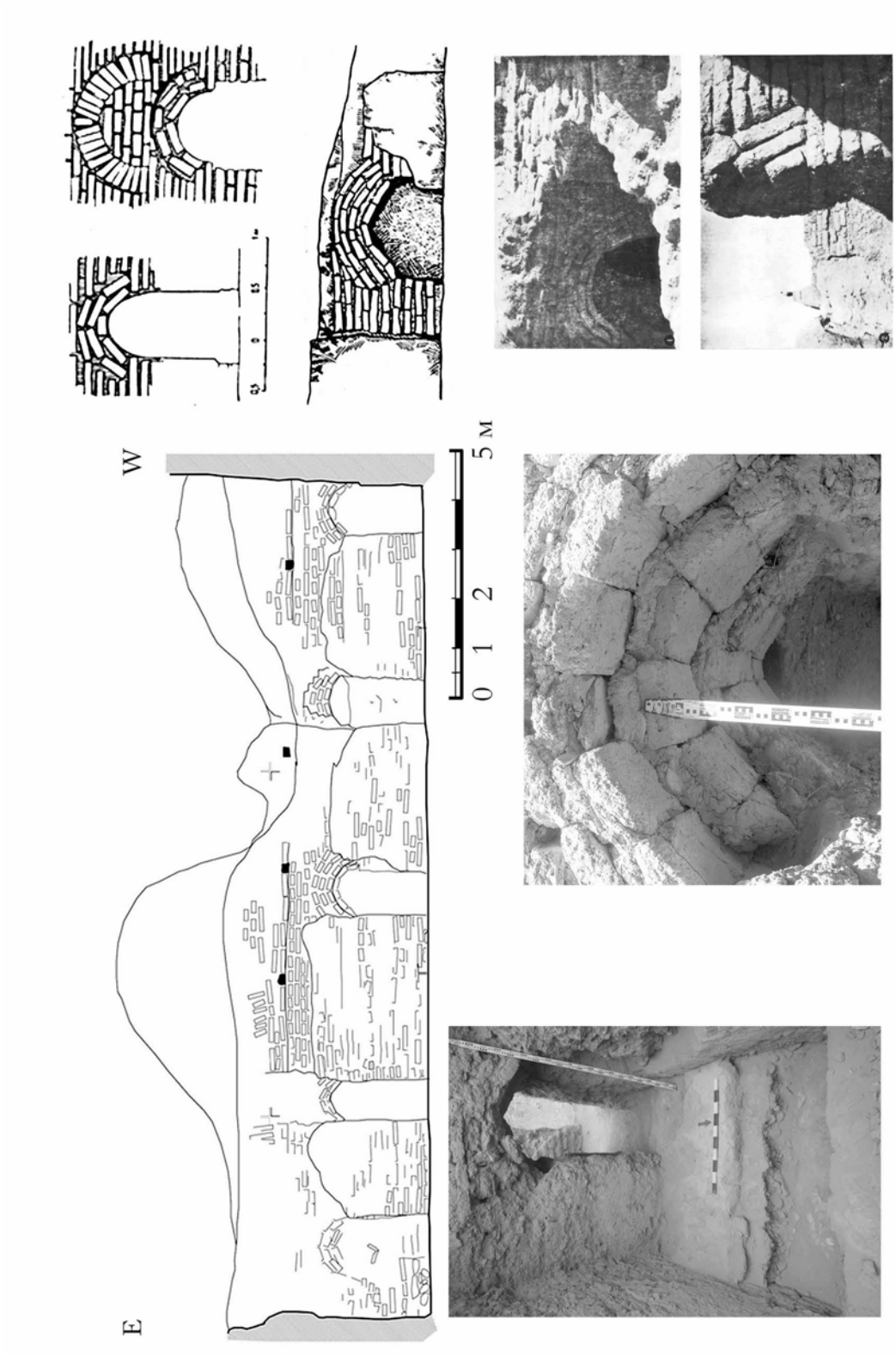


Fig. 7: Left above: cross section of the corridor at Citadel II (I.O. Gurov); left below: details of the arches as well as the constructive floor in room 6 (photos by the author); right: parallels from Zang-tepa (above, after Nilsen 1966: 239), Kafyr-kala (below, after Litvinskij/Solov'ev: table 10).

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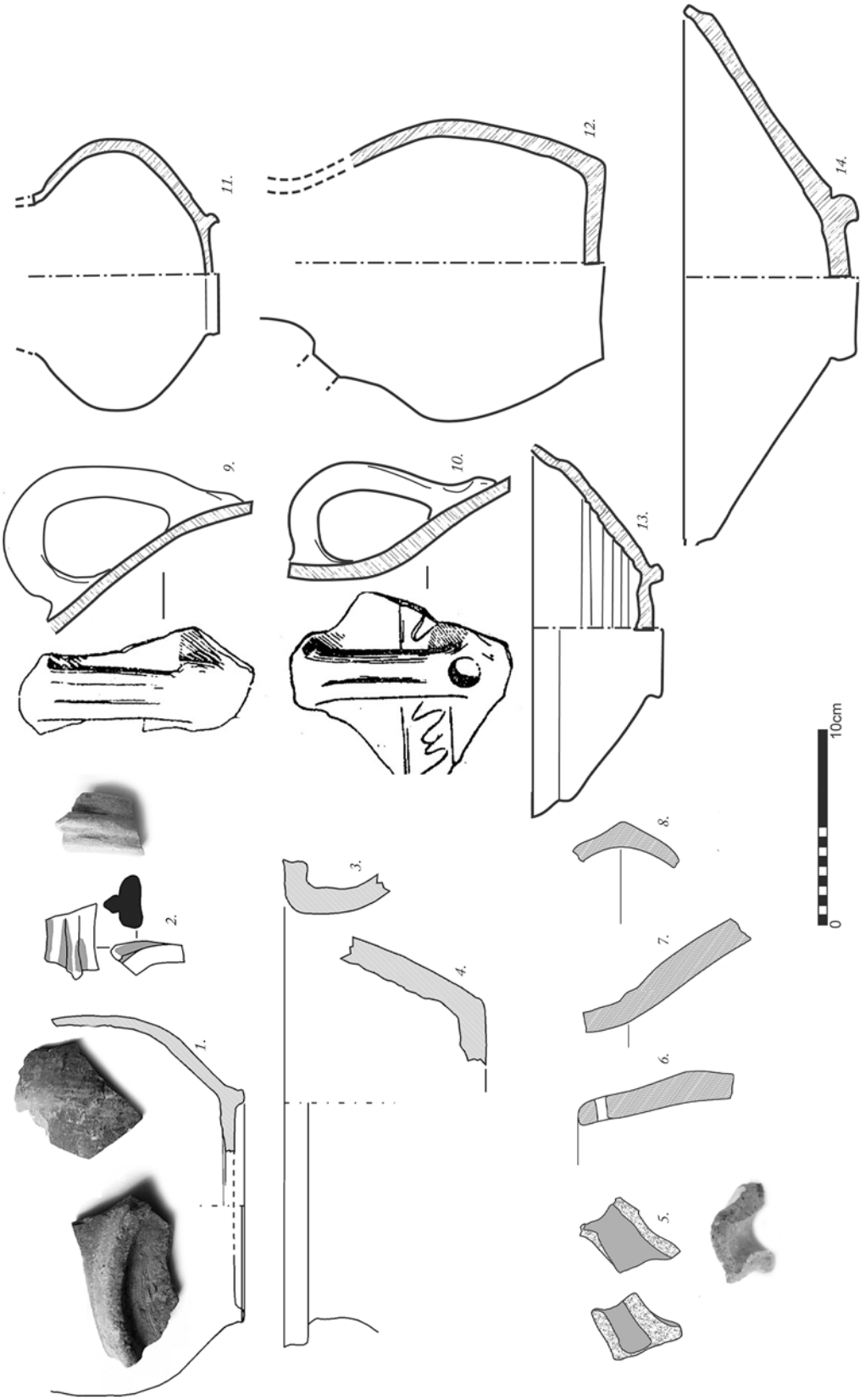


Fig. 8: Pottery complex from the constructive floor of Citadel II (**1:** wheeled, with red engobe outside and brown at the bottom, vertical varnish; **2:** well-mixed clay, dark engobe; **3, 4, 7:** wheeled; **5:** Purple mass; **6, 8:** handmade) and its parallels from Kobadiyan II (**9, 10**: after Zejmal' 1969: Fig. 20, 24), Kafir-kala (**11–14**: after Solov'ev 1996: table 20, 22).

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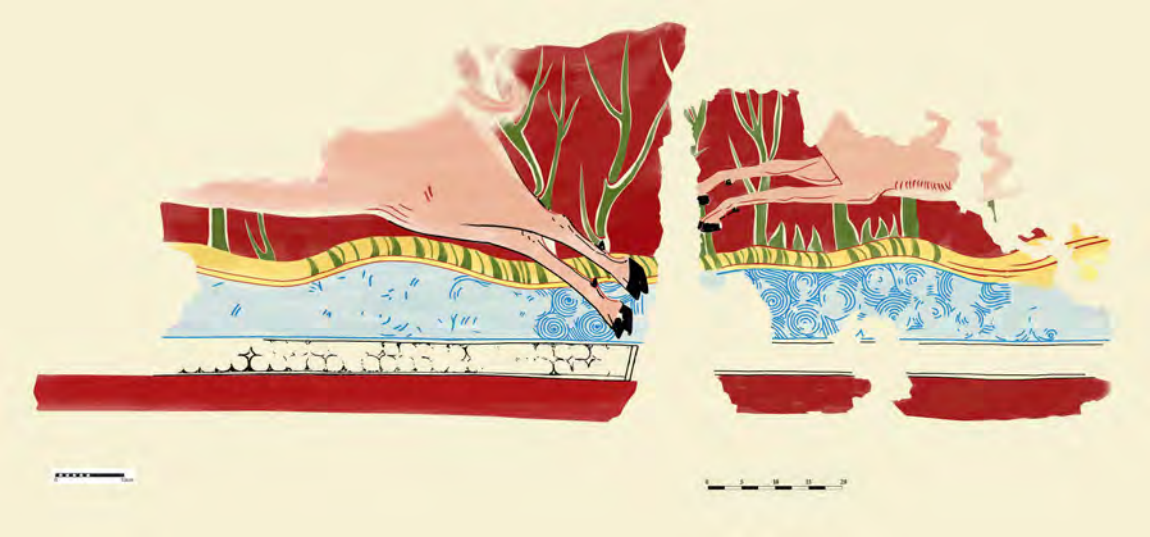


Fig. 9: Wall-painting from Hisorak, Citadel I, room 2 (reconstruction by A.Ju. Stepanov).

and close shapes with this kind of base were found at Kafyr-kala of Vakhsh (Solov'ev 1996: Table 22, 19, 20).

This pottery complex is directly associated with the team of builders who erected Citadel II with its "cabbage-head" arches. When we put together the Tokharistan connections of both the construction model and the pottery set, we can reach a cautions conclusion: possibly Bactrian builders erected Citadel II?

8 Some conclusions. Wall-painting and textual sources

As we can see from the above, Hisorak had definitive connections with the better developed lands to the west, north and south, though retaining its mountain character. This transitional position of Hisorak can also be documented through textual sources. The Muslim sources always include Upper Zeravshan in the land of Ustrushana (Bartol'd 1963: 225), while the Tang Huiyao Chinese encyclopaedia says that the mountains Po-li, i.e. Pār(*γar*), Folγar (region of Ayni), is to the north of the capital of Tuholuo, e.g., Tokharistan (Stark 2009: 6, 30).

The influence of various regions can be seen in the fragmented wall-painting from the "chapel", or winter residence, room 2 of Citadel I (analysed by Lurje/Semenov/Stepanov 2017), which survived loosely in one corner of the room. The painted surface during removal was divided between the wall itself and secondary plaster attached to it, and tracing both parts yielded a legible picture. We see two rams, an adult and a calf, running one after the other along the grassy bank of a river (**Fig. 9**). The painting is of a very elegant quality, and the anatomic details of rams are drawn with accuracy. There can be little doubt that the painting was intended to represent a hunting scene.

The painted rooms of the "chapel" type are known only in Panjikent. In Panjikent, and in Sogdiana in general, the mounted hunt is the very common motif: apart from numerous Panjikent paintings, we see the same in Varakhsha and in the Ambassadors' hall in Afrasiab. The grass is painted green. In small fallen fragments of mural in Citadel II we also find green pigment. In Sogdiana, however, we never encounter the colour green (Kossolapov/Marshak 1999), which is used here abundantly for grass. In Ustrushana (Kahkaha palace) there are some little examples of green; the absence of hunting scenes maybe be due the fact that only two painted rooms have been found. The same pigment of atacamite/paratacamite was used for green at both sites. As for Bactria, the colour green is abundant. However, Buddhist teaching did not propagate cruel hunting imagery. At Tavqa castle, at least, there is a wall-painting with a hunting scene (Rahmonov 2001). However, the interplay of the bodies of rams with the grass forms a perspective rendering unique for pre-Islamic Central Asian art, where background and foreground are always separate from one another, and this was an important step forward by the painter who executed the mural for the lord of Martshkat.

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Bibliography

Annaev, T.D.
1988: *Rannesrednevekovye poseleniâ Severnogo Toharistana*, Tashkent.

Baimatova, N.
2002: *Die Kunst des Wölbens in Mittelasien. Lehmziegelgewölbe. (4.–3. Jt. v. Chr.–8. Jh. n. Chr.)*, Dissertation, Berlin.

Bajpakov, K.M.
1998: *Srednevekovye goroda Kazahstana na Velikom Šelkovom puti*, Almaty.

Bajpakov, K.M./Smagulov, E.A./Eržigitova, A.A.
2005: *Rannesrednevekovye nekropoli Ûžnogo Kazahstana*, Almaty.

Balāḏurī, Aḥmad Ibn-Yaḥyā
Liber expugnationis regionum auctore Imámo Ahmed ibn Jahja ibn Djábir al-Beládsorí,quem e codice Leidensi et codice Musei Brittannici edidit M. J. de Goeje, 1863, Leiden.

Bartol'd, V.V.
Turkestan v èpohu mongol'skogo našestviâ (= Sobranie sočinenij 1), 1963, Moscow.

Brykina, G.A. (ed.)
1999: *Srednââ Aziâ i Dal'nij Vostok v èpohu srednevekov'â. Srednââ Aziâ v rannem srednevekov'e*, Moscow.

Bubnova, M.A.
1999: Verhnij Toharistan, in: Brykina, G.A. (ed.), *Srednââ Aziâ i Dal'nij Vostok v èpohu srednevekov'â. Srednââ Aziâ v rannem srednevekov'e*, Moscow, 144–150.

Âkubov, Û.Â.
1998: *Rannesrednevekovye sel'skie poseleniâ gornogo Sogda (k probleme stanovleniâ feodalizma)*, Dushanbe.

2012: Raskopki pamâtnikov v okrestnostâh Hisoraka v 2011 g., in: Lur'e, P.B (ed.), *Materialy pendžikentskoj arheologičeskoj èkspedicii. Vypusk 14. Otčet o polevyh rabotah èkspedicii v 2011 godu,* St. Petersburg, 65–67.

Hmelnickij, S.G.
2013: *Konstrukciâ i ornament. Očerki istorii arhitektury Srednej Azii*, Moscow.

Hromov, A.L.
1989: K istorii tolkovaniâ toponima Sugd, in: Nafasov, T.N. (ed.), *Onomastika Uzbekistana. Tezisy II Respublikanskoj naučno-praktičeskoj konferencii*, Tashkent, 88–89.

Kossolapov, A.I./Marshak, B.I.
1999: *Murals along the Silk Road (Combined Art Historical and Laboratory Study)*, St. Petersburg.

Litvinskij, B.A.
1972: *Kurgany i kurumy Zapadnoj Fergany. (Raskopki. Pogrebal'nyj obrâd v svete ètnografii)* (= Mogil'niki Zapadnoj Fergany 1), Moscow.

Litvinskij, B.A./Solov'ev, V.S.
1985: *Srednevekovaâ kul'tura Toharistana (v svete raskopok v Vahšskoj doline)*, Moscow.

Litvinskij, B.A./Zejmal', T.I.
1971: *Adžina-Tepa. Arhitektura, živopis', skul'ptura*, Moscow.

Livshits, V.A.
2015: *Sogdian Epigraphy of Central Asia and Semirech'e. Translated from the Russian by Tom Stableford. Edited by Nicholas Sims-Williams* (= Corpus Inscriptionun Iranicarum 2 = Inscriptions of the Seleucid and Parthian Periods and of Eastern Iran and Central Asia 3), London.

Lur'e, P.B. (Lurje, P.B.)
2011: Martškat v sogdijskih dokumentah s gory Mug, in: Lur'e, P.B (ed.), *Materialy pendžikentskoj arheologičeskoj èkspedicii. Vypusk 13. Otčet o polevyh rabotah èkspedicii v 2010 godu*, St. Petersburg, 45–47.

2012: Sogdijskie dokumenty iz raskopok rannesrednevekovogo Martškata (predvaritel'noe soobŝenie), *Indoevropejskoe âzykoznanie i klassičeskaâ filologiâ* 16, 433–460.

2014: Eŝe raz o "kapellah" Pendžikenta i verhnego Zeravšana, *Rossijskaâ arheologiâ* 1, 88–99.

Lurje, P.B./Semenov, N.V./Stepanov, A.Û.
2017: A Wall-Painting From Hisorak, *Bulletin of the Miho Museum* 17, 61–80.

Marshak, B.I.
1972: Sogdijskie terrakoty, in: Institut arheologii Akademii nauk SSSR (ed.), *Tezisy dokladov na sekciâh, posvâŝennyh itogam polevyh issledovanij v 1971 g.*, Moscow, 276–277.

2012: *Keramika Sogda V–VII vekov kak istoriko-kul'turnyj pamâtnik. K metodike izučeniâ keramičeskih kompleksov*, St. Petersburg.

Negmatov, N.N./Hmel'nickij, S.G.
1966: *Srednevekovyj Šahristan* (= Material'naâ kul'tura Ustrušany 1), Dushanbe.

Negmatov, N.N./Pulatov, U.P./ Hmel'nickij, S.G.
1973: *Urtakurgan i Tirmizaktepa* (= Material'naâ kul'tura Ustrušany 2), Dushanbe.

Nil'sen, V.A.
1966: *Stanovlenie feodal'noj arhitektury Srednej Azii (V–VIII vv.)*, Tashkent.

Omelchenko, A.V.
2014: AO. No. 177. Pendant Female Figure, in: Bijl, A./Boelens, B. (ed.), *Expedition Silk Road.*

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Journey to the West. Treasures from the Hermitage. Exhibition Catalogue, Amsterdam, 227.

Pulatov U.P.
1975: *Čil'hudžra* (= Material'naâ kul'tura Ustrušany 3), Dushanbe.

1993: Raskopki Dahkatskoj gruppy v 1984 g., *Arheologičeskie raboty v Tadžikistane* 24, 75–90.

Rahmonov, Š.A.
2001: *Tavka (k istorii drevnih tamožennyh sooruženij Uzbekistana)*, Tashkent.

Savvanidi, N.F.
1992: *Keramika Pendžikenta VII–VIII vv. Kompleksy, tipologiâ i istoričeskaâ interpretaciâ* (avtoreferat dissertacii na soiskanie učenoj stepeni kandidata istoričeskih nauk), St. Petersburg.

Semenov, G.L.
2002: Raskopki 1996–1998 gg., in: Piotrovskij, M. B./Vilinbahov, G. (ed.), *Suâb. Ak-bešim*, St. Petersburg, 11–114.

Semenov, N.V.
2015: Dvernaâ konstrukciâ s citadeli gorodiŝa Hisorak, in: Omel'čenko, A.V./Mirzaahmedov, D.K. (ed.), *Buharskij oazis i ego sosedi v drevnosti i srednevekov'e: na osnove materialov naučnyh konferencij 2010 i 2011 gg.* (= Trudy Gosudarstvennogo Èrmitaža 75), St. Petersburg, 188–201.

Sheyko, K.A./Ivanov, G.P.
2015: *Archaeological Investigations at the Site of Qarshovul (Tashkent Province, Uzbekistan)*. Available at: http://www.exploration-eurasia.com/EurAsia/inhalt_english /frameset_projekt_7.html

Smirnova, O.I.
1953: Arheologičeskie razvedki v verhov'âh Zeravšana v 1948 g., in: Âkubovskij, A.Û. (ed.), *Trudy Tadžikskoj arheologičeskoj èkspedicii. Tom 2* (= Materialy i issledovaniâ po arheologii SSSR 37), 168–188.

Smirnova, L.O.
2014: Keramika iz raskopok gorodiŝa Hisorak 2013 g. (v sravnenii s drugimi pamâtnikami verhov'ev Zeravšana), in: Lur'e, P.B (ed.), *Materialy pendžikentskoj arheologičeskoj èkspedicii. Vypusk 17. Otčet o polevyh rabotah èkspedicii v 2013 godu*, St. Petersburg, 67–80.

Sokolovskaâ, L.F.
2015: *Neglazurovannaâ keramika srednevekovogo Samarkanda kak faktor èkonomiki gorodskogo remesla (po materialam gorodiŝa Afrasiab konca VII–načala XIII v.)* (= Arheologiâ Central'noj Azii. Arhivnye materialy 1), Samarkand.

Solov'ev, V.S.
1993: Raskopki na poselenii Širkent v 1984 g, *Arheologičeskie raboty v Tadžikistane* 24, 328–334.

1996: *Rannesrednevekovaja keramika Severnogo Toharistana*, Yelets.

2007: *Iskusstvo rannesrednevekovogo Toharistana*, Yelets.

Stark, S.
2009: *Transoxanien nach dem Tang Huiyao des Wang Pu. Übersetzung und Kommentar*, Norderstedt.

Staviskij, B.Â.
1998: *Sud'by buddizma v Srednej Azii (po dannym arheologii)*, Moscow.

Staviskij et al.
2000a: Otčet o raskopkah rossijsko-tadžikskoj arheologičeskoj èkspedicii (RTAÈ) na verhnem Zeravšane v 1998 g., *Arheologičeskie raboty v Tadžikistane* 27, 59–70.

2000b: Ispol'zovanie gliny (lessa) v ubranstve inter'era domusul'manskogo dvorca v Hisorake, in: Alpatkina, T.G. et al. (ed.), *Srednââ Aziâ. Arheologiâ, istoriâ, kul'tura. Materialy meždunarodnoj konferencii, posvâŝennoj 50-letiû naučnoj deâtel'nosti G.V. Šiškinoj (Central Asia. Archaeology. History. Culture. Proceedings of the International Conference Held in Commemoration of the 50th Jubilee of Scholarly Endeavor of G.V. Shishkina)*, Moscow, 239–244.

Teplâkova, A.N.
2013: Tablica. Tkani, najdennye na gorodiŝe Hisorak v 2011–2012 gg., in: Lur'e, P.B (ed.), *Materialy pendžikentskoj arheologičeskoj èkspedicii. Vypusk 15. Otčet o polevyh rabotah èkspedicii v 2012 godu*, St. Petersburg, 59–64.

2014: Rabočij spisok tekstil'nyh nahodok iz citadeli II Hisoraka v 2013 g., in: Lur'e, P.B (ed.), *Materialy pendžikentskoj arheologičeskoj èkspedicii. Vypusk 17. Otčet o polevyh rabotah èkspedicii v 2013 godu*, St. Petersburg, 55–59.

Zejmal', T.I.
1969: *Vahšskaâ dolina v drevnosti i rannem srednevekov'e. Arheologičeskie pamâtniki i dinamika irrigacionnyh sistem levoberež'â doliny. Avtoreferat dissertacii na soiskanie učenoj stepeni kandidata istoričeskih nauk*, Leningrad.

Zejmal', T.I./Rtveladze, È.V.
1999: Severnyj Toharistan, in: Brykina, G.A. (ed.), *Srednââ Aziâ i Dal'nij Vostok v èpohu srednevekov'â. Srednââ Aziâ v rannem srednevekov'e*, Moscow, 131–143.

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The Buddhist Monastery of Krasnaya Rechka Settlement

The main findings 2010–2015

Asan I. Torgoev, Alexey V. Kulish, Evgeny A. Kiy, and Valery A. Kolchenko

Abstract: This paper presents the main results and material finds of the joint Kyrgyz-Russian archaeological expedition of the State Hermitage Museum and the Institute of History and Cultural Heritage (National Academy of Sciences, Kyrgyz Republic) on the Krasnaya Rechka settlement (Northern Kyrgyzstan). From 2010, the expedition was engaged in exploratory work at one of the constructions of the complex, which is considered to be the largest Buddhist monastery in the northern Tianshan region. Judging from the finds, the construction is one of the temples of the monastery. This paper gives an outline of the history of archaeological exploration of the site, its topography, and a general description of the temple, the different periods of its construction history, and the main finds, which include the clay sculpture and mural fragments.

Keywords: Northern Kyrgyzstan, Krasnaya Rechka site, Buddhist architecture, Buddhist monastery, Buddhist art.

Резюме: В статье представлены основные результаты и описание находок совместной Кыргызстанско-Российской археологической экспедиции Государственного Эрмитажа и Института истории и культурного наследия (Национальная академия наук, Кыргызская республика) на городище Красная Речка. С 2010 года экспедиция проводила раскопки крупной постройки, входящей в комплекс, который, как оказалось, является крупнейшим буддийским монастырем в Северном Тянь-Шане. Исходя из полученных в ходе раскопок материалов, постройка была определена как буддийский храм. Статья включает историю археологического исследования памятника, общее описание топографии монастыря и конструкции храма по строительным периодам. Отдельное внимание уделено находкам, среди которых значительное количество фрагментов глиняной скульптуры и остатки настенной живописи.

Ключевые слова: Северная Киргизия, городище Красная речка, буддийская архитектура, буддийский монастырь, буддийское искусство.

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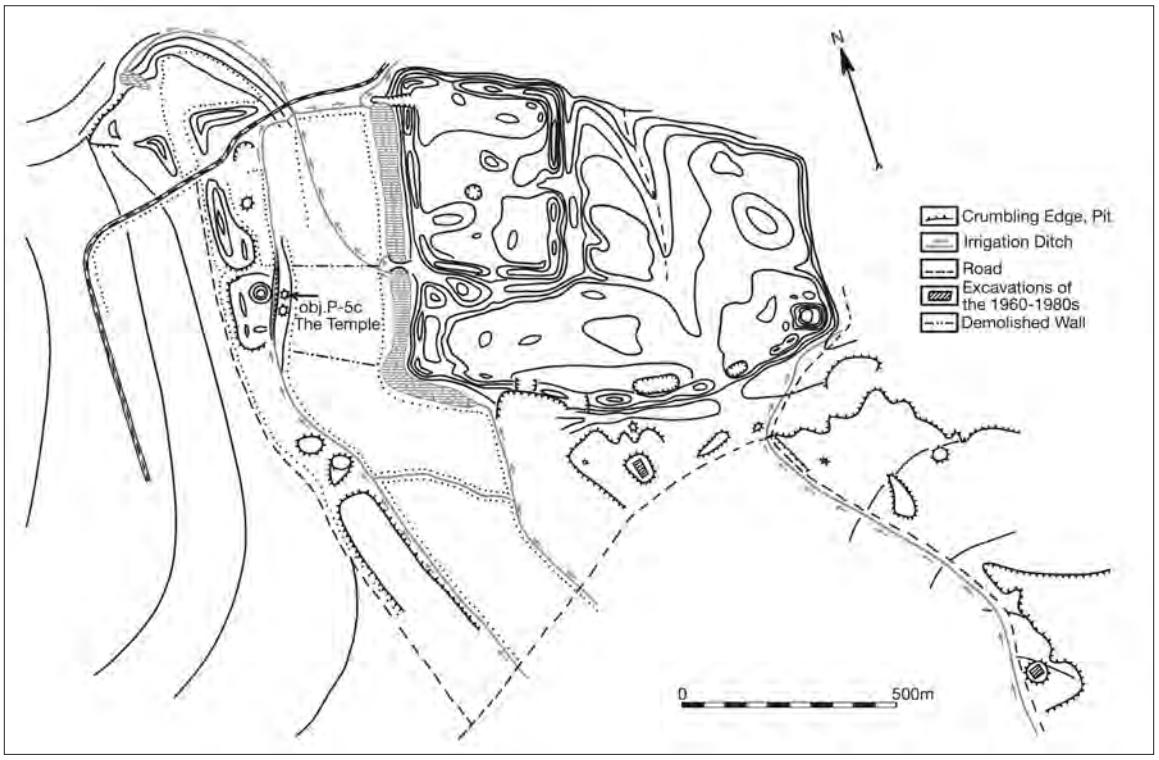


Fig. 1: Topographic plan of Krasnaya Rechka settlement (after Valentina Goryacheva and Asan Torgoev, © TShAE).

1 Introduction

One of the main aims of the joint Kyrgyz-Russian archaeological expedition (also known as the Tian-shan Expedition) of the State Hermitage and the Institute of History and Cultural Heritage (National Academy of Sciences, Kyrgyz Republic) is to conduct exploratory work at the Krasnaya Rechka site (**Fig. 1**), which was the largest mediaeval town in the entire Chu Valley, located 36 km east of Bishkek. The site, which has a complicated topography, has five main parts: citadel, two *shahristans* (the city's walled area) with a vast area to their west, including so called western and southern extensions, and a suburban area (*rabad*) enclosed within a long wall. The town existed from the 8th up to the beginning of the 13th century, reaching its largest territorial extent during the 10th and 11th centuries. From the second half of the 11th century, the town began to decline and at the beginning of the 13th century the settlement, largely reduced in size, was destroyed by fire, caused either by a rebellion of the Naiman nomad leader Kuchlug against Gur-khan, a ruler of Qara-Khitai, which took place in 1210, or, less likely, by the military campaign of Chinggis-khan (Genghis Khan) in the Tian Shan region.

It is possible that the initial settlement on the site can be identified as the city of Navekat (Nevaket), known from a number of written sources. The first accurately dated source mentioning the town is a Sogdian prenuptial agreement (dated 711 CE) from the Devashtich archive found on Mount Mugh (in present-day Tajikistan). However, at this moment no layers that could be dated earlier than the second quarter of the 8th century CE have been found. It is difficult to say what the name of the city was during the Qarakhanids period; it is quite possible that it had the old Sogdian name and a second, Turkic one, at the same time.

The Kyrgyz-Russian archaeological expedition started excavations on the site in 2007. The main objectives included a comprehensive study of its structure, and the development of microstratigraphics and a workable chronology. The expedition continued the work of V.D. Goryacheva, who investigated those places on the site that were destroyed as a result of human activity or natural forces.

The study of the complex with a large triangular mound at its centre began in 2010, in the "southern extension" of the settlement. Here, the remains of a Buddhist temple have been found, the third one on the site. During the six field seasons, the temple was completely unearthed and conserved. The mound that conceals the temple was part of a complex of several ruined constructions and so it is helpful to start with a description of the topographical characteristics of the complex.

The ruins of the Buddhist temple are located in the western part of the settlement. The temple forms part of a larger architectural complex at the centre of which is a high pyramidal mound visible from afar (**Fig. 2**). Baipakov and Goryacheva describe the complex as follows: "The 'western extension' is

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Fig. 2: Topographic plan of the complex with a large triangular mound in the centre (drawing by Valery Kolchenko and Alexey Kulish, © TShAE).

dominated by a complex of buildings with a rounded mound in the centre. The complex is surrounded with walls on four sides and bounded on the east by two other large mounds referred to by Kozhemyako as a citadel" (Bajpakov/Gorâčeva 1989: 71). In fact, the complex with the pyramidal mound in the centre is located in what Bernshtam called the "southern extension", and not in the "western extension" as claimed by Baipakov and Goryacheva (Bernštam 1950: 12). On the north, the "southern extension" abuts the southern wall of the "western extension". The wall had been demolished before 1954 and was

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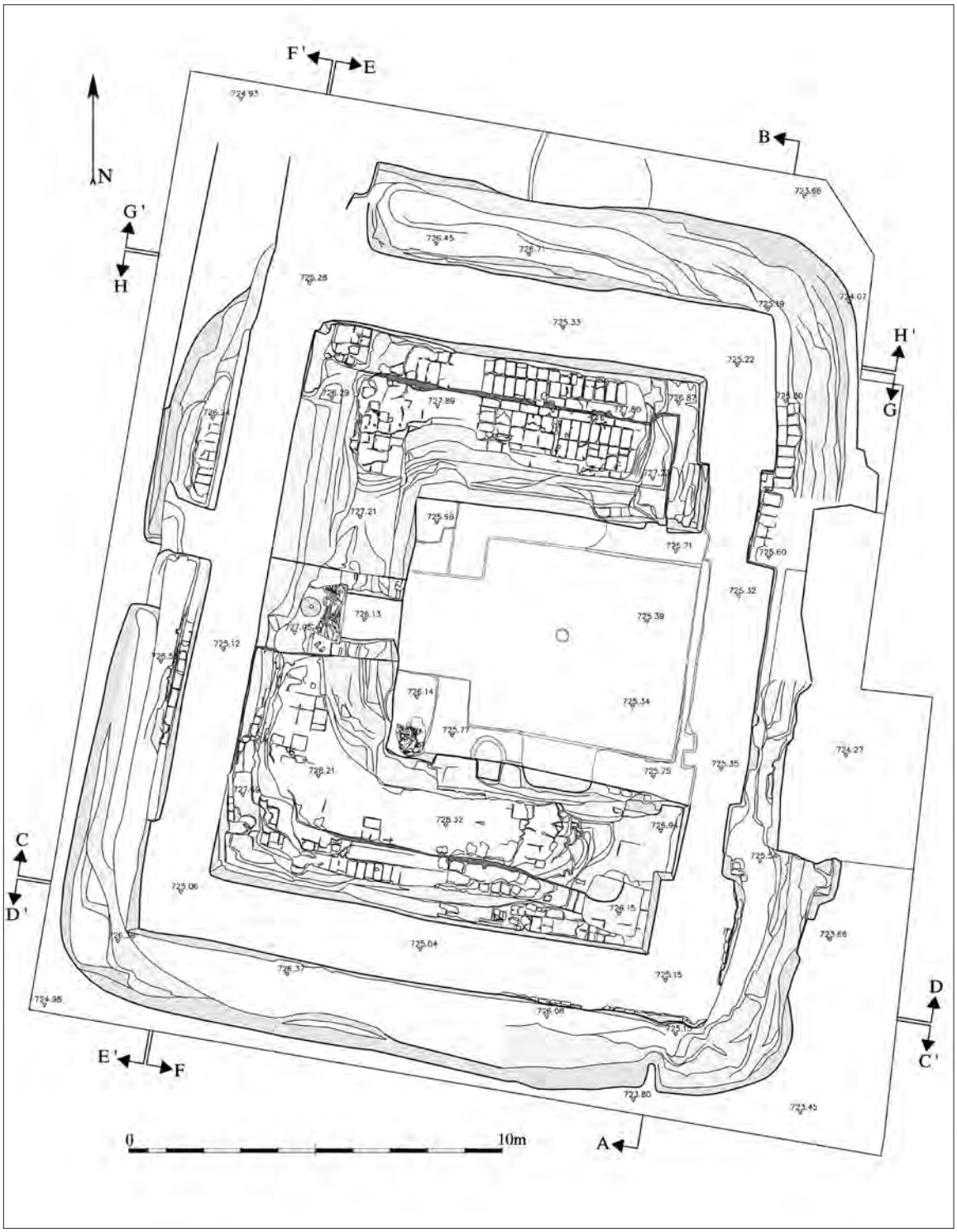


Fig. 3: Plan of the Buddhist temple (drawing by Alexey Kulish, © TShAE).

not plotted on Kozhemyako's plan (Кожемâко 1959: 66, Fig. 1), but is present on the plan dating from 1940 (Бернштам 1950: Table VIII). However, the surviving remains of the southern wall of the "western extension" can still be traced, with a deep and wide ravine in front that separates them from the walled complex in the "southern extension".

The complex is cut across from south to north by a deep irrigation ditch (*aryk*) with uneven crumbling edges. In some places, the *aryk* bed is paved with concrete slabs, and there is a ferro-concrete sluice in the northern part of the ditch; these features were presumably installed after the ancient channel of the *aryk* (plotted on the 1940 map) had

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Fig. 4: Cross-section of the entrance hall (drawing by Alexey Kulish, © TShAE).

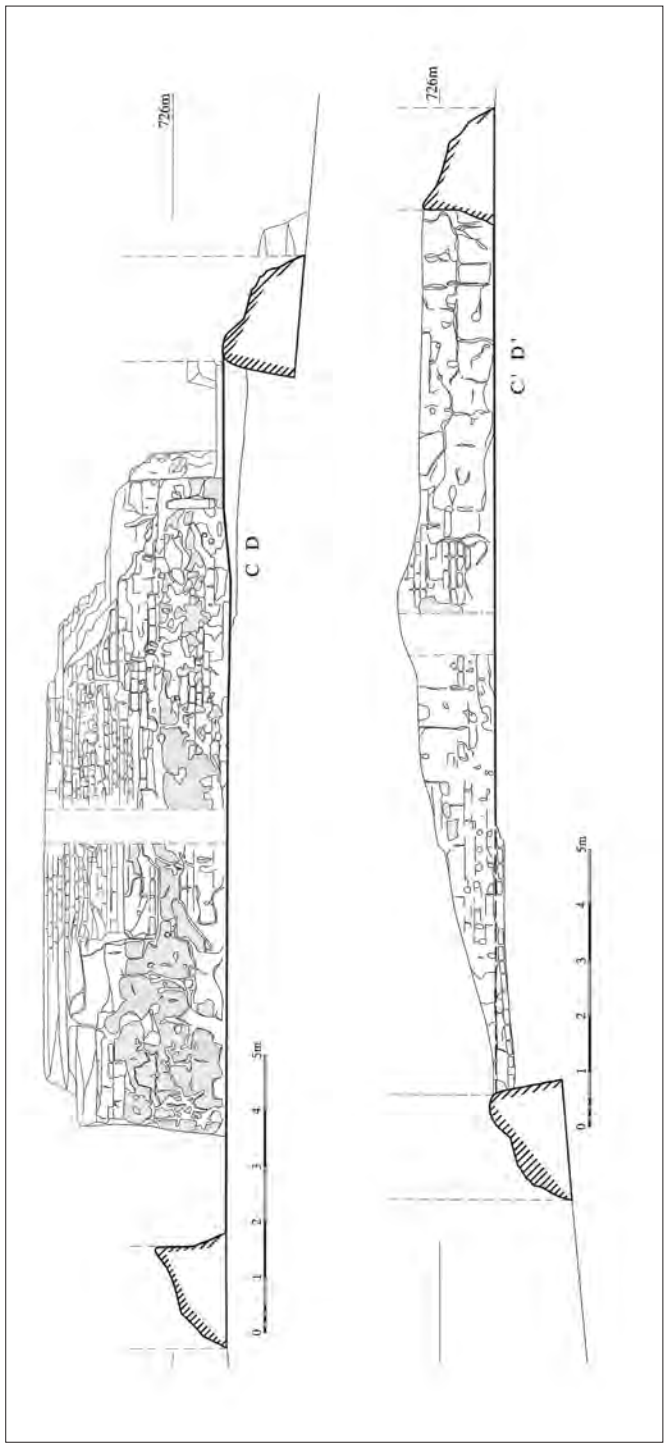


Fig. 5: Cross-section of the southern bypass corridor (drawing by Alexey Kulish, © TShAE).

been widened. The *aryk* divides the complex into two parts, with most of the ruined structures and the pyramidal mound being located on the western side of the ditch, and two other separate mounds (northern and southern) being on the eastern bank (see **Fig. 2**). The base of the mounds nearly converge on the central axis of the pyramidal mound along an east-west line. The southern mound has an irregular oval-shaped plan and is larger than the northern mound. Two deep converging depressions were found on the top of the mound. The northern mound, where excavations have been ongoing since 2010, has an egg-shaped plan and is somewhat extended in a north-south direction, with a deep oval depression at its centre. The area to the north of the mound is relatively flat except for faint traces of a rampart, which may have been the northern wall enclosing the complex. No conspicuous elevations or depressions are distinguishable apart from a conical hollow (possibly of recent origin) opposite the north-western sector of the mound that has had its base visibly eroded by the *aryk*.

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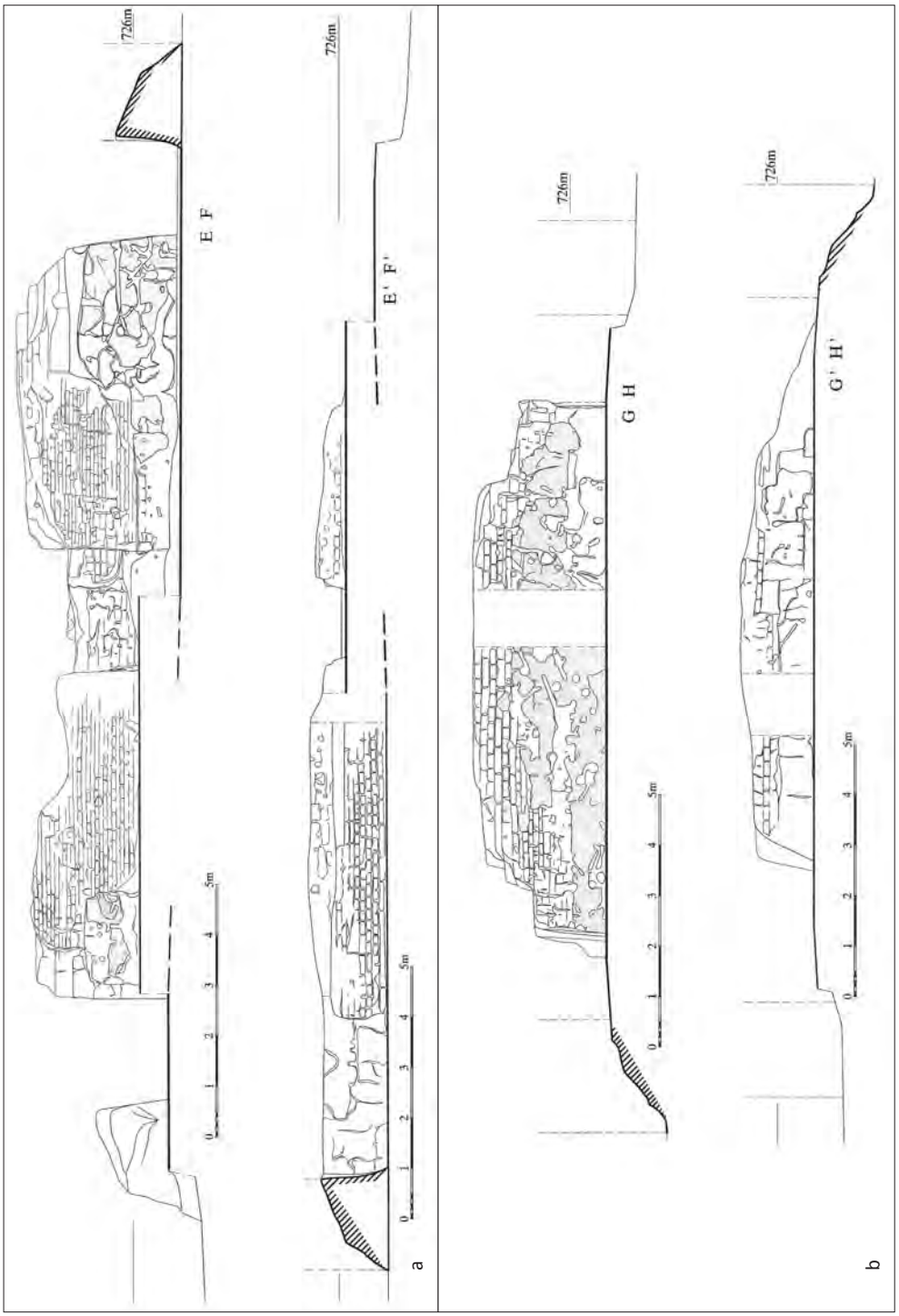


Fig. 6: Cross-section of the western (**a**) and northern (**b**) bypass corridor (drawing by Alexey Kulish, © TShAE).

These prominent features in the landscape of Krasnaya Rechka have long attracted the attention of archaeologists. Excavations on the central triangular mound were first conducted by A.N. Bernshtam in 1938, when a trench was cut across part of the mound on its north-west side (Gorâčeva 2010: 97, Fig. 43). The triangular mound was further explored by P.N. Kozhemyako, who dug a long narrow trench on its western side (Gorâčeva 2010: 97). V.D. Goryacheva also excavated within the complex in the 1980s and 1990s.

V.D. Goryacheva confidently interpreted the central triangular mound of the complex as a Zoroastrian fire temple, based on its similarity to a construction on the site of Kurgan-tepa on Miankal (Central Sogd), partially explored by G.A. Pugachenkova (Gorâčeva 2010: 97–98). The construction had a high-stepped platform and a small hall surrounded by corridors. G.A. Pugachenkova's interpretation of the building as a temple was challenged in a monograph by V.G. Shkoda, who has clearly shown that this structure could not be a temple because of its small

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Fig. 7: Buddha statue in lotus position in the altar room (photo by Asan Torgoev, © TShAE).

size and consequently its lack of space for collective meetings (Škoda 2009: p. 66). "A large amount of multi-layered clay daub" on the north-western side of the central mound mentioned by V.D. Goryacheva (Gorâčeva 2010: 96) may well have resulted from later use of the mound; during the Qarakhanid period, for example, it may have been used as a beacon tower. In addition, in 2010–2011, traces of the production of ceramics were found relating to a time not earlier than the 10th century. Thus at the beginning of our research on the northern mound of the complex in 2010, we already had doubts that this complex was the remains of a Zoroastrian fire temple.

Following the discovery of the Buddhist temple on the northern mound of the site and its exploration in the 2010 to 2015 field seasons, one may safely suggest that the central pyramidal mound is a large stupa and that the whole complex is one of the largest Buddhist monastery in northern Tianshan.

2 The architecture of the temple

The temple is a detached building that measures 23.5 × 20.4 m and is aligned north-south (**Figs. 3–6**). The structure of the temple includes a cella with a bypass or circumambulatory corridor. Near the entrance to the cella, there is a hall which visitors reached from outside before proceeding to the cella or to the southern and northern sections of the bypass corridor.

Three periods can be identified in the temple's construction, and in what follows there is a more detailed description of each of the main architectural features.

The foundation of the temple is a rectangular cella measuring 8.0 × 6.9 m and set on an east-west orientation. The walls of the cella have been preserved to a height of 3.3 m above the level of the main floor (i.e. the floor of the second period). Despite the fact that the walls have survived at such a significant height, the plaster with paintings inside the cella has not been preserved, except for one small fragment in the south-western corner on the south wall. The thickness of the southern wall is 4.5 m, of the western wall 3.7 m, and of the northern wall 4.2 m.

The cella does not have an eastern wall; instead, there is a line half a brick thick that has been preserved at the full height of two bricks (0.2 m). This line of bricks was made at the time when the floor in the hall in front of the cella was lifted during the last reconstruction of the temple.

The walls of the cella, which in the initial period of their existence played the role of a portal in front of the stupa, are made of mud bricks measuring 40 × 40 × 10 cm and 51 × 26 × 10 cm. It is important that during the first construction period of the temple, both square and rectangular bricks were used. We can now maintain that the use of square bricks 40 × 40 × 10–12 cm (the so called "Kushan" standard brick) is typical, especially for the earliest period of the existence of the temple. It is still unknown whether or not square bricks were used anywhere else in the settlement and in other archaeological sites of the Chu Valley.

A small altar room (1.05 × 1.40 m) was located inside the western wall (in the middle or slightly off-centre to the south). Niches divided into two compartments by partitions were constructed in the

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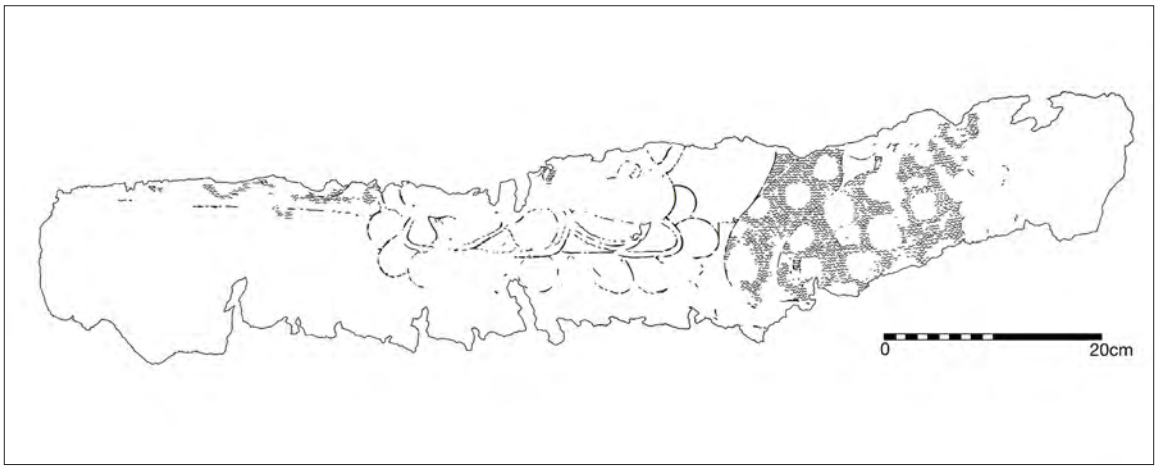


Fig. 8: Fragment of a mural with the Buddha on the lotus throne. Southern wall of the cella (drawing by Elena Stepanova, © TShAE).

southern and northern walls ca. 1 m above the floor. The end of the partitions takes the form of semi-oval half-columns covered with stamped decorations (pearl and diamond pattern). The half-columns possibly rested on apple-shaped bases. The niches may have held lamps and presumably served as places where worshippers could leave their offerings.

The figure of a seated Buddha 90 × 154 × 84 cm was located in the rear section of the altar room (**Fig. 7**). This sculpture was preserved in situ to about one-third of the torso. The legs under the folds of the dress are crossed in the lotus position (*padmāsana*) and have suffered only minor damage. The outlines of the destroyed feet are clearly visible. The left forearm, covered with garment folds ending in volutes, rests on the left leg. The hand, broken off at the wrist, was not found. A fairly broad relief band, presumably representing garment folds, sweeps over the crossed legs. Two relief bands depicting the garment (ribbons?) can be seen on the pedestal at the foot of the sculpture. The bands coil into a palmetto-like pattern at the point where the legs intersect.

The Buddha statue is mounted on a rectangular pedestal 18 cm thick that projects beyond the niches by more than 15 cm. The statue was made on a frame of reed stems bound together by ropes. Judging by the hole (ca. 15 cm in diameter) that can be distinctly seen from above, the statue probably had a wooden core. The sculpting technology is most visible on the section where the left hand was lost, with a shallow depression indicating where the decomposed reed or wooden frame would have supported the figure's wrist. The frame was first covered with a modelling layer consisting of brownish clay, which was later encased in a shell of red sculptural clay into which the outer parts of the statue were modelled. A thin coat of white primer was then applied to the sculpture; the bonding agent is yet to be identified. The paint (red, orange, ochre, ultramarine and black) was fairly well preserved, albeit with some exfoliation, peeling and craquelure; the colours may also have changed over time.

The surface of the sculpture is now covered with a network of cracks and ruptures caused by plant roots and small rodents. The damage is particularly visible on its left side, where numerous roots have grown through the garment over the arm. During conservation, the statue and the pedestal top were carefully unearthed and strengthened with various consistencies of polybutylmethacrylate solutions in acetone and subsequently fixed with two layers of gauze (a technique developed by the Laboratory for Scientific Restoration of Mural Painting of the State Hermitage Museum).

To the right of the sculpture were found traces of feet which presumably belonged to a figure standing beside the Buddha (possibly a bodhisattva). No similar remains were found on the left (probably due to the poor state of preservation of this part of the sculpture).

The western wall of the cella has pedestals for sculptures on both sides of the entrance to the altar room, which is located in the centre of the western wall. Along the northern and southern walls in the cella, there were severely destroyed *sufas* that were 1.1 m in width and that in the west adjoined the pedestals of the sculptures. The best-preserved pedestal is to the south of the entrance to the altar room; it is rectangular, 2.5 × 1.13 m, and its height does not exceed 0.3 m above the badly preserved surface of the *sufa* along the southern wall.

In the interior of the cella, murals and wall sculptures made of unfired clay were widely used. The sculpture was partly gilded, since tiny pieces of gold have been found. The gilding, along with the wooden ceilings and the sculpture frames, were apparently the reason why the temple was plundered and so fell into ruin.

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Fig. 9: The hand of a bodhisattva(?) with flaming pearl. Clay sculpture (photo by Alexandr Lavrent'ev, © TShAE).



Fig. 10: The hand of a bodhisattva(?) with petal rosette. Clay sculpture (photo by Alexandr Lavrent'ev, © TShAE).

In the south-western corner of the cella, a painting fragment was preserved in situ. Its length is 1.1 m and its height no more than 18 cm (**Fig. 8**). On the pale (slightly yellowish) background there are traces of thin red lines marking out the contours of the lotus throne on which a sitting Buddha was depicted, but only the lower part of the figure has been preserved.

In the altar room, the entire space in front of the main Buddha statue was filled with broken fragments of it and of the figures standing beside it. These include well-preserved fragment of a bodhisattva's (?) hands: one of them with a flaming pearl in the palm (**Fig. 9**), the other holding a petal rosette (**Fig. 10**). In front of the sculpture of the Buddha, some of its broken-off fingers and fragments of an unfired clay Buddha figurine, probably a fragment of a mandorla decoration, were found (**Fig. 11**). In front of the altar room, on the poorly preserved floor, a number of fragments of the main Buddha figure have been found: a large piece of torso and parts of the left half of its face and the right ear, and a fragment of the hairstyle.

In the south-western corner, the remains of the sculptural composition have been uncovered on the pedestal. Due to the extremely poor state of preservation, it is difficult to determine the nature and figures depicted. The remains consist of a semi-oval form that probably represented a figure covered



Fig. 11: The fragments of unfired pressed shallow Buddha figurines. Clay sculpture
(photo by Alexandr Lavrent'ev, © TShAE).

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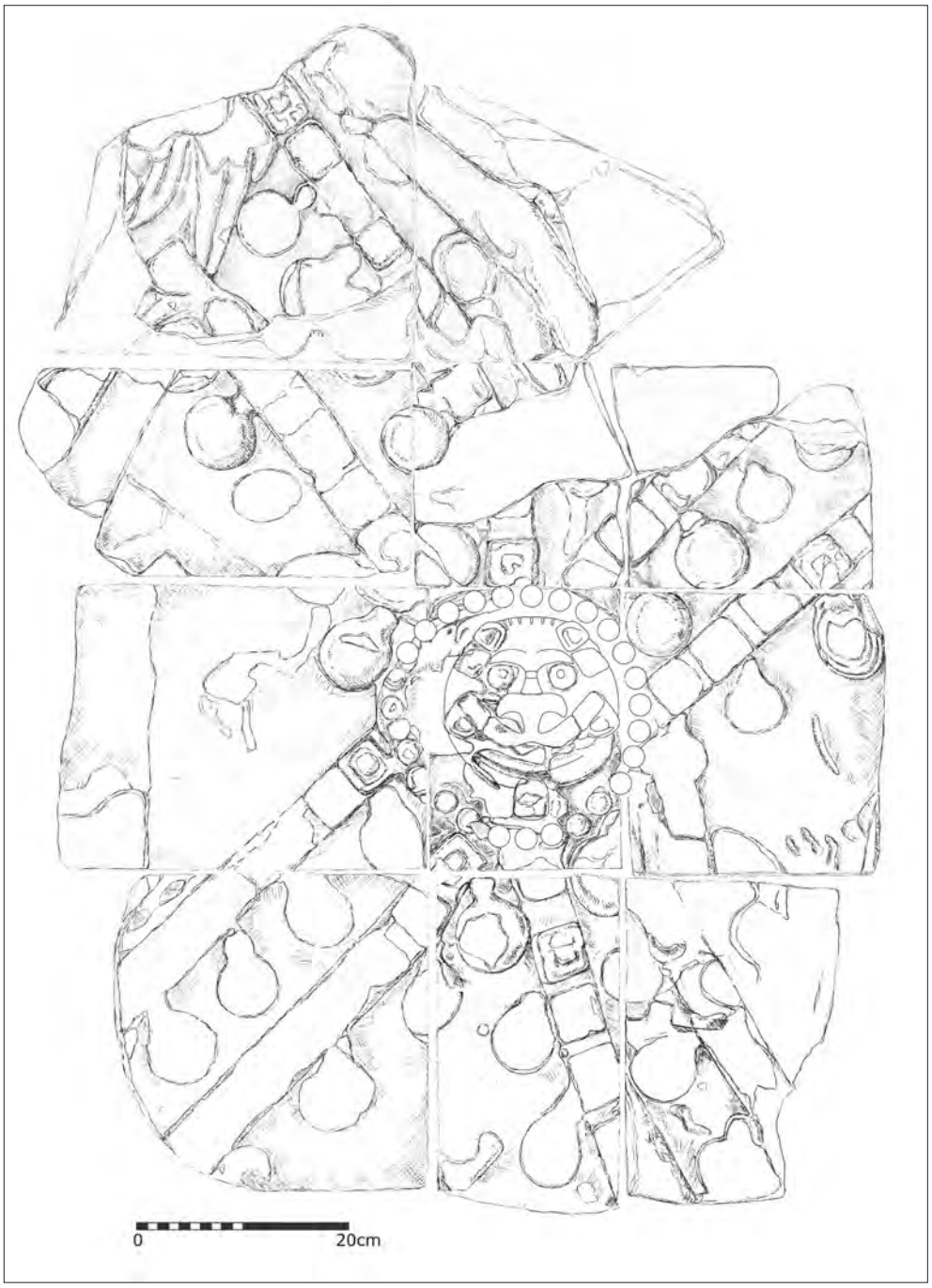


Fig. 12: The fragment of torso with ribbons and medallion depicting Kīrtimukha. Clay sculpture (drawing by Alexey Kulish).

with the folds of some clothing. Some small indistinct relief fragments with traces of white primer were also found.

In the southern sector of the cella, in front of the passage into the altar room, a large fragment of the torso of a wall sculpture made of red clay was found face down. The torso is decorated with diagonally intersecting ribbons and small bells; in the centre of the intersection of the ribbons there is a large round medallion depicting roaring faces, often referred to as Kīrtimukha, Indian mythological creatures of a protective nature (**Fig. 12**).

Together with this fragment in the south-eastern sector, four mural fragments were discovered practically in the central part of the cella, face down in a solid layer under the debris covering the floor. In the north-eastern sector, a large fragment of a decorative semi-column fully covered with badly pre-

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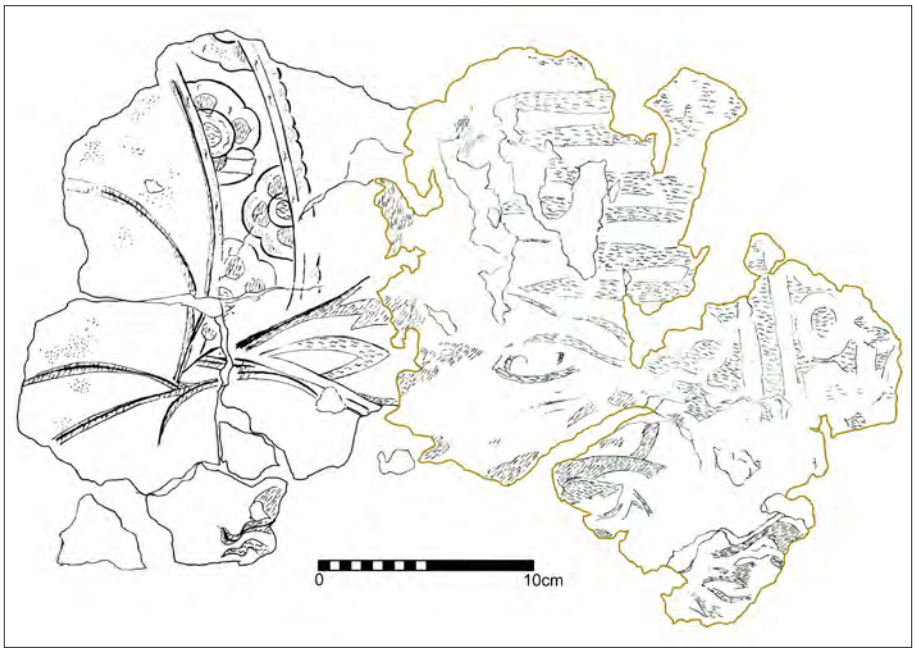


Fig. 13: The fragment of mural from northern bypass corridor showing the layers of painting (drawing by Olga Viktorova and Asan Torgoev, © TShAE).

served ornamental painting was discovered. The painting features geometric and cloud-like motifs combined with semi-palmettes.

Near this semi-column, the remains of a bas-relief measuring 1.1 × 0.85 m was unearthed. This is an arch (probably a mandorla) framed in pearl lines, the number of pearls decreasing near the bottom. The internal space between the curves of the arch was painted in several layers, mostly with red. Above the pearls there were moulded palmettes with traces of colour pigments: the middle of the palmettes was blue, the petals red.

At the entrance to the southern section of the eastern wing of the bypass corridor, stamped curls of hair of a large sculpture were found among the deposits of the upper floor level (Torgoev et al. 2013: 199, Fig. 3). This find, together with the fairly large fragments of red-clay sculptures retrieved from the southern section of the bypass corridor in 2010, confirmed the identification of the whole site as a Buddhist temple.

On the eastern side, in front of the cella, there is a sector 7.0 × 1.8 m extending south-north (**Fig. 3**). This was a pre-entrance part of the cella: after going through the wide passage from the outside through this sector, a visitor would come to the cella or to the bypass corridors, so it can be interpreted as an entrance hall for the temple. In fact, this sector is basically the central part of the eastern bypass corridor. However, the pylons in the aisles leading to the southern and the northern sections of the eastern bypass corridor suggest the possibility that the sector in question was a separate room. Obviously, these pylons once served as bases for the arches of these passages.

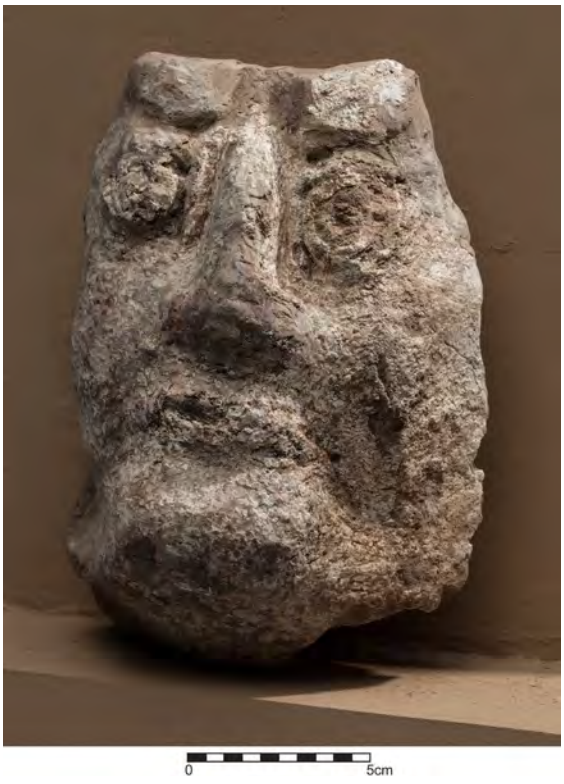


Fig. 14: The head of fierce deity(?) (photo by Alexandr Lavrent'ev, © TShAE).

Most likely, a person would come in from the outside on the wide stairway or, less likely, on the ramp.

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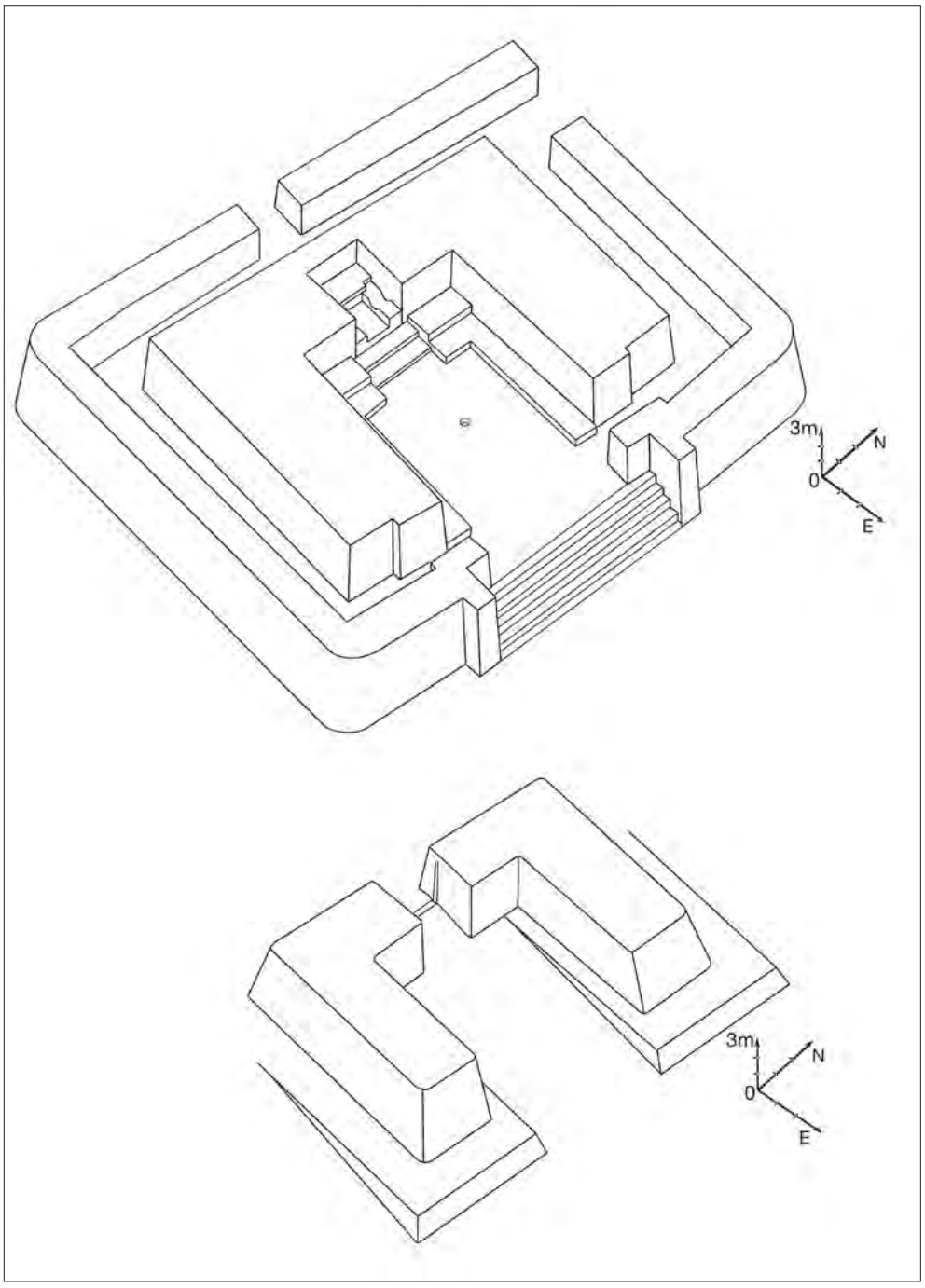


Fig. 15: Axonometric reconstruction of the first and second construction periods (after Asan Torgoev and Alexey Kulish, drawing by Alexey Kulish, © TShAE).

It is clear that the height of the stairs was about 1 m. The stairway itself is almost entirely demolished, though its presence is proven by the discovery of a large amount of the alabaster plastering of the stairs and by broken fired bricks that were probably used to build the stairs. Apparently, these fired bricks were almost completely removed after the final destruction of the temple under the Qarakhanids.

The bypass corridors (**Figs. 5–6**), largely due to their narrowness (the width of the southern and western bypass corridors is 2.0 m, that of the northern corridor 1.8 m), have preserved the remains of the last construction period of the temple, when the floor in the corridors was lifted by 0.7 to 1.05 m. Almost in the middle of the western bypass corridor, there was a passage to the stupa which was in use during the entire period of the temple's existence. In the final period of the temple's functioning, the walls of the bypass corridor were covered with murals. On the eastern wall of the western bypass corridor a

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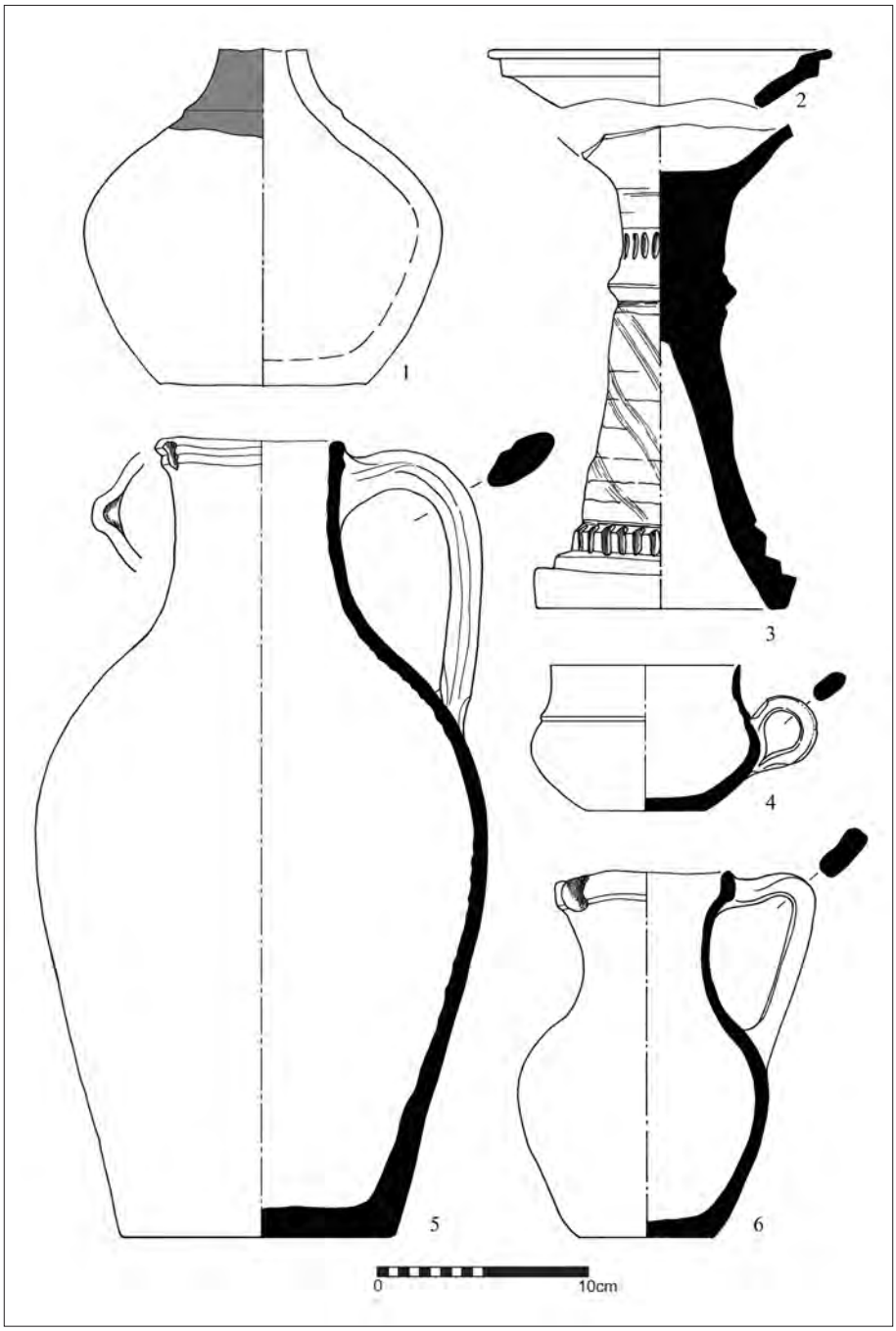


Fig. 16: Ceramics of the second construction period (drawing by Asan Torgoev ,©.TShAE).

few blue and red pigments have been preserved, but the images are indiscernible. Judging by the remains of murals found in the debris in the northern corridor, during the final period of the temple's existence, extremely primitive paintings were applied to the wall, which had been covered in white plaster. In the early period, the corridors also had paintings; judging by the most well-preserved fragment, they were executed on the clay plaster. On the best-preserved piece, one can almost discern a picture of the edge of a caftan belonging to an unknown figure, probably a donor (**Fig. 13**). This mural is painted in a manner that is close to that of Buddhist painting of Eastern Turkestan. The head of a fierce deity (?) was also found in the northern bypass corridor (**Fig. 14**).

3 The construction history of the complex

Three major periods in the construction history of the temple have been identified, the discernible changes being related to the expansion of the temple, but not to the core of the internal area of the

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cella, which went through only repairs and renovations.

The first construction period

The original walls of the cella are made of mud bricks 40 × 40 × 10 cm, the total original thickness of the northern and southern walls being 2.8 m. In plan, the original building was obviously Π-shaped and fully open on the eastern side (**Fig. 15b**). The portal was built on uneven ground which had a natural slope to the east.

Originally, the middle of the western wall had a passage that was 2.25 m wide. Here it is important to note that the northern mound stands on the same axis (east-west) as the large triangular mound, and it seems that this wide passage could have been a central passage to the stupa. Later, an altar room was created in this passage. During the first period of the temple's existence, it did not have bypass corridors, which proves that initially it was conceived not as a shrine but as an entrance portal to the stupa.

It is obvious that wall sculptures stood in the interior of the portal. This can be proved by the presence of shapeless fragments of red sculptural clay, sometimes with white primer and the remains of the painted plaster, in the ground which was used to lift the floor in the passage up to the stupa in an area that later became the altar room. Inside the *sufa* adjoining the northern wall, which was mostly destroyed by looters, the remains of murals and sculptures of the first construction period were found. No fragment preserves a clear image; only a piece painted very roughly with yellow, red, and white pigments has been unearthed.

Furthermore, a part of the sculpture was apparently covered and hidden during the reconstruction of the temple. Most likely, the large fragment of the torso of a guardian with a Kīrtimukha medallion was made during the first construction period. It is probable that the guardian figures flanked the passage to the stupa.

The second construction period

The second period in the temple's development should be linked to the appearance of the temple itself, i.e. when the portal to the stupa was turned into the temple (**Fig. 15a**). The innovations of the second period include the bypass corridor, the reconstruction of the former façade walls, the establishment of the altar room, and the lifting of the cella floor. This construction period also includes the appearance of a brick covering of the outer façade of the cella. Apart from this, it is obvious that during this period the interior of the cella had murals and sculptures.

The third construction period

The third construction period, which was the last significant reconstruction of the temple, includes the lifting of the floors in the bypass corridor, in the cella, and in the entrance hall. The passage to the stupa in the western bypass corridor was bricked up. The corridor's walls were covered with white plaster on which there was primitive painting.

The most difficult question in the reconstruction of the original temple's plan is its ceiling. The large area of the cella means that it could not have had a mud-brick dome, a supposition confirmed by the debris. Hence we can conclude that the ceiling was made of wood, though it is extremely unlikely that the temple could have had such a complex timbered dome as the reconstructed "Red Hall" in Varaksha (Marshak 2000: Figs. 9, 13).

The most obvious and acceptable option for the reconstruction is a sloping roof of the Chinese type. It is self-evident that the thick walls were necessary to support the beams which held the rafters of a wooden roof with four sloping sides. The roof most likely had two levels. The sloping ceiling of the lower level covered the bypass corridor and the entrance hall. If the bypass corridor had had a vault, its debris would have been discovered, but that has not happened. The cella itself was covered with a roof with four sloping sides that was higher than the ceiling of the bypass corridors. The roof was probably made of wooden planks, because no tile fragments were found.

The question of the dating of the temple is very difficult. There is only indirect evidence for dating the temple during the first construction period, but in any case it can't be older than the beginning of the 8th century, because no layers of earlier periods were found in the entire settlement. The dates of the second construction period (i.e. when the temple itself came into existence) is based on the coins and the small ceramic fragments that have been discovered.

Inside the *sufa* adjoining the southern wall of the cella, a large Türgesh coin of the most common type has been discovered, and a Tukhuss coin of a large denomination has been found in the northern wall of the northern bypass corridor. A few small Türgesh coins were found during the unearthing of the entrance hall and the cella, and a small coin 0.9 cm in diameter was found inside the torso of the Buddha statue. A small set of items, probably of sacrificial nature, have been found in the western façade wall between adobe blocks. It included six coins (five small Tukhuss coins and one imitation of a Chinese Wu-shu coin), an amphora-shaped pendant, two spherical beads, a trapezoid-shaped stone pendant, and three small beads.

Türgesh and Tukhuss coins, as the stratigraphy of the Krasnaya Rechka settlement shows, usually

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occur together in the lower layers. They were obviously used together at some period, but it is not very clear yet which coins were used earlier and which later.

The ceramics found next to the wall of the northern façade helped to clarify the dating. The incense burners of this complex (**Fig. 16:2, 3**), which have clear analogies in Sogd in earlier layers, is a vestigial form that was used in the Chu Valley for longer than in Sogd. The jugs with spouts (**Fig. 16:6**) and another one, designed to carry water (**Fig. 16:5**), existed up to the 10th century. Thick-walled narrow-necked jug with rounded bodies (**Fig. 16:1**) are also known in the 10th-century complexes. The find most easily dated is a mug with thin sides and a rounded shoulder (**Fig. 16:4**), which has direct analogies with ceramic artefacts of the Panjikent horizon VI, and can be dated no earlier than the second quarter of the 8th century. Generally, one would suggest that the temple during its second construction period existed from the second or the third quarter of the 8th century to the first half of the 10th century, because there is no opportunity to date the ceramics and coins more precisely.

This last construction period should apparently be dated from the 10th century or from the very beginning of the 11th century. In the layers of this period, small ceramic fragments, including glazed ones, made from the second half of the 10th century to the beginning of the 11th century, were found. Some typical forms of ceramics from this period were also found on the floors of the bypass corridor. Thus it is clear that the construction ceased to function as a Buddhist temple during the Qarakhanid period.

The Buddhist monastery existed on the site of the current ruins of the Krasnaya Rechka settlement for at least two centuries. It is obvious that the Buddhists of the Chu Valley were linked with larger Buddhist communities and monasteries in Eastern Turkestan. Certainly, when they made the interiors of their temples they drew on the traditions of Buddhist art with which they were familiar, namely those of eastern Turkestan. The character of the remains of murals and sculptures found during excavations of the temple directly support this statement. However, the style of both the sculptures and the murals suggests that the creators who built the temple were local Buddhists who managed to reach a certain level of individuality.

Abbreviations: TShAE – Tian-Shan Archaeological Expedition of the State Hermitage (Russia) and the Institute of History and Cultural Heritage (Kyrgyz Republic).

Bibliography

Bajpakov, K.M./Gorâčeva, V.D.
1989: Osnovnye itogi arheologo-topografičeskogo izučeniâ Krasnorečenskogo gorodiŝa v 1978–1983 gg., in: Livšic, V.A./Ploskih, V.M./Gorâčeva, V.D. (ed.), *Krasnaâ rečka i Burana (materialy i issledovaniâ Kirgizskoj arheologičeskoj èkspedicii)*, Frunze, 69–78.

Bernštam, A.N. (ed.)
1950: *Čûjskaâ dolina: trudy Semirečenskoj arheologičeskoj èkspedicii* (= Materialy i issledovaniâ po arheologii SSSR 14), Moscow/Leningrad.

Gorâčeva, V.D.
2010: *Gorodskaâ kul'tura tûrkskih kaganatov na Tân'-Šane (seredina VI–načalo XIII v.)*, Bishkek.

Kožemâko, P.N.
1959: *Rannesrednevekovye goroda i poseleniâ Čûjskoj doliny*, Frunze.

Marshak, B.I.
2000: The Ceilings of the Varakhsha Palace, *Parthica* 2, 153–171.

Škoda, V.G.
2009: *Pendžikentskie hramy i problemy religii Sogda (V–VIII vv.)*, St. Petersburg.

Torgoev A.I. et al.
2013: A Newly Discovered Buddhist Monument in the Chu Valley (Northern Kyrgyzstan), *Reports of the State Hermitage Museum* 70, 193–202.

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The Ancient Site of Novopokrovskoe 2

Excavation 1: Preliminary results

Valery A. Kolchenko and Philipp Rott

Abstract: This article presents the preliminary results of research at Excavation 1 on the site Novopokrovskoe 2 in theČu (Chu) Valley (Kyrgyzstan). During this work, tachometric measurements were made, and two excavation areas were investigated: one in the south-eastern corner, and the second in the central part of the site where a trench was cut at its eastern wall. In the complex stratigraphy of the site, two horizons are defined (A and B), each of them contains some building periods. The site appeared not earlier than the second half or end of the 7th century CE, while the upper strata excavated belong to the end of 11th and beginning of the 12th centuries, though this does not exclude the possibility that there were also later ones, which could have been destroyed during the building activity on the site of the 1960s. The fortification system was studied; the remainders of the south-eastern tower have been almost completely excavated. The fortification system of the site degraded by the 10th to 11th centuries, where firstly the zone of the rubbish dump and later the living quarters appeared.

Keywords: Middle Asia, Kyrgyzstan, urban culture, Middle Ages.

Резюме: В настоящей статье представлены предварительные результаты исследований на Раскопе 1 на городище Новопокровское 2 в Чуйской долине (Кыргызская республика). За это время выполнена тахеометрическая съемка поселения; проведены археологические исследования на двух раскопах: 1 в юго-восточном углу и 2 в центральной части городища; произведен разрез восточной крепостной стены поселения. В сложной стратиграфии поселения выявлено два горизонта (А и В), каждый из которых включает несколько строительных периодов. Установлено, что поселение возникает не ранее второй половины-конца 7 в., верхние слои относятся к концу 11 – началу 12 вв., хотя не исключено существование и более поздних, которые могли бы быть разрушены в результате строительных работ 1960-х гг. Изучена фортификация поселения, практически полностью раскрыты остатки юго-восточной башни. Установлено, что фортификационная система поселения деградирует к 10-11 вв., превращаясь сначала в зону мусорок, а позднее перекрывается жилой застройкой.

Ключевые слова: Средняя Азия, Кыргызстан, городская культура, средневековье.

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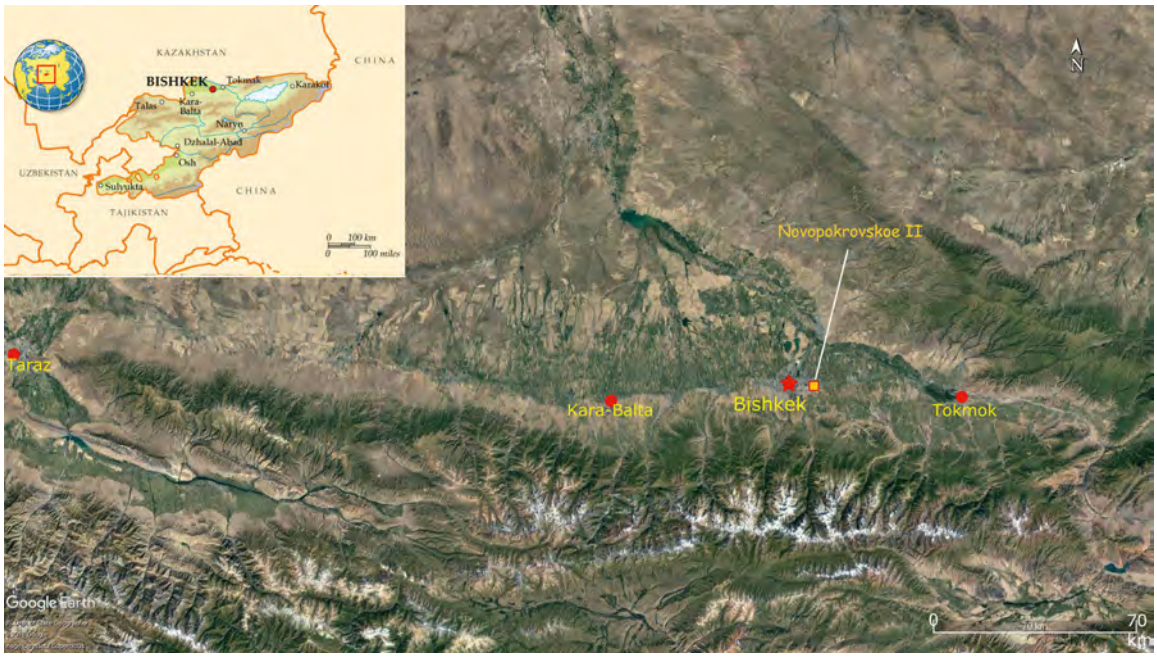


Fig. 1: The location of Novopokrovskoe 2 (Google Earth/©NPAE).

1 Introduction

The Novopokrovskoe 2 site is located in theČu (Chu) valley, 11 km to the east of the capital of Kyrgyzstan, Bishkek, in the centre of the village of Novopokrovskoe (**Fig. 1**). The coordinates of the site are UTM 43 T, N 4746593 m, E 0477345 m, H 783 m, or 42° 52′ 17.7″ northern latitude, 74° 43′ 21.5″ eastern longitude.

Novopokrovskoe 2 was first documented by A.I. Terenožkin in 1929 (Koľčenko/Rott 2005: 75), and in 1930 its schematic plan and description were drawn up by A. Vinogradova (Koľčenko/Rott 2005: 75–76). In the 1950s, this site, as well as other settlements in theČu Valley, was researched by P.N. Kožem'yako, who gave the most complete description of its current form, drew its plan, and cut one archaeological trench (Kožemâko 1959: 141–142). In the 1960s, a House of Culture was built on this area of the site. During the construction works, a number of Buddhist objects were found, among them ones made of gilded bronze, stone and alabaster (**Fig. 2:1–7**).[1] These finds supported the view that the site was originally a Buddhist temple (Gorâčeva/Peregudova 1996: 183), chapel or temple (Staviskij 1998: 133).

Typologically, P.N. Kožem'yako included Novopokrovskoe 2 among the surrounding settlements of sites with long walls. In this case, the central site was Novopokrovskoe 1, which is located 1.5–2 km to the north-west.[2]

Today, the northern, eastern and southern areas of the site are partly covered by modern buildings, and the western area is bisected by an asphalt road. In the central part of the site, there are the building materials of the destroyed House of Culture.

In 2004, the Institute of History and Cultural Heritage of the National Academy of Sciences of Kyrgyz Republic, with the support of The Society for the Exploration of EurAsia (Switzerland),[3] organized the Novopokrovsk archeological expedition (NPAE) and started a new stage of research. The tachometric plan of the site was created (**Fig. 3**). The observations and archaeological work made it clear that the surface and upper strata of the site had in part been seriously damaged by the communications systems of the House of Culture (channels, trenches for electric cables, concrete trays, etc.).

Archaeological work was carried out in two areas, Excavations 1 and 2. Excavation 1, which is a square of 500 sq m, and includes the trench at the eastern wall of the site, is located in the south-eastern corner. The natural ground was reached here in some rooms. Excavation 2 is a square of 100 sq m located in the central part of the site.

In the current paper, we will deal with materials of Excavation 1 (**Fig. 4**). The presentation of the results of our work on Excavation 2 will follow in a separate paper.

Excavation 1 was originally conducted in the south-eastern corner of the site and includes the

1 This complex will be separately published by the authors.

2 For a detailed research history of Novopokrovskoe complex, see Koľčenko/Rott 2005.

3 We are sincerely thankful to the Society for the Exploration of EurAsia, and personally to Dr Christoph Baumer and Prof Therese Weber, for their continuing support.

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Fig. 2: Buddhist objects found during the construction works of the 1960s. **1**: fragment of a stone relief; **2**: head of stone sculpture Buddha; **3–5**: bronze statues of Avalokiteshvaras; **6**: bronze mirror; **7**: bronze vajra (photos by Valery A. Kolchenko/©NPAE).

trench of the eastern site wall, because one of the goals of our research programme was to study the fortification system of the site. The trench was cut in the area where the site wall connects with the tower, which provided full information on this subject. When work began, the surface of Excavation 1 was covered with household waste and building materials.

Excavation 1 includes three relatively separate areas: 1) in front of the site wall, 2) directly on the

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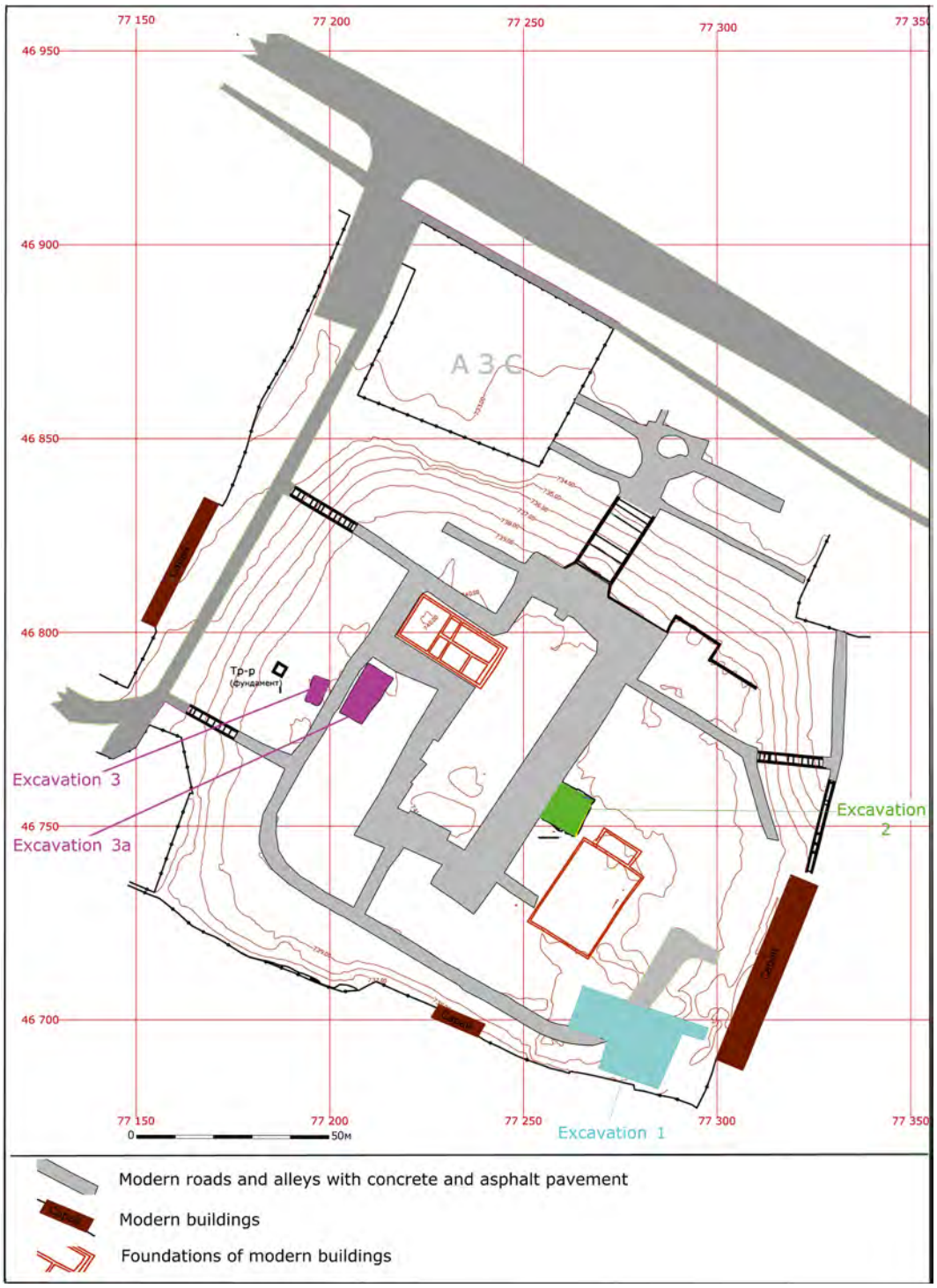


Fig. 3: Topographic plan of the site, with the remains of modern structures (drawing by Valery A. Kolchenko/©NPAE).

site wall, 3) inside the site wall. There is also a trench through the eastern site wall (**Fig. 5**).[4] These three areas have no direct planigraphical connections through passages or adjacent walls. Stratigraphically, the situation here is clear: the upper strata of all those areas are synchronic and belong to a single Horizon A, which includes diverse building periods. Only in the third area were the building structures documented, which we designated Horizon B, and which covers three building periods.

4 The plans of different excavation years are not unified in some cases.

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Fig. 4: View of Excavation 1 from the south-west, 2004 (photo by Valery A. Kolchenko/©NPAE).

2 Fortification

Research on the fortification gave the following results. The eastern wall of the site was originally built on the edge of the elevation, possibly on the ancient terrace of the modern River Norus, which nowadays drains south from the mountains,[5] and is a southern tributary of the Ču River.

The width of the site wall on the ground is around 4.4 m and its surviving height is ca. 2.5 m. It is built of *pakhsa*[6] and consists of at least two layers of *pakhsa* blocks. The width of each row is about 1 m. On the second layer of *pakhsa*, there is a layer of mud bricks. In the trench, there were no vertical divisions to observe, so the row of *pakhsa* was a monolith along the whole wall. The external surface of the site wall is considerably affected by weathering. It has a modern vertical slope of 25–30 degrees. The site wall is opened up to 6 m, beginning from the line of the trench up the tower. No loopholes in the fortification were documented.

The tower itself was also built of *pakhsa* and was monolithic. The tower survives only partially, having been largely destroyed by weathering, and by the structures and rubbish pits made in later building periods. It can be observed that the length of the curtain[7] of the tower is not less than 2.3 m and it is located perpendicularly to the face of the site wall. The form of the tower can be reconstructed as a drop. The towers of the citadel on the Ak-Bešim site in the Ču Valley are of the same form (Semenov 2002: Figs. 3–6).

The internal surfaces of the site wall are better preserved, because they were covered up to the top with levels of filling. They have a vertical slope of 10–15°. The walls of the buildings inside the site walls are attached to it at ground level, which means that there was originally no free space along the site walls which could be used for fortification.

The question of the moat in front of the site wall is still being researched.

3 The living quarters in front of the site wall

Over the entire site, the upper layer is modern; it was formed during the construction of the House of Culture in the 1960s. It is not uniform – the ground from the central area of the site was removed to the edges outside the site walls, where this layer is much thicker. This layer is hard, mostly clayish; it contains ceramic fragments, pieces of mud bricks/*pakhsa*, and modern building materials.

This area consists of six rooms located in two rows along the eastern face of the site wall and the corner tower. In the west, they are bordered by a street which is a dead end and which abuts one of the opened rooms in the south (Room 5). In the south, the border of those rooms (including Room 5) could not be followed because of modern damage in this part of Excavation 1. To the north of Rooms 1 and 2, no building structures were documented. The thickness of the northern wall of those rooms is half a brick, but remained up to six layers of mud bricks. Based on this, we came to the conclusion that this house was partly built inside the clay massive of the

5 The modern bed of the River Norus is located 3.2 km to the east. On the area between the river and the site there is one more waterlogged depression.

6 *Pakhsa*: beaten earth used as a building material.

7 Curtain: a defensive wall between two towers.

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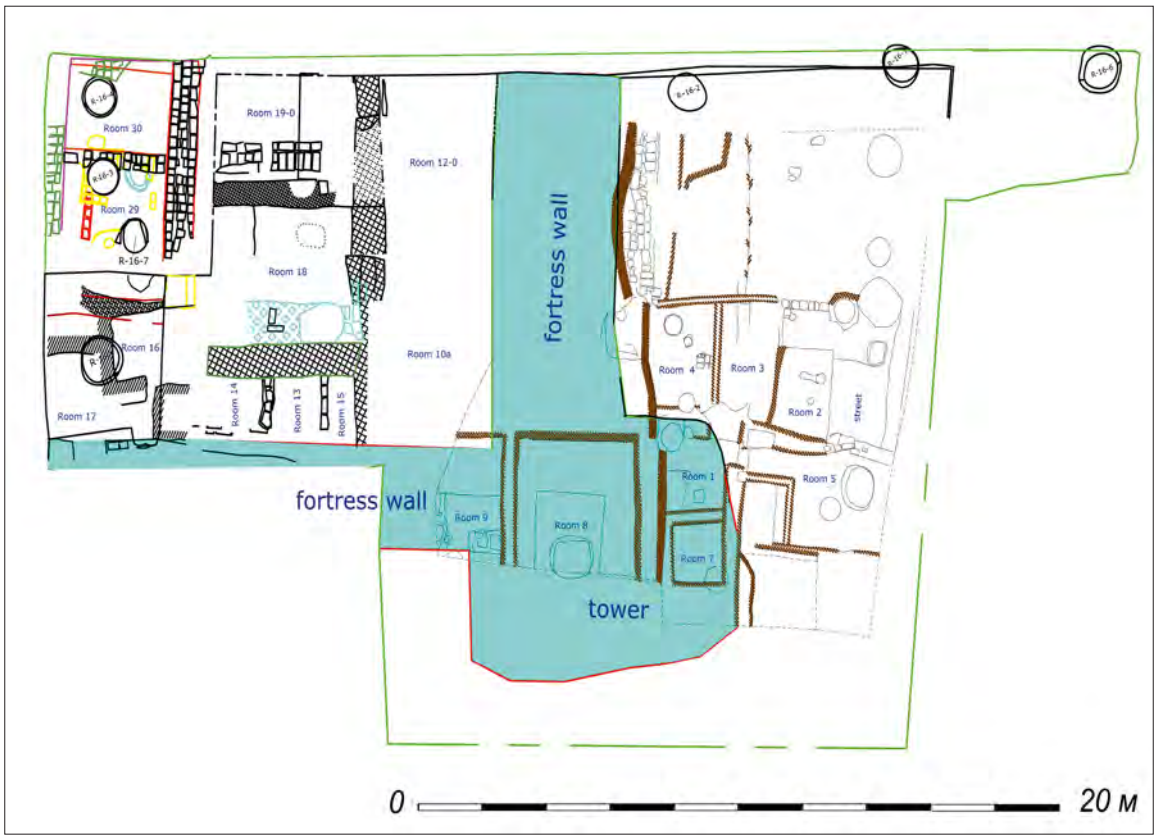


Fig. 5: Plan of Excavation 1. Building period A-1 (drawing by Valery A. Kolchenko/©NPAE).

site wall and the tower. In fact, the northern wall of this house is a coat of the felled creep.

Stratigraphically, all those rooms belong to Horizon A. In the upper building period A-1, the walls of rooms were built of mud bricks and remained up to 80 cm in Rooms 1 and 2 in the north, and to one mud brick high in Room 5 in the south. Their thickness is 0.5–1 mud brick or ca. 10–25 cm. Rooms 4, 3 and 7 are attached to the site wall, which was a master wall for all of them.

The rooms are connected through the passages along one of the walls, in some cases the passages have one or two steps, which are reinforced by stones. In the rooms are documented: the *sufas*,[8] *tandyrs*,[9] floor ovens, in one case a *tašnau*[10] (Room 4). Based on all this data, we can state that we are dealing here with a part of one house.

The character of the filling (the absence of destroyed mud-brick roofs) and of building constructions (first of all, the width of walls) allow us to conclude that all those rooms had light roofs, supported on one side by the site wall and on the other by poles; on the floor in the central part of Room 4, a stone was found that had clearly be used to support a pole.

The *sufas* which were found in some rooms of this house have two variations of construction: in one case, their external walls are made of mud bricks (thickness: 0.5 brick) three to four layers high; in the other case, of mud bricks set edge on. In both instances, their vertical and horizontal surfaces were carefully covered with plaster. In Room 5, the *sufas* occupy more than half of its area.

The entrance to this room from the north marked the end of the street. The entrance had a step and was originally closed with a door, as indicated by a posthole.

More needs to be said about Room 2. It is located in the north-eastern part of the house and corresponds with the street to the west. It opened to the street through a wide *sufa*, so there is no wall between this room and the street. In the central part of the *sufa*, there is an 8-shaped floor oven. Between the *sufa* and the northern wall of the room, there is a passage to the west into Room 1. At the eastern end of the northern wall, there is a *tandyr* open to the street. The *tandyr* itself is located in a square case made of mud bricks, and the internal surface of the *tandyr* is covered with ornamentation. It is the only *tandyr* in building period A-1. This whole structure can be interpreted as a small baker's shop.

8 *Sufa*: a kind of bed in the traditional dwellings of Central Asia.

9 *Tandyr*: a kind of oven in the traditional dwellings of Central Asia.

10 *Tašnau*: a kind of toilet in the traditional dwellings of Central Asia.

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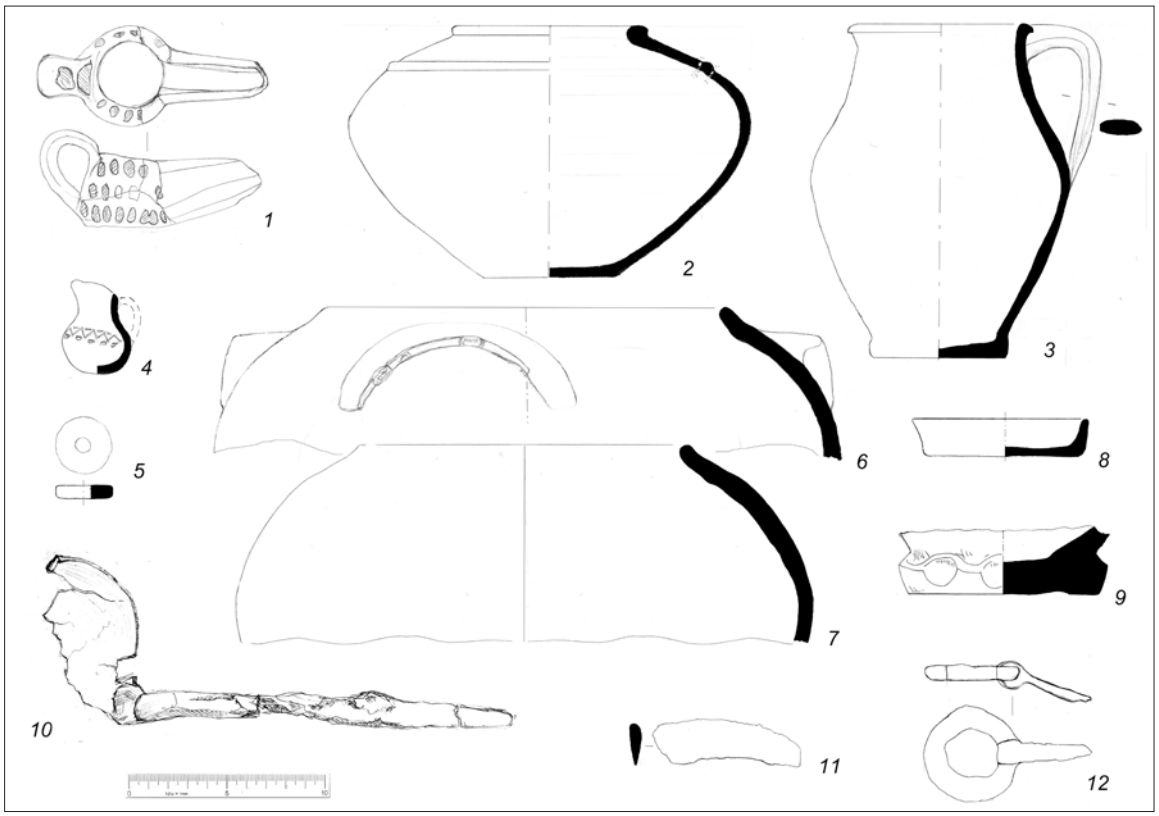


Fig. 6: Diverse finds from the strata of the building period A-1. **1, 10**: Room 9, floor; **2, 3:** Room 3, rubbish pit 3/2004; **4:** Room 4, filing; **5–7:** Room 2, *tandyr*; **8:** Room 9, *tandyr*; **9–11:** Room 3, filling; **12:** Room 6, filling; **1–9:** ceramic; **1:** white glaze; **10–12:** iron (drawings by Asan Torgoev and Valery A. Kolchenko/©NPAE).

In Room 3 near the site wall there is the deep (ca. 4 m) rubbish pit (*badrab*) 03/2004,[11] which expands from the top to the bottom. Its mouth was stopped with mud bricks and stones, and its filling contained a rich and interesting collection of ceramics. Other *badrabs*, which can surely be associated with floors of these rooms, were not found. (**Fig. 6**)

In the strata of this horizon, three Karakhanid (Qarakhanid) coins were found, which could not be identified due to their condition, as well as a rich collection of ceramics.

Among the most interesting finds is a fragment of a *hum* (*khum*)[12] which bears a Sogdian inscription. It was found in the filling of Room 3 (**Fig. 7:1**).[13] According to Christiane Reck (Berlin), the Sogdian inscription from the filling of the room contains following text:[14]

ʾyny yʾm ʾnxʾr /ʾzγʾr pʾ

"This … [belongs/contains/gave] (star/*Anxar*/…) *Pā*["

She makes following remarks:

- Other inscriptions begin also with the *ʾyny* ("this"). They are, however, formed so variously that no analogies are possible.

- *yʾmist* in Sogdian is not documented yet. Desmond Durkin-Meisterernst pointed out that here Middle Persian/New Persian *jām* can be recovered, which is also written as *yʾm*. Indeed, *jām* means rather a vessel for drinking, while the *hum* was used for keeping dry materials. In various inscriptions the different terms of *ʾyny* are mentioned.

- *ʾnxʾr* is problematic in various aspects. "Star" would be normally written as *ʾnxr*, without a long a. The form of the letter allows a reading as r. Therefore the last letter must be read as *w. ʾnxr* means hard, stocky, and has no ending – *w. ʾnxʾr* ("star") can be understood as a part of a proper name.

It is possible to read instead of *ʾnxʾr* also *ʾzγʾr*, with z, which is often used, in this case, however, it is

11 *Badrab*: a rubbish pit.
12 *Hum*: a large ceramic vessel for keeping solid and liquid products.
13 The analysis of the inscriptions will be done in a separate paper.
14 Email of 23 May 2005. The authors are very thankful to Dr Christiane Reck.

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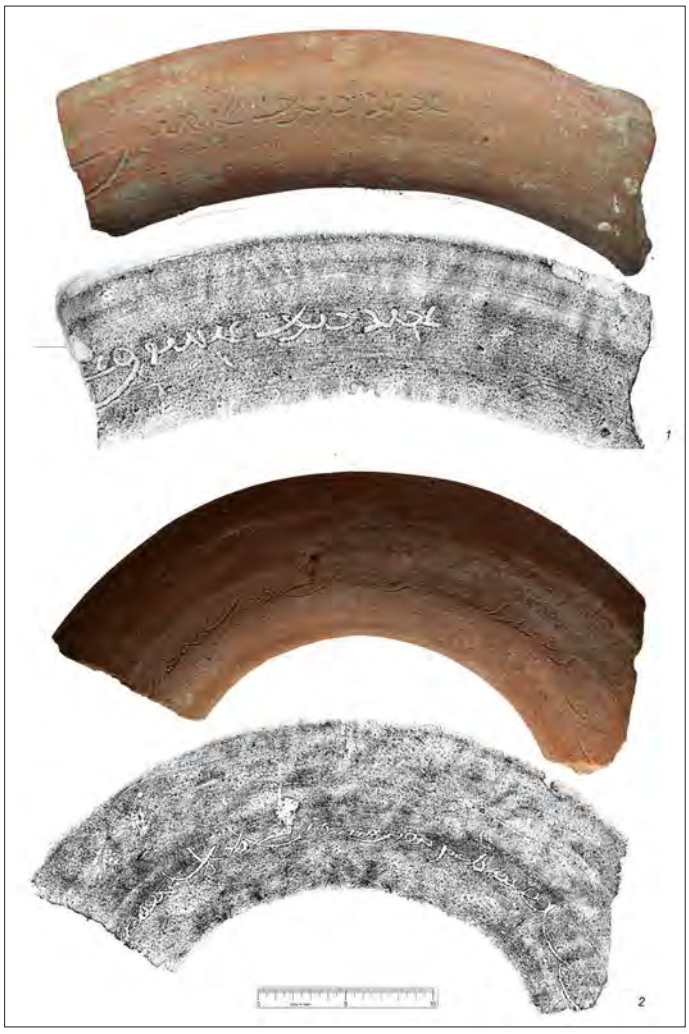


Fig. 7: Inscriptions on the *hum*'s rims: **1**: Room 3, filling; **2:** rubbish pit 1/2014 (photo by Valery A. Kolchenko / ©NPAE).

written in connection with following letters. This word is documented in KG 478 (Sundermann 1981: 43, 181) and translated in the context of *chr. zy'r* as (*"humidity"). The context around KG 478 is reserved very poor. There, twelve men are described who eat, make music, and "keep humidity". They can also keep a vessel in this place, of course.

Regarding the inscription of the fragments of *hum* from the rubbish pit 1/2014, she writes following:

> "The second inscription is longer. But here it is practically impossible to recognise a single meaningful word. The collection of strokes at the beginning and in the middle of the remaining parts of the inscription could be interpreted as numbers: 1.: 5, 2.: 8 or 9, according to a suggestion of Peter Zieme. The following words cannot be identified as units of measurement or something similar. Trying to read the inscription in Turkish was also not successful."[15]

In the earlier building period A-2, the outlines of this house were the same, but there were some changes inside the rooms. The surviving height of all building constructions (apart from those in use later, in the building period A-1) is 25–30 cm. They were cleared on this level and the area between them was filled for the construction of the floor of structures of the building period A-1.

The walls (as later) were built of mud brick. There was one main wall that was parallel to the site wall. Made of *pakhsa*, it is 25–30 cm wide. It may have originally been the external eastern wall of the house, but became its middle wall when the house was later expanded. At the northern end of this wall, and to the east of it, in Room 1a, there is a *tandyr* in a

15 Translation by Philipp Rott.

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Fig. 8: Constructions of the building period A-2 and rubbish pits of the building period A-3. **1**: floor-oven in Room 2a and rubbish pit 20/2006; **2**: *sufa* in Room 5 and rubbish pit 06/2006 (photos by Valery A. Kolchenko/©NPAE).

case made of mud bricks. In the filling of the *tandyr*, some fragments of the top part of a *hum* were found.

On the floor of Room 2a near the western wall, a small floor-oven was documented, square in form and with low skirtings (**Fig. 8:1**).

The constructions of the building period A-2 lie on the strata cut by a huge series of rubbish pits. We ascribe all of them to building period A-3 (**Fig. 8:2**). In an area 15 × 8 m, more than 50 rubbish pits were counted. They have various forms: conic, barrel-shaped, and others, the diameter of the mouth ca. 1 m, the depth ca. 1.5–1.8 m. In some cases, they cut into each other. In some of the rubbish pits, no artefacts were found, their filling consisting of pieces of building materials, including pieces of mud bricks and *pakhsa*, and also some animal bones. Others provided rich collections of ceramics. In rubbish pit 1/2014, among other finds was a fragment of a *hum* with an inscription (**Fig. 7:2**). A big ceramics complex was collected in rubbish pit 6/2006 (**Fig. 9:1–41**). Based on the available data, this stratum can be dated to the first stage of the so-called Karakhanid period according to the historical chronology developed for this region.

The strata, which are cut by rubbish pits, were formed over a relatively long time. They lie on the natural slopes that descend smoothly from the bases of the site wall and the tower. The pits contain building materials, including pieces of mud bricks and *pakhsa*, and also stones. In the south-eastern corner of Excavation 1, on the level of the base of the tower (40–50 cm from its natural slope), a lenticular layer of pebbles and sand was documented. These are obviously traces of the stream that originally flowed along the eastern site wall. Based on the thickness of this layer, 5–10 cm, it may be supposed that the stream did not run there for long.

4 The living quarters on the site wall

The second relatively separate area was opened on the south-eastern tower and the site wall. Here, two neighbouring rooms were excavated, labelled 8 and 9. Both rooms were made inside the fortification constructions and partly destroyed the last ones.

The southern wall of both rooms has not survived. The wall between these rooms, as well as the eastern wall of Room 8, was built of mud bricks whose maximum height is ca. 50 cm.

Along the eastern, northern and western walls of Room 8, *sufas* are documented. Their width varies, though their construction is identical: the external wall built of mud bricks put on the edge, which determinates their same height of 15–20 cm. The vertical and horizontal surfaces of *sufas* are covered with a coat of clay; their filling consists of clay ground with pieces of building material and fragments of ceramics.

The rooms are connected through a passage located in the southern part (only its northern end has survived). This passage possibly went along the southern wall, which has also not survived.

The single wide *sufa* in Room 9 extended along the northern wall. Its construction is different from

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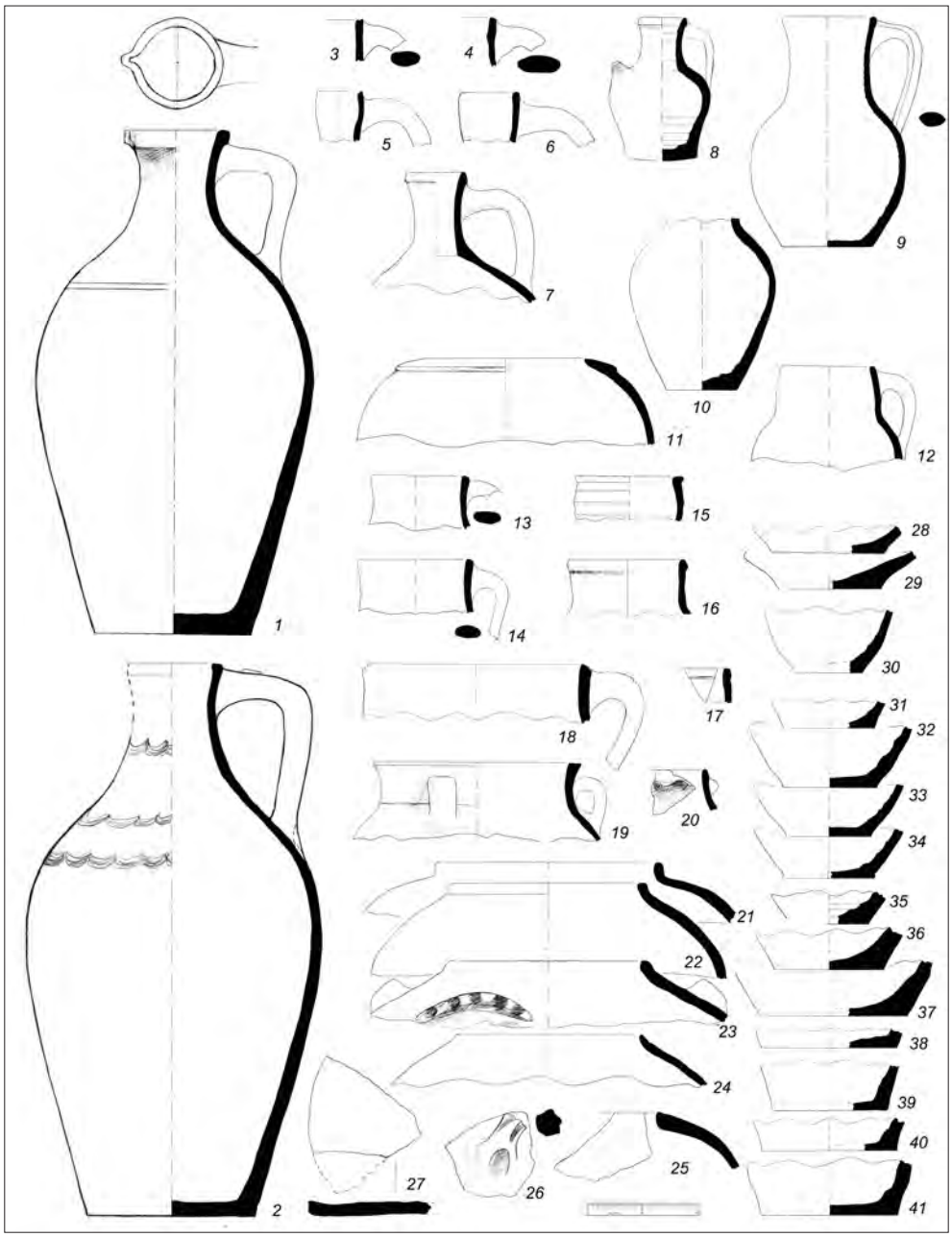


Fig. 9: **1–41**: Ceramic complex from rubbish pit 6/2006 of the building period A-3 (drawing by Valery A. Kolchenko/©NPAE).

that of the *sufas* in Room 8: it was constructed in the body of the site wall and covered with a coat of clay.

The edge of the passage enters the southern wall of the first *tandyr*-block of Room 9. The *tandyr*-block itself consists of a floor-*tandyr* and two compartments attached to it in the east and the west. The last ones were filled with ash and charcoal. So these compartments functioned as reservoirs. The second *tandyr*-block of the same construction was located along the western wall of the room. It was attached to the *sufa* at the north. The southern wall of the second *tandyr*-block lies on the same line as the southern wall of the first *tandyr*-block. There is a passage to the west from this room.

The northern wall of Room 8 is a cut surface of the site wall/tower. Plaster was documented on the surface of its top part. The northern wall of Room 9 was made in the same way, but in this case not the site wall/tower was cut, but the layers inside the site wall. That surface was covered with brickwork, which has a plaster coat.

Rooms 8 and 9 formed a complex, the first being a living room, the second a kitchen.

In the rooms, a rich complex of finds was collected, including an iron soup ladle (**Fig. 6:10**) and

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a fragment of an unidentified wooden object found near *tandyr* 1.

For the dating of Horizon A, a Karakhanid dirham found on the floor of Room 9 is of extraordinary importance – on it can be identified the name *Sana' ad-Daula*, which is known only on the obverse of coins of *Tunkat* 444 AH.[16]

Because of considerable damage, the connection between Rooms 8 and 9 and the complex of Rooms 1–7 could not be determined. But both these groups of rooms are synchronic and belong to Horizon A. Based on the numismatic data, this Horizon can be dated to not earlier than the last quarter of 11th/beginning of the 12th century.

5 The living quarters inside the site wall. Horizon A

Upper Horizon A inside the site walls has an elaborate building history, and is divided into several building periods.

From the upper building period (A-0) immediately under modern layers, only Room 27 in the north-western corner of Excavation 1 has survived. It is located meridionally and is rectangular: 6.5 × 3.25 m. The walls have survived to a height of around 30 cm. It is built of mud bricks on grey mortar.

It can be assumed that most of the structures of this building period were destroyed during the building works of the 1960s.

The northern wall of the room is located mostly outside Excavation 1. It went over the wall of the lower building period; there is an ash layer of around 5–7 cm between them. The western wall was also located mostly outside Excavation 1. It was 1 brick wide. The eastern wall is almost completely destroyed.

There are three rubbish pits in Room 27, which produced interesting fragments of ceramic: coppers, their caps, and jugs. The middle of these three rubbish pits is interesting. Its mouth had a rectangular platform build of mud bricks covered with plaster, so here we are dealing with a special construction of the rubbish pit's mouth.

Near the southern wall of the room, a semicircular platform covered with plaster was documented. A burned spot from a portable oven or *tandyr* was on it. So, based on this, we can identify this room as a living room.

Under Room 27, there were two more rooms, 29 and 30: 3.45 × 33 and 2.6 × 3.3 m respectively. Their external outlines copy those of Room 27, but they are divided into two by the latitudinal wall in this building period. The wall is built of mud bricks. The preserved height of the walls of the room: three layers of mud bricks, or 35–40 cm. The eastern wall was constructed in the technique in which the top part of the wall, which is a single one for the whole of Horizon A, was covered with mud bricks (0.5 brick). The northern wall was only partly documented, for it goes beyond Excavation 1. The western wall was also not documented.

In Room 29 near the northern wall, there are the remains of a floor-oven; along the western wall of the room there is a *sufa* which is ca. 1 m wide. Its external wall is built of mud bricks (thickness 0.5 brick). Only one layer of mud bricks has survived.

The following rooms, 10a, 13–18, 19–0, and 31, belong to building period A-1. The largest is Room 18, which is 3.9 × 4.5 m. Its walls are built in the regular brickwork of mud bricks of a brown colour on grey mortar (thickness 1.5 bricks). The maximum height of the remaining walls is around 1 m (six layers of mud bricks on thick mortar). No *sufas* or other structures were documented in this room. Also, no remains of building materials were found in the filling. The filling itself consisted of horizontal layers (soft grey-green ash and brown clay) which decreased in the centre. This allows us to see an open yard here.

To the east of it, Room 10a extends to the site wall; its width is around 3 m. To the south, there is Room 9. They are separated by a mud-brick wall (thickness 0.5 brick). The northern wall of Room 10a was not documented.

To the south of Room 18, there is the series of Rooms 13–15. They are (from east to the west): 1.45 × 0.9 m, 1.45 × 1.5 m, and 1.45 × 1.7 m respectively. Their southern wall is built of mud bricks (thickness 0.5 brick) and runs parallel to the eastern site wall; the distance between them is about 1 m.

To the west of Room 18, there is Room 16, which is 1.75 × 2.55 m. To the south it has a passage to the series of rooms on the site wall. The walls of the room are covered with plaster, and their surviving height is 40–60 cm. Room 16 had two *sufas*, which extend to the south and north. To the west of Room 15, there is Room 17, which was only partly excavated. To the north of Room 18 is Room 19–0. The height of all the walls is ca. 10–15 cm. Room 31, which is located to the west of Room 19–0, and to the north of Rooms 16 and 17, lies stratigraphically under Rooms 29 and 30, and was not excavated.

The condition of all these rooms does not allow us to determine their function.

Under these rooms, another series of rooms was excavated: 10b, 19a, 22 and 23. The meridional walls are aligned with those of the upper building period, while the latitudinal ones have shifted. It was clearly documented that the top parts of the latitudinal walls of this building period correspond with the bases of the same walls of the upper building period, and the bases of meridional and latitudinal walls of the new building period lie on the same

16 Identified by V.G. Koševar, Biškek.

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level. The technique and materials of the latitudinal walls of both building periods are the same – they are built of mud bricks (thickness 1.5 bricks) on relatively thick mortar.

During this building period, the site walls were used as walls of the rooms. Rooms 10b and 22 and 23 are located along the southern wall, beginning from the corner of the site. They are divided by the massive meridional walls, which go to the north. The northern wall of Room 10b is not documented. The northern and western walls of Room 22 are located outside Excavation 1. Room 19a is located to the north of Room 23.

The dimensions of Room 22 are 4.3 × 3.35 m. The *sufas* extend along the eastern and southern walls of the room, their width being 1.3–1.35 m. A *tandyr*-block (*tandyr* in this case with a space for ash) is documented on the floor of this room, its dimensions 1.35 × 0.8 m. In the filling of the southern *sufa*, fragments of ceramics were found, as well as a fragment of a bronze belt plaque with an oval frame and tenon. Its length: 3.2 cm. A strongly corroded bronze coin of Turgeš/Chinese type (25 mm in diameter) was found here as well.

The dimensions of Room 23 are 2.5 × 5.15 m. All the walls (apart of the southern, which is a *pakhsa* site wall) are built of mud bricks (thickness 1.5 bricks). The western and eastern walls go into the upper building period. The single passage to the north went along the western wall, but it was destroyed by rubbish pits 2/2008 and 9/2011. No *sufas* or other constructions were documented inside the room.

The documented size of Room 19a, which is located to the north of Room 23, are: 4.95 × 4.95 m. The western wall was outside Excavation 1. The northern wall of the room was considerably damaged by the later rubbish pits. It was built of mud bricks, and there is an oven in the room, attached to the northern wall. The room is rectangular, and the height of its wall 20–30 cm. There are *sufas* along all the walls; they are destroyed as well, so their reconstruction is problematic. The width of the southern *sufa* is 2.05 m, of the northern 60 cm. Their external walls are built of mud bricks (thickness 0.5 brick). The surviving height of the *sufas* is 1–2 layers of mud bricks, or 20–25 cm.

It is remarkable to note the increasing area of rooms in comparison to the upper ones. Based on the absence of passages in the meridional walls, it can be supposed that there are three parallel houses here. Some of the rooms had the character of living quarters, as confirmed by the presence of *sufas* and ovens. The function of Rooms 10a and 23 along the site wall is not clear.

The described building period seems to be synchronic with the building period A-2, separated outside the site walls, which can be confirmed by the detailed analysis of ceramics.

6 The living structures inside the site wall. Horizon B

Under the above-described group of rooms, a series of other rooms was opened. They belong to period B-1. They are: Rooms 10b, 12b, 19b, and 24. The area of the excavation of this period is somewhat smaller, because some western rooms have not been completely excavated.

The latitudinally oriented wall, which runs from the eastern site wall, separates the area here into two groups of rooms: Rooms 10b and 24 are located to the south, and Rooms 12b and 19b to the north of this wall.

The site wall forms the southern wall of Rooms 10b and 24.

Room 10b (5.1 × 4.1 m) is located in the corner of the site. In contrast to the wall of the upper horizon, the western wall is located 65 cm to the west. In this wall along the northern wall, there is a passage into Room 24b, its width 60 cm. At the time of excavation, it was filled with bricks put on in an irregular way; in the filling, a piece of burned brick was found.

In period B-2, instead of a single big room, 10b, there were two smaller ones. The latitudinal wall divides the area in two. Room 11 (4.15–4.2 × 1.7–1.75 m) is located in the corner of the site. It was connected by the passage along the site wall with Room 24-b in the west, and possibly (the area here was destroyed by rubbish pit) along the western wall with Room 10 in the north. The southern and eastern walls are the site walls. The height of the eastern wall is ca. 4 m. The southern wall, which was cut during the creation of Room 9, survives to a height of 1.6–1.7 m. The western wall, built of *pakhsa*, is monolithic, very hard, and brown in colour. As its continuation into Room 10 allows to suppose, it was constructed from the lowest floor, in other words from the level of the site walls. Its width is ca. 70 cm, its height 1.35–1.45 m from the level of building period B-2. There are some small areas of wall covered with plaster. The northern wall of the rooms neighbouring Room 10 is somewhat unusual. It was originally covered with plaster. On both sides, single mud bricks arranged chequerwise were documented. The bricks, which do not touch each other, are long and of a yellowish colour. The space between them was filled with a hard, homogeneous brown clay. For the creation of this wall, formwork was used. The width of the wall is 70–75 cm, its height 1.35–1.45 m.

Along the southern wall of the room on the floor of the period B-2, a platform was documented, built of mud bricks. It is also documented that there is brickwork in four layers along the site wall – the remains of the *sufa* along the southern wall: its width ca. 50–70 cm, its height 30–35 cm. *Sufas* of the same character went along the northern wall of the room.

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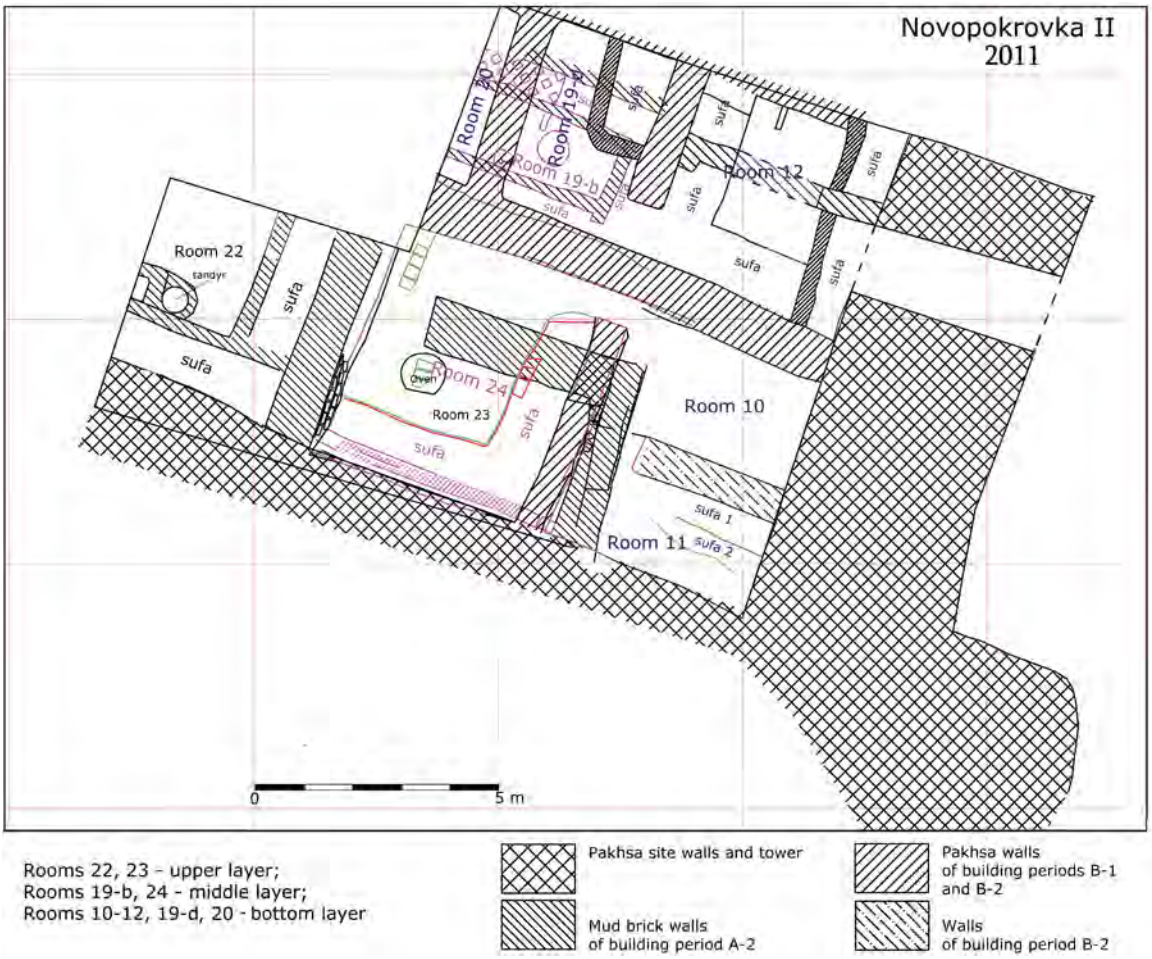


Fig. 10: Plan of Excavation 1. Building periods A-2 and B-1 (drawing by Valery A. Kolchenko/©NPAE).

Room 10 belongs to the building period B-2 and is located near the eastern site wall to the north of Room 11 and to the east of Room 12. It is connected through a corridor with Room 24b, which is located to the west of it; its dimensions: 4.25 × 2.35 m. In the period B-2, the northern wall of this room is of *pakhsa*, its southern surface is of a good quality, smooth, and ca. 1.9 m high. It is also attached to the eastern site wall; no plaster was documented. This wall is synchronic with the site wall and goes deeper into the underlying period.

The walls of the *sufa* were found in the room under the hard and patchy filling, which includes destroyed mud bricks and pieces of *pakhsa*. The *sufa* extends along the eastern wall of the room. The thickness of the *sufa*'s external wall is 0.5 brick. It is considerably damaged and documented only in parts. Its width is ca. 60 cm, its height not less than two layers of mud bricks. Its horizontal surface has been completely destroyed. In the filling of this *sufa*, some ceramics fragments were found, including the top part of the jug with a short spout and abducted sink and drown spout-sink. There was probably also a *sufa* along the northern wall of the room. If so, it was somewhat shorter. But no remains of it have been documented.

Under Rooms 10 and 11 of building period B-3, the large Room 10c was found: 4.45 × 4.85–4.9 m. Its eastern and southern walls are the site walls. Its northern wall is built of *pakhsa* of a brown colour, its width on the ground 85–90 cm. It was built on the natural ground and goes into building period B-2. Possibly it was built at the same time as the site wall – there is no gap between them. The western wall was also built of *pakhsa* of a dark-brown colour. It also goes into the period B-2. Its connection to the northern and southern walls is not clear, because it has passages at both ends.

In the north-eastern corner of this room, a *sufa* was found (2.8 × 1 m), extending along the northern wall. Its external walls, which are of mud bricks (thickness 0.5 brick) and have survived to a height of four layers, which is around 40 cm. The walls of building period B-2 were built from this level and the floor of this building period constructed. The space to the west was filled by two layers of mud bricks. The colour of these bricks is different from that of the bricks of the *sufa*'s external walls. It is possibly connected with the passage to the west into

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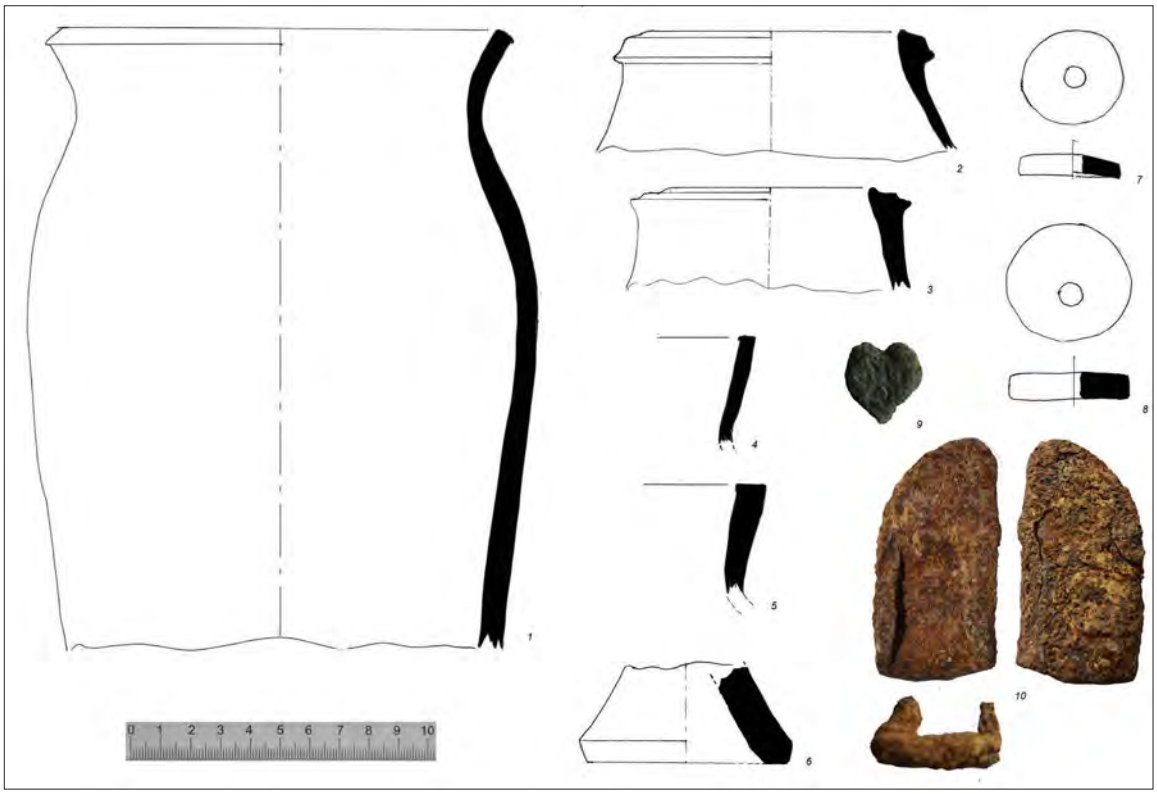


Fig. 11: Collection of finds from the *sufa* of room 24 of building periods B-1/B-2. **1–8:** ceramics; **9:** bronze; **10:** iron (drawings and photos by Valery A. Kolchenko/©NPAE).

Room 26. The *sufa* is divided into two parts by the wall. In the eastern part, there are traces of burning on the surface of the site wall, and it is assumed that there was a stationary oven here which was later destroyed by the filling of the *sufa* during the creation of the constructions of building period B-2.

A *sufa* of the same character went along the southern wall, its width 1.3 m. But its external wall is built of mud bricks and its thickness is one brick (followed only on the lower layer).

The walls of *sufas* in the northern part of the room cover the mouths of three rubbish pits, the diameter and the depth of which are quite small; one of them is a little oblique. A relatively small collection of ceramics in small fragments was found inside them. The rubbish pits appear to date from the early days of the site.

Room 24 was only partly excavated. Its western wall is located outside Excavation 1 in this building period. The excavated dimensions: 5.15 × 4.5 m.

On the southern wall of the room, which is the site wall at the same time, vertical clayish layers are followed, coming from the level of the floor of Room 23 to the *sufas*. The width of each layer is ca. 1.5–2.5 cm. It gives us grounds to claim that this room was abandoned for a while, which allowed to the atmospheric condensation to flow down the site wall.

The above-described block of mud bricks is remarkable. It is almost horizontal, with a slight slope of 1–2 degrees to the north; it was followed to ca. 2 m and goes to the edge of Excavation 1; the western face of this block is almost parallel to the last one. The base of this block is built of layers of mud bricks on mortar. To the west, three such layers are documented; possibly there were more. The location of these mud bricks is characteristic of arch constructions. However, the absence of any roundness, as well as the stratigraphic location of this block, speak against this suggestion.

Along the southern and eastern walls there are *sufas*, their width 1.0 and 1.2 m respectively. The external wall of the eastern *sufa* is built of mud bricks, its thickness 0.5 brick. There are two layers of mud bricks, so it height is ca. 20–25 cm. The filling of this *sufa* is a soft ground with small ceramic fragments and small pieces of mud bricks. Two *hums* were also found inside the *sufa*, dug into the ground. It is interesting to note that one of them is integrated into the bottom of the other *hum*, which stood here before, belonging to building period B-2. In the filling of *hums*, a bronze heart-shaped plaque with ornamentation was found, as well as an iron instrument in the form of a *teša*[17] (**Fig. 11:1–10**). A bronze coin

17 *Teša*: an instrument in the shape of a hoe.

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Fig. 12: Rooms 24c, 25, and 26 of building period B-3 (photo by Valery A. Kolchenko/©NPAE).

of the so-called *Tuchsi* type (17.15 mm in diameter) was also found here.

The southern *sufa* is more monolithic; in its filling are mostly pieces of the mud bricks. Two levels of this *sufa* were documented, which correlates with *hums* put inside each other. It also corresponds to two building periods, B-1 and B-2, which are documented in this room.

The *sufa* also went along the western wall of the room, but it was so extremely decayed that its borders could be not accurately documented. Its construction was the same as that of the southern one, built fully of clay. The surfaces of the *sufas*, as well as the floor of the room, were covered with a coat of clay.

There is a burned spot in in the southern part of the *sufa*, ca. 1 m in diameter. At its centre is a row of three burned bricks (36 × 18 × 4 cm) of a grey-blue colour, which are oriented north-south. In the southern part, there is a mud brick. These details allow us to conclude that there was a floor- or *sufa*-oven here.

On the floor near the oven, a so-called Turgeš coin was found (24 mm in diameter), as well as a fragment of bronze belt plaque with a rectangular hole, in the south-western corner of Excavation 1 (building period B-1). Under the above-described remains of the oven, the remnants of another oven were found. It was approximately square, measured 1.05 × 1.0 m, and was built of mud bricks (25 × 22 × 8–9 cm and 25 × 16 × 8–9 cm).

The room of building period B-2 was designated Room 24b.

In the next building period, B-3, this large room, 24 b, was divided into three further rooms, 24c, 25, and 26, using thin *pakhsa* walls (**Fig. 12**).

Room 24c occupies the south-eastern part of Room 24b. It is located meridionally and measures 3.5 × 1.85 m. To the east of it there is Room 10a, to the west Room 25, to the north Room 26. The southern wall of this room is the site wall. The eastern wall is built of *pakhsa*, the western and northern ones are built of mud bricks.

Along the southern wall there is a *sufa*, its width 1.1 m wide, its surviving height 20 cm. The external wall of the *sufa* is built of mud bricks. The *sufa* has been very badly damaged by rubbish pits 2/2009 and 2/2012. It can be supposed that there was a passage along the site wall into Room 10a to the east; in the later building periods, it was filled with mud bricks.

The western wall had a thin layer of plaster (3–4 mm) on its surface; it has remained on some areas. Near the northern wall, a spot with small stones was excavated. It goes partly to the western wall, and can be interpreted as a destroyed base of a support post of the roof/any other construction. The northern wall was also covered with plaster.

Along the eastern wall there was possibly a *sufa* as well. If so, it was no wider than 70 cm. A series of mud bricks to the north of rubbish pit 2/2009 indicates this. This rubbish pits destroyed all possible construction in the southeast corner of the room.

There were few finds, mostly ceramic fragments (**Fig. 13:1–3**). Among these is the top part of a burner. The burner has a small round reservoir with 16 rays on its edge, the base is monolithic

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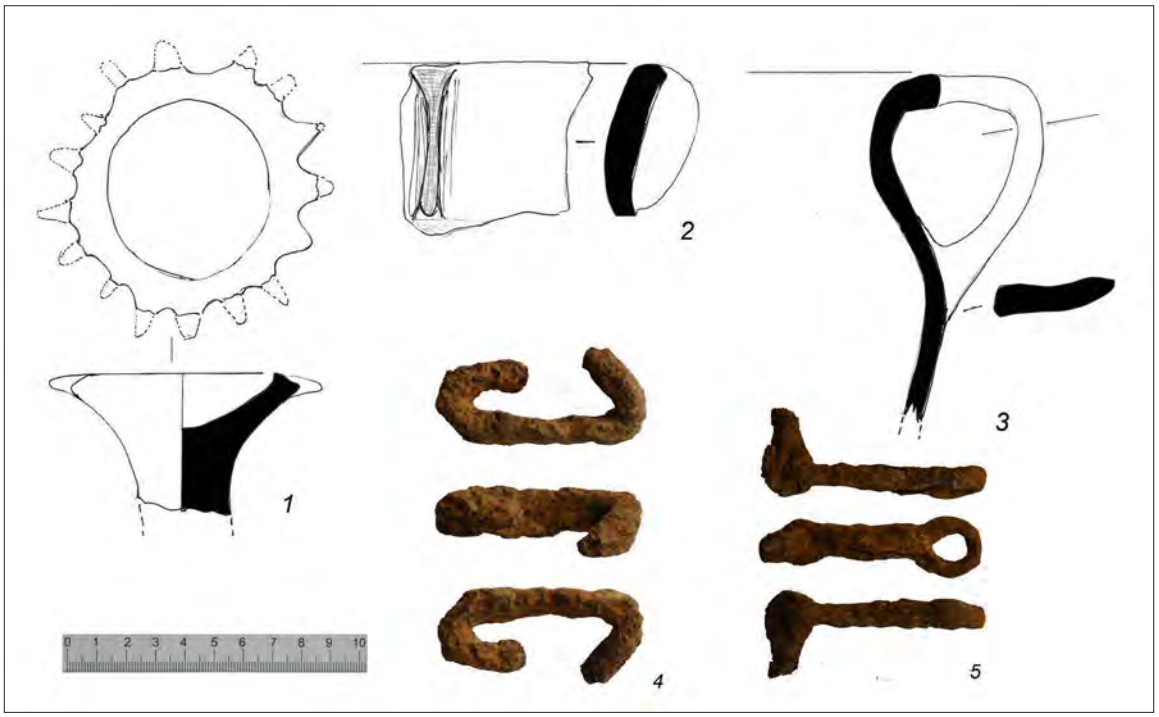


Fig. 13: Some finds from the strata of the building periods B-3. **1–3:** Room 24c; **4:** Room 26; **5:** Room 24; **1–3:** ceramic; **4–5:** iron (drawings and photos by Valery A. Kolchenko/©NPAE).

(**Fig. 13:1**). It was found on the floor in the southern part of the room. A big bronze belt buckle with tongue was found under the floor of Room 24b.

Room 25 occupies the south-western part of Room 24b of building period B-2. It is also located meridionally, its dimensions being 3.15–3.2 × 1.9 m. To the east of it is Room 24c, to the north Room 26, and to the south the site wall. The single narrow (50 cm) passage to Room 26 went along the eastern wall. It has a wide step, the height of which is ca. 7–10 cm. It is possible that there was another passage along the western wall, but it could not be identified because the western wall of the room is located outside Excavation 1.

There was a *sufa* in the room along the southern wall. Its width is 0.95–1.0 m. The external wall of the *sufa* is made of mud bricks, which has survived to a height of two layers of mud bricks, or 20– 25 cm.

Near the northern wall there was a construction built of stones and clay, ca. 80 × 60 cm: the base of the pole. Its height is the same as that of the walls.

Among the finds from this room is a two-part iron ring-bit (found in fragments) (**Fig. 13:5**). There are also some ceramic fragments.

Room 26 occupies the northern part of Room 24b. It is extended latitudinally, its dimensions being: 1.1–1.2 × 4.35 m. To the east is located Room 10a, to the north Room 19d, to the west a border of Excavation 1, to the south the above-described Rooms 24c and 25.

The northern wall of the room is the main one; built of *pakhsa*, it begins from the eastern site wall in Room 10c and goes into the western border of Excavation 1. It has no plaster. The southern wall, built of mud bricks, has been destroyed. Along the northern wall there is a passage to Room 25, its width 60 cm.

In the eastern part of the room, near the southern wall, there are the remnants of construction which could not be precisely identified; it was possibly a *tandyr*-block. A flint was found on the floor of this room (**Fig. 13:4**).

7 Rooms of the northern part of Excavation 1

To the north of the above-mentioned main wall in building period B-1, which is latitudinally oriented, there are Rooms 12b and 19b.

Located near the site wall, this room is designated Room 12b. Its dimensions in building period B-1: 3.75–4.5 × 4.2 m.

In period B-2 under Room 12b, two rooms, 12 and 12a, were found. The wall between them was built of mud bricks of yellowish colour, its maximal remained height 80 cm, its width 50 cm. In its central part, it was cut by rubbish pit 15/2009, which dropped from the level of the fall that appeared inside the room.

The northern room of the building period B-2, Room 12a, has the following dimensions: 1.3 × 4.2 m. It has a passage running in a northern direction along the site wall. The width of this passage is 1.35 m. Along the northern wall, the re-

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mains of *sufas* were documented, extremely eroded and damaged. They were covered by a thin layer of sand and pebbles, which indicates that there was a stream here at that time, possibly a mudflow. The southern wall of Room 12a was built of mud bricks of a yellowish colour, its width 1.5 bricks. The four to five layers of mud bricks of this wall have survived, its height ca. 1 m.

In the bottom part of the waste ground in Room 12, the mouth of rubbish pit 32/2008 was found. It cuts through the layers to the floor and even deeper into the natural ground. A very interesting and rich collection of ceramics was obtained from the filling of this rubbish pit. Some forms are very specific, for example, pots with cuff-rims.

It was found that Rooms 12 and 12a had been a single room, 12c, in building period B-3, its dimensions 4.1 × 3.15 m.

The southern wall, which is adjacent to Room 10c, is of a good quality. It is covered with two layers of plaster. The lower layer is raw and contains straw, the upper layer is of fine clay of yellowish colour. The northern wall of the room is built of mud bricks on yellowish mortar. The room has *sufas* along all the walls, which are located on different levels. The eastern *sufa* crossed the whole room, its width 1.1–1.15 m. Its external wall is built of mud bricks in regular brickwork. The thickness is 0.5 brick, its height 2–3 layers of mud bricks. The southern *sufa* was attached to it; its width is 1.2 m, so it was higher. Its external wall was built of lengthy mud bricks of yellowish colour, put on the edge; its height is 38 cm. The height of the western *sufa* is similar to that of the southern one, and has a single surface with it. Its width is 1–1.05 m. The northern *sufa* is badly decayed and could not be measured correctly. Its amorphous remains went along the northern wall to a height of ca. 1 m.

On the *sufa*'s level, Room 12c has passages running in a western direction along the southern wall to Room 19d, and in a northern direction along the eastern wall (outside Excavation 1).

Immediately on the floor of the room was the mouth of rubbish pit 14/2009. The mouth was covered with a floor's good quality clay daub. It has a very specific plate-form. Its construction can be explained by the fact that the builder of the room needed to level the natural micro-relief of this area, covering the gaps. Its filling is a soft clay ground with organic inclusions and charcoal. In the filling, the small ceramic fragments and pieces of mud bricks were found. Rubbish pit 14/2009 was later cut by rubbish pit 32/2008, which partly destroyed the western *sufa* of this room.

The ceramic complex, which was collected on the floor of Room 12c, consists of fragments of vessels with cuff-decorated mouth with ornamentation on it, as well as a fragment of a cap of the vessel.

In building period B-1, Room 19b was located to the west of Room 12b and the north of Room 24a. It had a common northern wall with Room 19. Its width is 75–80 cm. The western wall was not documented, as it is located outside Excavation 1. The eastern wall was not clearly documented; it was built of mud bricks. In the next building period, a *pakhsa* wall appears in this area which stands on the natural ground. The southern wall of the room is built of mud bricks and is in poor condition. Its surviving height is ca. 20–30 cm. The documented dimensions of Room 19b are 2.9 × 4.75 m.

There are *sufas* along the walls, their external walls built in a regular brickwork in 0.5 brick. Layers 1 and 2 are extant. The width of the *sufas*: 55–60 cm (*sufa* along the eastern wall) and 80–90 cm (*sufa* along the northern wall). The horizontal surfaces of the *sufas* were not documented, so we have no data to reconstruct their original height.

The condition of Room 19b (as well as of Room 19a), both wall and floors, is very poor, for rubbish pits were dug during upper building periods.

Under the floor of Room 19b there is Room 19c, belonging to building period B-2. The northern wall is located on the border of Excavation 1, so its width could not be measured. It is built of mud bricks (50–52 × 22–24 × 8–9 cm) of yellowish clay on thick mortar (ca. 7–8 cm) of a browner clay. The wall was covered with plaster. There are clear ash layers between this wall and the level of building period B-1. The width of the western wall, which is built of *pakhsa*, is not less than 0.5 m. The southern and eastern walls are also built of *pakhsa*. The room's dimensions are 3.65–3.7 × 3.25–3.3 m.

Along all walls there are *sufas*. Their horizontal surfaces are in a good condition. Their height is 20–25 cm, and their width is 1.1 m (northern), 1.05–1.1 m (eastern), 65–70 cm (southern) and 45–60 cm (western).

All those *sufas* are monolithic, built of *pakhsa*. The surfaces of the *sufas* and of the floor were covered with a single layer of clay plaster.

There is one passage to Room 12 along the southern wall to the east, its width being 1.05–1.1 m. In the centre of the room, there is a rectangular elevation 75 × 95 cm, and 10–15 cm high.

The room was filled with a hard, wet clay ground. It is to suppose that during the construction of Room 19b, the walls of Room 19c were partly destroyed and their remains were used filling material.

Here a series of ceramic fragments was found, mostly of a wheel production. They give an idea of the forms of vessels.

More should be said about two artefacts. On the southern *sufa*, a big fragment of a disc of a thin bronze mirror (60–65 mm in diameter) was found, and inside the *sufas* of this room, a three-bladed iron

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arrowhead. Its shaft is broken. The remaining length of the tip is 4.5 cm.

Further excavation of Room 19 allowed us to reach the last or the lowest building period, B-3, with Room 19d. This room is rectangular, aligned west to east, and measures 2.55 × 3.9 m. It has a single passage into Room 12 along the southern wall. In other words, Room 19c, which is located above it, copies its plan.

Its floor is ca. 0.95–1.05 m deeper then the level of the floor of Room 19c. The walls which were used in building period B-2 went from the level of building period B-3.

The room was filled with very hard and wet ground, so its excavation was somewhat complicated.

Here the parts of the *sufa* along the eastern wall of the room were documented. Its dimensions: 2.27 × 1.25–1.45 m. In the filling of the *sufa* on its floor, a layer of the gravel was found.

In the filling between Rooms 19c and 19d, only one iron tip of an arrow (length 45 mm) with a long pyramid-formed tetrahedral head was found, along with three small ceramic fragments.

In front of the entrance, a trench was cut that showed that under the floor level of this room is natural ground – sterile clay of a reddish colour.

The area to the west of Rooms 19c and 19d was designated Room 20. It was only partly opened. Situated at the edge of Excavation 1, this opening goes 50 cm along the northern wall and 1.3 m along the southern wall.

In the south-eastern corner of this room, rubbish pit 7/2010 was found. It goes from the level of the floor of the rooms of building period B-2. The diameter of its opening is 90 cm. The pit cuts the southern and partly the eastern site walls. Its filling is a soft ground with ash inclusions, pieces of mud brick, and ceramic fragments.

8 Some analytical remarks

The archaeological work done in Excavation 1 allow us to state that the original settlement inside the site walls appeared not earlier than the second half of the 7th/the beginning of the 8th century. The upper layers which were documented belong to the end of 11th to the early 12th century. Nevertheless, the finding of the fragment of the *kašin*[18] vessel in the upper covered layer does not exclude the possibility that the settlement existed later, in the Mongol era. But the layers of this time, even if they existed, were considerably damaged by the constructions of the House of Culture in 1960s.

Stratigraphically, two large horizons, A and B, were documented with some building periods inside each of them. Between Horizons 1 and 2, the period of destruction (A-4) has been documented, which stratigraphically belongs the second half of 8th and the 9th century; if there was any occupation of the settlement, it was very limited. This question is still being analysed in a context of correlation with the other settlements of the region, as well as with the data from written sources.

The issue of the time and the extent of the final destruction of the settlement is made problematic by the extensive modern destruction of the upper strata. Of the upper two strata, Horizon A is well dated based on the numismatic finds and belongs to the last quarter of 11th to the first half of the 12 century. Those are typical for Karakhanid-period living quarters, which were destroyed by natural forces, there being no traces of fire or the other damage.[19] On this site, it seems, we can extrapolate a situation that has been documented on other settlements in theČu Valley, where the last were laid waste in the second half of the 12th to the beginning of the 13th century and later had living activity only sporadically.

The detailed analysis of the ceramics and the other artefacts, based on the micro-stratigraphy, as well as a building technique, will be carried out in the special monographic research. We can now set out some general aspects.

The ceramic complex from the rooms of the building periods A-1 and A-2 have good parallels with those from the settlements of the Karakhanid era of theČu Valley (its developed stage), first of all of Krasnaya Rečka and Ak-Bešim. Those are coppers, *ḫums* (*khums*) and *humčas* (*humchas*)[20] *tagoras*,[21] *čirags*,[22] and glazed pottery.

The complex of the material culture of this period (ceramics complex, metal objects, as well as a building technique and fortification) has broad parallels in Middle Asia. This can be explained by the fact that the diverse regions were unified in the single Karakhanid state at this time, where within the tactically uniform borders objects spread rapidly due to fashion, so there was a standardisation of material culture. This historical factor had also a very important influence in particular on the fortification – on the Novopokrovskoe 2, as well as on the other settlements, we documented the destruction of the defensive structures. At the Novopokrovskoe 2 the site, walls and towers do not function any more at this time, living quarters appearing on them. The same processes can be seen, for example, at Afra-

18 *Kašin*: a kind of ceramic.

19 A.M. Korženkov, who studied the architectural remains of Novopokrovskoe 2, came to the conclusion that diverse earthquakes played a role in the destruction here; Korženkov/Koľčenko/Rott/Abdieva 2012: 1–13.

20 *Humča*: a small ceramic vessel for keeping solid and liquid products.

21 *Tagora*: a ceramic vessel in the form of a bowl.

22 *Čirag*: a lamp.

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Fig. 14: Fragment of a ceramic jug with an image of a musician from the building period A-3 (photos by Valery A. Kolchenko/©NPAE).

siab, where the necropolis Shah-i-Zinda appears along the site walls.

Nevertheless, a series of ceramic vessels from these layers is unique in forms for the Ču Valley, for example, a turnip-formed vessel, decorated with paste inserts on its neck, which came from rubbish pit 03/2004 (**Fig. 6:2**).

The ceramic complex from the rubbish pits of building period A-3 belongs to the early stage of the Karakhanid period based on the finding of a glazed *čirag* with conic reservoir without the catch on the handle, in one of the rubbish pits, along with a series of fragments of glazed pottery. Some of rubbish pits gave a series of so-called oven stands (*kurylnizas*), which are decorated with a rich carved, mostly floral, ornamentation. A.N. Bernštam, who carried out the first systematic archaeological works in the Ču Valley, connected such oven stands with Sogdian colonisation and Zoroastrian-shaman rituals, and dated them to the 5th to 6th centuries CE (Bernštam 1950: 115–117). This dating was based not only on the materials of the excavations, but also on the common historical context. The finds from Panjikent were not available to that time; there were only the publications of G.V. Grigoryev describing his excavations in Tali-Barzu (Grigor'ev 1940). Nowadays, it is obvious that it is not a Sogdian tradition, because those objects do not find parallels in Sogdia (in Čač there are only a few examples known). Their technique and ornamentation have, on the contrary, sound parallels in the Middle Syr Darya, in the materials of so called Džetyasarskaya culture, which is dated to the 7th to the 9th centuries CE (Levina 1971: 80–86, Figs. 20, 21). However, there are considerable variations in vessel forms there.

It is important to mention a unique find which belongs to the building period A-3 (**Fig. 14**). It comes from rubbish pit 22/2007, the mouth of which is located under the level of the floor of Room 5. It is the fragment of a jug; its spout is short and widens slightly at the top, and it has a flat shoulder and a kneed-form handle. On the top of the handle there is an oval relief, which was separately made in a special form – *kalyb*[23] – and put on the handle. The re-

23 *Kalyb*: a form for producing items from different materi-

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lief is of a sitting musician seen frontally. He wears a caftan without neckline that ends at the knees. The top part of the clothing is not presented in detail. The face is oval, with a short forehead. On his head is a diadem with high decorative elements, and in the right ear is an earring. Behind the head there is a ribbon, which comes down the body.

In the hands of the musician there is a string instrument with an oval body and a fingerboard on which there are three strings.

An anthropomorphic image for the Karakhanid period, when Islam became a state religion, seems unlikely. However, there are many anthropomorphic and zoomorphic images of this time from theČu Valley, including some in metal. This fact reflects the degree to which the local population had assimilated Islam.

The instrument is a type of lute (or *barbat*),[24] which appeared in Central Asia most possibly due to Hellenism. Among many examples known in Central Asia is a similar example from the settlement of Kanka (Shash/Čāč) in Tashkent oases which belongs, according to the authors of excavation, to the pre-Islamic period, 5th century CE.[25]

In the ceramic complexes of the strata of building periods B-2 and B-3, hand-made vessels dominated. In particular, it is a vessel with vertical handles and the fragment of a figure of an idol. However, there are vessels made on the pottery wheel, fully or partly. So there are, for example, *hums* and *humčas*, the rims of which are adjusted on the pottery wheel. These vessels have an egg form, the diameters of the bottom and the mouth are about the same, they have small vertical necks, and their rims are rectangular or square in section, turned-out and decorated with tucks, which disappear later.

Among this complex there are some forms known in the archaeological publications as "burners". This type of vessels is widespread in all regions of Central Asia, and there are such vessels in the ceramic complex of this period from Novopokrovskoe 2. One of them in particular has a rectangular reservoir and hollow tray. The rims vary: in one case, the rim is just turned down, in the other it has a toothed form. We could not find any traces of burning on these vessels, which could indicate that they really were used as incense burners. The vessels of such form from the other regions of Middle Asia, which have not direct genetic connections, are known as goblets or vases. In the publications on the northern regions of Middle Asia, they are broadly dated to the 6th to 8th centuries. Based on our stratigraphy, and what has been mentioned above, they can be dated not earlier than the 8th century.

The lowest stratum stratigraphically correlates with structures built on the natural ground. In the ceramic complex from this stratum, there are some handmade vessels which have a kitchen function. Those are mostly not coppers but rather pots. They have a flat bottom, egg-shaped body, and a short spout. In some cases, their rim is vertical, added with three vertical moulds. In the other cases the vessels have a cuff with a decoration in the form of rows of 4–5 pinched points along the rim. Such kind of decoration is specific. Until our excavation, these ceramic vessels were not known in theČu Valley. In the latest republication of materials of the Ak-Bešim's excavations 1953–1954 by L.R. Kyzlasov, where the detailed ceramic tables are presented, we could identify some close profiles. However, they are not commented on (Kyzlasov 2006: ill. 47, 38–39–43).

The parallels to those vessels can be found in the materials of the Syr Darya region (for example: Džety-Asar, Bolšoi Dom No. 3, Džety-Asar No. 9), assembled by L.M. Levina and her colleagues. In her monograph, she dated these to the 4th to the 7th centuries, with a possible prolongation into the 8th century (Levina 1971: 17, 20, ill. 3, 149–153, 159–160; 24, ill. 6, 86–90, 96–97). Based on the materials of Novopokrovskoe 2, we date them to the 8th century – in the strata there are so called Turgeš coins which are dated not earlier than CE 699, when the Turgeš dynasty has replaced the West Turkish one in the region.

So our research allows us to speak about one more line in the development of the tradition of urbanisation in theČu Valley which had not yet been defined. That is a Syr Darya line. Now we can see that the cultural development in the region was much more complex than former researchers have assumed. The following played a significant role in this process: that of Syr Darya, Sogdian and Chinese.[26] The autochthonic urban development among the local population is becoming more evident.

The concept of Sogdian colonisation proposed and developed in the studies of V.V. Bartol'd and A.N. Bernštam should be reviewed based on the new materials. For theČu Valley, as we assume, the infiltration of a Sogdian population (in the broadest sense) is correlated mostly with the Arab invasion of the Middle Asia, so it took place somewhat later. As an indirect argument, the Sogdian inscriptions

als, including clay.

24 For more on this topic, see Džani-Zade 2010: 232–276.

25 Vyzgo 1980: ill. 28.

26 It is known, for example, that the Chinese built a Dayun Buddhist monastery in Suyab/Ak-Bešim (Forte 1994: 41–57). There is generally a lot of evidence of Chinese influence on the cultural development in theČu Valley. The Chinese were present in the region at least until their defeat in the battle against the Arabs on the River Talas in 751 CE, possibly even longer. The whole Buddhist tradition in theČu Valley seems to be predominantly influenced by the Chinese at this time; for more on this, see Rott (forthcoming).

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on the *hums* can be mentioned, which are a confirmation of the information provided by Mahmud al-Kāschgharī, according to whom the Sogdian language was widespread in the country of Argu.[27]

So the early stage of the urban development in theČu Valley, which is still associated with Sogdian colonisation and known in the scientific literature as a Sogdian phase, should now be understood somewhat differently.

Unfortunately, to date our excavations have not produced clear finds to confirm the Buddhist character of the original structures inside the site walls. Historically, and based on the complex of Buddhist artefacts discovered during the construction of the House of Culture in the 1960s, and its date, such structures should be correlated with Horizon B. This point will be clarified by the continuation of archaeological work, first of all on Excavation 2 in the centre of the site.

Bibliography

Bernštam, A.N.
1950: Opyt klassifikacii arheologičeskih nahodok, in: Bernštam, A.N. (ed.), *Trudy Semirečenskoj arheologičeskoj èkspedicii. Čujskaya dolina* (= Materialy po arheologii SSSR 14), Moscow/Leningrad, 104–143.

Džani-Zade, T.M.
2010: Tipologiâ "lûten" v kul'ture islamskoj civilizacii, in: Ivanov, V.V. (ed.), *Antropologiâ kul'tury. Vypusk 4*, Moscow, 232–276.

Forte, A.
1994: An Ancient Chinese Monastery Excavated in Kirgiziya, *Central Asiatic Journal* 38, 41–57.

Gorâčeva, V.D./Peregudova, S.Â.
1996: Buddijskie pamâtniki Kirgizii, *Vestnik drevnej istorii* 217, 167–189.

Grigor'ev, G.V.
1940: Gorodiše Tali-Barzu, in: Gosudarstvennyj Èrmitaž. Otdel istorii kul'tury i iskusstva Vostoka (ed.), *Trudy otdela [istorii kul'tury i iskusstva] Vostoka. Tom 2*, Leningrad, 87–104.

Klâštornyj, S.G.
2003: *Istoriâ Central'noj Azii i pamâtniki runičeskogo pis'ma*, St. Petersburg.

Kožemâko, P.N.
1959: *Rannesrednevekovye goroda i poseleniâ Čujskoj doliny*, Frunze.

Kol'čenko, V.A./Rott, F.G.
2005: O Novopokrovskih gorodišah, in: Kol'čenko, V.A./Rott, F.G. (ed.), *Materialy i issledovaniâ po archeologii Kyrgyzstana. Vypusk 1*, Bishkek, 75–81.

Korženkov, A.M./Kol'čenko, V.A./Rott, F.G./Abdieva, S.V.
2012: O sil'nom srednevekovom zemletrâsenii v Čujskoj doline, *Geotektonika* 4, 62–74.

Kyzlasov, L.R.
2006: *Gorodskaâ civilizaciâ Sredinnoj i Severnoj Azii. Istoričeskie i arheologičeskie issledovaniâ*, Moscow.

Levina, L.M.
1971: *Keramika Nižnej i Srednej Syrdar'i v I tysâčeletii našej èry*, Moscow.

Rott, F.G.
Forthcoming: *Eŝe raz o buddizme v Čujskoj doline*.

Semenov, G.L.
2002: Raskopki 1996–1998 gg., in: Piotrovskij, M.B./Vilinbahov, G. (ed.), *Suâb. Ak-bešim*, St. Petersburg, 11–114.

Staviskij, B.Â.
1998: *Sud'by buddizma v Srednej Azii (po dannym arheologii)*, Moscow.

Sundermann, W.
1981: *Mitteliranische manichäische Texte kirchengeschichtlichen Inhalts*, Berlin.

Vyzgo, T.S.
1980: *Muzykal'nye instrumenty Srednej Azii*, Moscow.

27 The country of Argu is firmly connected with the settlement of the valleys of theČu and Talas rivers (Klâštornyj 2003: 168–181).

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Inner Syr Darya Delta

Archaeological sites during the second half of the 1st millennium BCE: An analysis of the settlement pattern

Gian Luca Bonora

Abstract: The culture of Chirik Rabat flourished during the second half of the 1st millennium BCE in the Inner Syr Darya delta, along the Zhana Darya and Inkar Darya deltaic branches. The main centres of this culture (Chirik Rabat, Babish Mulla, Balandy, and Sengir Tam) are represented by large fortified sites characterised by monumental architecture and funerary constructions (round and square mausoleums made of mud-brick and *pakhsa*, earthen barrows, slag kurgans (barrows), deep shaft pits, and so on). At the same time, there is a complete lack of evidence of the typical functions of a city, such as residential areas for concentrations of population, a density and differentiation of buildings, as well as specialised production and workshops, and it appears that these centres played no central role in mercantile relations and interactions with other communities. This paper presents some results of the archaeological research carried out in recent years by various teams with the aim of analysing the characteristics of the settlement pattern in the Inner Syr Darya delta.

Keywords: Syr Darya delta, Early Iron Age, Chirik Rabat culture, settlement patterns.

Резюме: Чирик-Рабатская культура была распространена во второй половине 1-го тысячелетия до н.э. во внутренней дельте Сырдарьи, вдоль дельтовых ветвей Жанадарья и Инкардарья. Основные центры этой культуры (Чирик Рабат, Бабиш Мулла, Баланды и Сенгир Там) представлены крупными укрепленными поселениями, которые характеризуются монументальной архитектурой и погребальными сооружениями (круглыми и квадратными мавзолеями из глинобитных кирпичей и пахсы, земляными и шлаковыми курганами, глубокими погребениями с подбоем и т.д.). В то же время в них полностью отсутствуют такие типичные свидетельства о функциях города, как жилые кварталы — место проживания основной массы населения, плотность и дифференциация зданий, специализация производственной и хозяйственной деятельности, и, как кажется, этим центрам не была отведена ведущая роль в торговых взаимодействиях и коммуникации другими сообществами. В данной статье представлены некоторые результаты археологических исследований, проведенных в последние годы разными экспедициями с целью анализа характеристик модели расселения во внутренней дельте Сырдарьи.

Ключевые слова: Сырдарьинская дельта, ранний железный век, Чирик-Рабатская культура, модель расселения.

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Fig. 1: Map of the Inner Syr Darya delta showing the main archaeological sites located on the Zhana Darya and Inkar Darya deltaic branches (author's elaboration of a satellite image © Google Earth Pro).

1 Introduction

The Lower Syr Darya was intensively investigated from 1946 onwards by the Khorezmian Archaeological-Ethnographical Expedition (KhAEE) led by S.P. Tolstov. Surveys and extensive excavations, palaeo-environment reconstructions, and analyses of the material culture were performed by dozens of scholars, their findings being copiously published in books and journals (Tolstov 1948; 1952; 1958; 1962; Andrianov 1969; Levina 1971; Višnevskaâ 1973; Vajnberg/Levina 1992; 1993; Itina/Âblonskij 1997; 2001). With the collapse of the USSR, Russian research in the Syr Darya delta came to a halt. From 2004, however, research in the deltaic region has been resumed by the Chirik Rabat Archaeological Expedition (ChRAE), a team of young Kazakh scholars led by Zh. Kurmankulov of the Institute of Archaeology "A.Kh. Margulan" of Almaty (Kurmakulov et al. 2005; 2006; 2007; 2008; 2009a; 2009b; 2010; 2011; Kurmankulov/Utubaev 2013; Tažekeev 2013; Utubaev/Bolelov 2016). The team's main objective was to conduct extensive excavations of settlements and citadels, mausoleums, funerary barrows and shaft-hole burials in various localities of the deltaic expanse: Chirik Rabat, Balandy, Myrankul', Inkar Kala, and other sites (**Fig. 1**).

The Chirik Rabat Archaeological Expedition was joined by the Italian Archaeological Expedition in Kazakhstan (IAEK) from 2007 to 2011, with the purpose of investigating topographically the area in and around Chirik Rabat and the funerary site of Sengir Tam, and also of exploring the southernmost part of the alluvial plain, which is crossed by the Inkar Darya and Kara Darya deltaic branches, searching for the earliest peopling (Neolithic and Bronze Age) of the region (Beardmore/Bonora/Kurmankulov 2008; Bonora/Kurmankulov 2009; Bonora et al. 2010; Bonora 2014).

The heterogeneity and fractioning of the economic and cultural patterns of the semi-sedentary pastoralists and farmers in the lower Syr Darya plain in the Early Iron Age is illustrated by a series of very complex sites: the extremely rich funerary complexes of tribal leaders in the northern Tagisken plateau date back to the Late Bronze and Early Iron Age and are characterised by monumental raw-brick architecture and by pottery made by skilled craftsmen; the barrows in Uygarak and southern Tagisken dating back to the 6th to 5th centuries BCE; the walled settlements of Chirik Rabat, Babish Mulla and Balandy, pertaining to the period from the 5th to 2nd centuries BCE, surrounded by farmland and irrigation works along the Zhana Darya; and, finally, the monuments of agricultural oases of the Dzheti-Asar culture along the branches flowing out of the Zhana Darya and Kuvan Darya, in the middle section of the inner delta, which were inhabited from the first centuries BCE to the Early Middle Ages. All these sug-

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gest a distinctive, complex culture with an advanced pastoral economy combined with agriculture.

In the 1st millennium BCE, the Lower Syr Darya was an oasis of pastoralists where the cultural components of the large transhumant groups of herders of the Eurasian steppe intermingled with those of communities of settled agro-pastoralists, descendants of the Late Bronze Age Tazabag'jab tradition, who had succeeded in adapting to the semi-arid climate of Central Asia thanks to large-scale irrigation systems: a crucial requirement for farming. These pastoralists left evidence of a very complex system of spiritual and material culture (architecture composed of mud bricks and *pakhsa*, the co-occurrence of wheel-thrown and handmade ceramics, different types of funerary rituals in diverse burial structures, a great diversity in settlement location, and so on) characterised by temporary human peopling along the shifting courses of the Zhana Darya, Inkar Darya and Kara Darya, southern deltaic branches of the Syr Darya delta. Cultural influences from the Iranian plateau under Achaemenid rule, possibly via the Khoresmian region, as well as from the Eurasian steppe inhabited by mobile groups of the Saka and early Sarmatian culture played a very important role in the formation of these complex societies. Thus, the Chirik Rabat culture was the result of a multi-component socio-cultural evolution founded on the deep and steady interaction "between the steppe and the sown" that took place in the second half of the 1st millennium BCE. It has been interpreted by S.P. Tolstov as a great agrarian state reliant upon its technologically advanced irrigation systems. In his model of the ancient state, fortified sites, characterised by their great size, monumental structures and adjacent canals (for example Chirik Rabat, Babish Mulla, and Balandy), are believed to have been urban centres (cities) from which the state could guard and store, administer and distribute, the agricultural surplus. Smaller sites located around these so-called cities were interpreted as towns or villages, and fortified buildings were thought to have been manor houses or farmsteads. This accorded with the Soviet socio-evolutionary framework of historical materialism, and provided a three- or four-tier settlement hierarchy, which tied into the idea of a great agrarian state (Tolstov 1948; 1952; 1962).

Tolstov's theory that the Inner Syr Darya sites were nucleated urban settlements is grounded on three key assumptions: 1) that fortified sites associated with canals brought about the development of a complex, centralised, sedentary state; 2) that sites found in an oasis location in Central Asia belonged to a settled and primarily agrarian population; and 3) that large fortified sites were urban settlements. However, these assumptions must be re-examined, for there is little archaeological evidence to indicate that these Iron Age fortified sites were true urban settlements. There is no obvious link between fortified sites, hydrological systems, and the state in ancient Central Asia, and an oasis location does not necessarily mean a primarily sedentary and agricultural society.

It must be stressed that little analysis was carried out on the actual material culture and topographical morphology of most of the sites. A handful have been investigated (e.g. Chirik Rabat, Balandy, Babish Mulla, and Sengir Tam), but there was no examination as to how and why these sites were urban, or even a discussion concerning the function and particular nature of these Inner Syr Darya "cities".

Although urbanism should be defined regionally and temporally, archaeological remains must exhibit a core set of features or traits that may be regarded as markers of urbanism. Various attempts have been made by numerous scholars to define what exactly constitutes an ancient city in Central Asia (Francfort 1988: 228–229; Masson 1981: 135–148; P'yankova 1994: 355–372; Tosi 1973: 429–463; 1977: 45–66; 1984: 22–52; 1986: 153–187). As a matter of fact, there is a wealth of scholarly literature on this topic, which, briefly summarised, identifies the following key features in any definition of the urban:

- a concentration of population: ancient cities in Central Asia were spatially discrete places with a large permanent population density, and this consequently implies a high density of structures and nucleated, or centralised, spatial planning;
- the size of the site is larger than the surrounding, coeval sites;
- a high density and differentiation of building types;
- the presence of monumental architecture associated with different institutions, and various forms of specialised production and workshops or establishments;
- and, last but not least, the fact that the city served as a nexus or hub or central place for mercantile relations, and for interactions and links with other communities.

Although there were fortified sites of sufficient size that appear to have had some specialised functions, mostly associated with elite or ritual/ceremonial activities, the Inner Syr Darya sites of the Chirik Rabat culture lacked medium- to high-density concentrations of intra-mural buildings and permanent housing precincts. Moreover, a key urban characteristic is the evidence of a large, concentrated and permanent population, and this paper contends that this major feature is missing from the fortified sites of the Chirik Rabat culture. There is little if any evidence of habitation within most of the larger sites. And this is true for Chirik Rabat, Babish Mulla, Balandy, and Sengir Tam, where the nearest evidence of residential settlement was located some kilometres away. Settlement evidence was most commonly

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Fig. 2: Chirik Rabat. 3D topographical plan of the site (elaboration by G.L. Bonora and S. Ishangaly).

found in open, unfortified villages with a very low density of small mud-brick houses or farmsteads dispersed in linear zones along water-supply canals.

Some sites of the Chirik Rabat culture will be examined here in some detail to exemplify the de-centralised, low-density and episodic character of the ancient Syr Darya settlement zone.

2 Chirik Rabat

Chirik Rabat is an oval-shaped site covering more than 40 ha (ca. 850 × 600 m), located on the left bank of the Zhana Darya River, after which the homonymous archaeological culture that developed in Mesopotamia between the Zhana Darya and the Inkar Darya in the second half of the 1st millennium BCE is named. Enclosed by two outer fortification walls and a moat 40 m wide and 4.5 m deep, Chirik Rabat was given a third, almost rectangular earth wall, built in the central part of the site and enclosing the main citadel (**Fig. 2**).

The most important archaeological evidence at Chirik Rabat is represented by underground and surface funerary buildings (Vaynberg/Levina 1992; 1993). Between 1957 and 1960, Ju.A. Rapoport of the KhAEE excavated a very large underground funerary barrow, about 60 m in diameter and 3.5 m high, located in the north-eastern part of the site. Unfortunately, it had already been plundered (Tolstov 1961a: 131–132; 1961b: 73–74; 1962: 139–144; Tolstov/Ždanko/Itina 1963: 53–56). Two surface mud-brick mausoleums, one circular and one rectangular in plan, were excavated by S.A. Trudnovskaja and V.A. Lokhoviz respectively, both members of the KhAEE (Trudnovskaâ 1963; Tolstov 1962: 150–151; Lohovic 1963), while in recent years a funerary barrow (2004–2007), some pit-shaft graves and another square-shaped mausoleum (2011– 2013) were completely excavated by Zh. Utubaev, A. Tazhekeev and R. Darmenov, of the ChRAE (Chirik Rabat Archaeological Excavation), headed by Zh. Kurmankulov (Kurmakulov 2011).

Other excavations have been carried out in different sectors of this large walled site. However, these recent investigations and the trenches opened on the surface of Chirik Rabat have not revealed any features consistent with living quarters, industrial or mercantile areas, or permanent settlement within the site.

On the opposite bank of the Zhana Darya River, around 400 m from the right bank, the settlement of Chirik Rabat 3 (108 × 122 m) was fortified by a wall 3 m high characterised by 1.3 m high triangular loopholes set at a distance of 2 m along every

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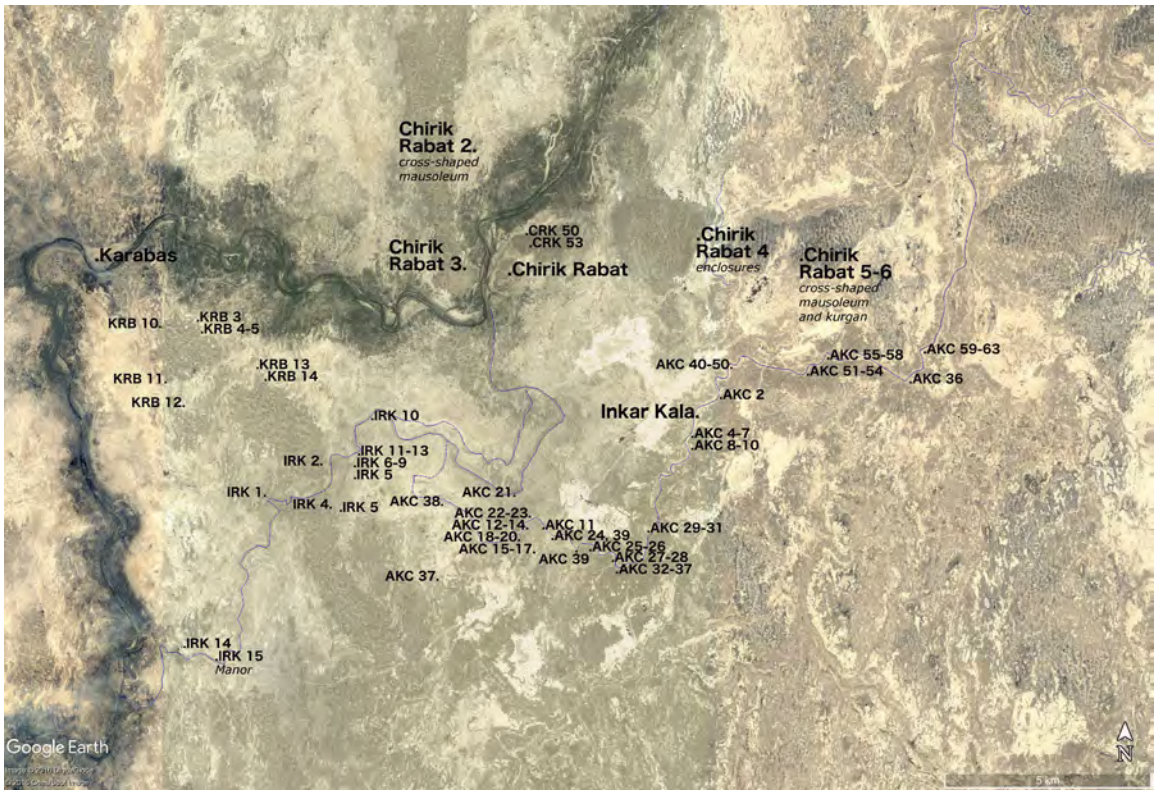


Fig. 3: Distribution of archaeological sites in the environs of Chirik Rabat (author's elaboration of a satellite image © Google Earth Pro).

side of the walled settlement. Today, unfortunately, this monument lies in a grave state of disrepair. No pottery sherds indicating domestic and household activities, nor remains of production and trade activities, were found within the fortified space or in the area surrounding the fortification wall.

The results from the pedestrian surveys in and around Chirik Rabat demonstrate that there was clear evidence of domestic occupation, non-monumental structures, hydrological systems, and production activities only outside the enclosures, in a very low-density and de-centralised settlement pattern (**Fig. 3**).

This suggests that, though the archaeological features were not well preserved and were only partially exposed, material remains of settlement with evidence of ceramic and metallurgical production were relatively easy to find within the environs of the fortified site (within a radius of ca. 3–7 km) and near a water supply canal or watercourse. These show that settlements were typically small, dispersed, and had limited sedentary populations, which implies that a significant proportion of the population was mobile.

3 Babish Mulla

Babish Mulla is another important archaeological complex of the Chirik Rabat culture. It is located about 14 km west of the Akkyr plateau and 40 km north-east of Chirik Rabat, between three side palaeo-courses on the right bank of the Zhana Darya (Tolstov et al. 1960; Tolstov 1963; Andrianov 1969; Vaynberg/Levina 1992; 1993). The fortified square citadel of Babish Mulla 1 (ca. 100 × 100 m) is located in the centre of the oasis; it is characterised by defensive *pakhsa* walls and fortified by round towers with arrow-shaped loopholes arranged in a checkerboard pattern. The only building within the citadel is a large structure or "big house", a massive annexed building similar to a dungeon (defensive tower more than 6 m in height) that has been excavated. About 150 m south-west of the citadel stands the monumental square mausoleum Babish Mulla 2 (21 × 21 m) with four funerary chambers. Another funerary monument, Babish Mulla 3, is located about 800 m north of the mausoleum Babish Mulla 2. It was represented by a barrow ca. 18–20 m in diameter covering a stepped platform measuring 5.5 × 5.5 m. On the flat surface of each step, numerous ditches and pits were excavated as burials of infants, sub-adults and adults.

It must be stated that significant evidence of settlements and fields with remains of irrigation structures pertaining to the second half of the 1st millennium BCE was found in the environs of Babish Mulla (Tolstov/Vorobeva/Rapoport 1960: 40–43; Tolstov 1961a: 123–126; 1962a: 156–158). While

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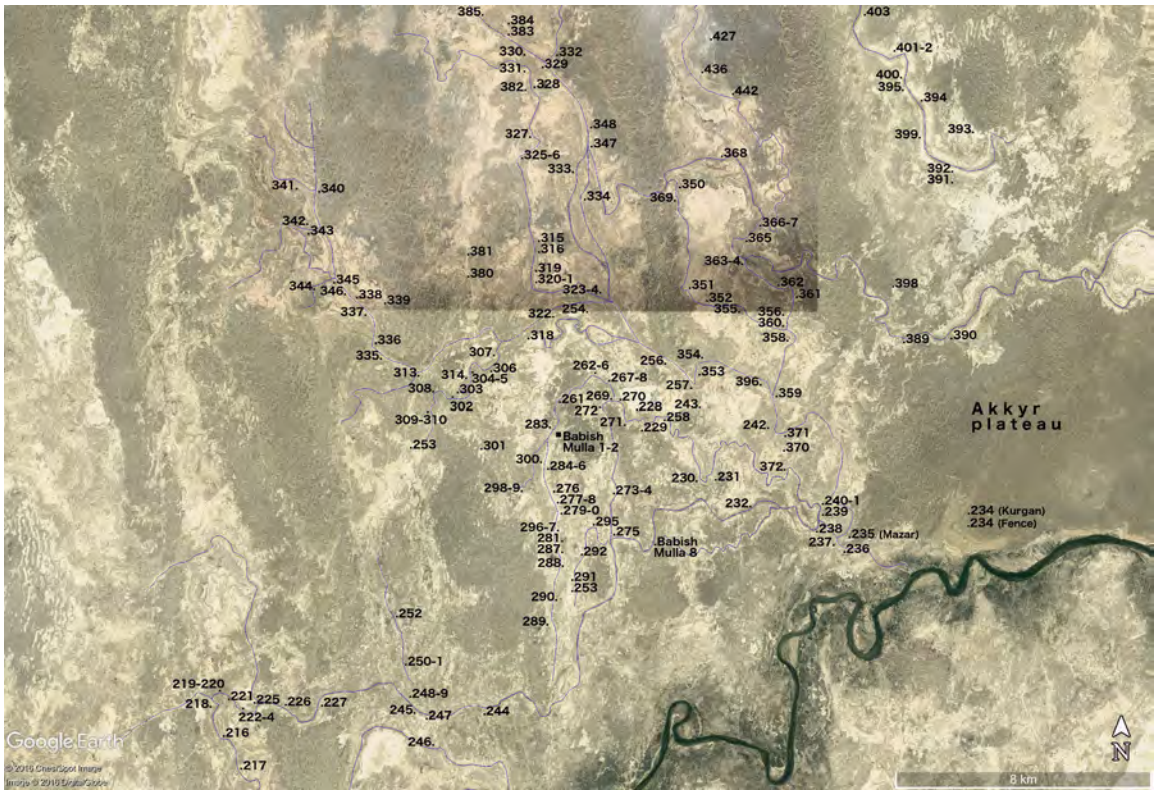


Fig. 4: Distribution of archaeological sites in the environs of Babish Mulla (author's elaboration of a satellite image © Google Earth Pro).

all the area around Chirik Rabat is covered by later deposits associated with the farming and irrigation practices of 18th- and 19th-century Karakalpak communities, after the end of the Chirik Rabat culture, in the late 3rd or early 2nd century BCE, the environs of Babish Mulla were no longer exploited and altered (**Fig. 4**).

Thus this rural settlement complex, which extends for 40 km from east to west and 15–20 km from north to south, is well preserved. According to the KhAEE and ChRAE researchers, about 200 sites (villages, scattered dispersions of pottery, barrows, other surface funerary buildings and burial grounds composed of pit graves) have been identified in this area, most of which were inhabited simultaneously. The main canal of the oasis was diverted from the Zhana Darya at the foot of the Akkyr plateau, about 6 km east of the citadel. Along its course, which is characterised by numerous side branches, at least four large clusters of small villages have been detected: the first located a short distance from the citadel, west of the Akkyr elevation, the second between 4 and 12 km north and north-east, the third between 3 and 10 km north-west, and the fourth between 8 and 14 km south and south-west of Babish Mulla 1. This settlement system was evidently non-nucleated, very low in density, extensive, and de-centralised. Dwellings, farmsteads and other facilities were located in low-density bands along water courses, which were either artificial supply canals or river channels. Activities and sites were spread out around the micro-oases that arose along the canals or river branches. It may be argued that the archaeological evidence suggests not exclusively settled population, but a mobile one able to move quickly and easily to different locations around the delta.

The Babish Mulla area offered some significant glimpses, as well as concrete remains, of productive activities that were completely absent from the environs of Chirik Rabat. The material culture of the Babish Mulla sites is peculiarly represented by quartzite artefacts (scrapers, burins, blades, and other instruments for working wood and leather), the source of which has been identified as the top of the Akkyr elevation, about 14 km west of the fortified citadel of Babish Mulla 1, while a ceramic workshop has been discovered some 4.5 km south-south-east of the main citadel.

This latter site was recently excavated by the archaeologists of the ChRAE (Utubaev/Bolelov 2016). Named Babish Mulla 7, the site preserved the remains of seven mud-brick dwellings or workshops and at least nine ceramic kilns, surrounded by ceramic waste and finds of under- and over-fired artefacts. In the north-western sector of Babish Mulla 7, a large manor made of rectangular mud bricks has been identified. Only its southern part is visible,

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as the northern part is covered by a sand dune. This discovery clearly shows that the centres for pottery manufacturing in the settlement system of the Inner Syr Darya delta in the second half of the 1st millennium BCE were de-centralised to specific areas at some distance from the main centre, which was characterised solely by its socio-political and symbolic (citadel), defensive (dungeon), and socio-religious (mausoleum) functions. The main role of the fortified centres of the Chirik Rabat culture was not residential and they were not permanent population centres, as was the case in the Mediterranean, Near East and China during the same period, nor did they provide services for the surrounding hinterland. Therefore, they were not cities. These large fortified sites were, however, unique and characterised by specialised functions: they served as venues for a range of activities, including trade, refuge in case of enemy attack, itinerant habitations, élite residences, and the sites for military and ceremonial or ritual events. Chirik Rabat, in addition to Babish Mulla and Balandy, as we will see later, fulfilled a similar role to that of the Achaemenid royal centres (see Persepolis, Pasargadae, and Susa) and served as key symbolic venues for display, for administrative, military and ceremonial activities associated with the ruling élite. In this sense, the elaborate fortified sites were ceremonial centres with crucial socio-political and symbolic functions, where monumental architecture and prestige goods, true status symbols of the ruling head of the community, played a very important role.

4 The albastra from Chirik Rabat: High-prestige goods and evidence of long-distance trading

The presence of high-prestige goods is documented by the recent discovery of large fragments of two marble vessels (*alabastron*) in the burial chamber of a rectangular mausoleum excavated by members of the ChRAE, in collaboration with the IAEK, at Chirik Rabat (Ivančik/Lur'e 2013: 286–294). Both *alabastron* are inscribed with the same old Greek writing composed of two words with one and four letters respectively: A on the first stroke (difficult to interpret; it may be an indication of quantity or quality) and ΚΑΣΙ on the second stroke (*Cassia* or *Cinnamomum cassia*, a fragrant spice made from the bark of trees and typically used for funerary purposes). This is the earliest Greek inscription discovered thus far in what is now Kazakhstan and the only one found in the Inner Syr Darya delta. According to the palaeographic analysis, the inscription can be dated to the first half of the 4th century BCE, an assumption based mainly on the writing technique of the two Alpha letters.

Alabastron were common artefacts in 6th- to 4th-century BCE funerary assemblages pertaining to the Persian culture in Near and Middle Eastern contexts. They gained great popularity during the Persian period, following the conquests of Cyrus the Great, and appears to have had royal associations. The use of stone alabastron as gifts for royalty or politicians is further evinced by several stone alabastron, with proveniences ranging from western Anatolia to the Persian heartland, inscribed with the names of Persian kings. The use of inscribed vessels as royal gifts was rooted in earlier Near Eastern and Anatolian traditions, and was particularly common for metal vessels in the greater Persian world. The long-term value attached to such royal gifts is suggested by the discovery of a stone alabastron inscribed with the name of the early 5th-century Persian king Xerxes in front of the mid-4th-century tomb of Maussollos in Halikarnassos (Roosevelt 2008: 285–297). Of course, not all alabastron were used as royal gifts, and the great abundance of examples throughout the Near and Middle East and Central Asia may be interpreted the result of a sort of emulation of royal activities and the increased value of alabastron due to its royal association. So it may be surmised that the two alabastron found at Chirik Rabat are evidence of cultural interactions between the pastoralist tribes of the Inner Syr Darya delta and the Near Eastern or Iranic peoples during the course of the 1st millennium BCE. These two marble vessels may be regarded as diplomatic gifts of the Achaemenids for the Saka prince or ruler in order to establish a political alliance or an economic or military agreement, or to seal a marriage.

5 Balandy

The archaeological complex of Balandy (or Bulandy) is located on a northern branch of the Inkar Darya River, about 39 km east of Chirik Rabat, about 21 km east-north-east of Sengir Tam, and 36 km south-east of Babish Mulla. In Balandy, as in the previous cases, human settlement began when the river was full of water and ended when the same branch dried up. Also in this case there is a tight, biunivocal relation between the river water and human life in the district; apart from the Inkar Darya River, there were no other sources of water in the area.

The complex is composed of some distinctive monuments (Tolstov 1962; Tolstov et al. 1963; Vaynberg/Levina 1992; 1993; Kurmankulov/Utubaev 2013; Kurmankulov/Utubaev/Darmenov 2014). Balandy 1 is a fortress with courtyard or a large walled farmstead (ca. 80 × 130 m) with towers at the corners, characterised by loopholes, and inner

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Fig. 5: The round mausoleum of Balandy 2 (photo by the author).



Fig. 6: The funerary barrow covered by slag of Kyzyl-depe, in the Balandy district (photo by the author).

residential rooms, the walls of which were decorated with polychrome plasters.

Balandy 2 is an elegant, cylindrical mausoleum with a central room and a corridor around it composed of six rooms and a south-facing entryway (**Fig. 5**), while Balandy 3 and Balandy 4 are both round mausoleums with a cruciform inner layout. Asar belongs to the same class of monuments, while Mynaral 1 and Mynaral 2 are two circular mausoleums excavated in recent years by the ChRAE team. The last site of the Balandy district that needs to be mentioned is Kyzyl-depe (**Fig. 6**).

It is a kurgan with a reddish surface, covered by slag left over from pyrotechnical activities, kiln-fired mud bricks, and ceramic sherds, and with signs of plundering and/or destruction. A square fence with low earth walls was detected near this kurgan in the last years of research.

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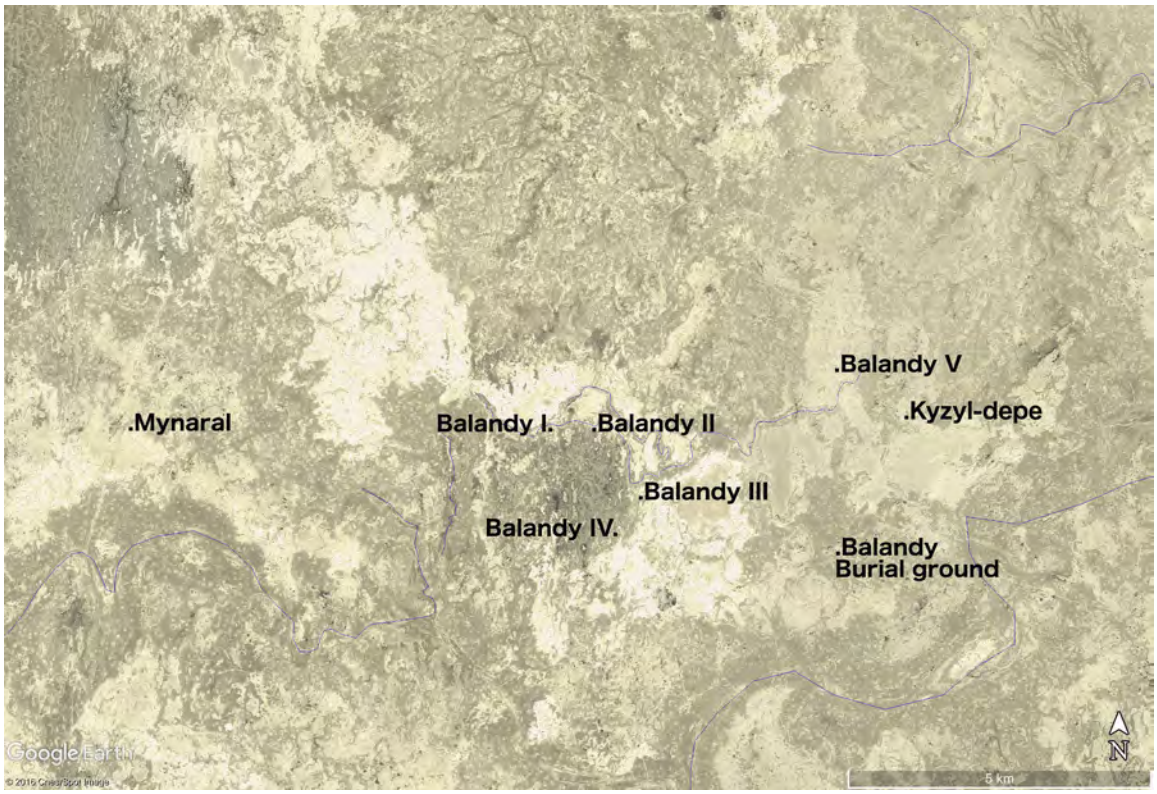


Fig. 7: Distribution of archaeological sites in the environs of Balandy (author's elaboration of a satellite image © Google Earth Pro).

Balandy 1 was not only a walled dwelling or homestead, but also the centre of a large farming settlement (ca. 150–200 ha) that used the waters of an artificial channel detached from one of the major distributaries of the Inkar Darya, about 1.5 km from the fortified citadel. Farmhouses, manors, small water channels, irrigation ditches and drains have been identified on both sides of the channel. The number of individual dwellings surrounding the fortification of Balandy was more than three dozen (**Fig. 7**).

As previously said of Chirik Rabat and Babish Mulla, human settlement at Balandy also occurred in unfortified, low-density, non-nucleated zones extended along water supply canals or river channels, and without concrete evidence of non-urbanism, as was the case in southern Europe and the Near East during the same period.

6 The Sengir Tam plateau

The Sengir Tam plateau, located 16.5 km east of Chirik Rabat, 36.5 km south of Babish Mulla, and about 22 km west-south-west of Balandy, is a natural elevation between two large northern branches of the Inkar Darya (**Fig. 8**).

One of these branches, utilised by the Balandy settlement area, flowed some kilometres north of the elevation, while the second flowed just at the foot of the plateau. The slag kurgan of Sengir Tam (SNG 1) is a large round structure (ca. 34 m in diameter) located atop the homonymous plateau and ringed by a round mud-brick wall 6 m high. Today, the monument is in a poor state of preservation as the northern and southern parts of the wall have collapsed and conspicuous traces of plundering, as well as human and animal trampling, are clearly visible on its surface (Tolstov 1961; 1962; Tolstov et al. 1963; Vajnberg/Levina 1993: 47–61).

The Sengir Tam plateau was the object of an extensive survey and two excavations in 2008–2009 by the IAEK members. The exploration revealed, in addition to the aforementioned great slag kurgan, a mound 30 m in diameter and ca. 1.5 m in height (SNG 3), excavated in the 2010–2011 seasons; five low, small-sized funerary kurgans (SNG 32bis, 38, 39, 40 and 41), located between SNG 1 and SNG 3, two of which were excavated in 2008 in association with the enclosure SNG 4–5; five rectangular earth enclosures (SNG 2, 4–5, 7, 10 and 22–25); and four other funerary structures represented by barrows and shaft pit graves (SNG 6, 9, 42 and 60). Therefore, the Sengir Tam plateau appears to be a place of decidedly funerary character, where very interesting and unusual structures were erected, differing in shape, dimensions, function and probably also in chronology (Bonora/Kurmankulov 2009). In fact, the pottery collected from the surface of the pla-

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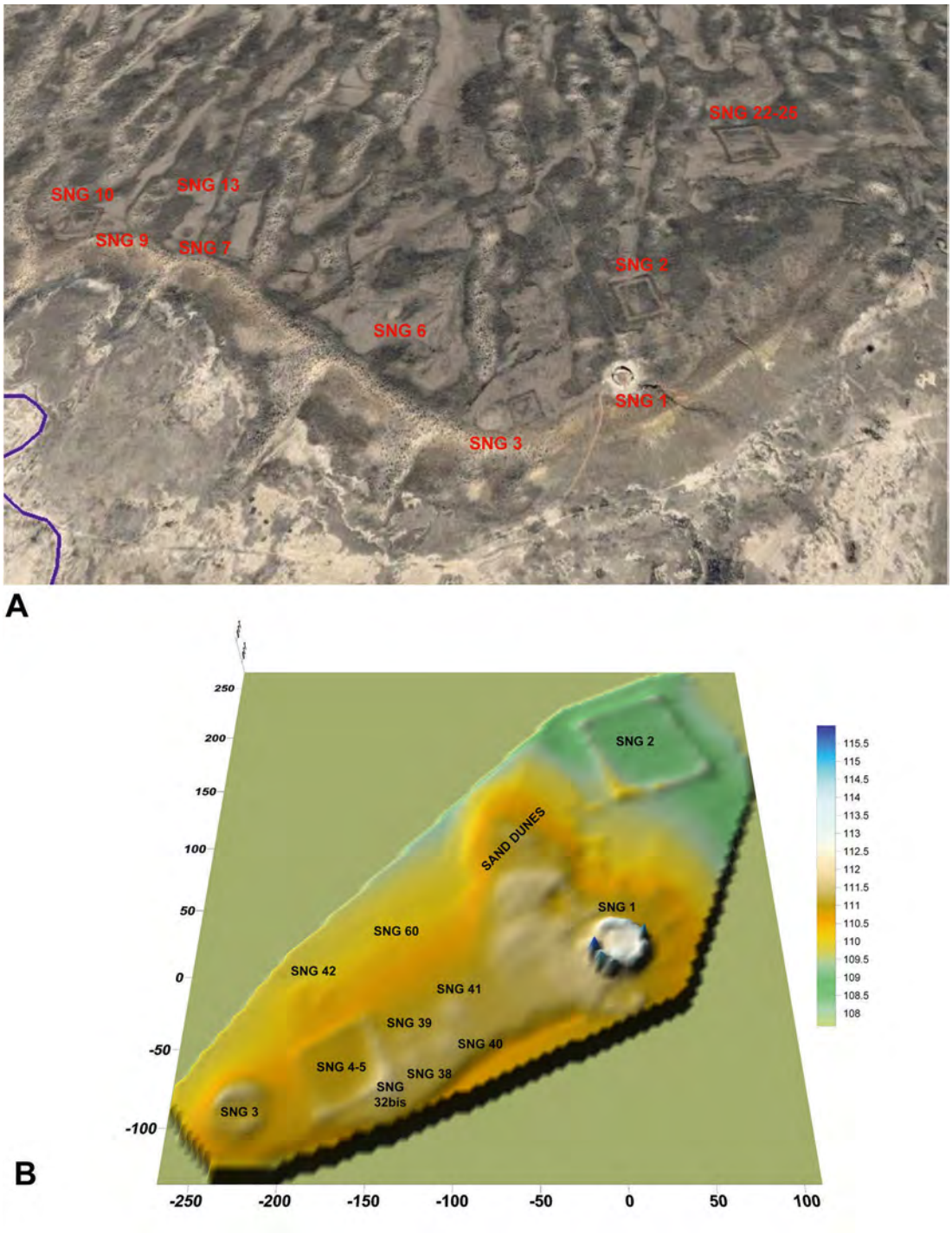


Fig. 8: **A**: Google Earth Pro image of the Sengir Tam plateau with indications of the main sites singled out; **B**: Sengir Tam. 3D topographical plan of the main sector of the graveyard, with the indications of the archaeological evidence singled out (elaboration of the author).

teau and near the archaeological features show that only the SNG 3 mound is dated to the Chirik Rabat culture (2nd half of the 1st millennium BCE), while most of the others are related to a period between the 7th and 5th centuries BCE.

SNG 4-5 is a rectangular earth enclosure (ca. 35 × 30 m) aligned east-west. The height of the walls does not exceed 0.5 m above the ground of the plateau. Neither archaeological structures, nor anthropogenic layers, nor finds were discovered in the area within the earth walls. The south-east corner of the enclosure was covered by a barrow (SNG 32bis) 13 m in diameter and approximately 0.3 m in height. The first IAEK excavation of 2008

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Fig. 9: The round mausoleum with long dromos – SNG 3 – excavated in the 2010 and 2011 seasons on the Sengir Tam plateau (photo by the author).

exposed the fill of the barrow and the south-eastern corner of the earthen enclosure. After the fill had been removed, further excavation revealed a wide ditch, stratigraphically below the barrow, which ran around the outer perimeter of the enclosure. The ditch was 4 m wide in its upper section and 1.5 m in the lower, while the depth did not exceed ca. 1 m. At the bottom of the ditch were found, in close association, a rectangular mud-brick hearth, the flat base of a rough, hand-made vessel (with typical Early Iron Age shape, paste and inclusions) in a very poor state of preservation, and a few osteological remains of a caprid. As no human remains have been found, it may be conjectured that in this specific case, the mound was erected over the place where some sort of ritual was celebrated, in which were embedded a fire, a ceramic container, and an animal, or part of it.

At Tagisken, in the northern part of this Late Bronze and Early Iron Age graveyard, two walled enclosures analogous to that examined at Sengir Tam were excavated by M.A. Itina of the KhAEE (Itina 1984). The only feature differentiating these three structures is the position of the ditch, which runs around the inner perimeter of the earthen enclosures at Tagisken. These structures are extremely difficult to interpret because of the absence of any associated material culture, yet they are one of the most interesting archaeological features of the Early Iron Age in the Syr Darya delta. Besides the two in Tagisken, the five surveyed on the Sengir Tam plateau, and the one identified near Kyzyl-depe in the Balandy archaeological complex, three others located on a plateau raising about 4.5 km east of Chirik Rabat, towards Sengir Tam, and another one located atop the Akkyr plateau (site 234) are particularly noteworthy.

The SNG 38 barrow was the object of the second IAEK excavation in 2008. Oval in shape (11 m from east to west and 8.5 m from north to south) and with a height of about 0.5 m above the surrounding ground, this barrow was badly disturbed by a rodent and its burrow. The grave (2.45 × 1.10 m) is oriented south-west to north-east and is about 0.7 m deep. The excavation revealed that the skeleton was placed in a supine position and that animal activity had partially disturbed the skeleton, leaving only the pelvis, the lower limbs and the right arm in anatomical connection. No artefacts were found in association with this body. A carved quartzite nucleus, pyramidal in shape, was found in the upper fill of the tomb, where burrowing animals had disturbed most of the fill. Some thin patches of ash and a small number of charcoal fragments were noted a few centimetres above and around the osteological remains. This, and the anthropological analysis carried out by the anthropologists of the IAEK on the preserved bones, suggest that a purification fire was lit in the grave pit, but was put out before it touched the human body. A similar fire ritual is well attested among the monuments of the southern part of the Tagisken graveyard and in almost all the funerary buildings of the Chirik Rabat culture (Itina/Âblonskj 1997; 2001; Vajnberg/Levina 1993).

In the 2010 and 2011 seasons, the SNG 3 site was the object of an extensive excavation, carried out by a team composed of Italian and Kazakh special-

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ists. The site consists of a large round mausoleum (ca. 10 m in diameter) made of mud bricks and *pakhsa*, and characterised by a long dromos (11 m in length) facing south-east (**Fig. 9**).

The construction, built on a foundation of thick reed layers, was used for funerary purposes, as were many other round mausoleums identified and excavated by the KhAEE members in the past in the Syr Darya inland delta. All the bones were spread out in a disorderly fashion and without any anatomical connection, both in the corridor and the round chamber, documenting evident signs of plundering and destruction. According to the first anthropological analysis, the osteological remains belong to three different individuals (two males and a female). Some remains of a steppe fox (*Vulpes corsac*) have also been identified. The funerary inventory consisted of about 20 gold beads and small plaques, some bone, paste and stone (jet) beads, a few pottery fragments, and a shell-shaped stone amulet. During the cleaning of the dromos entry, closed by stones of irregular shape and different sizes, the remains of the metal cladding of what may have been a wooden bowl have been found. All the metal plaques were in a very poor state of preservation. However, the presence of small holes, some of which had very thin nails, and the bent shape of these fragments revealed that these artefacts have been used to decorate and cover the mouth of a wooden bowl. The analysis performed at the Istituto Centrale per la Conservazione e il Restauro in Rome documented that these plaques were forged using an alloy with a high silver content (M. Vidale, personal communication).

About 7 km east-north-east of Sengir Tam slag kurgan, a new graveyard was discovered in 2005 by the ChRAE and IAEK teams. As is the case in Tagisken, Uygarak and Sengir Tam, this burial ground also, which has been conventionally named Sengir Tam 2, sits atop a plateau located between two palaeo-courses of the Inkar Darya. The graveyard comprises about 20 ground barrows, the diameters of which range from 8 to 14 m, their height from 0.3 to 1.3 m. Fragments of slags covered the surface of some graves. No archaeological excavation has been carried out so far, though the burials of this necropolis seem to be very similar to those excavated at Uygarak by the KhAEE team.

Medium-size residential settlements

While the archaeological evidence on both Sengir Tam plateaus refers only to funerary structures without any remains of dwellings and residential facilities, two archaeological sites (Inkar Kala, or CRK 52, and SNG 47) located some kilometres north of Sengir Tam and about 5 km south-east of Chirik Rabat respectively, represent medium-sized settlements, hierarchically situated halfway between the large and fortified Chirik Rabat, Babish Mulla, and Balandy archaeological sites and the surface scatters of handmade and wheel-thrown pottery and other material along the main water distributors, both natural and man-made. These dispersions are the remains of a cluster of small villages composed of a few dwellings.

Inkar Kala[1] and SNG 47[2] cover an area of ca. 1–2 ha, with a central raised mound (a fortress, a fortified large homestead, or a walled village), and are probably associated not only with farming activities but also with craft working (**Fig. 10**).

In fact, the eastern part of the SNG 47 settlement surface is completely covered by pottery sherds in association with oval-shaped kilns and one-room structures (probably workshops for the manufacture of ceramics). It is possible to hypothesize that one of the main historical roles of these types of sites was the control of crop yields and the correct maintenance of the hydraulic system necessary for agriculture.

7 Conclusions

The main function of Chirik Rabat, whether a settlement or graveyard, is difficult to establish, unlike those of the nearby coeval complexes of Babish Mulla and Balandy, where many villages of various sizes, characterised by living quarters and workshops, lie near funerary, palace, and fortified structures. The defensive nature of the Chirik Rabat site cannot be denied, as the conspicuous presence of funerary structures evinces its commemorative character. At the same time, considering that the three high, massive funerary barrows are today, and possibly also were in the past, the only geographic reference points in a completely flat landscape, they will have played a very important symbolic role in the cultural landscape of the Inner Syr Darya. The socio-political, military and religious function of Chirik Rabat – as an ancestral burial ground, as a venue for socio-political decisions to be made under the protective aura and auspices of the aforementioned forefathers, as a fortified stronghold and refuge in the event of an enemy attack or other disasters and calamities, and as a decidedly recognisable marker visible from afar and characterised by enduring landscape features that symbolise power, strength, wealth, tenure and

1 Located 5.8 km south-east of Chirik Rabat, on both banks of one of the main palaeo-rivers of the Zhana Darya, connecting the Akkyr plateau and the Chirik Rabat area, Inkar Kala is currently one of the main objects of the ChRAE expedition.

2 SNG 47 is located 4.65 km north-west of Sengir Tam on the left bank of a branch of the Inkar Darya, the same arm flowing in the second half of the 1st millennium BCE through the Balandy settlement complex.

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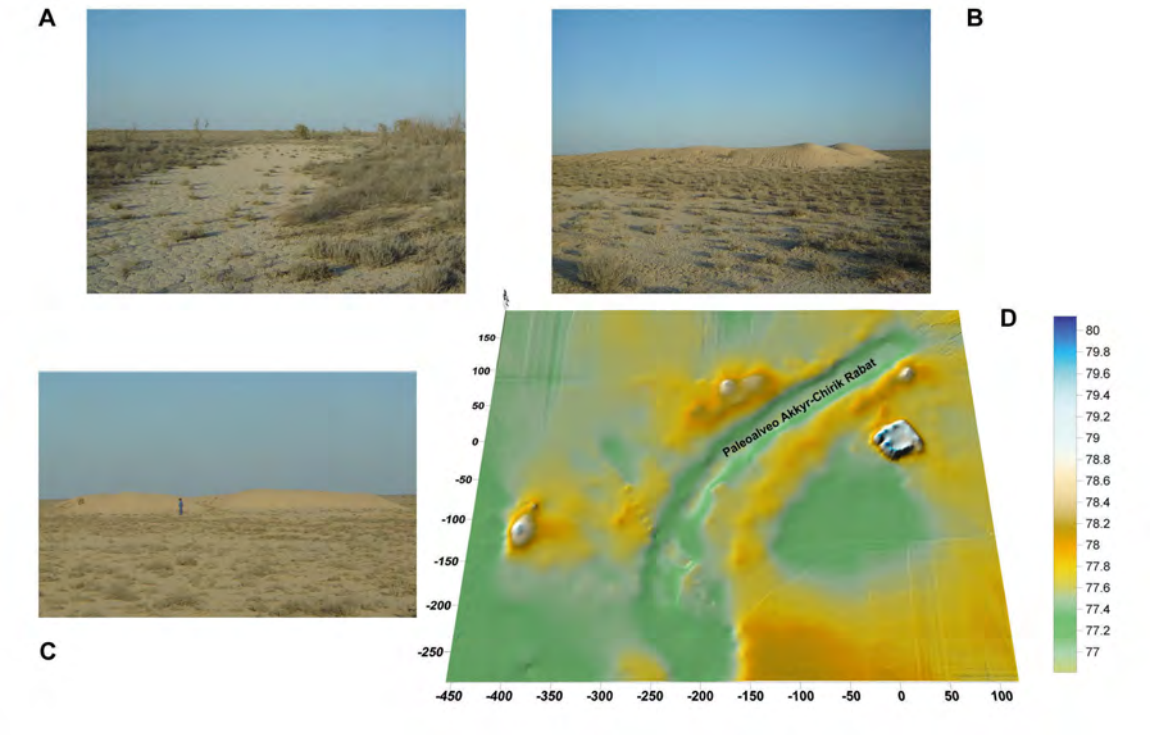


Fig. 10: The settlement of Inkar Kala. **A**: The palaeo-course near the site; **B**: View of the site from north; **C**: View of the site from west; **D**: 3D topographical plan (photos and elaboration by the author).

identity – is then defined. The same also applies to the other aforementioned fortified sites.

The impression given by the archaeological evidence related to the settlement pattern of the Chirik Rabat Culture is that of a three-tier hierarchic system: a large site with buildings (about 35–40 km away from another large settlement), some small sites of about 1–2 ha around the larger site, and scattered surface dispersions. Indeed, in the surroundings of Chirik Rabat, mainly along the ancient riverbed known as Akkyr-Chirik Rabat, many vast dispersions of pottery sherds pertaining to the Chirik Rabat culture have been found. In close association with the wheel-thrown and hand-made ceramic fragments, many quartzite tools (blades and bladelets, knives, scrapers and punchers, etc.) and limestone utensils (millstone, mortars, pestles, etc.) have been found, which is clear evidence of a well-established farming-based economy. The discovery of traces of channels and artificial water basins near these material dispersions confirms that the Chirik Rabat culture marks a clear shift in the economic strategy of prehistoric mobile communities in the Syr Darya delta. There were no longer only groups of transhumant shepherds, moving in the geographical deltaic and steppe area in relation to the seasonality of the flora and fauna resources, but rather there were also sedentary farmers who invested substantial energy, time and effort in order to subdue a very difficult environment to their desire for prosperity and well-being.

As previously stated, one of the key features of a definition of a true urban space is represented by archaeological evidence attesting that the site served as a hub or central place for mercantile relations, such as a marketplace. Despite the fact that traces of quadrangular plots and farmland, some of which were traversed by irrigation ditches, have been identified in many locations in the oasis of Babish Mulla,[3] there is no evidence of coins, of seals and sealings, and other instruments related to trade and administration. This suggests no external or long-distance trading occurred at these sites. Presumably, the harvest was commercialised *in loco* and used to feed the population of the oasis, while mercantile activities occurred only on a de-centralised base, without the administrative and bureaucratic control of the centre of power.

3 See, as an example, the field at site 242 located 6.3 km east of Babish Mulla 1 (Mantellini 2016: 220, Fig. 51, E), and the fields, small in size, of irregular, pseudo-trapezoidal shape (18 × 12 × 10 × 18 m) found near the site 326, ca. 8.3 km north of Babish Mulla 1 (Mantellini 2016: 223). Other remains of agro-irrigation layouts were recorded at site 356, where the rectangular fields measured 11 × 6 m, 10 × 4 m, etc.

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The dawn of the Chirik Rabat culture

In the late 3rd or early 2nd century BCE, a change in the water flow and, consequently, in the environmental conditions of the inland Syr Darya region, resulted in the abandonment of settlements and the end of habitation in the area. However, in an attempt to challenge the argument based on the deterministic environmental aspect, it is important to advance a second hypothesis, which is inherently based on the heterogeneous variability of the funerary archaeological evidence and the territorial and socio-political fragmentation of the human settlement. In other words, the funerary structures and the burial rituals imply a high level of cultural heterogeneity, while the military and defensive features, identifiable in most aspects of Chirik Rabat culture, evince the political instability of the region. I should mention that the *takyr*[4] around the fortified town of Balandy is strewn with numerous bronze arrowheads and that most of the architectural buildings excavated thus far are characterised by loopholes and other defensive structures.

Assuming a political crisis took place, perhaps resulting from a shift in the political economy of the region, it may be conjectured that the change in the water flow that occurred in the late 3rd or early 2nd century BCE resulted from a lack of political unity in the inland delta, the breaking of the fragile alliances between diverse communities; the same alliances which, three centuries earlier, had enabled the cultivation of large areas, effectively turning the desert into farmland through artificial irrigation. The abandonment of the land may have been a consequence of a complete breakdown of the socio-political alliances between groups of farmers, breeders and herders who occupied the southern delta of Syr Darya.

Bibliography

Andrianov, B.V.
1969: *Drevnie orositel'nye sistemy Priaral'â (v svâzi s istoriej vozniknoveniâ i razvitiâ orošaemogo zemledeliâ)*, Moscow.

Beardmore, R./Bonora, G.L./Kurmankulov, Z.
2008: Preliminary Report on the 2007–2008 IAEK Campaigns in the Syrdarya Delta, *East and West* 58, 385–390.

Bonora, G.L.
2014: Updating Report on the Prehistorical Human Settlement in the Syr-darya Alluvial Plain, in: Lamberg-Karlovsky, C.C./Genito, B./Cerasetti, B. (ed.), *"My Life is Like the Summer Rose": Maurizio Tosi e l'archeologia come modo di vivere. Papers in Honour of Maurizio Tosi for his 70th birthday* (= British Archaeological Reports Series 2690), Oxford, 31–46.

Bonora, G.L./Kurmankulov, Z.
2009: Nomadi e agricoltori nel delta del Syrdarya (Kazakhstan) fra l'età del Bronzo e l'antica età del Ferro, *OCNUS. Quaderni della Scuola di Specializzazione in Archeologia* 17, 101–118.

Bonora, G.L./Kurmankulov, Z./Ishangaly, S./Marsigli, M.
2010: Analisi del popolamento nell'Età del Bronzo nel delta del Syrdarya (Kazakhstan): vecchi dati e nuove acquisizioni, *OCNUS. Quaderni della Scuola di Specializzazione in Archeologia* 18, 121–144.

Francfort, H.-P.
1988: Towns in the Bronze Age, in: Wood, M./Flon, C./Hughes, J. (ed.), *The World Atlas of Archaeology*, London, 228–229.

Itina, M.A.
1984: Ohrannye arheologičeskie raboty v Horezme: itogi i perspektivy, *Sovietskaâ Ètnografiâ* 1, 42–59.

Itina, M.A./Âblonskij, L.T.
1997: *Saki nižnej Syrdar'i (po materialam mogil'nika Ûžnyj Tagisken)*, Moscow.

2001: *Mavzolei severnogo Tagiskena. Pozdnij bronzovyj vek Nižnej Syrdar'i*, Moscow.

4 *Takyr*, from Turkic "smooth", "even", "bare", is an alkaline soil formation, generally containing only algae and lichens, which are formed by the accumulation of alluvium in natural depressions. Takyrs are distributed over large waterless tracts throughout the deserts and steppe-desert areas of Central Asia, providing convincing evidence of former drainage patters and the retraction or shift in water courses.

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Ivančik, A.I./Lur'e, P.B.
2013: Dve nadpisi iz Čirik-rabata, in: Tohtas'eva S.T./Lur'e, P.B. (ed.), *Commentationes Iranicae. Sbornik statej k 90-letiû Vladimira Aronoviča Livšica*, St. Petersburg, 286–294.

Kurmankulov, Ž.K.
2011: Širik Rabat Èkspediciâsynyn 2004–2010 žž. zertteuleri, in: Bajtanaev, B.A. (ed.), *Svideteli tysâčeletij: Arheologičeskaâ nauka Kazahstana za 20 let (1991–2011) (Mynžyldyktar kualary: Kazakstan arheologiâ gylymy 20 žylda (1991–2011): gylymy makalalar žinagy)*, Almaty, 188–195.

Kurmankulov, Ž.K./Birmuhanova, A./Kalieva, Ž./ Utubaev Ž.
2005: Arheologičeskie issledovaniâ na gorodiščе Čirik Rabat i v ego okrestnostjah, *Arheologijalyk Zertteuler Žayly, Esep 2004*, 152–156.

Kurmankulov, Ž.K./Žetibaev, Ž./Utubaev, Ž./Bajtileu D./Iskakov, A.
2006: Arheologičeskie issledovaniâ pamâtnika Čirik Rabat i prilegaûŝih rajonov, *Arheologijalyk Zertteuler Žayly, Esep 2005*, 249–251.

Kurmankulov, Ž.K./Žetibaev, Ž./Utubaev, Ž./Iskakov, A.
2007: Arheologičeskie issledovaniâ pamâtnikov gorodiŝa Čirik Rabat, *Arheologijalyk Zertteuler Žayly Esep 2006*, 135–137.

Kurmankulov, Ž.K./Bolelov, S./Žetibaev, Ž./Utubaev, Ž.
2008: Issledovaniâ na ukreplennoj usad'be Balandy 1 v 2007 godu, in: Bajpakov, K.M. (ed.), *Otčet ob arheologičeskih issledovaniâh po Gosudarstvennoj programme "Kul'turnoe nasledie" v 2007 g.*, Almaty, 230–234.

Kurmankulov, Ž.K./Žetibaev, Ž./Utubaev, Ž./ Darmenov, R./Tažekeev, A.
2009a: Arheologičeskie issledovaniâ na ukreplennoj usad'be Balandy 1 i v ee okrestnostâh v 2008 godu, in: Bajpakov, K.M. (ed.), *Otčet ob arheologičeskih issledovaniâh po Gosudarstvennoj programme "Kul'turnoe nasledie" v 2008 g.*, Almaty, 202–203.

Kurmankulov, Ž.K./Bolelov, S./Žetibaev, Ž./Utubaev, Ž.
2009b: Ob arheologičeskih issledovaniâh na gorodiŝe Balandy v 2007-2008 gg., in: Bajpakov, K.M. (ed.), *Meždunarodnaâ naučno-praktičeskaâ konferenciâ "Vklad učenyh KazNU imeni al'-Farabi v realizaciû programmy "Kul'turnoe nasledie": dostiženiâ i perspektivy razvitiâ*, Almaty, 35–38.

Kurmankulov, Ž.K./Žetibaev, Ž./Utubaev, Ž.
2010: Itogi arheologičeskih rabot na mavzolee "Mynaral" Balandiskogo kompleksa", in: Bajpakov, K.M. (ed.), *Otčet ob arheologičeskih issledovaniâh po Gosudarstvennoj programme "Kul'turnoe nasledie" v 2009 g.*, Almaty, 213–214.

Kurmankulov, Ž.K./Žetibaev, Ž./Utubaev, Ž./ Darmenov, R./Tažekeev, A.
2011: Arheologičeskie issledovaniâ na ukreplennoj usad'be Balandy 1 i v ee okrestnostâh v 2010 godu", in: Bajpakov, K.M. (ed.), *Otčet ob arheologičeskih issledovaniâh po Gosudarstvennoj programme "Kul'turnoe nasledie" v 2010 g.*, Almaty, 34–36.

Kurmankulov, Ž.K./ Utubaev Ž.
2013: *Balandy (Bulandy) antikalyk eskertkiŝ –Balandy (Bulandy) pamâtnik antičnosti*, Almaty.

Kurmankulov, Zh./ Utubayev Zh./Darmenov, R.
2014: Fortified Manor of Balandy in the Region of Eastern Aral Sea, *Procedia – Social and Behavioral Sciences* 122, 134–139. doi:10.1016/j.sbspro.2014.01.1315.

Levina, L.M.
1971: *Keramika nižnej i srednej Syrdar'i v I tys. n. è.* (= Trudy Horezmskoj arheologo-ètnografičeskoj èkspedicii 7), Moscow.

Lohovic, V.A.
1963: Raskopki kvadratnogo pogrebal'nogo sooruženiâ na gorodiŝe Čirik-Rabat, in: Tolstov, S.P./Ždanko T.A./Itina M.A. (ed.), *Raboty Horezmskoj arheologo-ètnografičeskoj èkspedicii v 1958–1961 gg. Obŝij otčët. Pamâtniki pervobytnogo i antičnogo vremeni* (= Materialy Horezmskoj Èkspedicii 6/1), Moscow, 214–220.

Masson, V.M.
1981: Urban Centres of Early Class Society, in: Kohl, P.L. (ed.), *The Bronze Age Civilization of Central Asia: Recent Soviet Discoveries*, New-York, 135–148.

P'yankova, L.T.
1994: Central Asia in the Bronze Age: Sedentary and Nomadic Cultures, *Antiquity* 68, 355–372.

Roosevelt, C.H.
2008: Stone Alabastra in Western Anatolia, in: Rowan, Y.M./Ebeling, J.R. (ed.), *New Approaches on Old Stones*, London, 285–297.

Tolstov, S.P.
1948: *Drevnij Horezm. Opyt istoriko-arheologičeskogo issledovaniâ*, Moscow.

1952: Horezmskaâ arheologo-ètnografičeskaâ èkspediciâ Akademii nauk SSSR (1945–1949 gg.), in: Tolstov, S.P./Ždanko, T.A. (ed.), *Arheologičeskie i ètnografičeskie raboty Horezmskoj èkspedicii 1945–1948 gg.* (= Trudy Horezmskoj arheologo-ètnografičeskoj èkspedicii 1), Moscow/Leningrad, 31–44.

1958: Raboty Horezmskoj arheologo-ètnografičeskoj èkspedicii Akademii nauk SSSR v 1949–1953 gg., in: Tolstov, S.P. (ed.), *Arheologičeskie i ètnografičeskie raboty Horezmskoj èkspedicii 1949–1953 gg.* (= Trudy Horezmskoj arheolo-

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go-ètnografičeskoj èkspedicii 2), Moscow/Leningrad, 7–258.

1961a: Priaral'skie skify i Horezm (k istorii zaseleniâ i osvoeniâ drevnej del'ty Syr-Dar'i), *Sovetskaâ ètnografiâ* 4, 114–146.

1961b: Les scythes de l'Aral et le Khorezm, *Iranica Antiqua* 1, 42–92.

1962: *Po drevnim del'tam Oksa i Âksarta*, Moscow.

1963: Sredneaziatskie skify v svete novejših arheologičeskih otkrytij, *Vestnik drevnej istorii* 84, 23–46.

Tolstov, S.P./Vorob'eva M.G./Rapoport, Û.A.
1960: Raboty Horezmskoj arheologo-ètnografičeskoj èkspedicii Akademii nauk SSSR v 1957 g., in: Tolstov, S.P./Itina, M.A. (ed.), *Polevye issledovaniâ Horezmskoj èkspedicii v 1957 g.* (= Materialy Horezmskoj èkspedicii 4), Moscow, 3–62.

Tolstov, S.P./Ždanko T.A./Itina M.A.
1963: *Raboty Horezmskoj arheologo-ètnografičeskoj èkspedicii v 1958–1961 gg. Obŝij otčët. Pamâtniki pervobytnogo i antičnogo vremeni* (= Materialy Horezmskoj èkspedicii 6/1), Moscow.

Tosi, M.
1973: Early Urban Evolution and Settlement Pattern in the Indo-Iranian Borderland, in: Renfrew, C. (ed.), *The Explanation of Cultural Change: Models in Prehistory*, London, 429–446.

1977: The Archaeological Evidence for Protostate Structures in Eastern Iran and Central Asia at the End of the 3rd Millennium BC, in: Deshayes, J. (ed.), *Le Plateau Iranien et l'Asie Centrale des Origines à la conquête islamique: Leurs relations à la lumière des documents archéologiques, Paris, du 22 au 24 mars 1976, Colloques Internationaux du C.N.R.S.*, Paris, 45–66.

1984: The Notion of Craft Specialization and its Representation in the Archaeological Record of Early States in the Turanian Basin, in: Spriggs, M. (ed.), *Marxist Perspectives in Archaeology*, Cambridge, 22–52.

1986: The Archaeology of Early States in Middle Asia, *Oriens Antiquus* 25, 153–187.

Trudnovskaâ, S.A.
1963: Krugloe pogrebal'noe sooruženie na gorodiše Čirik-Rabat, in: Tolstov, S.P./Ždanko, T.A./Itina, M.A. (ed.), *Raboty Horezmskoj arheologo-ètnografičeskoj èkspedicii v 1958–1961 gg. Obŝij otčët. Pamâtniki pervobytnogo i antičnogo vremeni* (= Materialy Horezmskoj èkspedicii 6/1), Moscow, 201–213.

Utubaev, Ž.R./Bolelov, S.B.
2016: Novye arheologičeskie otkrytiâ v nizov'âh Syrdar'i, *Vestnik Kemerovskogo gosudarstvennogo universiteta* 65, 56–62.

Vajnberg, B.I./Levina, L.M.
1992: Čirikrabatskaâ kul'tura v nizov'âh Syrdar'i, in: Moškova, M.G. (ed.), *Stepnaâ polosa Aziatskoj časti SSSR v skifo-sarmatskoe vremâ* (= Arheologiâ SSSR 11), Moscow, 47–60.

Vajnberg, B.I./Levina, L.M.
1993: *Čirikrabatskaâ kul'tura* (= Nizov'â Syrdar'i v drevnosti 1), Moscow.

Višnevskaâ, O.A.
1973: *Kul'tura sakskih plemen nizov'ev Syrdar'i v VII–V vv. do n.è. (po materialam Ujgaraka)*, (= Trudy Horezmskoj arheologo-ètnografičeskoj èkspedicii 8), Moscow.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Kuiryktobe

The site of ancient Keder

Karl M. Baipakov†[1]

Abstract: This paper provides information on the archaeological studies of the ancient settlement of Kuiryktobe (the town of Keder). Kuiryktobe was one of the largest sites of the Otrar oasis, situated on the Syr Daria River. Its historical span stretches from the 1st to the 15th century CE. It lies 3 km north-west of the village of Korgam, and 4 km west of the ancient settlement of Otrar. Its geographical coordinates are 42 T 439021 UTM 4744884. This paper surveys the history of the archaeological studies of the ancient settlement of Kuiryktobe ('kuiri:k'tobe), and describes the constructions and urban planning of the ancient settlement, and also the archaeological finds discovered at the site.

Keywords: Kuiryktobe, Keder, settlement, medieval town, capital of the Farab region, citadel, *shahristan*, *rabad*, building constructions.

Резюме: Статья содержит информацию об истории археологических исследований древнего городища Куйрыктобе (город Кедер). Городище Куйрыктобе является одним из наиболее крупных памятников Отрарского оазиса, расположенного в среднем течении Сырдарьи. Датируется первыми веками н.э. – XV в. Располагается в 3 км к северо-западу от села Когам и в 4 км к западу от городища Отрар. Географические координаты 42T 439021 UTM 4744884. Статья резюмирует историю археологических исследований древнего городища Куйрыктобе, а также дает характеристику найденным конструкциям, городской планировке городища и археологическим находкам, сделанным на его территории.

Ключевые слова: Куйрыктобе, Кедер, поселение, средневековый город, столица округа Фараб, цитадель, шахристан, рабад, строительные конструкции.

1 Karl Baipakov passed away in 2018 before he could review the final proofs.

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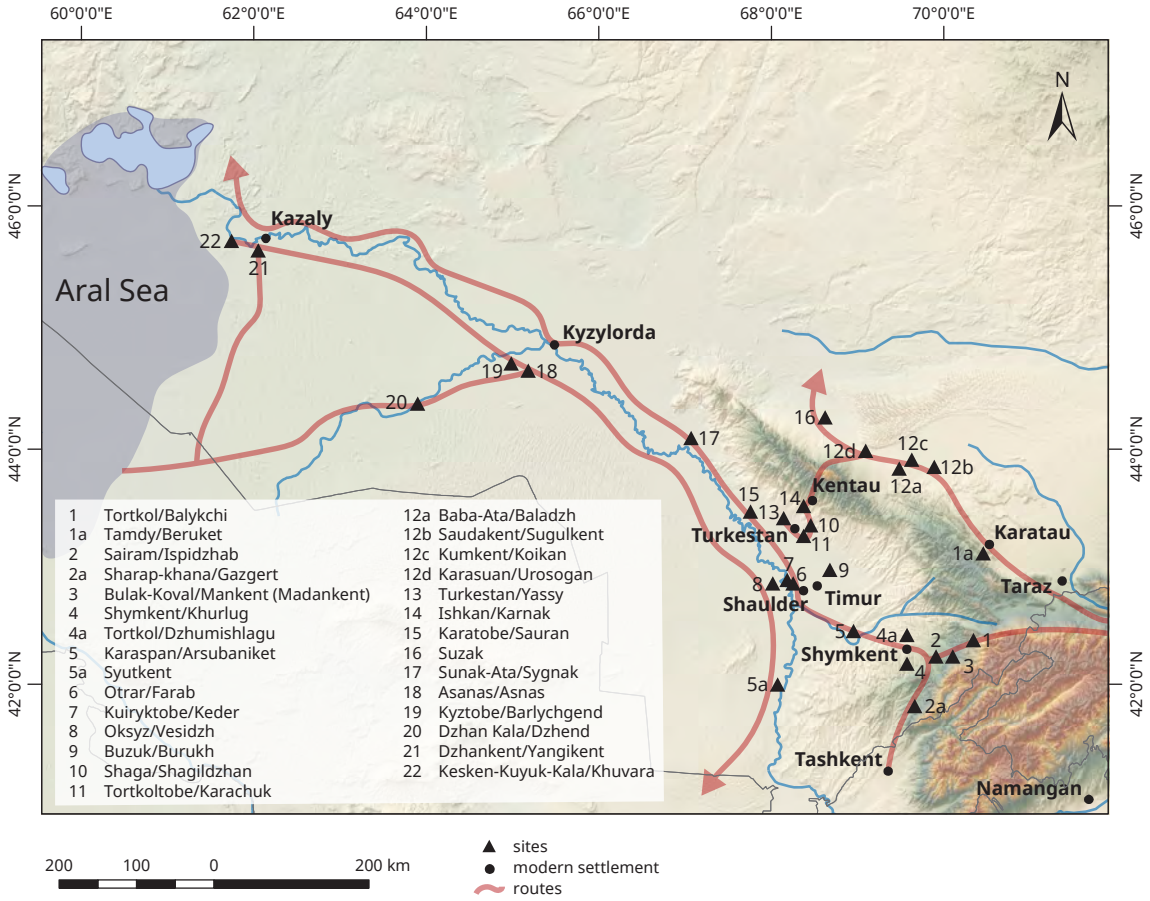


Fig. 1: Map of the towns of Southern Kazakhstan and the Aral region. **No. 7**: Kuiryktobe site (© Susanne Rutishauser, IAW, University of Bern).

1 The site

Kuiryktobe is one of the largest sites on the territory of the Otrar oasis in Kazakhstan, situated on the Syr Daria River where it is joined by the Arys River. It dates from the 1st to the 15th century CE and is situated 3 km to the north-west of the village of Korgam and 4 km to the west of Otrar. Its co-ordinates are 42 T 439021 UTM 4744884.

The first excavations at Kuiryktobe were carried out in 1951 by the Southern Kazakhstan Archaeological Expedition, led by A.N. Bernshtam (Ageeva/Pacevič 1958: 17–58). They revealed the palace of a local ruler on the ground of the citadel. Excavations were continued in 1981 by the South-Kazakhstan Complex Archaeological Expedition, led by K.A. Akishev (Baipakov 1986: 48–59).

Kuiryktobe is identified with the medieval town of Keder, which was the capital of the Farab region in the 10th and 11th centuries (Baipakov 1964: 105–110). Information on the city appears in the anonymous Persian source *Hudud al-Alam*, which was mentioned by Al-Istahri, Al-Maqdisi, and Ibn Haukal (Bartol'd 1963: 233) (**Fig. 1**).

The site forms a trapezium with the following dimensions: north-west 250 m, west 125 m, south-west 225 m, and south-east 180 m. It is situated on ground 7.5 m higher than the surrounding area. A circular citadel, ca. 30 m in diameter and 15 m in height, is situated in the south-west corner of the site. The remains of the tower are still visible at the citadel corners. The rest of the higher ground corresponds to the ruins of the *shahristan* and the remains of handicraft and trade suburbs, the *rabad* (**Fig. 2**).

Excavations there took place from 1981 to 1986, and were continued in 2012–2013 on all the other parts of the site. A dwelling and the remains of the cathedral mosque were revealed on the large *shahristan*'s square on the levels of the 7th–8th, 9th–10th, 10th–12th, and 13th centuries.

2 The citadel

The excavations on the citadel have revealed the early period of the town's formation, as well as constructions that belong to three different periods. The latest constructions were dated to the second half of the 11th/12th centuries and they correspond to the potters' district. Constructions of the middle

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Fig. 2: Kuiryktobe site. Aerial photograph.

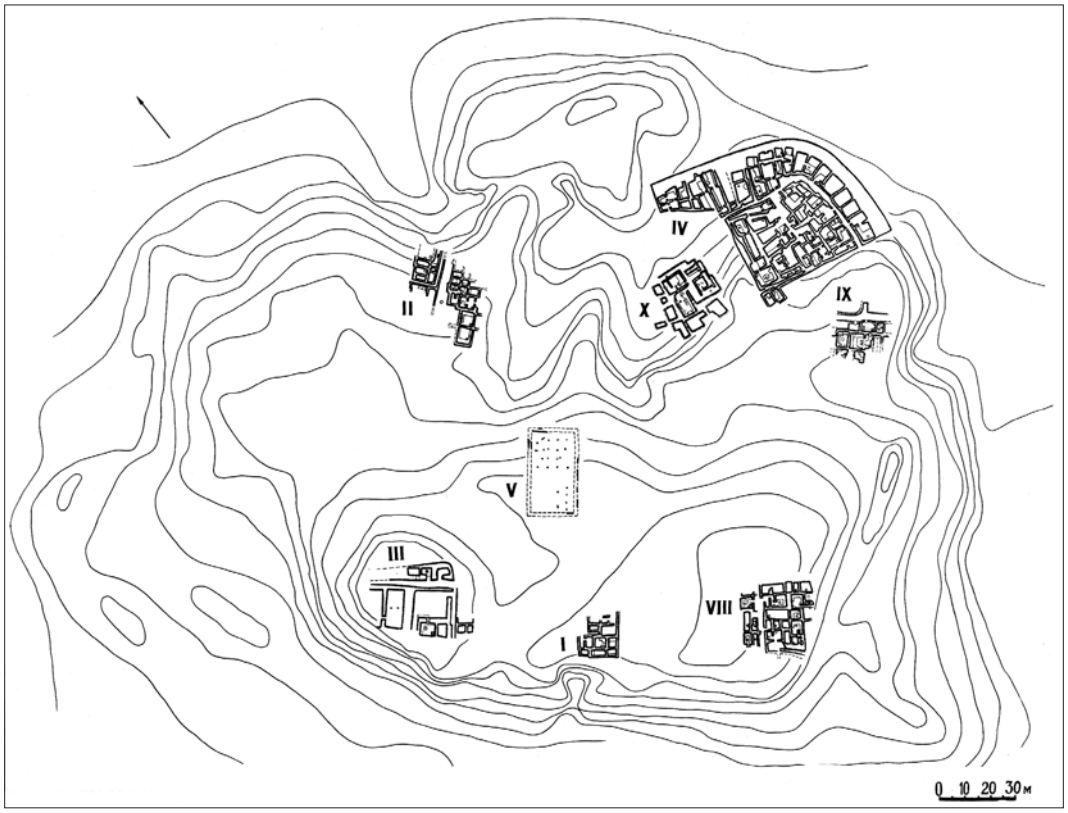


Fig. 3: Kuiryktobe site. Plan. **III**: Excavation on the citadel; **V:** Excavation of the mosque.

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Fig. 4: Figurines of *fravashi* from excavations on the citadel (photo: O. Belyalov).

period, which date to the second half of the 9th to 11th centuries, form a compact town block. The early settlement corresponds to the period from the 7th to the first half of the 9th centuries (**Fig. 3**).

Excavations on the northern part of the citadel have revealed the remains of the wall 1 m high, 16 m long and 2 m thick. They also revealed the remains of some premises and different ceramics, such as jug fragments with traces of red engobe on the walls, pots, flask fragments, and a big jug, vessels made with the surface ribbing method, and *khums* (storage vessels) with a thick depressed nimbus. Ceramics of this type are typical of the Otrar-Karatau cultural complex of the 2nd to the 4th centuries CE.

Constructions of the early period belong to the palace of the citadel. They stood on an artificial platform – a compound construction with several walls made of *pakhsa* blocks separated in a few sections by partitions made of raw bricks and filled by loess, construction rubble and household waste. The form of the citadel shows that the platform was 80 m wide from north to south. This construction is in a poor state of preservation: its edges have been completely eroded and all interior walls were destroyed by later reconstructions. The only solid wall which has remained untouched was made of *pakhsa* blocks and long raw bricks 46–48 × 23–24 × 8–10 cm that were reused during later constructions.

The ceremonial hall occupies the central place among the group of surviving rooms of the early period. All its walls have survived: the height of the south wall is 10–20 cm from the level of the parade hall floor; the north, west and east walls are 0.5 to 2 m. They are built of *pakhsa* blocks measuring 0.85–0.9 × 0.8 × 0.7–1.1 m. The hall is 15 × 10.5 m (157.53 sq m) and was connected with Room 9, which measures 5.2 × 5.5 m. *Sufas* (wattle-and-daub stove-benches widely used in Central Asia) 1–1.2 m in width and 0.5 m in height were built along the walls. A round podium 2 m in diameter and 0.4 m in height was situated in the centre. Steps in the corner of that room led to the bypass corridor. Another exit to the gallery was through the ceremonial hall. This corridor was 2.5 m wide and its surviving length is ca. 6 m. The eastern part of the bypass gallery has also survived: it's 35 m long and 2 m wide. The passages from this gallery led to narrow rooms arranged in a row. The *sufas* inside these premises were situated along the walls, while an open fireplace stood on the floor. In one of these rooms a hearth fashioned in the form of a ram was found. These constructions were built later, during the expansion of the platform to the east.

The ceramic complex was discovered during the clearing of the ceremonial hall at floor level and during the excavations on the level of early constructions. It includes vessels used in the Otrar oasis during the 6th and 7th centuries: jugs with depressions on the neck, pots, and *khums* with rectangular coronet. Another group of ceramic fragments consist of pear-shaped jugs with a massive triangle nose, spherical mugs with moulded handles, mugs, and bowls with wave-shaped edges. The third group of ceramic fragments includes jugs and mugs with one or two notched handles covered by dark-red, cherry and black engobe and decorated with geometrical patterns (net, triangle, garlands and semi oval). Such vessels were used from the second half of the 7th to 9th centuries CE.

The excavation also revealed some moulded terracotta figures of *fravashi* (Zoroastrian divinities that protects the souls of the dead; in the underworld, they fight against the evil powers, which is why they wear chain-mail) (**Fig. 4**). They have hawk

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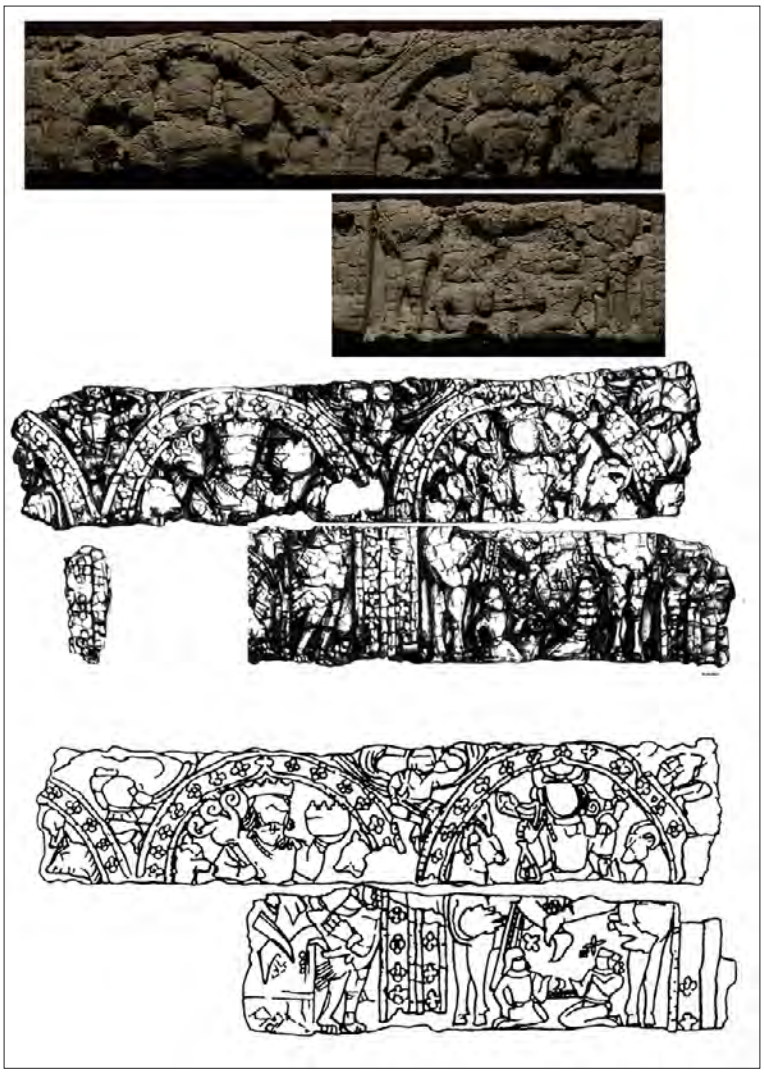


Fig. 5: Carved board depicting "Divinites on the Thrones" from the excavation on the citadel (photos: O. Belyalov, drawings: G. Ternovaya).

noses and almond eyes, wear earrings and crowns on their heads, and are dressed in robes and armour. Their hands are crossed on their breast. Among other finds was a cornelian stamp, an intaglio with the image of a griffin.

The coins that were found on the floor of the temples and inside the walls can be divided into two types. The first type has an image of a lion on one side and "*nush*" runic monogram (which looks like an hourglass laid horizontally) on the other. Coins of the second type have an image of a lion and the "*at*" monogram (which looks like an 'E'). These coins have been dated to 7th/8th centuries.

First constructions on the citadel have been dated to the second half of 7th/first half of the 9th centuries.

During the clearing of the ceremonial hall, a large number of burned boards, some of which were decorated with carvings, were found. The wooden beams remained preserved because the roof fell on them. Some of the wooden beams and other details were decorated with oval, cross, gauze lattice and rosette images with round, heart-shaped and floral patterns. The closest analogies to the carved wood from the citadel of Kuiryktobe can be found in Sogd and Ustrushana. Similar carved patterns have also been found in such towns as Panjikent, Shahristan, and Urtakurgan.

Nine boards situated in front of the central entrance to the hall were cleared, conserved and lifted. The board in the best state of preservation (122 cm long and 25 cm wide) bears images of zoomorphic divinities sat on thrones (**Fig. 5**). The arches also have images of divinities on thrones. A male divinity on the left sits on a throne in the form of two winged camels. The head of one of the camels has remained in a good state. The divinity is shown frontally, and in his right hand he holds at breast level some object with three curved sprouts. In his left hand, he holds a bowl with a few notches on the rim. He also

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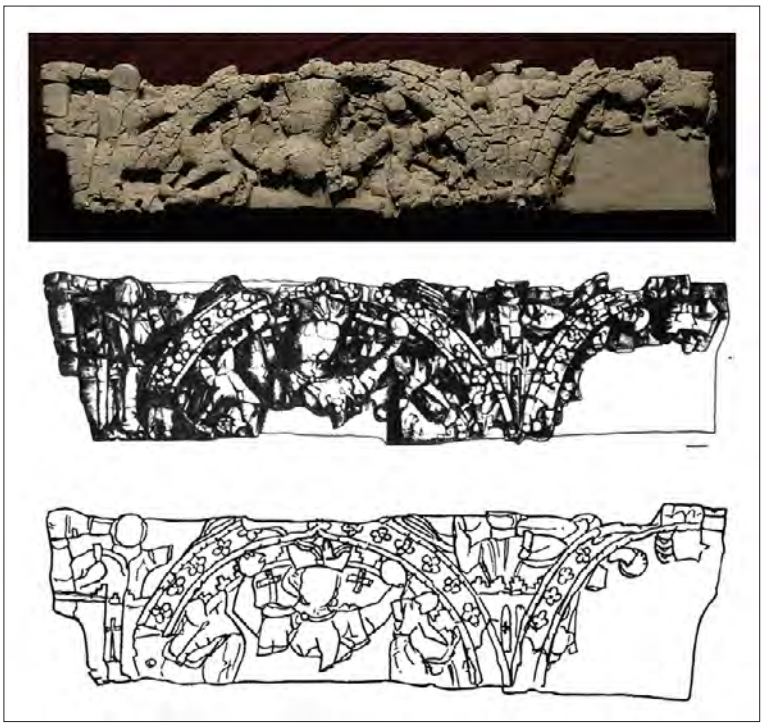


Fig. 6: Carved board with the story “The Siege of Temple and Nana-Anahita” from the excavation on the citadel (photo: O. Belyalov, drawings: G. Ternovaya).



Fig. 7: Carved board with picture of the ritual “matchmaking” from the excavation on the citadel (photo: O. Belyalov, drawings: G. Ternovaya).

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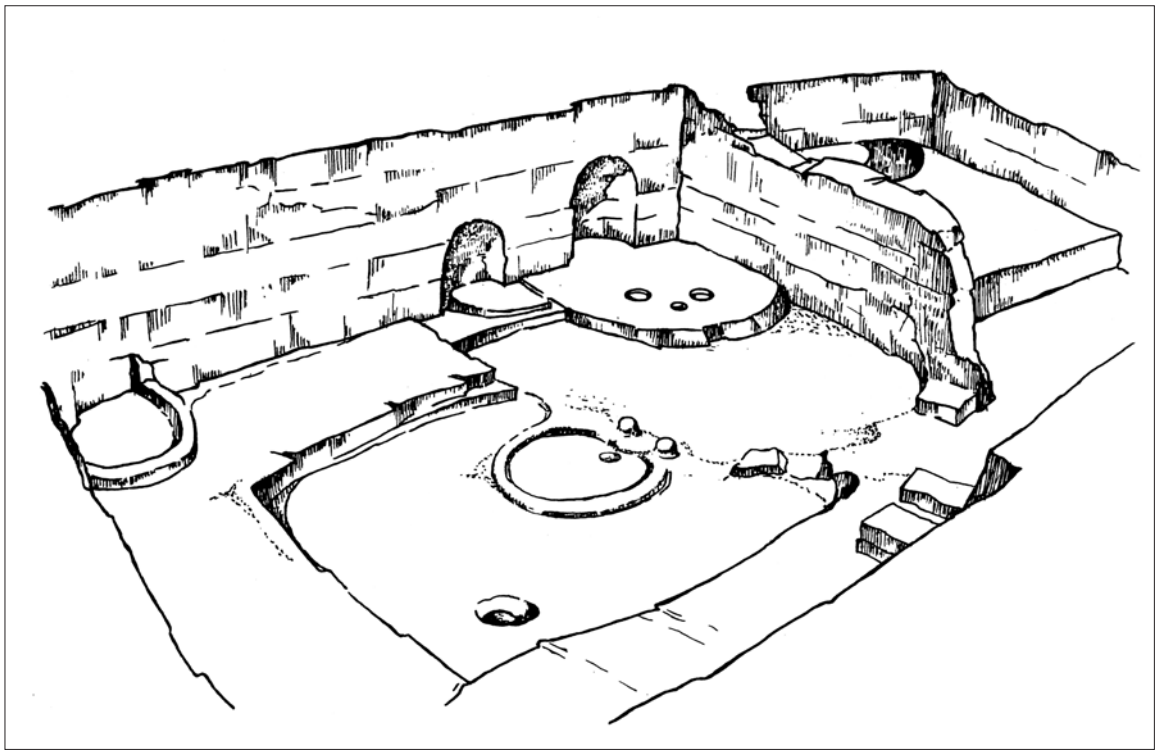


Fig. 8: Kuiryktobe site. The "Rich house", 10th to 11th centuries (drawing: T.S. Doschanova).

had a notched crown on his head. The divinity on the right is probably his wife; she sits on a throne in the form of two mountain sheep. Small figures of two kneeling persons, probably the rulers of the castle of Kuiryktobe, are situated at the bottom of the throne with mountain sheep. Arches were decorated with four-petal rosettes and inner arch spaces with images of sitting figures. Another board, which has a depiction of the "temple siege", remains in fragments; in total, it is 98 cm long and 23 cm wide. The central part of the board with an arch decorated by four-petal rosettes is occupied by a composition of two arches against a wall (probably a town, or a temple crowned by wings). Here at the front there is another divinity with raised hands, in one of which he is holding some round object. On his head, this divinity wears a winged crown. The space between the arches was decorated with images of standing figures that are in a poor state. According to the surviving details, this divinity had four hands, the first pair raised, and the second pair hanging down. The scene of a town or temple siege probably refers to the fragmentary Sogdian-Manichaean text that tells of the fall of the city during a siege. It mentions the name of "Nana-mistress", which, according to the orientalist V.B. Henning, was the goddess Anahita (**Fig. 6**). The analysis of the cult of Nana (Anahita) in Sogdia made by N.V. Diakonova and O.T. Smirnova shows that Nana-Anahita was one of the main divinities of Sogdia, while in Panjikent the cult of Nana the mother-goddess, the mistress of the city, was apparently the main one. According to the image on the board from Kuiryktobe, this divinity was also worshipped in Middle Syr Daria.

Another interesting find is a rectangular wooden board measuring 125 × 35 cm that has some reliefs of group scenes and individual figures in the arches that are thought to decipt ritual "matchmaking" (**Fig. 7**). The central arch has an image of two undoubtedly noble persons – a man and a woman standing in profile facing each other. The woman stands on the left; she is covered with a cloak and has a round face, wide plain nose, and almond eyes. On her head she wears a hat with a diadem on the front. One braid of hair with a few ties at equal intervals descends from the hat to her right shoulder. She also has an earring (an oval ball on a pendant) in her right ear and a necklace made of large beads of irregular shape. The face of the man is in a poor state of preservation. On his head he wears a cap band, and he is dressed in an Oriental robe wrapped to the left, under which he wears a shirt with an turned-up collar. His right hand is touching the woman's shoulder, while his raised left hand is almost touching her face. He is holding some large object in his left hand. The woman has her right hand on the man's forearm. Another figure, shown full-face, stands to the left of the couple; he has a round face with a plain nose; on his head he wears something similar to a turban and has a narrow stripe on his front. He wears oval earrings on a pendant, and on the edge of his breast a necklace with small beads. He is dressed in a robe on the breast of which there is a pattern in the form of pearl rosettes. He is holding some object

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Fig. 9: Fragment of a jug with a demon-headed handle, 10th to 11th centuries (photo: O. Belyalov).

in his left hand. This figure on the right side of the noble couple is shown frontally (no head remains). He is wearing a robe and a shirt with a turned-up collar; in his hands he is holding an object that looks like a plate or dish.

In the right arch, there is an image of another two persons, though only their contours have remained. The silhouette of another person is visible in the left arch. The space between the arches was filled by four-petal rosettes and palmetto. It has no analogies with other compositions of male figures on a carved wood from any other site in Kazakhstan, or indeed Central Asia, though some similarity could be found with the scene pictured on the northern wall of Premise 1 in Afrasiab (ancient Samarkand). In the case of the composition of three women on a boat, one of them is supporting the right hand of the woman on her left, who is holding her left hand on the shoulder of the first woman. A similar scene was found in the paintings of Balalyktepe that shows two men and a woman, who sits on a front plan. According to the Soviet archaeologist L.I. Albaum, such scenes featuring figures' "hand positions" were connected with ceremonial scene in which an agreement is reached between the in-laws of a bride and a groom. Such a scene was probably shown on the carved board from the Kuiryktobe site (Baipakov 2005b: 56–57).

3 The evolution of urban structures

Interesting results were obtained during excavations of the *shahristan* which revealed the structure of the town and the evolution of urban structures during the period from the 6th to the beginning of the 8th centuries.

During the second half of the 7th to the first half of the 9th centuries, the town was divided into house blocks that stood along an interior street. One of the excavated house blocks covered an area of 306 sq m (17 × 18 m). It was composed of four houses identified by the fireplaces found in of them. Each house consisted of one or two rooms. A house with just one room had an area of 63.65 sq m (6.7 × 9.5 m). Its entrance and the main room were separated by a wall. *Sufas* 0.4 m high and 0.7–1 m wide were situated along the walls. The *sufa* along the western wall formed a ledge 2.4 m long and 1.35 m wide. At the centre, the remains of a destroyed floor-standing fireplace were found. The house with two rooms was separated into the habitable area and a storage room.

Several blocks were revealed on the level of the second half of the 9th to the 11th century. They demonstrate the increase in both the size of the urban districts and the number of houses on them: it had grown to 1,000 sq m, and the number of households to 8–10. One of these blocks was built on an area once occupied by the citadel's palace; it covered an area of 1,050 sq m (35 × 30 m). All the houses were grouped along a small П–shaped street.

Three blocks from the second half of the 11th/early 12th centuries were found in the south-eastern area of the *shahristan*. One of them, "D-block", was built near the town wall. It had eight houses with exits onto the street. Along the street, the length of the block is 52 m.

The plan and interior of the houses also changed. All houses had one or two rooms, a habitable and a storage area. П- and Г-shaped *sufas* were situated in the rooms. Round or anthropomorphous fireplaces with a small border on the edge and two moulded cones near the mouth were situated at the centre of the room inside the floor. Chimney corners and tandoors (ovens) on special supporting

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Fig. 10: Fragment of ceramic with an Arabic inscription from Excavation VIII (photo: O. Belyalov).

structures stood next to them. Sometimes tandoors were placed on the special supporting structures also used next to the fireplaces. In one corner of the premise, near the fireplace, there was the household zone, a square with pits and a mill stand (**Fig. 8**). In one of the houses, there was a clay mask and a vessel with a handle in the form of a bull's head (**Fig. 9**).

Some new house types appeared during the 12th century: enfilade layout, with all rooms on one axis; cross-shaped plans; and parallel premises that stood in a row next to each other. The size of the *sufas* situated in the habitable areas also increased; sometimes they occupied a quarter or even a half of the room. During the 12th century, portable round or anthropomorphous sandals (hearths for heating and/or ritual ceremonies) started to be used in some of the houses; they were incorporated into the floor up to the level of their rims. Interior walls and the bottom of the sandals were decorated with stamps, different rosettes and plants, and astral signs. Cylinder-shaped transportable "*mankal*" fireplaces were used for heating; they stood on wide legs and were U-shaped.

Such sanitary-hygienic devices as the "*tashnau*" for draining away water were quite widespread. Initially, they were made of small ceramic launders with a drainage system connected to a vessel inside the floor. They were then transformed into brick platforms, with the same vessels inside the floor for the dirty water. Water reached these vessels through a hole in the centre of fired bricks.

The social constructions of the city were studied together with housing constructions. One of them was the earliest large Friday mosque in Kazakhstan. As it was rebuilt at some point, only the remains of the walls made of fired bricks (22 × 22 × 4–5 cm) have remained from the early period. The mosque was later disassembled for Muslim burials of the 12th to the 15th centuries. However, the remains of the walls provide an idea on their plan and appearance. The walls, 1.5 m thick, were made of fired and adobe bricks. The mosque measured 36.5 × 20.5 m in terms of the outward perimeter of its walls, and was oriented south-west to north-east. Only a few sections of its floor have survived, with the north-western area being better preserved than the rest; it includes 16 foundations made of fired bricks,

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Fig. 11: Glazed dish with an Arabic inscription, 10th to 11th centuries, garbage pit (photo: O. Belyalov).

which stood under the wooden columns that supported the plain roof. These foundations are rectangular and measure 75 × 10 cm. Initially, there were 50 foundations in total, in rows 5 by 10. The space between the columns ranged from 3 to 3.2 m. The space between the last foundations and the walls was 1.5 m. The ceramics found during the excavations date the earliest mosque to the 10th/11th centuries.

The mosque of Kuiryktobe was of a pillar or column construction. The size of these mosques depended on the number of standard spaces between columns, between 3.5 to 4.6 m (**Fig. 3: V**).

In our view, this is the mosque mentioned by al-Maqdisi. According to him, Keder was a new town, and the building of the cathedral mosque within it started a series of inter-regional wars. This is one argument to indicate that Kuiryktobe corresponds to the medieval town of Keder (Baipakov/Ternovaâ 2005: 13–14). A fragment of ceramic with an Arab inscription was found in one of the houses near the mosque (**Fig. 10**).

It was interesting to discover a few premises – wine shops – that had wide entrances measuring 1.4 m; refuse pits filled with grape seeds in the houses near these shops are also very interesting. Another premise was filled with a large number of fish bones and scales, so was probably used for smoking fish.

Apparently, the town continued to exist after the Mongol period. A few areas have been dated to the 8th to the 14th centuries. During that time, the *rabad* (handicraft suburb) was the most developed part of the site. In its western part, close to the *shahristan*, there were iron workshops dedicated to the resmelting of bloomery iron. Excavations have revealed the lay-out of these workshops, with habitable and productive areas being united. The remains of some furnaces were found in this area, and large amounts of bloom and slag were gathered during the clearing of these workshops. Pieces of iron ore were also found. The workshop complex was dated to the last quarter of the 13th to the first half of the 15th centuries. The area occupied by the workshops indicates that at the time Kuiryktobe was a large centre of iron production in the Otrar oasis (Baipakov 1986: 26).

Some collections of ceramics, metal, bone, and glass items, as well as jewellery, were also found during excavation.

One interesting group of glazed ceramic fragments from the 10th to the 11th centuries comprised bowls, plates, dishes decorated with Arabic writing (**Fig. 11**), mugs, and "*chirag*" (transportable clay or metal lamp). A large amount of white ceramic material had an engobe ground and a lead transparent glaze. The paintings were executed in black, red and brown. Excavations also revealed ceramics with spot paintings and sometimes with a combination of engravings and the so-called "propeller shaped" pattern, as well as ceramics with floral patterns and rosettes combined with geometric patterns. Another special group comprised ceramics with red ground under transparent glaze and painted with white paintings in the form of plant ornamentation and rosettes in combination with geometric patterns. There was a group of ceramics covered by "flat" – non-transparent – glazes of greens and browns. There is one ceramic with the image of a bird (**Fig. 12**).

Unglazed ceramics includes *khums*, pots, water carrying and table jugs, mugs and *dastarkhan* – clay tables. Kitchen and table dish are distinguished by their 11th-century decoration, covered by carved and stamped patterns in the form of semi-ovals, garlands, and floral motifs.

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Fig. 12: Fragment of glazed dish with a bird image, 12th century, Garbage pit (photo: O. Belyalov).

Glass-making had become widespread during the 10th and 11th centuries. Excavations at Kuiryktobe revealed some glass bowls, carafes, jugs, and small bottles. Metal objects include bronze jugs of the 11th and 12th centuries, mugs, and composite belt details. Excavations have also produced collections of beads made of semi-precious stones, jewellery, earrings, rings and bracelets.

4 The necropolises

One necropolis was situated 1 km to the south of Kuiryktobe. It stands on the banks of the main channel and water-dispenser system that runs from the Arys River. The borders of the necropolis were successfully identified. The excavation has shown that the burials were made in rectangular vaults of adobe bricks that were laid in the form of a "fir tree". Bodies lay on their back or right side, their faces turned to the south or towards the sky. The position of the hands varied: along the body or on the stomach. There were also some child bodies that lay on their sides inside *khums*. One Samanidian coin of the 10th century was found in one of the burials. Because of the disposition of the burials in a few layers, we can say that this necropolis was functioning at least from the 10th to the 12th century. It was one of the first Muslim cemeteries in southern Kazakhstan, where Islam had started to expand during the 9th and 10th centuries; the most active expansion started after the Samanidian conquest of the Ispidzhab, Farab, and Shavgar regions in the middle of the 9th century. According to the written sources, Keder, which correspond to the site of Kuiryktobe and the former capital of the Farab region, was the base of Muslim troops from the 9th to the 11th centuries.

The necropolis on the territory of the south-western part of the *shahristan* and southern *rabad* was studied in 1986 by the Southern Kazakhstan Archaeological Expedition. The burials inside the pits stands close to each other over an area of about 1,000 sq m, and were covered with bricks. The upper layer of bricks has been lost and the bones were laying on the surface. The heads of the dead were laid facing the north and the north-west. The cemetery on the territory of the *shahristan* started to function from the late 13th century onwards after houses were abandoned. Sometimes the walls were used as the fences of family burial grounds. Burials made of adobe bricks taken from previous constructions were also situated inside the premises on the 11th- and 12th-century floor level. Traces of the houses of the earlier period were not visible; the burials were made without any order and across the walls. Burials on the *shahristan* were concentrated close to the mosque, which fell into ruin in the 12th century due to the general decline of the city. Fired bricks from the mosque were used for the construction of burials. Children's burials occupied mostly the southern part of the citadel. Boards and small beams were used to cover the pits. No objects were found in these burials. Some skeletons were covered with pieces of cotton clothes and copper beads (Nurmukhanbetov 1984: 85–94).

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Bibliography

Ageeva, E.I./Pacevič, G.I.
1958: *Iz istorii osedlyh poselenij i gorodov Ûžnogo Kazahstana* (= Trudy Instituta istorii, arheologii i ètnografii Akademii nauk Kazahskoj SSR 5), Alma-Ata.

Baipakov, K.M.
1964: O lokalizacii glavnogo goroda Otrarskogo oazisa v IX–XII vv., in: Belanovskaâ, T.D. (ed.), *Arheologičeskij sbornik. Trudy VIII Vsesoûznoj studenčeskoj konferencii*, Leningrad, 105–110.

1986: *Srednevekovaâ gorodskaâ kul'tura Ûžnogo Kazahstana i Semireč'â (VI–načalo XIII v.)*, Alma-Ata.

2005a: *Srednevekovaâ gorodskaâ kul'tura Ûžnogo Kazahstana i Semireč'â*, Almaty.

2005b: *Gorodiše Kujryktobe – gorod Keder/The site Kuiryktobe – Town Keder* (in Kazakh, Russian, and English), Almaty.

Baipakov, K.M./Ternovaâ, G.A.
2005: *Religii i kul'ty srednevekovogo Kazahstana (po materialam gorodiša Kujryktobe)*, Almaty.

Bartol'd, V.V.
Turkestan v èpohu mongol'skogo našestviâ (= Sobranie sočinenij 1), 1963, Moscow.

Nurmukhanbetov, B.N.
1974: Rannemusul'manskoe kladbiše bliz gorodiša Kujryktobe, in: Akišev, K.A. (ed.), *V glub' vekov. Arheologičeskij sbornik*, Alma-Ata, 85–94.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

The Ancient Settlement of Kesken-Kuyuk-Kala in the Eastern Aral Region

Karl M. Baipakov†[1]

Abstract: This paper describes the archaeological research undertaken at the ancient settlement of Kesken-Kuyuk-Kala in the eastern Aral region (north-western Kazakhstan). One of the largest monuments in the eastern Aral region of the Syr Darya River delta, it is known to have been occupied from the first centuries CE to the 11th century. Its geographical coordinates are N45°31′05,38″ E61°27′30,46″.

After surveying the history of research in the Aral region, the paper considers the geographical extent of the Oghuz state, and identifies several of the known Oghuz towns, notably the new and old "capitals" Yangikent (Dzhankent) and Khuwara (Kesken-Kuyuk-Kala). Next it describes in some detail the surviving indications of building construction and urban layout, and then the finds of ceramics, coins and metalware revealed by recent excavations at the ancient site of Kesken-Kuyuk-Kala (a town which emerged during the epoch of the Kangju state), and considers to what extent the site reflects on the broader debate on the relationship between nomadism and urbanisation in ancient Central Asia.

Keywords: Kangju state, Oghuz state, Kesken-Kuyuk-Kala, medieval town, citadel, *shahristan*, *rabad*, Oghuz, cattle-breeding, agriculture, town handicrafts.

Резюме: Статья содержит информацию об истории археологических исследований древнего городища КескенКуюк-кала. Городище является одним из наиболее крупных памятников Восточного Приаралья, расположенного в дельте Сырдарьи. Датируется оно первыми веками н.э.–XI в. Географические координаты N45°31′05,38″ E61°27′30,46″.

В статье приводится историографический обзор археологических исследований древнего городища КескенКуюк-калы, отождествленного с городом Джувара – Хувара, известным в арабских средневековых письменных источниках. Дается характеристика застройке города, городскому жилищу, археологическим и нумизматическим находкам, полученным во время раскопок на его территории.

Город на месте городища КескенКуюк-кала сформировался в эпоху государства Кангюй и продолжал жить в период существования в Приаралье Государства огузов.

Ключевые слова: Государство Кангюй, Государство огузов, КескенКуюк-кала, Хувара, средневековый город, цитадель, шахристан, рабад, помещения, огузы, скотоводство, земледелие, городские ремесла.

1 Karl Baipakov passed away in 2018 before he could review the final proofs.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363



Fig. 1: Map of Oghuz towns (drawing by K. Baipakov and S. Rutishauser, © IAW, University of Bern).

1 Introduction

Historically, the Syr Darya River – called the Iaxartes by the Greeks, Yinchu-Uguz by medieval authors, and Sayḥūn by early Arab writers – lay on the border of two worlds, southern Turan and northern Iran, a region of both cattle-herders and farmers, migrant peoples of the steppe and town dwellers.

Geographically, eastern Aral, the Kazakhstan part of the Aral region, is an alluvial plain adjacent to the Aral Sea. It is broadly triangular, stretching 400 km east-west and 200–250 km north-south. To the north and north-east it is bordered by the modern channel of the Syr Darya River, to the west by the Aral Sea, and to the south by the sands of the Kyzylkum desert. The plain was formed by the constant shifting of the numerous ancient channels of the Syr Darya as alluvium gradually formed (Levina/Ptičnikov 1991: 155–156), which over time led to areas of the delta drying out. Over the huge territory of the plain, four systems of ancient Syr Darya channels have been identified, the Inkar Darya, Zhana Darya, Kuwan Darya and Prakuwan Darya, which mostly flowed latitudinally from east to west, spreading radially from the Syr Darya south of Kzylorda.

It was a region where different cultures of the Great Eurasian Steppe came into contact and where different peoples co-existed, a "crossroad of the migration and trade routes". For S.P. Tolstov, the celebrated scholar of Khoresm and the entire Aral region, Aral was a "centre of ethnogenesis" (Tolstov 1947a: 308–310).

2 The history of archaeological study in the Aral region and south Kazakhstan

The archaeological study of the region began in the second half of the 19th century, after it had become part of the Russian Empire. In 1867, the famous orientalist P.I. Lerkh travelled there at the behest of the Russian Archaeological Commission. He described the remains of the medieval towns he discovered and carried out small excavations at Dzhankent, though the most valuable part of his report is

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his summary of written references to the medieval towns and monuments of the region (Lerh 1870).

The vivid accounts of the antiquities of a newly discovered, almost unknown, region published by scholars and travellers led to the Russian public taking a keen interest in the history and art of Turkestan. The famous art critic V.V. Stasov put the region's archaeological monuments on the same level as those of well-known world cultures and asked: "Why should the ancient town near Dzhankent not be our Pompeii?" (Stasov 1894: 192).

Also significant at this time was the work carried out by members of the Turkestan group of amateur archaeologists established in Tashkent in 1895, which brought together representatives of the military, government officials and those interested in the archaeology and history of Turkestan (Kallaur 1901a: 69–78; 1903: 59–69; 1900: 6–19; 1901b:98–101; 1901c: 14–17). Particularly valuable were the studies of medieval town by V.A. Kallaur, A.A. Divaev and A. Simonov (Divaev 1896: 193–194; 1905: 40–42; Simonov 1900: 96–101).

In the early 20th century, the monuments of lower reaches of the Syr Darya attracted the attention of the famous orientalist and archaeologist A.Yu. Yakubovsky, whose study of the town of Sygnak is still one of the best historical/topographical studies (Âkubovskij 1929: 123–159). Later, the Khoresmian archaeology/ethnographical expedition of AS USSR (KhAEE AS USSR) (Khorezm Archaeological and Ethnographic Expedition of the USSR Academy of Sciences), headed by S.P. Tolstov, began investigating the lower reaches of the Amu Darya, Syr Darya-Oks and Iaxartes rivers, as well as Syr Darya and its ancient channels, including the Kuwan Darya, Inkar Darya, and others.

Thanks to the long and fruitful work of this expedition, the Aral Sea area is now widely recognised as a region with a unique ancient and medieval history and culture that played an important role in the historical development of Eurasia (Tolstov 1948a;1948b; 1962; 2005; Andrianov 1969; Vinogradov 1981; Itina/Âblonskij 2001; Levina 1971; 1996; Vajnberg 1999; Rapoport/Nerazik/Levina 2000).

The prominent Russian orientalist V.V. Bartol'd (Bartol'd 1963a) made an important contribution to the study of Aral region history through his research on written sources. A range of other researchers have also made significant contributions to the historical studies of the Aral region (Margulan 1950; Ageeva/Pacevič 1958: 3–215; Andrianov (ed.) 1962; Akišev/Baipakov/Erzakovič 1987; Belenickij/Bentovič/Bol'šakov 1973; Agadžanov 1969; Piŝulina 1969: 5–49; Ahinžanov 1989).

Archaeological research in the area resumed in 2005, supported by the Republic of Kazakhstan and the Russian Federation, and undertaken by the Kzylorda State University, the Margulan Institute of Archaeology of the Ministry of Science and Education of the Republic of Kazakhstan, and the Institute of Ethnology and Anthropology of Russian Academy of Sciences.

In 2011, the archaeology department of Tübingen University (Germany) also became active in the study of the region, conducting research mostly at the sites of Dzhankent, Chirik Rabat, and Balandy (Aržanceva et al. 2010; Aržanceva/Tažekeev (ed.) 2014; Bisenov et al. (ed.) 2013; Baipakov/Voyakin/Ilin 2012: 22–44; Baipakov 2013: 163–174).

At present, importantly, research on ancient and medieval urbanisation in the Aral region is closely linked to the study of the ecology of the area. The "Aral Sea crisis" – the rapid and extensive drying out of this inland sea – has attracted the concerned attention of scientists and the wider public internationally. It prompts several questions: Why has the crisis come about? How have people and the natural environment in the Aral region interacted in the distant and recent past? What human actions have had a major impact on the region? The answers require a close study of historical economic activity, above all the development of irrigated agriculture in the region. A multi-disciplinary approach is required to evaluate the modern ecological situation. Archaeological research became particularly significant in relation to this issue with the discovery of two ancient settlements dated to the second half of the 14th century on the now-exposed bed of the Aral Sea (Levina 1996; Andrianov (ed.) 1991; Baipakov 2007a: 97; Baipakov 2012a: 64–68, 166–170).

One of the important archaeological issues of the Aral region, and of Central Asia as a whole, remains the "Oghuz question", i.e. the important historical and cultural role played by the Oghuz (Guz) and Turkmen tribes in Eurasia (Agadžanov 1969: 5–7; 1973). They remained in the territory of Kazakhstan from the 9th to the 12th century, before leaving the area to move to the south of Central Asia, to Iran and Afghanistan, the Caucasus region, and Asia Minor, where they joined the Turkmen, Azerbaijani and Turkic peoples. The tribes of Oghuz origin also interacted with Kazakhs, Uzbeks, Karakalpaks, Bashkirs and Tatars (Akišev et al. (ed.) 1996: 3, 18–320).

3 The extent of Oghuz settlements

S.P. Tolstov began studying the Oghuz towns of the Aral region in 1945, and his important paper "The Towns of the Oghuz" (Tolstov 1947b: 55–102) is still relevant.

Historical and geographical information provided by early Arab writers, including al-Idrīsī, al-Iṣṭaḫrī ("Kitāb Rūğār"), al-Marwardī and al-Bīrūnī allow us to define the approximate borders of the lands

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of the Oghuz in the 10th century CE. Oghuz tribes inhabited the steppes of Kazakhstan from the south Balkhash region in the east to the lower reaches of the Volga River in the west (Agadžanov 1969: 23). There were concentrations of the Oghuz in the Aral area, the north Caspian region, and in the middle reaches of the Syr Darya River. Separate groups of Oghuz inhabited Semirechye (Zhetysu), and some settled on the edges of the Shash (Čāč) and Isphidzhab regions.

In the 10th century, the majority of Oghuz tribes migrated to the steppes around the Aral and Caspian Sea. The contemporaneous Arab historian and geographer al-Mas'ūdī noted that in the steppes near the "Khazar" (Caspian) Sea, there were many nomadic camps of Oghuz, while in the 10th-century anonymous geographical work *ḥudūd al-'ālam* we read that "there is said to be a settlement of a group of Turks of the Oghuz tribes" on "Siyakkuh", the mountain to the north of the Caspian Sea (Siyakkuh has been identified with the Mangistau peninsula). The "Hudud al-Alam" also relates that to the north of the Caspian Sea, the Oghuz reached as far as the Volga River. At the time, the western borders of Oghuz sites and fortresses reached as far as the southern Urals and the Lower Volga region; along this western limit, the Oghuz tribes bordered not only the Bashkirs, but also the Khazars and Burtases of the Volga region (Agadžanov 1969: 49–85).

Al-Idrīsī describes the towns of the Oghuz as follows: "The towns of Oghuz are numerous; they stretch out one after the other to the north and to the east. They have high mountains and fortified fortresses where the leaders shelter and where they store their stocks of food. There are people (appointed by leaders), who protect this land […] Their […] main town is Khiam. There they find refuge and shelter with their belongings […] it is an unassailable fortress on the top of a mountain which is difficult climb […] and it is fortified […] Both Khiam to the north and Dzhandan to the south of the river are small towns strongly fortified, and both are equal […] On the bank of this river (Magra, or Marga) there is situated the mountain with high peak with more than one thousand springs coming from it which all flow into the Magra River. Two towns like fortresses are situated on the top of this mountain; the name of one of them is Nudzhah, the other Badagah, and the distance between them is one day's walk. There are two towns at the foothills of the aforementioned mountain, the name of one of them is Daranda, the other Darku. Daranda is to the west of Darku and the distance between them is a three days' travel. They are two small towns where are markets, handicrafts, and excellent goods, the both of them are strongly fortified and unapproachable. The snow is always there; inhabitants of these countries gather their crops unripe and dry them in smoke and under the tent: this is because of deep cold and the rarity of dry days…" The towns Ruzan (Rudan), Garbian and the "Old Town of the Oghuz" are mentioned later (Volin/Romaskevič/Âkubovskij (ed.) 1939: 311–312).

The 11th-century Arab scholar Maḥmūd al-Kāšġārī cites the Oghuz towns of Sauran, Karachuk, Sygnak, Syutkent and Karnak (Volin/Romaskevič/Âkubovskij (ed.) 1939: 220–222). He notes that "the Oghuz who live in towns and who do not move to another places, and who do not fight, are called *yatuk*" (Volin/Romaskevič/Âkubovskij (ed.) 1939: 311).

In the lower reaches of the Syr Darya, the Oghuz lived in the towns of Dzhend, Yangikent and Khora (Bartol'd 1963b: 558–561; Agadžanov 1969: 76, 133–135, 176–178).

The 10th-century Arab geographer Muḥammad al-Muqaddasī provides information about the Turkmens of the Beruket-Baladzha area (Agadžanov 1969: 49–85; Baipakov 2007b: 35–61).

However, there is also some evidence that the Oghuz did not inhabit towns at all. In the *ḥudūd al-'ālam* we read: "The Oghuz do not have any one town, while the people living in felt yurts are numerous" (Volin/Romaskevič/Âkubovskij (ed.) 1939: 211).

Trying to reconcile these contradictory claims, V.V. Bartol'd considered that "Oghuz towns were formed not by the Oghuz themselves, who were nomads, but by others, including the Khoresmians; but some of the Oghuz, who had acquired a less nomadic way of life, settled in the towns and lived there" (Bartol'd 1963b: 561).

For S.P. Tolstov, the economy of the Aral region tribes, including that of the Oghuz, was a complex one that combined nomadic animal husbandry with agriculture, in nother words with a settled and urban way of life (Tolstov 1947b: 99–100). This view is now widely accepted.

In the view of the author of the present paper, the "towns of the Oghuz" were established and developed long before the Oghuz and Turkmens themselves arrived, though we can speak only of the Oghuz period of their existence, when they dominated the region politically and some of them settled in the towns (Baipakov 1986: 106, 121).

4 Oghuz towns in the Aral region

In "Kitāb Rūğār", al-Idrīsī mentions, while describing the Oghuz region, "Old Guzia": "Between Khiyam and Old Guzia [the distance] is four days' travel south and west. Old Guzia is located in a region bounded by the western spurs of the Tian Shan mountains, the Shu River and the Karatau mountains." By Old Guzia was meant, no doubt, the former "capital" of

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the Oghuz tribes, which we can assume was the first residence of the Oghuz leaders.

Al-Idrīsī also mentions "New Guzia", the political centre of the Oghuz state, located in the lower reaches of the "Šāš River" (Syr Darya), where the leader of the Oghuz resided during the winter. New Guzia is identical with Yangikent, whose other names in Arab and Persian sources include Yanykent, al-Qariya al-ḥadiṯa, Dih-i Nau, Shekhrkent, all meaning "New Town". The appearance of these names in the sources is most likely connected with the Oghuz attainment of political hegemony in the region. It took 10 days to travel from Yangikent to Khorezm, 20 days to Farab. Boats carried grain from Maverannahr to Yangikent along the Syr Darya River.

In the medieval Arabic sources, one of the first references to Yangikent is in the works of the 12th-century writer Ibn Rushd (Averroes), who in describing the eastern shore of Lake Khorezm, refers to the "shah of the New Town."

The 10th-century Arab writer Ibn Ḥauqal provides interesting information about Yangikent in his historical/geographical works, where he states directly that the "New Settlement" is the capital of the Oghuz state. Yangikent, in his words, was "the largest settlement" in the lower reaches of the Syr Darya River (Bartol'd 1963a: 235). Yangikent has also been identified with Dzhankent, a name it preserves to this day (**Fig. 1**).

The choice of New Guzia (Yangikent) as the political centre of Oghuz power was based on its advantageous geographical location, which allowed it to link the large agricultural oases of Kazakhstan and Central Asia, acting as a corridor along which flowed trade between the Oghuz steppes and Khoresm, Maverannahr and Khorasan. It was located on the important caravan route through the Kimak steppes to Sarysu-Kengir valley, Ishim and Nura and the southern Urals.

As we know from written sources, in 1219 Yangikent was captured by Mongol troop headed by Dzhuchi (Jochi) Khan, the eldest son of Genghis Khan. Unlike the towns of Sygnak, Ashnas and Barchkent, which were destroyed because their citizens resisted the Mongols, Yangikent surrendered without a fight and so was saved (Bartol'd 1963a: 483).

Also according to the written sources, not far from Yangikent was the town of Khuwara (Dzhuwara, Khora). Now that the location of Yangikent has been fixed, the position of Khuwara can be determined with greater confidence. The author of the present paper once placed it near the Mausoleum of Korkut Ata (Baipakov 1986: 28). Now, however, the author believes that it has been convincingly shown that the town corresponds to one of the ancient "marsh settlements", namely Kesken-Kuyuk-Kala (Baipakov 2007b: 52). This site, which features the remains of a large town with a complex topography, has provided an extensive quantity of finds which indicate that the settlement flourished from the first centuries CE to the 11th century (Levina 1971: 76–89).

Under the name Chauriana, Khawrana/Khuwara it is mentioned by the Roman historian Ammanius Marcellinus, in the last quarter of the 4th century, as being located in Lower Syr Darya, together with the towns of Aspabota and Spaga (Zuev 1995: 42–43).

The fact that Kesken-Kuyuk-Kala/Khuwara was once the capital was confirmed by the discovery there of a "new type" of silver coin, modelled on the Aphrigidian drachma but with Arabic inscriptions on both sides. On one of these coins, numismatists have identified the mint (inscription on the coin: X.r.v/Dzh.r.) and have concluded that this is the name of the capital of the Oghuz state of Syr Darya, Dzhuwara (Khuwara) (Gončarov/Nastič 2013: 89–91).

On the basis of an analysis of the complex of ceramics collected at Kesken-Kuyuk-Kala, L.M. Levina, following S.P. Tolstov, has concluded that in the 10th to the 12th centuries CE, the "marsh towns" became Oghuz, being the settled, urbanised component of the mixed livestock, farming and fishing economy of the ancient Turkic tribes that created a unique (in part urban) culture. Moreover, Levina believes that the culture of these "marsh towns" was based on the Jetyasar culture, which was in turn influenced by the culture of Semirechie, the Middle Syr Darya and Khorezm (Levina 1971: 76–89).

5 Research grant from the Society for the Exploration of EurAsia

From 2006 onwards, Kesken-Kuyuk-Kala has been systematically studied by the scientific company Archaeological Expertise Ltd. Work on the site has produced new and important finds. From 2008 to 2018, research was financed by the Society for the Exploration of EurAsia, Switzerland.[2]

The ancient settlement of Kesken-Kuyuk-Kala is broadly oval in plan, measuring 830 × 710 m, and rises above the surrounding terrain by 2–5 m. It consists of a citadel, *shahristan* (inner city) and two *rabads* (areas for craftsmen), and was surrounded by an outer wall that has been preserved to a height of around 2–2.5 m (**Fig. 2**).

In the north-east corner of the site, the square *shahristan* (210 × 210 m) stands 3 m above the gen-

2 The author of this paper and the specialists who studied the Kesken-Kuyuk-Kala site would like to express their gratitude to the board of the Society for the Exploration of EurAsia, and personally to Dr Christoph Baumer, for the financial support given to this project, and for their contribution to the study and preservation of the cultural heritage of the Republic of Kazakhstan.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

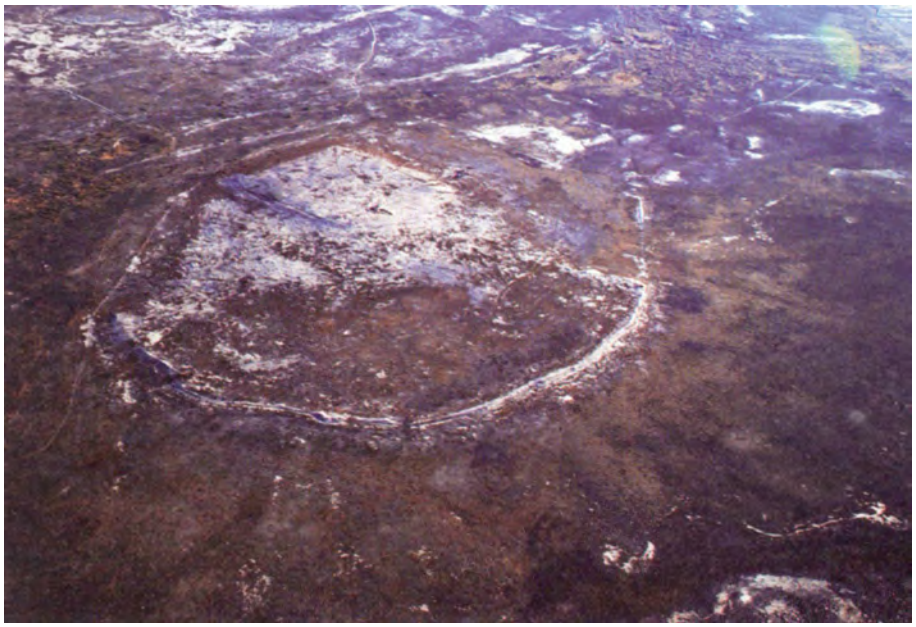


Fig. 2: Kesken-Kuyuk-Kala. Aerial photograph (photo by D. Sorokin).

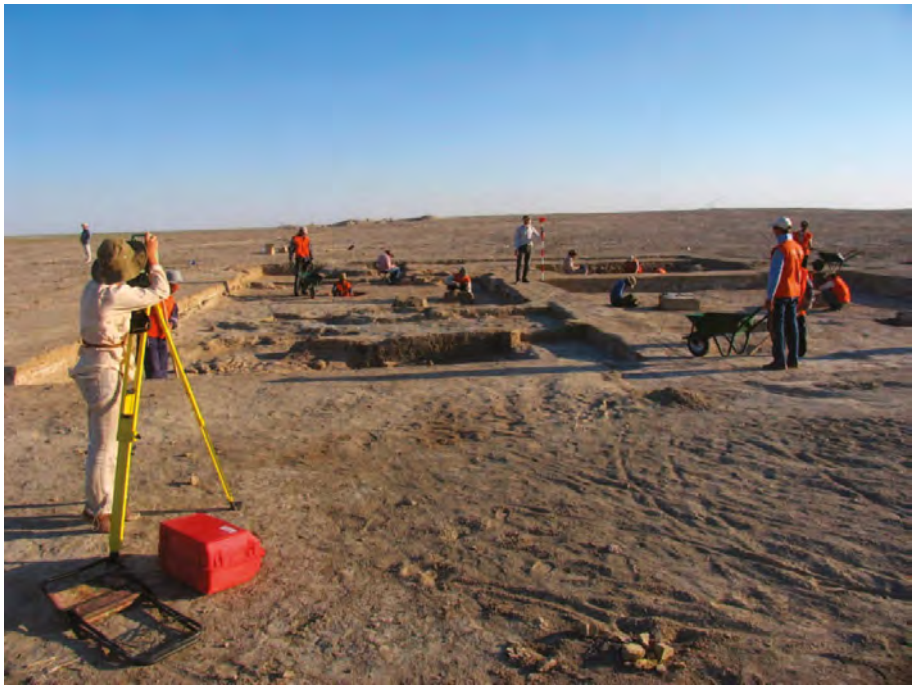


Fig. 3: Kesken-Kuyuk-Kala. General view of the excavation (photo by D. Voyakin).

eral level of the site. It is traversed by a street about 3 m wide from which run curving alleys that divide the square of the citadel into areas that differ in size and shape (**Fig. 3**).

In the south-west corner of the *shahristan* is the citadel, which is 60 × 60 m and the base of which is 1 m higher than the *shahristan*.

Rabad 1, separated from *Rabad* 2 by the wall running north-south, is situated to the south, the east and the south-east of the *shahristan*.

The main focus of study was a section 21 × 63 m in the eastern corner of the *shahristan*, in which, according to aerial photographs, two streets crossed. On the surface, signs of walls and premises can be observed. In total, 36 premises were partially or totally documented, the largest part of the complex.

Stratigraphy revealed three cultural layers:

- The first (upper) destroyed layer is loose loamy ground, grey and brown in colour and containing the remains of broken raw and

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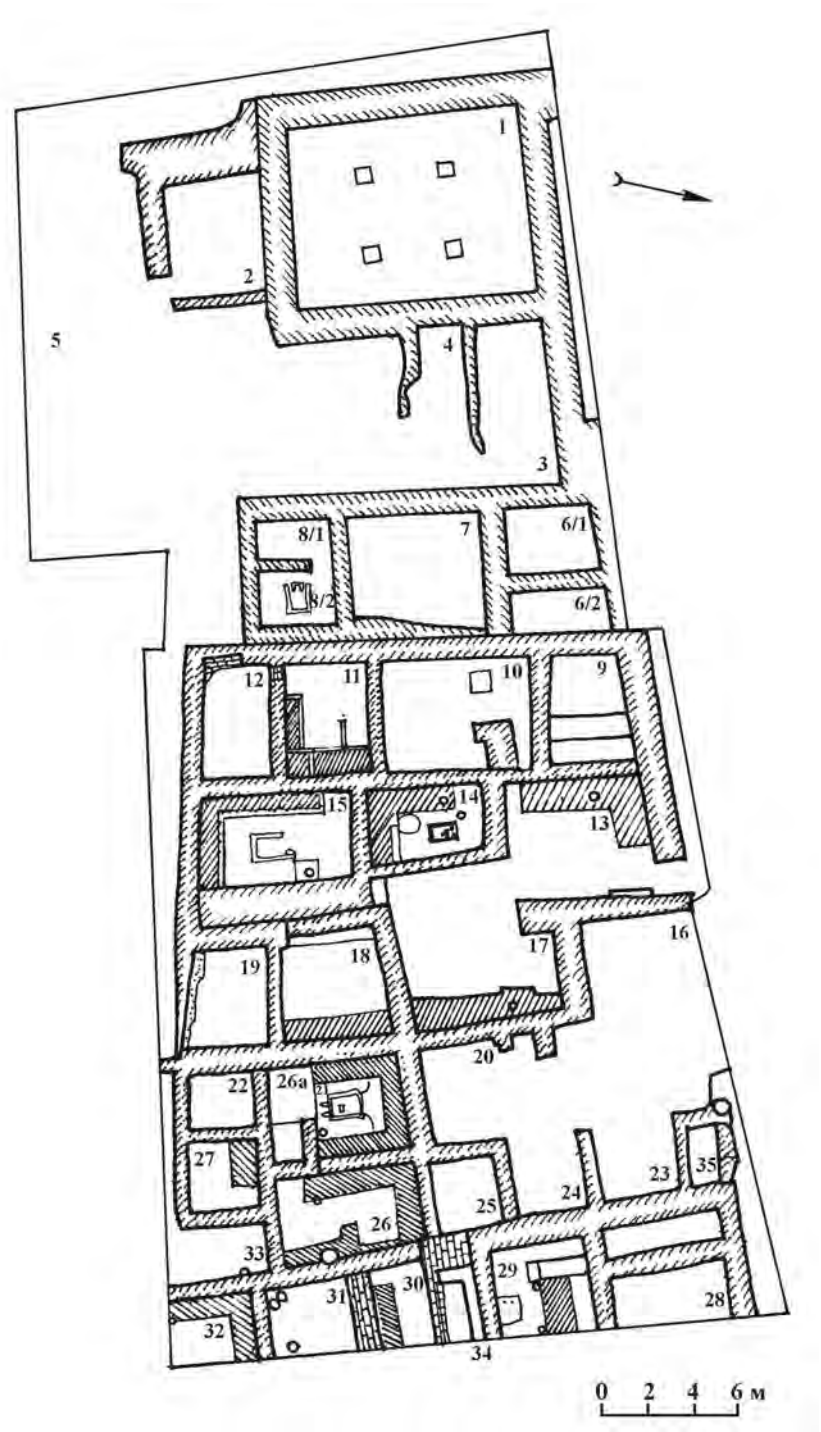


Fig. 4: Kesken-Kuyuk-Kala. The Temple and the subterranean portion of the excavation. (drawing by M. Gurulev).

burnt bricks. The depth of the layer is uneven, varying from 5 to 20 cm. Chronologically, it relates to the early 13th century.

- The second layer contains the remains of badly preserved construction. Chronologically, it relates to the 12th century.
- In the third layer are the well-preserved remains of constructions in height from 50 to 70 cm, which is equivalent to the depth of the layer. Chronologically, it relates to the 10th to 11th centuries.

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Fig. 5: Kesken-Kuyuk-Kala Site. Remains of the Temple (photo by D. Voyakin).



Fig. 6: Kesken-Kuyuk-Kala. The Premise 14 with the altar (photo by D. Sorokin).

6 Excavations at Kesken-Kuyuk-Kala

As stated above, the main excavation focussed on the eastern sector of the *shahristan*. The topography reveals the main street, from which small streets and alleys radiate in different directions, dividing the square *shahristan* into differently sized constructions and grounds. A complex of buildings was identified and excavated, and interpreted as a temple complex – a residential development consisting of eight premises located along the main and "western" streets.

The Temple

At the centre of the Temple is Premise 1, a sanctuary covering 100 sq m; rectangular in form, it extends north to south (**Fig. 4**). This contained four square bases of raw bricks which once supported wooden columns. On the eastern side of the hall with columns are two *aiwans*. In Premise 1 a *khumcha* (vessel) was found, and at the wall pits were cleared (**Fig. 5**).

On the south side of Premise 1 is Premise 2, where during the excavations layers of white ash were discovered. Apparently, the room was intended for storing ash that accumulated during the burning

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Fig. 7: Dzhankent. Decoration of the altar. Fragment (photo by T. Smagulov).

of offerings on the altar fire. In Premise 2, a cluster of ceramic vessels was found on the floor, lying on a reed mat. On the floor of Premise 2, an altar decorated with stylised sheep heads (protomai) was unearthed. Behind this was Premise 5, which extends west to east. Between Premises 2 and 5 there was a passage that leads to the courtyard of the Temple.

In this courtyard, which adjoined Premise 2 in the east, there was an altar platform on which a floor altar was found. Near the altar lay a *khumcha* (storage vessel) with two loop-shaped handles, decorated with a delicate stucco moulding in the form of flowers. Near the altar were accumulations of the bones of domestic and wild animals: camel, cow, sheep, goat, and wild boar. These, it seems, are the remains of sacrifices.

In the yard adjoining the eastern side of the hall with columns (Premise 1), there was a square with two *tandyrs* (floor ovens) dug in the floor and covered by raw bricks.

From west to east along the wall of Premise 1 there are two *aiwans* leading to the yard of the Temple. Supported by columns, the roof in the central hall was made of reeds, the remains of which were found on the floor. The walls of the temple were completely plastered with clay.

To the east of the hall with columns there are three premises (6, 7 and 8), separated by a wall, that were used during cult ceremonies.

Premise 6, which has been conventionally called the "Tabernacle", is rectangular in plan (6 × 4.2 m) and is divided into two compartments by a wall.

To the south of the "Tabernacle" is Premise 7, measuring 5.57 × 6.3 m, which was filled with ash. In Premise 10, which is next to Premise 7 and which measures 6.15 × 4.2 m, an altar was excavated.

Household 1

Household 1, which is situated to the east of the Temple, consists of nine premises (**Fig. 8**). Premise 9, which is trapezoidal in plan, is situated in the north-eastern part of the excavation. Inside the premise, on the eastern wall is a *sufa*. During the clearing of the premise, fragments of the stucco moulding of a ceramic mug with ornamented walls was discovered, while in the northern part of the premise a ceramic mug with a loop-shaped handle was found.

Premise 10 (6.75 × 5.1 m) is situated to the south of Premise 9. At the centre, a round, calcined area 57 × 64 cm was observed. In the north-western part of the premise, there is the base of a column 85 × 85 cm made of raw bricks that measure 32 × 18 × 6 cm. Its height from the level of floor is 23 cm. Three to four rows of masonry reaching a height of 23 cm from the floor were discovered. In the eastern part of the premise, adjoining the wall, there is a platform measuring 2.04 × 1.8 m paved with raw bricks. In a pit on this platform a pot made on a wheel was found.

Premise 11 (5.43 × 3.75 m) is situated between the premise with columns and the *aiwan* (Premise 12). There were found fragments of thick-walled red clay vessel and stucco moulding jug with a vertical, loop-shaped handle. To the south of Premise 11, there is an *aiwan* that is rectangular in plan, measuring 5.43 × 3.1 m. To the east of this *aiwan* is Premise 15 (6.4 × 5.7 m.), in which there is an altar and an L-shaped *sufa*. In the north-eastern part of this premise, between the northern walls of households 1 and 2, there is the passage 1.1 m long and 9.5 m wide leading to the main street.

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Fig. 8: Kesken-Kuyuk-Kala. Household 1: Niches in the wall (photo by R. Ilin).

Premise 14 (5.55 × 3.75 m) is located in the eastern part of the household. The southern and western parts of the premise are occupied by a Г-shaped *sufa*, on which were fragments of ceramic vessels. In the center of the premise, on the floor, there is an altar built of rectangular raw bricks. In the northern part of the premise was another altar, decorated by two sculptural stylized images of rams (protomai), whose heads are turned in opposite directions. A similar altar with ram protomai was also found at Dzhankent (**Fig. 7**).

On the altar was discovered a mug with loop-shaped handle stood upside down. In Premise 21 there is one more rectangular altar (7.1 × 4 m).

To the west of Premise 21 near the wall there is Premise 18, which has a *sufa* of raw bricks measuring 40 × 20 × 6 cm, and also Premise 19.

Premise 17 (5.65 × 7.2 m) is situated in the eastern part of household.

Premise 18 (5.60 × 4.90 m) is on the western side, separated from Premises 15 and 13 by a wall made of raw bricks. In the north-eastern part of Premise 18, a passage leads from it to the *aiwan*.

In Premise 19 (4.70 × 3.90 m) there are no signs of constructions. The southern wall, made of raw bricks, had been reconstructed twice. Earlier building work has been detected under layers.

In the centre of Premise 21 (7.1 × 4 m) there is an altar that sits on a hard floor of rammed earth. The surface of the floor around the altar is calcined and covered with a layer of soot. In the premise there is also a П-shaped *sufa*, on whose edges, strengthened by a row of raw bricks, fragments of a ceramic vessel were found.

Household 2

Household 2, which is situated in the eastern part of the complex, comprises 18 premises and areas of various functions. During excavation, two construction periods were revealed. In the late construction period, the courtyard of the household was re-planned, the buildings being backfilled and levelled with ash and household rubbish. A similar situation can be observed in Premise 29, where the main area with altar and a wall with niches was divided into four independent sectors. The second premise with an altar was built anew. From the northern wall of the premise there was a wall that directly faced the main street. The yard measures 6.40 × 5.70 m. Behind the yard there are the *aiwans*.

The centre of the home (north of Premise 26a) was a premise with an altar and a "П"-shaped *sufa* extending along the northern, eastern and western walls. The *sufa* is made of raw bricks, its surface plastered. Near the eastern edge of the *sufa*, a *khumcha* filled with millet was dug into the floor.

Behind the premise with the altar was a premise with a *sufa*, where clusters of various ceramic vessels were found. This premise, it seems, housed utensils used for both domestic and cultic purposes.

Along the northern, western and eastern walls of Premise 26, there is a *sufa*, on the surface of which was found a *khumcha* and a pot. To the south of this premise are Premises 32 and 33. In one of the premises, a *khumcha* used as an oven was dug into the floor.

In the premise with an altar there was a "П"-shaped *sufa* along a wall with arched niches that are covered in a thick layer of plaster. Near both the *sufa*

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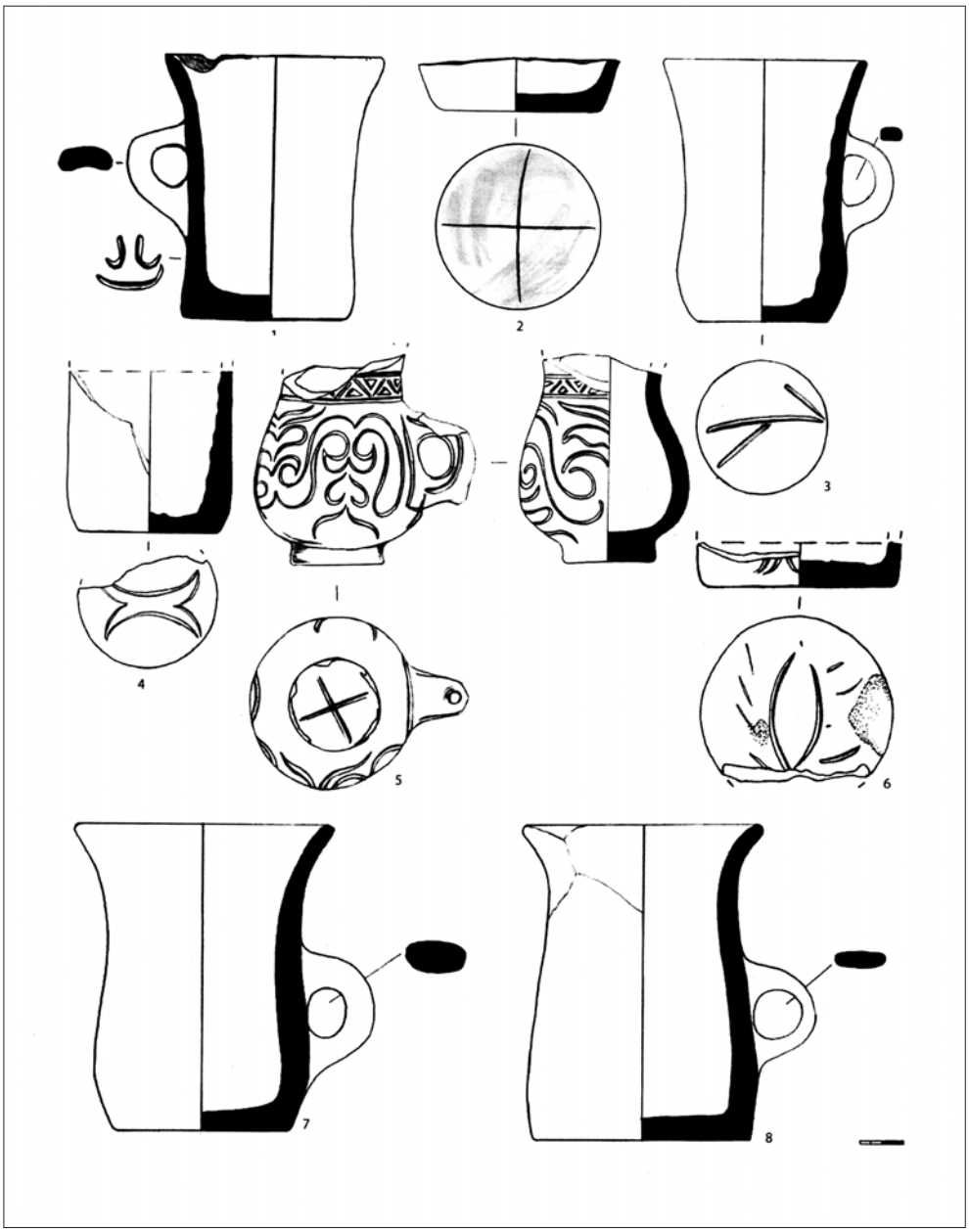


Fig. 9: Kesken-Kuyuk-Kala. Ceramic mugs (drawings by A. Kuz'minova).

and the wall with niches, a *khum* was found in the dense raw-brick floor.

Ceramics

The vast majority of finds at Kesken-Kuyuk-Kala are ceramics. They can be divided into two groups: hand-formed and wheel-made.

The dishes are made mostly of red clay, but there are also examples of grey clay. Tests revealed the presence of impurities such as chamotte (grog) and sand (quartz). The dishes are decorated with vegetal patterns (shoots, leaves) or geometrical forms. The pitchers are decorated with straight or wavy concentric lines.

Hand-formed dishes are represented by pots, cauldrons, mugs, *khums*, *khumchas*, covers, and *dastarkhans*.

The dishes are decorated with vegetal and geometric patterns. Among the fragments are stylised zoomorphic necks and handles. Most dishes are covered with a red, brown, white or dark-cherry engobe. Some crockery was polished.

The ceramics made on a potter's wheel are of red clay, the paste being well mixed. Admixtures of sand and mica, gypsum and mica, gypsum and chamotte (grog) have been identified. They are represented by jugs decorated by carved vegetal and geometrical ornamentation. Engobe streaks of red, reddish,

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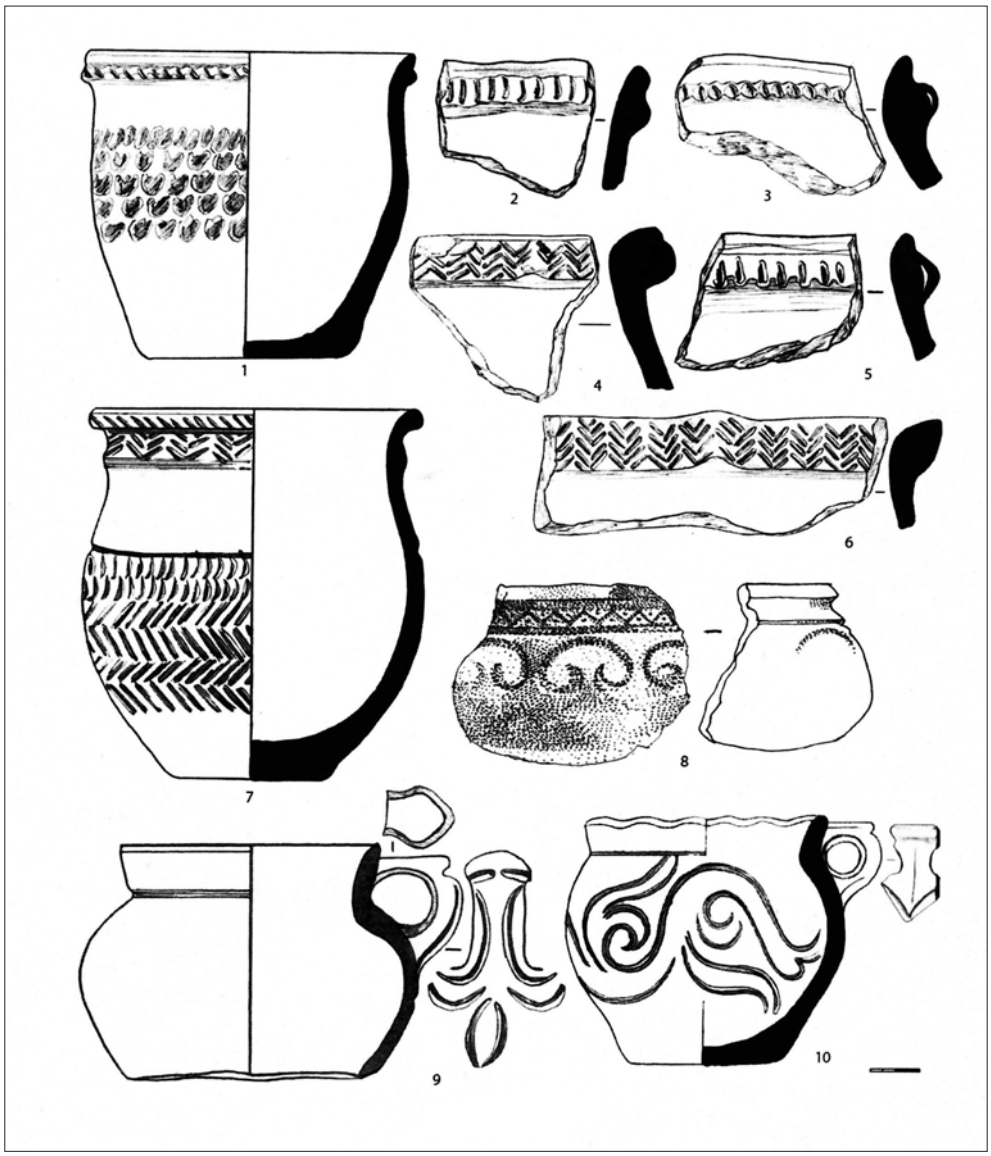


Fig. 10: Kesken-Kuyuk-Kala. Unglazed ornamented vessels (drawings by A. Kuz'minova).

lilac-violet or light colours were used as decoration (**Fig. 11**).

A separate category of ceramics comprises weaving spindles and the sheep protomai that adorn the altars.

Among the ceramic material it is necessary to note the findings of two ceramic "boots", decorated richly by carved herbal ornamentation. "Such 'boots' were used as incense burners" (**Fig. 12**; Smagulov 2017: 143–152, ills. 61, 65).

In the upper layer, fragments of dishes with transparent glaze over white englobe have been found.

Other finds: Coins, jewellery, items of bronze, iron, bone or stone

At Kesken-Kuyuk-Kala, silver and copper coins were found, including Turgesh, Tan and Aphrigidian Khoresm (originals and imitations of Aphrigidian coins). The close links between the "marshy settlements" and Khoresm is confirmed in particular by the discovery on the site of coins of Aphrigidian Khoresm from the 7th to 8th century CE, and coins imitating the Khoresmian drachma of the 9th century. All coins were in circulation from the 8th to the 11th centuries (**Fig. 13**).

Bronze items include jewellery: earrings, rings, and twisted bracelets; details of clothing, such as buckles belts; and elements of a horse's harness – plaques (rounded, heart-shaped and rectangular),

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Fig. 11: Kesken-Kuyuk-Kala. Cup. 10th–11th century (photo by B. Seisenov).



Fig. 12: Kesken-Kuyuk-Kala. Ceramic incense burners in the form of "a boot" (photo by O. Kuznetsova).

pendants and bells (**Figs. 14–15**). The figure of the horse was cast from bronze.

Of especial note among the jewellery is a large bronze ring with an inset of turquoise. There are also fragments of lapis lazuli, as well as an assortment of glass and semi-precious stones (**Fig. 16**).

Of particular interest among the finds is a gem of the coloured stone carnelian on which is carved the face of a young woman (**Fig. 17**). The gem is dated to the 4th to 5th century CE. At the request of the authors of the find, a translation of the inscription "bylpykywyhdyn", which is written in ancient Pahlavi, was made. This reads: "Bil-big [personal name] witness of the true faith".[3]

Articles made of iron include fragments of knives, stirrups, nails, details of locks.

Frequently found were the bones of domestic and wild animals, i.e. the products of food preparation; big and small fragments of hand-made ceramic dishes; and pestles for grinding.

7 Conclusions

The finds at the ancient site of Kesken-Kuyuk-Kala allow us to identify three building horizons: the first can be dated to the 12th–early 13th century, the second to 11th century, and the third to the 9th–10th centuries.

3 Reading and translation by V.A. Livshits and A.I. Kolesnikova.

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Fig. 13: Kesken-Kuyuk-Kala. Silver coins (photo by O. Belyalov).



Fig. 14: Kesken-Kuyuk-Kala. Bronzeware (photo by O. Belyalov).



Fig. 15: Kesken-Kuyuk-Kala. Bronzeware (photo by O. Belyalov).

S.P. Tolstov characterises the Oghuz economy of Lower Syr Darya as a complex combination of cattle breeding, agriculture,and fishing. Cattle breeding was indicated by the large quantity of bones of domestic animals (cows, horses, sheep, goats and camels). In terms of agriculture, the study of fruits and seeds made by C.V. Bashtannik shows that two-row barley, soft-grain wheat and, probably, beans were cultivated; and the role played by fishing is illustrated by the discovery of fish bones and scales.

The material finds also show that at Kesken-Kuyuk-Kala characteristic pottery and metal items (iron and copper) were manufactured.

The Oghuz towns of the Syr Darya region appeared and were developed before the coming of the Oghuz and Turkmens, though what we know of them relates solely to the Oghuz period in their existence, when the Oghuz dominated the region politically.

Yangikent (Dzhankent) and Khuwara (Kesken-Kuyuk-Kala) were, respectively, the new and old

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Fig. 16: Kesken-Kuyuk-Kala. Beads (photo by O. Belyalov).



Fig. 17: Kesken-Kuyuk-Kala. Gem (photo by O. Belyalov).

capitals of the Oghuz. So some of the Oghuz and the Turkmens adopted a more settled way of life and moved into towns, adapting to urban culture and building construction. At first, however, they retained their specific ethnic features in domestic ceramics and in part in their cult ceremonies connected with the preparation of food.

In considering the issue of the "Oghuz towns" in the Syr Darya valley, it is necessary to note the ethno-political situation that prevailed in the epoch of the Kangju state and earlier during the time of the Saka state. The question here is to what degree the Oghuz was "nomadic" in character, and to what extent urban.

In the early Middle Ages, the independent possession of Kangu Tarban was formed in the Middle Syr Darya, in which a group of Pechenegs established a settled population in the oases (Klâštornyj 1964: 101–179). The Kangars played an important role in forming the Oghuz and then the Kypchak union of tribes (Tolstov 1947b: 101; Baipakov 2005: 48–57).

Later, during the 10th–11th centuries, in the foothills of the Karatau Mountain, Oghuz and Turkmen tribes formed a state that was part nomadic and part semi-nomadic. A minority of the latter settled in towns whose populations had already adopted Islam but had also partially preserved the traditions of pre-Islamic religions.

The state of the Oghuz and Turkmens played an important role in the history of Eurasia, notably in the political, economic and cultural life of Kazakhstan, Central Asia, the Near and Middle East, the Caucasus, Asia Minor and Eastern Europe (Agadžanov 1969: 5–7; 1973; Tolstov 1948b: 244–252; Baipakov 2007b: 35–61).

The issue raised by the "Oghuz towns" is a part of the broader "town and steppe" question (Baipakov 2012c: 12–25).

Bibliography

Agadžanov, S.G.
1969: *Očerki istorii oguzov i turkmen Srednej Azii IX–XIII vv.*, Ashgabad.
1973: *Sel'džukidy i Turkmeniâ v XI–XII vv.*, Ashgabad.

Ageeva, E.I./Pacevič, G.I.
1958: Iz istorii osedlyh poselenij i gorodov Ûžnogo Kazahstana, in: *Trudy Instituta istorii, arheologii i ètnografii Akademii nauk Kazahskoj SSR. Tom 5*, Almaty, 3–215.

Ahinžanov, S.M.
1989: *Kypčaki v istorii srednevekovogo Kazahstana*, Almaty.

Akišev, K.A./Baipakov, K.M./Erzakovič, L.B.
1987: *Otrar v XIII–XV vekah*, Almaty.

Akišev K.A./Baipakov K.M./Kumekov B.E. et al. (ed.)
1996: *Istoriâ Kazahstana. Tom I. Kazahstan ot èpohi paleolita do pozdnego srednevekov'â, Almaty*.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Âkubovskij, A.Û.
1929: Razvaliny Sygnaka (Sugnaka), *Soobŝeniâ Gosudarstvennoj Akademii istorii material'noj kul'tury* 2, 123–159.

Andrianov, B.V.
1969: *Drevnie orositel'nye sistemy priaral'â*, Moscow.

Andrianov, B.V. (ed.)
1991: *Aral'skij krizis. Istoriko-geografičeskaâ retrospektiva*, Moscow.

1962: *Arheologičeskie issledovaniâ na severnyh sklonah Karatau* (= Trudy Instituta istorii, arheologii i ètnografii Akademii nauk Kazahskoj SSR 14), Almaty.

Aržanceva, I.A. et al.
2010: *Svodnyj otčet ob arheologičeskih rabotah na gorodiše Džankent v 2005–2007, 2009 g.*, Kyzylorda.

Aržanceva, I.A./Tažekeev, A.A. (ed.)
2014: *Kompleksnye issledovaniâ gorodiša Džankent (raboty 2011–2014 gg.)*, Almaty.

Baipakov, K.M.
1986: *Srednevekovaâ gorodskaâ kul'tura Ûžnogo Kazahstana i Semireč'â (VI–načalo XIII v.)*, Almaty.

2005: *Gorodiše Kujryktobe – gorod Keder*, Almaty.

2007a: *Velikij Šelkovyj put' na territorii Kazahstana*, Almaty.

2007b: Oguzy, turkmeny i sel'džuki v gorodah Zhetysu i Ûžnogo Kazahstana, *Izvestiâ NAN RK. Seriâ obŝestvennyh nauk* 1, 35–61.

Baipakov, K.M.
2012a: *Islamic Archaeological Architecture and Archaeology of Kazakhstan*, Almaty/Samarkand.

Baipakov, K.M.
2012b: *Drevnââ i srednevekovaâ urbanizaciâ Kazahstana (po materialam issledovanij Ûžno-Kazahstanskoj kompleksnoj arheologičeskoj èkspedicii). Kniga I. Urbanizaciâ Kazahstana v èpohu bronzy – rannem srednevekov'e*, Almaty.

2013: *Drevnââ i srednevekovaâ urbanizaciâ Kazahstana (po materialam issledovanij Ûžno-Kazahstanskoj kompleksnoj arheologičeskoj èkspedicii). Kniga II. Urbanizaciâ Kazahstana v IX – načale XIII v.*, Almaty.

Baipakov, K.M./Voyakin, D.A./Ilin, R.V.
2012: The Towns of Huwara and Yangikent – the Old and the New Capitals of the Oghuz State, *Bulletin of International Institute for Central Asian Studies* 16, 22–44.

Bartol'd, V.V.
1963a: *Turkestan v èpohu mongol'skogo našestviâ* (= Sobranie sočinenij 1), Moscow.

1963b: Ocherk istorii turkmenskogo naroda, in: Bartol'd, V.V., *Obŝie raboty po istorii Srednej Azii. Raboty po istorii Kavkaza i Vostočnoj Evropy* (= Sobranie sočinenij 2), Moscow, 547–604.

Belenickij, A.M./Bentovič, I.B./Bol'šakov, O.G.
1973: *Srednevekovyj gorod Srednej Azii*, Leningrad.

Bisenov, K.A. et al. (ed.)
2013: *Civilizacii, zaterânnye v peskah*, Astana.

Divaev, A.A.
1896: Neskol'ko slov o mogile svâtogo Horhut-Ata, *Zapiski Vostočnogo otdeleniâ Imperatorskogo Russkogo Arheologičeskogo obŝestva* 10, 193–194.

1905: Mavzolej Kok-Kesene (istoriko-arheologičeskaâ zametka), *Protokoly zasedanij i soobŝeniâ* členov *Turkestanskogo Kružka lûbitelej arheologii* 10, 40–42.

Gončarov, E.Û./Nastič, V.N.
2013: Monety Syrdar'inskih oguzov IX v., in: Klâštornyj, S.G./Sultanov, T.I./Trepavlov, V.V. (ed.), *Tûrkologičeskij sbornik. 2012–2013. Političeskaâ i ètnokul'turnaâ istoriâ tûrkskih narodov i gosudarstv*, Moscow, 80–91.

Itina, M.A./Âblonskij, L.T.
2001: *Mavzolei severnogo Tagiskena. Pozdnij bronzovyj vek nižney Syrdar'i*, Moscow.

Kallaur, V.A.
1900: Drevnie goroda Saganak (Sunak), Ašnas ili Ešnas (Asanas) i drugie v Perovskom uezde, razrušennye Čingiz-hanom v 1219 g., *Protokoly zasedanij i soobŝeniâ členov Turkestanskogo Kružka lûbitelej arheologii* 5, 6–19.

1901a: Drevnie goroda, kreposti i kurgany po reke Syr-Dar'e v vostočnoj časti Perovskogo uezda, *Protokoly zasedanij i soobŝeniâ členov Turkestanskogo Kružka lûbitelej arheologii* 6, 69–78.

1901b: Mavzolej Kok-Kesene v Perovskom uezde, *Protokoly zasedanij i soobŝeniâ členov Turkestanskogo Kružka lûbitelej arheologii* 6, 98–101.

1901c: Razvaliny "Syrly-tam" v Perovskom uezde, *Protokoly zasedanij i soobŝeniâ členov Turkestanskogo Kružka lûbitelej arheologii* 6, 14–17.

1903: Drevnie goroda i seleniâ (razvaliny) v Perovskom uezde, v doline rek Syr-Dar'i i Yany-Dar'i, *Protokoly zasedanij i soobŝeniâ členov Turkestanskogo Kružka lûbitelej arheologii* 8, 59–69.

Klâštornyj, S.G.
1964: *Drevnetûrkskie runičeskie pamâtniki kak istočnik po istorii Srednej Azii*, Moscow.

Levina, L.M.
1971: *Keramika Nižnej i Srednej Syrdar'i v I tysâčeletii n. è.,* (= Trudy Horezmskoj arheologo-ètnografičeskoj èkspedicii 7), Moscow.

1996: *Ètnokul'turnaâ istoriâ Vostočnogo Priaral'â (I tysâčeletie do n. è. – I tysâčeletie n. è)*, Moscow.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Levina, L.M./Ptičnikov, V.D.
1991: Dinamika irrigacii drevnih rusel Kuvandar'i v uročiše Džetyasar (Vostočnoe Priaral'e), in: Andrianov, B.V. (ed.), *Aral'skij krizis. Istoriko-geografičeskaâ retrospektiva*, Moscow, 142–161.

Lerh, P.I.
1870: *Arheologičeskaâ poezdka v Turkestanskij kraj v 1867 godu*, St. Petersburg.

Margulan, A.H.
1950: *Iz istorii gorodov i stroitel'nogo iskusstva drevnego Kazahstana*, Almaty.

Piŝulina, K.A.
1969: Prisyrdar'inskie goroda i ih značenie v istorii kazahskih hanstv v XV–XVII vv., in: Sulejmanov, B.S. (ed.), *Kazahstan v XV–XVIII vv. (voprosy social'no-političeskoj istorii)*, Almaty, 5–49.

Rapoport, Û.A./Nerazik, E.E./Levina, L.M.
2000: *V nizov'âh Oksa i Âksarta. Obrazy drevnego Priaral'â*, Moscow.

Simonov, A.I.
1900: Džety-Asar, *Turkestanskie vedomosti 800/817*, 96–101.

Smagulov, E.A.
2017: *Drevnij Turkestan: štrihi k istorii i istoričeskomu portretu*, Almaty.

Stasov, V.V.
1894: *Sobranie sočinenij. Tom II. Hudožestvennye stat'i. Otd. 3: Istoriâ hudožestv i hudožestvennyh proizvedenij. Otd. 4: Kritika hudožestvennyh proizvedenij*, St Petersburg.

Tolstov, S.P.
1947a: Aral'skij uzel ètnogoničeskogo processa, in: Tolstov, S.P. (ed.), *Sovetskaâ ètnografiâ. Sbornik statej. VI–VII*, Moscow/Leningrad, 308–310.

1947b: Goroda guzov (istoriko-ètnografičeskie ètûdy), *Sovetskaâ ètnografiâ* 3, 55–102.

1948a: *Drevnij Horezm. Opyt istoriko-arheologičeskogo issledovaniâ*, Moscow.

1948b: *Po sledam drevnehorezmijskoj civilizacii*, Moscow/Leningrad.

1962: *Po drevnim del'tam Oksa i Âksarta*, Moscow.

2005: *Following the Tracks of Ancient Khorezmian Civilization*, Tashkent.

Vajnberg, B.I.
1999: *Ètnogeografiâ Turana v drevnosti. VII v. do n. è.–VIII v. n. è*, Moscow.

Vinogradov, A.V.
1981: *Drevnie ohotniki i rybolovy sredneaziatskogo meždureč'â* (= Trudy Horezmskoj arheologo-ètnografičeskoj èkspedicii 13), Moscow.

Volin, S.L./Romaskevič, A.A./Âkubovskij, A.Û. (ed.)
1939: *Materialy po istorii turkmen i Turkmenii. Tom I. VII-XV vv. Arabskie i persidskie istočniki*, Moscow/Leningrad.

Zuev, Û.A.
1995: Sarmato-Alany Priaral'â (Ân'caj/Abzojâ), in: Associaciâ "Rafah" et al. (ed.), *Kul'tura kočevnikov na rubeže vekov (XIX-XX, XX-XXI vv.): problemy genezisa i transformacii: materialy meždunarodnoj konferencii, g. Almaty, 5-7 iûnâ 1995*, Almaty, 42–43.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

Interpreting the Female Figure on a Ceramic Fragment from Taraz

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Abstract: The medieval settlement of Taraz is located in the central area of the modern city of Taraz in southern Kazakhstan. In 2014, the Turan joint research group, represented by the archaeologists from Al-Farabi National University and the Margulan Institute of Archaeology, made a remarkable find – a fragment of glazed pottery containing the image of a young woman. The piece was discovered in the cultural layer belonging to the Karakhanid Khanate period. Historically, the period is characterised by the opulence of "classical Islam", and, hence, by increased prohibitions, particularly concerning the depiction of human beings. The artefact's uniqueness is represented by the combination of the figurative female image with Islamic symbolism. This is the first and so far the only known relic of this kind in Central Asia. The paper presents an iconographical and stylistic analysis of the elements of the image. On this basis, the author succeeded in identifying the specific features of cultural interrelations in the Karakhanid Khanate, as well as in determining the significance of the Turkic component in artistic processes in the studied period.

Keywords: Taraz, Karakhanids, glazed ceramics, Islamic art.

Резюме: Средневековое городище Тараз расположено в центральной части одноименного города на юге Казахстана. Наиболее яркой находкой полевого сезона 2014 является фрагмент глазурованной керамики с изображением молодой женщины. Артефакт был обнаружен группой «Туран» (КазНУ им. Аль-Фараби) на территории цитадели в культурном слое периода Караханидов, характеризуемый историками как время расцвета «классического ислама», а следовательно возросших запретов, в том числе и на изображения человека. Его уникальность заключается прежде всего в сочетании женского портрета с исламской символикой. На сегодняшний день данная находка не имеет аналогов в Центральной Азии. В статье представлен подробный иконографический и стилистической анализ элементов изображения. На данной основе автору удалось выявить специфику культурных взаимосвязей в государстве Караханидов и определить значимость «тюркского компонента» в художественных процессах в рассматриваемый период.

Ключевые слова: Тараз, Караханиды, глазурованная керамика, исламское искусство.

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Fig. 1: Excavation area No. 2 in the eastern part of the citadel before and after cleaning (photo by B. Baybugunov, 2014).

1 Introduction

The Karakhanid era has become one of the most investigated periods of Central Asian art history, but issues surrounding the ethnic factor remain insufficiently addressed, resulting in a gap in our knowledge of this historical period. In this context, this paper will interpret the portrayal of a woman on a ceramic fragment from Taraz in order to identify the role of the Turkic component in Karakhanid art traditions.

The appearance of the Turkic Karakhanid dynasty on the political scene between 927 and 1212 CE was marked by a surge in cultural production. After the death of dynasty founder Satuk Bughra Khan, the reins of power were assumed by his son Musa and Islam was declared the state religion of the khanate. The new faith brought major changes to the cultural life of the population, with the spread of the Islamic aesthetic resulting in the emergence of an art style typical of Islam. The uniformity of the aesthetic ideas associated with Islam even makes it possible to speak of the "art of Islam" as a large-scale phenomenon. Referring to this art as the "art of the Muslim countries" is another valid option since the new artistic trends of Islam that spread across a wide swath of territory were unable to displace the existing local traditions in their entirety. One of the most striking manifestations of this Islamic art shaped by local influences developed in the urban centres of Zhetysu, which refers to the seven rivers that flow into Lake Balkhash in modern-day Kazakhstan.

2 Historical outline

The first major city that travellers reached on their way to the Talas River valley was Jamukat; and then Taraz, an important hub on the Silk Road. Taraz,

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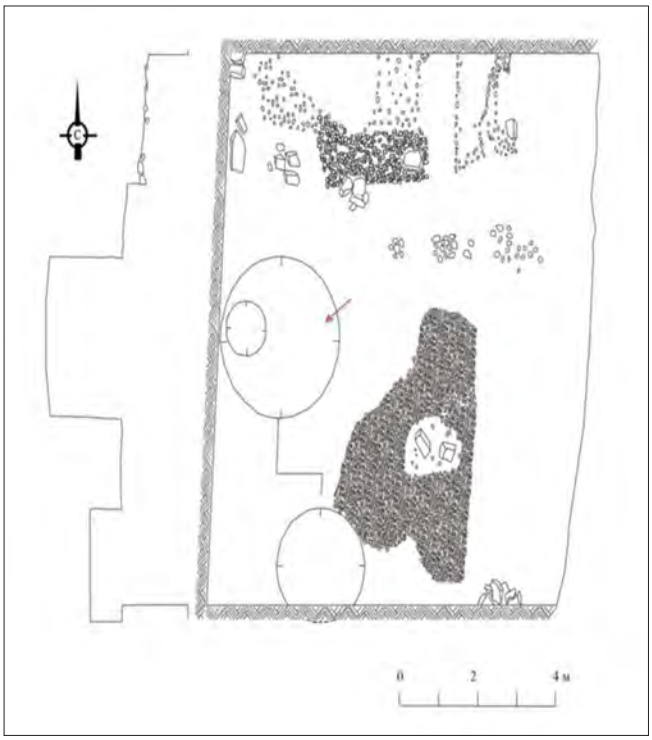


Fig. 2: Plan of the excavation area No. 2 containing two waste pits and the remains of a paved road built in the more recent period (drawn by B. Baybugunov). The arrow indicates the location of the find.

which lies in south-western Zhetysu, on the banks of the Talas near the Talas Ala-Too Mountains, is considered one of the oldest centres of urban culture in what is now Kazakhstan.

The first mentions of the city date back to Byzantine and Chinese writings of the 6th and 7th centuries CE (Ivanka 1955: 138; Sûan'-czan 2012: 40). In the 7th century, Taraz assumed a major political role as a key centre for long-distance trade and became known far beyond its region thanks to its mention in the chronicles and geographical writings of its day.

Taraz experienced significant economic and cultural advancement between the 10th and 12th centuries during the Turkic Karakhanid dynasty. The 10th-century Arab geographer al-Muqaddasī described Taraz as "an important fortified town with many gardens. The houses there are side by side. A trench surrounds the town, which has four gates, and well developed suburbs. A large stream flows by a portal of the *madīna*, beyond it a portion of the town over which the high road runs. The mosque is in the market" (Al-Muqaddasī 2001: 227).

At the beginning of the 13th century, Taraz came under the control of the Khwarezm shahs. On the eve of the Mongol invasion in 1212,[1] the city, like the other centres of south-western Zhetysu and southern Kazakhstan, was destroyed by its residents on the orders of Khwarezm Shah Muhammad II in order to prevent it falling into the hands of the Mongols (Bajpakov 1998: 84–85). According to reports by Wilhelm Rubruck, Taraz was rebuilt in the middle of the 13th century (von Rubruk 2013: 98–99).

The second half of the 13th and the beginning of the 14th centuries were characterised by the constant rivalry among the descendants of Genghis Khan, which resulted in the destruction of many cities and settlements. Taraz had ceased to exist as an urban centre by the beginning of the 15th century, although there was a small settlement at the site until the 18th century.

After the devastation of the city, the remaining ruins were first replaced by the Kokand fortress and then by the city of Auliye-Ata. In the following decades, the ruins of Taraz came to be hidden under the growing expanse of Dzhambul.

A. Bernstam and T. Senigova published rough outlines of the city's former topography in the 1930s and 1960s, respectively. The structure of the city as identified by F. Grigorjev differed from the classical scheme of Central Asian cities, because it consisted of two components: the citadel and the *shahristan*. The otherwise typical commercial and craft district, the *rabad*, did not follow the typical pattern; instead, its function was fulfilled by the *shahristan* (Bajpakov/Grigor'ev 1999: 50–64).

The ruins of the medieval settlement are located in the central part of present-day Taraz. The archaeological work on the citadel and the *shahristan* was

1 The editors believe that the year should be 1218/19.

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Fig. 3: Fragment of the glazed pottery found in the upper layer of the waste pit (photo and processing by S. Eder, 2015).

resumed in 2011. The most striking find during the 2014 excavation season was a fragment of a glazed ceramic bowl featuring the portrait of a young woman. It was discovered by the Turan research group led by Madjar Jeleuov of Al-Farabi Kazakh National University during the excavation of the citadel (**Fig. 1**). Stratigraphic relationships allow the ceramic fragment to be dated to the Karakhanid era (**Fig. 2**).

3 Description of the object

The piece, which was found in fragments, appears to have been part of a slightly flattened round bowl glazed in a white slip (**Fig. 3**). The length of the shard from the lower edge to the upper end is 10.6 cm; it is an average of 8 cm wide. The bowl's diameter is estimated to have been 36 cm (**Fig. 4**). The break line has a reddish colour caused by fire. Like several comparable finds in the area, the inner surface of the bowl was probably painted with different coloured glazes. The woman's portrait is on the inner surface of the container and may have been a part of a wider composition.

Only the woman's bust is shown, *en face* with her head slightly turned to the right. The face is painted in an off-white and is striking due to its gently rounded shape. The cheekbones and the chin are not very pronounced. The facial features are intact: a straight nose, large black eyes that are slightly closed, thin, almost touching eyebrows, and small but swelling lips in a heart shape. A little birthmark can be seen in the lower left part of the face. The black hair is braided into plaits and the short fringe is equally divided into strands, with a lock of hair falling onto the temple. The neck features a necklace or a choker of some kind. The woman is wearing a white shirt with a fan-shaped collar, covered with a patterned kaftan. The portrait is set against a green background, giving the impression that the woman is looking out from an ornamented lancet window.

A ledge decorated with eight-pointed stars juts out under the "window". The following will describe in detail the key characteristics of the portrait, i.e. the woman's appearance and the surrounding ornamentation.

4 The portrait

This portrait of a woman is one of the rarest examples of portraiture from the Karakhanid era. The execution of the woman's posture and her facial lines reflect the stylistic characteristics of the murals from the artistic masterpieces of early medieval Sogdia, Khwarezm and Tokharistan, which in turn have their origins in Kushan art (Belenizki 1980: 217–218).

Certain parallels can be found in Balalyk-Tepe, where the murals feature figures in static poses. As a reminder, there men and women are portrayed on the four walls of the Balalyk room seated on carpets, with servants standing behind them with fans. The faces of all the women are rounded and are similar to one another with the exception of one woman with slit eyes. The men's faces likewise resemble each other. The men differ from the women mainly through their hair styles. The servants' faces are also similar to each other and resemble the gentlemen's faces as well. This is a classic example of a schematic representation (Al'baum 1975: 95). The artist, as

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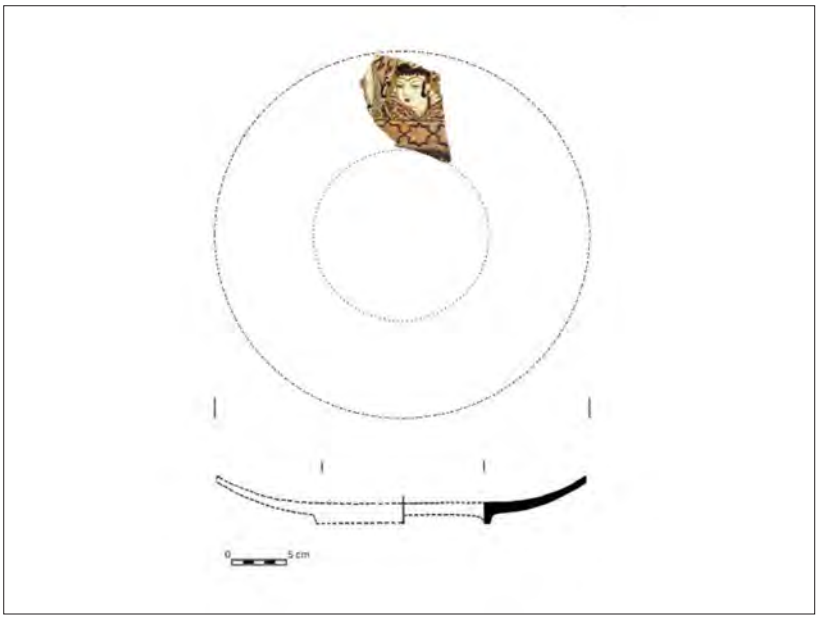


Fig. 4: Suggested reconstruction of the ceramic bowl (drawn by S. Eder).

Rempel suggests, was not endeavouring to reflect the inner state of each character by means of their facial expressions. Indeed, it seems that some of the figures' contours are repeated stereotypes. The familiar formality has obviously already taken hold (Pugačenkova/Rempel' 1965: 139).

Meanwhile, the expression of the woman from Taraz cannot be described as expressionless. The languishing glance of the pronounced big eyes looks like a restrained pride, a reference quite like to the same ancient canons that explain the exaggerated eyes on Fayum portraits combined with elements of local Egyptian and Roman/Hellenistic art. Some figures in the painting on the south wall of the Fayaz-Tepa temple courtyard have similarly large eyes, as do the harpist and the so-called "Queen of Hearts" at Toprak-Kala. No less characteristic are the somewhat asymmetrical eyes of the boy from Khalchayan (Al'baum 1975: 93). Showing the face with eyebrows (almost) growing together is a feature that stems from Syrian-Egyptian artistic traditions (Tolstov 1948: 177).

Another parallel that merits our attention is a Ghaznavid glazed bowl featuring an expressive image of a siren/harpy found in the territory of the Tashkent oasis at the city site of Qanqa, the medieval city of Kharashkath (Ilyasov 2014: 82–83, Fig. 65). The stylistic way of reproduction of the facial lines of the mythical creature bears a striking resemblance to that of the female portrait from Taraz (**Fig. 5**). The close similarity can be explained by the foreign origin of the Taraz bowl, which was being probably imported from Chach, as well as by the commonality of graphic styles and techniques of ceramic schools of the Tashkent oasis and south-western Zhetysu in the 10th–11th centuries.

The image could also represent a huri. In the Koran, huris function as lovely, amazing virgins promised to all believers who go to Heaven. As a synonym of magnificent beauties the Turkic huris are mentioned in the medieval oriental poetry: "… with moon-like face … huri-like face…" (Rudaki 2007: 143). It is interesting to note in this context that the world-famous classics of Persian poetry like Rudaki and Omar Khayyam dedicated some of their ruba'is to the women of Taraz (Omar Khayyam 2014: ruba'i 90):

> "If heart's facing Bokhara and *Taraz*'s beauties
> what then's the point in God's house facing?
> Your faith in love, will be accepted by God...
> But, your prayers God will not be accepting!"
> (Rudaki 2007: 137)

The slightly flattened upper head area of the woman from Taraz gives the impression of an unfinished portrayal of the hair style. The hair split into short strands on the forehead is seen in only a few examples of wood and stucco sculptures from Varakhsha and Panjikent and in the women of the Chaganian shown on the mural in Afrasiyab. The woman, like most of the women on the Panjikent murals and the women of Chaganian and Balalyk-Tepe, is clearly represented without a head covering. Their hair features a complicated style of several braids, with strands or tresses on their temples. The hairstyle and the uncovered head of the woman from Taraz could also indicate an unmarried status, as suggested by Rubruck, who had the chance to observe everyday life among the Tatars of the 13th century: "On the day following her marriage, [a woman] shaves the front half of her head, and puts on a tunic

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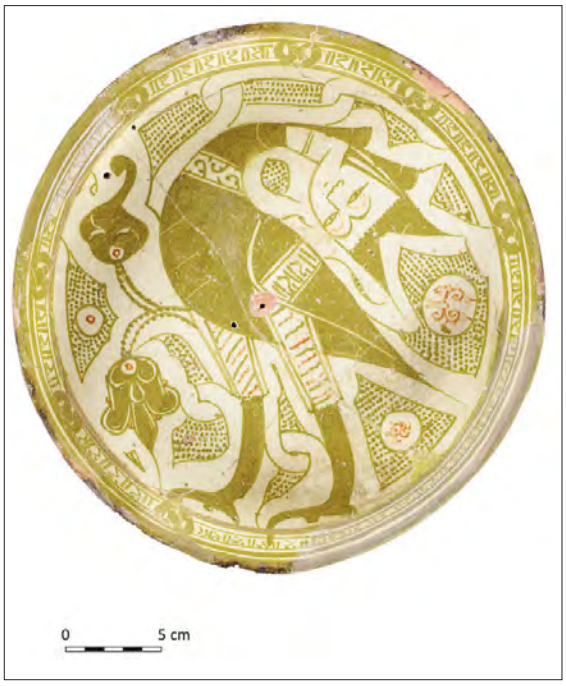


Fig. 5: Glazed bowl, Qanqa city site, Tashkent region, Uzbekistan (courtesy of Sotheby's Auction House, Arts of the Islamic World, London, 27 April 2005, lot 87, sale code L05220).



Fig. 6: Depiction of Turkic rulers complaining about the incineration of the body of Gautama Buddha, the Cave Maya, Kizyl Caves, Xinjiang. Original height 15–20 cm (after Grünwedel 1912).

as wide as a nun's gown, but everyway larger and longer" (von Rubruk 2013: 48). This indicates that a woman's hair style reflects here age, status, and ethnic identity. The pieces compared here date back to between the 6th and 8th centuries, the heyday of Sogdian culture.

The woman's outer garment can be clearly identified as a cloak. A Turkic cloak is usually a wide garment whose front panels overlap. It's always worn by men and women alike with a belt. The length can extend from the knees down to the ankles. Cloaks are often decorated with embroidery on the front and on the sleeves. The sleeves of Turkic cloaks could vary widely and were often longer than the arms themselves. Our woman's cloak is not closed at the neck, with its neckline opening outward to create a kind of lapel. Comparable lapels can be seen in the cloaks of Turkic (Uighur) princesses, as seen on the wall paintings in Bezeklik (Bussagli 1979: 107). In this context, the masterpieces of early medieval Uighur art of particular interest, mainly because of the large number of detailed polychrome images of women they feature. Earlier polychrome Turkic portraits largely represent only the "world of the men".

The woman's cloak might have been made of high-quality brocade or damask, with trefoil ornamentation that might have been embroidered, as suggested by the chronicles of Bei Qi and Sui Shu, which report that the Sogdian leader of the Khan kingdom (Samarkand) also wearing a robe made of embroidered silks, damask and white fabric. The men in this country also wore caftans made of damask (Bičurin 1950: 271). These reports supplement information provided by Xuanzang who describes his stay in Tocharistan and the clothing of the local people, which he found very similar to that worn in Hotan (Xinjiang). This similarity probably arose as a result of the migration of the Turkic tribes across Central Asia. The Turkification of the Central Asian population had already begun in the Hun period, becoming more intense with the formation of the Turkic khanate in the 6th century. It is noteworthy that the trefoil in ancient Turkic art functions as an attribute of Umai, the patron goddess of birth, fertility and welfare (Skobelev 1990: 232). The presence of the trefoil as a decorative element in human portraiture of the Muslim period is a significant fact that probably had an originally sacral significance.

The difference recognisable in the murals between the fabrics worn by high-ranking persons and those worn by ordinary citizens confirm what Xuanzang reported: namely, that the residents wore either silks embroidered with gold or coarse wool (Lobačeva 1979: 28). In the well-known description of the garments worn by Turkic regent Jeju Kaghan and his entourage, Xuanzang repeatedly emphasised that the Turkic nobility wore splendid silk clothing. The nomad king, he reports, "was covered with the robe of green satin, and his hair was loose, only it was bound round with a *silken band* some ten feet in length, which was twisted round his head and fell down behind. He was surrounded by about 200 officers, who were all clothed in *brocade stuff*, with

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their hair braided" (Wriggins 2004: 32). The way that clothing reflected social differences is also clear from how the belts were made. The *Tángshū* chronicle reports that the ruler of Kucha wore kaftans made of brocade and a belt adorned with precious stones (Bičurin 1950: 296).

An essential feature of the traditional clothes of the peoples of Central Asia and Kazakhstan is the unisex or closely related cut of the clothing regardless of gender and age (Suhareva 1979: 78). Rubruck, for example, noted that "the dress of the girls differs not from the costume of the men, except that it is somewhat longer" (von Rubruk 2013: 48). According to Chinese traveller Changchun, who visited Samarkand in 1221, the women and men's shirts had the same cut and were made of a fine, white wool, with the lower part cut wide and provided with sleeves (Bartol'd 1965: 240–241). We can imagine our women of Taraz wearing such a shirt.

The shirt is, however, equipped with a very interesting detail, namely a wide, fan-shaped standing collar. This collar shape has no direct parallels in medieval visual art. The shirts worn by the ancient Turks on the wall frescoes in Kizyl dating to the time of the Turkic khanate feature high roll necks (**Fig. 6**) (Grünwedel 1912: Fig. 415). A similar turn-down collar, eventually modified over time, can be seen on the portrait from Taraz. The lack of parallels can, on the one hand, be explained by the extremely rare appearance of images of women in the Turkic Middle Ages, and, on the other hand, with the increasing limitations being placed on pictorial representations of humans in the Muslim period. In this respect, this portrait of a woman from Taraz has proved to be a very valuable discovery for the history of costume because it offers clues as to how a young, elegant, unmarried woman in the Karakhanid state might have appeared.

5 The eight-pointed ornament

The eight-pointed star has been a well-known decorative motif in all historical periods. The first known representations of octagonal characters date back to the end of the 3rd millennium BCE with two bronze artefacts, a plate and a seal, found in the necropolis of Gonur Depe in southern Turkmenistan. The plate shows five argali sheep consecutively climbing atop each other, with an eight-pointed star similar to the symbol of the Mesopotamian goddess Ishtar at its centre. The surface of the round bronze seal consists of four eight-pointed stars consecutively pulling away from each other (Sarianidi/Dubova 2014: 103–104, 108–109).

The octagon is based on the square, associated psychologically with the strength and stability. This also explains its frequent use in building design and in symbolism. Four represents the number of elements, the seasons of the year, the stages of human life, and the four cardinal points, all sources of order and balance in the world. The octagon acts as an intermediary between the square and the circle and therefore symbolises spiritual renewal (Kirlo 2010: 203, 205). For this very reason, the octagon is a common structural component in Christian and Islamic religious architecture.

In the context of Islamic architecture, eight-pointed stars begin appearing as early as the 7th century CE. The Dome of the Rock in Jerusalem, the third-most important holy place in Islam (after Mecca and Medina), has an octagonal shape, which also corresponds to Islamic ideas of the eight gates of Paradise (Al'-Aškar 2007: 163–166). The octogram became a Muslim symbol after being used as a calligraphic element in the Koran. The character made up of two overlapping squares is called *rub el hizb*, with each quarter representing a *ḥizb* (Hughes 1995: 433). The *rub el hizb* can now be seen in many coats of arms and flags, including on the coat of arms of the modern city of Taraz. The appearance of the symbol in the Koran is one of the the reasons why it is a frequent element in the exterior design of medieval buildings in the Muslim Near East. Ornaments made up of eight-pointed stars adored with texts from the Koran are frequently found in the mosaic and terracotta cladding of religious buildings in Central Asia. In south-western Zhetysu, however, only the famous mausoleum of Aisha-Bibi from the 11th or 12th century is decorated with eight-pointed tiles (**Fig. 7**) (Bajpakov/Bajbosynov 2008: 2). The monument, which is located approximately 18 km west of Taraz, is based on the story of the tragic love of the beautiful Aisha and her fiancé, the young regent of Taraz Karakhan. As she was travelling to Taraz to join her bridegroom, Aisha died as the result of being bitten by a snake on a riverbank. In Aisha's honour, Karakhan set up a mausoleum on the site of her death, resulting in a one-of-a-kind architectural monument of the Karakhanid era. The façade is made entirely of a wide range of artistic terracotta tiles. The ornaments in the form of the *rub el hizb* located below the pointed arch are almost identical to the same decoration on the ceramic fragment from Taraz (**Fig. 8**). It is noteworthy that the decorated stripes in the woman's portrait run under a window in the form of a pointed arch. In addition, the many ornaments on the tomb façade include trefoils very similar to those on the woman's cloak. Of course, connecting the composition on the ceramic fragment from Taraz to the ornamentation on the Aisha-Bibi mausoleum, as well as any identification of the woman depicted as the tragic figure of the Aisha-Bibi legend, is pure speculation. However, it should be noted here that ornament motifs on ceramic objects are often borrowed from real architectural shapes and decorative features. Thus the motifs on dastarkhan trays from Kuiryktobe and Otrar

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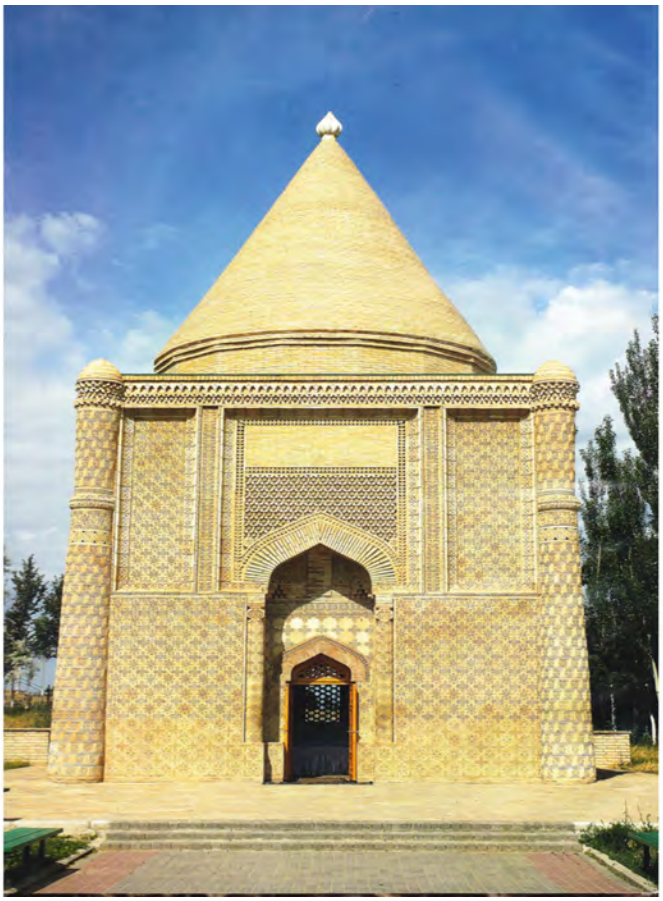


Fig. 7. The mausoleum of Aisha-Bibi, 11th or 12th-century (photo by O. Belâlov, 2008).



Fig. 8. *Iwan* of the Aisha-Bibi mausoleum showing octagonal patterns, which are under the panels with floral decor (photo by S. Eder, 2013).

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are not the free improvisations of the ceramic artist, but an accurate, if somewhat schematic, reflection of the actual architectural designs of aristocratic homes (Rempel' 1978: 118, Fig. 54).

By contrasting the cornice on the dastarkhans from the Otrar oasis and the façade of the palace No. 3 at Kavat-Kala, which features conventional grooved walls, it becomes clear how those grooved parts of the structure that were not preserved might have looked. Why dastarkhans and ceramic dishes were generally decorated with architectural motifs is unknown. However, there is no doubt that the designs were taken from the real-world examples (Rempel' 1978: 118–119, Fig. 53). In the wastelands of the desert, the fortification walls and magnificent façades of burial monuments appeared as something extraordinary, even from a distance, marking a contrast to the barren surroundings and making a deep impression on passers-by. And everything they found fascinating in architecture would emerge later in ceramic wares.

6 Conclusions

The combination of the Sogdian and Turkic elements in the woman's appearance can be explained with the historical circumstances of the Zhetysu during the period between the 6th and 8th centuries. This was the period of the Sodgian migrant into the Zhetysu, driven by the long-distance trade on the Silk Road and other socio-economic changes that were taking place at the time in Sogdia and other agricultural regions of Central Asia. These circumstances are reflected to some extent in Muḥammad Naršaḫī's reports on the class struggle in Bukhara during the reign of Abruy. The repression unleashed under Abruy led the Sogdian dehkans and merchants to flee to Turkestan, where they founded the city of Jamukat mentioned earlier (Kozybaev et al. 2010: 304–305). The subsequent wave of migration of the Sogdians into the Zhetysu is related to the Arab expansion to the east. The Sogdians integrated into their Turkic environment, adopting the language, culture and customs of their new neighbours. The end result was the assimilation of the Sogdian groups into the overall Turkic-speaking population. In the 11th century, Maḥmūd bin al-Ḥusain bin Muḥammad al-Kāšġarī reported that there were no Sogdians left who could not speak Turkic (Volin 1960: 83).

The eastward movement of the Sogdians was not a one-way process. After the subjugation of Central Asia by the Turks, they became a part of the local population. The Turkic peoples residing in Sogdia assumed key positions in the cities and the administration of various domains, resulting in a symbiotic relationship between the Turkic and Sogdian peoples that came to be expressed in their ethno-political history and the material and intellectual culture.

The reproduction of the woman's facial features and hair style reflect the Iranian-Sassanid canon, while her clothing reflects Turkic style. These features suggest that the dish was either designed by a Turkic artist or by a craftsman who knew both the Sogdian manner of representation as well as the peculiarities of the Turkic style.

The decorations from the Karakhanid period demonstrate dynamic changes in their manner of execution that reflect new ideas and ideological tendencies. The dominant form of ornamentation, given the ban on images in Islam, was Arabic epigraphy. The murals of the Karakhanid Afrasiab from the twelfth and early 13th centuries provide clear indications of an enduring influence of pictorial forms of art. The finds from Afrasiab suggest that the monumental scene painting (in contrast to the sculpture that has not been preserved) existed in every stage of development of Islamic art. The tradition of representing living beings that had been in place for millennia was too strong to abandon almost overnight. A secular aspect to the culture of the Turkic cities was nevertheless preserved. The origins of their art traditions go back to early medieval wall painting, antiquity, and the cultures of the steppe.

In the 10th to 12th centuries, the production of ceramic art in the cities of the Zhetysu reached a high point. The Talas valley even gave rise to its own school of ceramics centred on Taraz. Ceramics remained a liberal form of art production even under the new historical situation that continued to express the artistic preferences of the masses. It is quite obviously a combination of a relatively realistic portrait of a woman combined with Islamic symbolism, which simultaneously reflects the well-known religious tolerance and freedom of thought found amongst the Turkic peoples. This is what constitutes its Turkic component.

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Bibliography

Al'-Aškar, U.S.
2007: *Raj i Ad (al-Džanna va-n-nar)* (= Veroučenie v svete Korana i sunny 7), Moscow.

Al'baum, L.I.
1975: *Živopis' Afrasiaba*, Tashkent.

Al-Muqaddasī
2001: *The Best Divisions for Knowledge of the Regions. Translated by Professor Basil Collins. Reviewed by Dr. Mohammad Hamid Alta'i*, Reading, UK.

Bajpakov, K.M.
1998: *Srednevekovye goroda Kazahstana na Velikom Šelkovom puti*, Almaty.

Bajpakov, K.M./Bajbosynov, K.B.
2008: *Sokroviša drevnego Taraza: fotoal'bom*, Almaty.

Bajpakov, K.M./Grigor'ev, F.P.
1999: O topografii gorodiša Taraz, in: Kozybaev, M.K. et al. (ed.), *Problemy drevnej i srednevekovoj istorii Kazahstana. Materialy II Meždunarodnyh čtenij po tvorčestvu Muhammeda Hajdara Dulati. g. Taraz, 18–20 sentâbrâ 1998 g.*, Almaty, 50–67.

Bartol'd, V.V.
1965: Turkestanskij kraj v XIII veke (Po rasskazu kitajskogo putešestvennika), in: Belenickij et al. (ed.), *Raboty po istoričeskoj geografii* (= Akademik V.V. Bartol'd. Sočineniâ 3), Moscow, 237–243.

Belenizki, A.M.
1980: *Mittelasien. Kunst der Sogden*, Leipzig.

Bičurin, N.Â.
1950: *Sobranie svedenij o narodah, obitavših v Srednej Azii v drevnie vremena 2. Tom 2*, Moscow/Leningrad.

Bussagli, M.
1979: *Central Asian Painting: From Afghanistan to Sinkiang*, New York.

Grünwedel, A.
1912: *Altbuddhistische Kultstätten in Chinesisch-Turkestan. Bericht über archäologische Arbeiten von 1906 bis 1907 bei Kuča, Qarašahr und in der Oase Turfan*, Berlin.

Hughes, T.P.
1995: *Lexikon des Islam*, Wiesbaden.

Ilyasov, J.Y.
2014: Exotic Images: On a New Group of Glazed Pottery of the 10th and 11th Century, in: Folsach, K.V./Meyer, J. (ed.), *Journal of the David Collection. Volume 4*, Copenhagen, 51–87.

Kozybaev, M.K. et al. (ed.)
2010: *Istoriâ Kazahstana (s drevnejših vremen do naših dnej). V pâti tomah. Tom 1. Kazahstan ot èpohi paleolita do pozdnego srednevekov'â*, Almaty.

Konstantin VII, Byzantinischer Kaiser
1955: *Byzantinische Diplomaten und östliche Barbaren: Aus den Excerpta de legationibus des Konstantinos Porphyrogennetos. Ausgewählte Abschnitte des Priskos und Menander Protektor* (= Byzantinische Geschichtsschreiber 4), Graz.

Kirlo, H.
2010: *Slovar' simvolov. 1000 statej o važnejših ponâtiâh religii, literatury, arhitektury, istorii*, Moscow.

Lobačeva, N.P.
1979: Sredneaziatskij kostûm rannesrednevekovoj èpohi (po dannym stennyh rospisej), in: Suhareva, O.A. (ed.), *Kostûm narodov Srednej Azii. Sbornik istoriko-ètnografičeskih očerkov, posvâšennyh izučeniû kostûmâ narodov Srednej Azii,* Moscow, 18–48.

Omar hajâm
2014: *Rubajat v klassičeskom perevode Germana Pliseckogo*, Moscow.

Pugačenkova, G.A./Rempel', L.I.
1965: *Istoriâ iskusstv Uzbekistana s drevnejših vremen do serediny devâtnadcatogo veka*, Moscow.

Rempel', L.I.
1978: *Iskusstvo Srednego Vostoka. Izbrannye trudy po istorii i teorii iskusstv*, Moscow.

von Rubruk, W.
2013: *Reise zu den Mongolen. Von Konstantinopel nach Karakorum 1253–1255. Herausgegeben von Hans Dieter Leicht*, Wiesbaden.

Rudaki
2007: P. Smith (ed.), *The Book of Rudaki*, Victoria, AUS.

Sarianidi, V.I./Dubova, N.A.
2014: Raboty Margianskoj arheologičeskoj èkspedicii v 2011–2013 gg., in: Sarianidi, V.I. (ed.), *Issledovaniâ Gonur Depe v 2011–2013 gg.* (= Trudy Margianskoj arheologičeskoj èkspedicii 3), Moscow, 92–111.

Skobelev, S.G.
1990: Podveski s izobraženiem drevnetûrkskoj bogini Umaj, *Sovetskaâ arheologiâ* 2, 226–233.

Suhareva, O.A.
1979: Opyt analiza pokroev tradicionnoj "tunikoobraznoj" sredneaziatskoj odeždy v plane ih istorii i èvolûcii, in: Suhareva, O.A. (ed.), *Kostûm narodov Srednej Azii. Sbornik istoriko-ètnografičeskih očerkov, posvâšennyh izučeniû kostûmâ narodov Srednej Azii*, Moscow, 77–103.

Tolstov, S.P.
1948: *Po sledam drevnehorezmijskoj civilizacii*, Moscow/Leningrad.

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Volin, S.L.
1960: Svedeniâ arabskih istočnikov IX–XVI vv. o doline reki Talas i smežnyh rajonah, in: Šahmatov, V./Ibragimov, S.K. (ed.), *Novye materialy po drevnej i srednevekovoj istorii Kazahstana* (= Trudy instituta istorii, arheologii i ètnografii Akademii nauk Kazahskoj SSR 8), Almaty, 72–92.

Wriggins, S.
2004[2]: *The Silkroad Journey with Xuanzang. Revised and Updated*, Boulder/Oxford.

Sûan'-czan
2012: *Zapiski o Zapadnyh stranah [èpohi] Velikoj Tan (Da Tan si ûj czi)*, Moscow.

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ISBN Print: 9783447111690 — ISBN E-Book: 9783447198363

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