# Not only cultural interaction. Agricultural exploitation and water management in the Murghab (southern Turkmenistan) during the Late Bronze Age.

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#### **Abstract**

The Murghab region in Turkmenistan is regarded as the main area of the Bactria Margiana Archaeological Complex (BMAC) or Oxus Civilization during the Bronze Age. During this period, the region is characterized by citadels with outstanding architectures, such as Gonur Depe, and contact with neighboring regions, such as Iran, Indus Valley, and Mesopotamia. These contacts, and the presence of diversity in the population within the BMAC, seem to be also confirmed by recent aDNA analysis (Narasimhan et al. 2019). Notably, from the Late Bronze Age, the Murghab region started to be characterized also by the presence of groups with different pottery assemblage, linked to the Andronovo sphere. The survey over the last decades revealed the presence of numerous sites with a massive presence of this different Incised Coarse Ware (ICW) pottery (also known as "Andronovo" or "Steppe" pottery). Although the investigation suggests a peaceful cultural interconnection between these groups, little research focused on the agricultural and water management interaction during this period. In an arid region such as the Murghab, the agricultural and water resources were crucial aspects of land management. As such, my paper aims to present the result of my PhD research conducted over two different areas characterized by the presence of these two groups. With a multidisciplinary approach, including remote sensing and geoarchaeological analysis, I investigated the agricultural and water management of these small-scale areas and to what extent the interaction of these groups led to different land exploitation during the 2nd millennium BCE in the region.

## Tracing Craftsmanship and Cultural Interactions: Worked Bone and Ivory Objects from Kushan Bactria in Central Asia

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#### **Abstract**

This paper aims to shed light on the intricate interplay between craftsmanship, cultural interactions, and socio-economic dynamics in Kushan Bactria of Central Asia. Focusing specifically on the study of worked bone and ivory objects, this research explores the mobility and exchange of material culture within the region. By employing a multidisciplinary approach that combines archaeological, art historical, and technological methodologies, I aim to unravel the stories embedded within these objects, examining their production techniques, stylistic variations, and the underlying socio-cultural contexts that shaped their creation.

Through extensive analysis of excavated bone and ivory artifacts from Kushan Bactria, this study seeks to address several key research questions. Firstly, it investigates the technological advancements and skill sets involved in crafting these objects, providing insights into the mastery of working with bone and ivory materials during the Kushan period. Furthermore, by analyzing the typological and stylistic variations, I aim to identify distinct cultural influences and exchange networks that impacted the production of these objects.

The findings from this study will contribute to our understanding of the socio-cultural dynamics, technological achievements, and cultural exchange networks that flourished in Central Asia during the Kushan period. By unraveling the narratives embedded within worked bone and ivory objects, this research aims to reconstruct the complex web of connections and interactions that shaped the material culture of Kushan Bactria. Ultimately, this investigation will provide valuable insights into the broader themes of mobility, craftsmanship, and cultural exchange within the wider Central Asian archaeological context.

### Man-environment interactions in ancient Sogdiana through isotopic analysis

#### Elena Armaroli

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#### **Abstract**

One of the objectives of the Uzbek-Italian Archaeological Project "Samarkand and its territory" is the investigation of the human-animal relationship in ancient Sogdiana, particularly in the major settlement of Kafir Kala, through isotopic analysis. Strontium (87Sr/86Sr), oxygen  $(\delta 180)$  and carbon  $(\delta 13C)$  isotopes will be measured on sheep and goat tooth enamel to get information on their mobility and management by humans from pre-Islamic to Islamic occupation. A total of 25 plants and 5 water samples were collected for the Sr baseline 1) around the Kafir Kala site; 2) along the Karatyube piedmont; and 3) Penjikent (Tajikistan). A total of 20 sheep and goat molars were sequentially sampled for isotopic analysis. IR-MS analysis of carbon and oxygen stable isotopes on the carbonate moiety are currently underway to provide information on ovicaprids' altitudinal mobility (i.e. whether they were seasonally moved or lived year-round near the site). This topic will be further investigated through sequential Sr analysis by MC-ICP-MS to possibly confirm the seasonal movement of the animals (e.g. to the mountain area). In addition, oxygen and carbon stable isotopes will provide paleoenvironmental information about this time period (i.e. environmental temperature and seasonality). Overall, through isotopic analysis it will be possible 1) to obtain the first bioavailable Sr baseline from the Middle and Upper Zeravshan Valley; 2) to get information on ovicaprids' mobility and detect any differences in animal management between the pre-Islamic and the Islamic period; and 3) to reconstruct the paleoenvironment of this key region along the Silk Road.

### From Late Antique to Early Medieval Sogdiana: A View from Novel Excavations in Samarkand

#### **Alisher Begmatov**

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#### **Abstract**

This paper will chiefly focus on recent excavation results from four different sites in the Samarkand oasis: Kafir-kala in the southeastern vicinity, Kuldortepa and Kurgontepa in Urgut, southeast of Samarkand, and Mingtepa in Jomboy, northeast of Samarkand.

The latest results of our fieldwork at Kafir-kala, presumably the Royal Residence of the Samarkand kings – Rewdat, show that its earliest layers can be attributed to the late 4th and early 5th centuries, which coincide with the period of Hunnish (Chionite, Kidarite) migrations and invasions. This site experienced serious upheavals during the transition to the Islamic era, which appear to have led to the loss of its significance in later periods. Kuldortepa and Kurgontepa have long been debated in favor of being the remains of Sogdian settlements - Maymurg and Sanjarfagn. And Mingtepa is considered a potential candidate for the Sogdian settlement - Kabudhan, known from early Arabic and Chinese sources. The last 2-3 seasons of our excavations demonstrate some favorable results for the significance of Kuldortepa, Kurgontepa and Mingtepa in late antique and early medieval Sogdiana.

While there are dramatic and immediate changes in material culture of Sogdiana during the transitional period, particularly the early Islamic period, there are thus far no easily discernible vicissitudes in fauna and flora. This paper will also present recently acquired palaeobotanical and zoological data from the sites in question.

### The Mobility of Goods, Ideas and Technologies from the Oxus Civilization Graveyard of Adji Kui in Margiana (South Turkmenistan)

#### Gian Luca Bonora

**ISMEO** 

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#### **Abstract**

The Middle and Late Bronze Age necropolis of Adji Kui, in Margiana (southern Turkmenistan) consists of 815 tombs dug both inside the residential structures of two walled villages, Adji Kui 1 and 9, and in the ground between the two fortresses. Unfortunately, numerous tombs have been looted as well as several have been wholly or partially destroyed by recent agricultural works. However, the excavation has also brought to light a large number of intact graves with no signs of looting which have yielded funerary inventory consisting of ceramic vessels, gold, silver, and copper/bronze artefacts, stone tools and other instruments typical of the Oxus Civilization (also known as BMAC – Archaeological Complex of Bactria and Margiana). There were in fact stone columns, sceptres or command sticks in chlorite and lead ingots. Raman and XRD analyses of some metal and stone artefacts conducted in the ISPC Laboratory of the CNR National Research Council of Milan will be presented. These discoveries, still unpublished, open new perspectives and insights on the mobility of people, goods, ideas and technologies relative to the specialized manufacturing of some goods in Margiana and the long-distance cultural interactions in the late 3rd millennium BC between Central Asia, the Indo-Iranian Borderland and the Indus River valley.

# Mobility in the past: understanding GKC society through the excavation of Togolok 1 (southern Turkmenistan)

#### Barbara Cerasetti

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#### **Abstract**

Mobility is one of the most popular phenomena in modern times, although it is often experienced as an external aggression to be avoided. Humans are unable to understand the relative dynamics and possible renewal, and even rebirth, that mobility could generate.

To figure out the complex network that interconnected in the Bronze Age a huge variety of cultures, languages, customs, ideas, and commercial goods, inside and outside Central Asia, scholars need to focus on the vast movement of peoples, which took place for a wide range of reasons such as environmental, social, and economic. Southern Turkmenistan was the core area from where cultural phenomena, such as the Greater Khorasan Civilization (GKC), spread throughout Central Asia and neighboring regions during the 3rd – 2nd millennium BCE, also thanks to the mobility of past societies. Through the excavation of a long-lived site such as Togolok 1, and the new results coming from the last campaign (2023) conducted by the joint Italian-Swiss-Turkmen mission at the site, archaeologists can answer many questions on this crucial subject.

#### Transfer of ideas, migration of people or commonality of basic ideas?

#### Nadezhda Dubova

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#### **Abstract**

The cases of some similarity in rituals, described in myths and reconstructed by archaeological artifacts are discussing as well as symbolic meaning of items and technologies. These are Margiana ritual/ceremonial ceramic vessels in a form of wide bowl with animals figurines at the bottom and on the rim, found at Togolok and at Gonur (Turkmenistan, old delta of Murghab River) in comparison with North Caucasian (Ossetian) Nart epic. Second case are wide spread in Eurasia especially in Bronze and Iron Ages, but maybe earlier and later, zoomorphic stone and wooden scepters. And third one is a technology of stone treatment and glaze preparation in Margiana, Egypt and Indus valley. This communication is not a full analysis of all data. It's more the author's thoughts but a discussion if these similarities can be a result of exchange of information about technologies and cultural innovations as well as real migration of the bearers of these qualities and the emergence of similar innovations or ideas in different territories.

### Social interaction, mobility, and institutional participation: Archaeology and Ancient Genomes interwoven

#### Michael Frachetti

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#### **Abstract**

The recent surge in ancient genomic research in Central Eurasia has provide considerable nuance to archaeological narratives concerning social and economic interaction in the Bronze Age, evincing regional mobility and connectivity and innovations and expressions of both technology and ideology. This paper presents a synthetic review of recently published aDNA studies alongside selected archaeological case studies to revisit current models of economic change and socio-political complexity in the Eurasia steppe region from the 3rd to 1st mill. BCE. In particular, Bronze Age sites (excavated by the author) from the so-called "Inner Asian Mountain Corridor" along with research from surrounding territories are used to expose the nuanced choices and diverse strategies that brought regional communities into shared interactive arenas, reshaping both the genomic and cultural landscapes of the region in dramatic ways.

## Materials of the satellite settlement Gonur 20 in the mirror of intercultural interactions in Central Asia

#### **Alexey Fribus**

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#### **Abstract**

The satellite settlement of Gonur 20 is located 2.5 km south of the main complex of Gonur North (Southeastern Turkmenistan). The materials obtained during the excavations of recent years show that the burials examined here have a number of original and rare features in the funeral rite. Some objects have also been found here, showing extensive ties with more southern territories, primarily Northern Iran. The findings of seals from speise, a wooden object with the first polychrome painting on Gonur, game sets and other luxury items that could be both imports and the result of the exchange of similar ideas and innovations in the vast territories of the Middle East and Central Asia are discussed.

### THE MISTRESS OF THE ANIMALS. A MOTIF CONQUERS THE WORLD

#### **Laurent Gorgerat**

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#### **Abstract**

The starting point of the contribution is the logo of the Society for the Study of EurAsia, which shows a figure surrounded by wild animals. The "mistress of the animals" (Greek: pótnia therón) is commonly referred to as a female figure who tames two wild animals or mixed creatures with outstretched arms. The motif of the animal taming figure undoubtedly goes back to ancient oriental models of the 4th millennium BC. In the course of the 2nd millennium BC, it developed in the Aegean region into one of the most popular image types of the late Bronze Age, mainly in the form of seal images. The name "Lady of the Beasts" goes back to Homer, who used it to describe the goddess Artemis. Nevertheless, it is more likely to have been a pictorial concept that designated not so much a concrete deity as a general scheme that was used to represent various deities. She was therefore considered not only a protector of nature, but also a nature deity, possibly symbolizing domination of animals by humans and thus of nature. The figure experienced its actual flowering in the early 1st millennium B.C. In various modifications, the motif migrated from the Near East via Egypt, Greece, Italy to Central and Northwestern Europe.

#### Mobile Utensils: Goods, Motifs, Scripts, and Peoples on the Move

#### **Djangar Ilyasov**

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#### **Abstract**

The mobility of goods, motifs, texts, people from Mesopotamia to Central Asia after the Arab conquest peaked in the 8th century. The proposed paper would like to illustrate these movements on the example of glazed pottery which became an integral part of life. The fact that the fashion of making utensils covered with glaze appeared and spread in the eastern provinces of the Caliphate – in Khorasan and Mawara al-Nahr – as early as the 9th century is well known, but it is still difficult to trace this process in detail. The postulated appearance of glazed pottery in Mawara al-Nahr under the influence of products from Iraq is documented by finds of Mesopotamian tableware at Central Asian archaeological sites. The presentation will give examples of such finds and consider forms and ornamental motifs that served as direct models for the decoration of glazed ceramics of Central Asia of the Samanid period (9th-10th centuries). In addition to the material aspect of the question, namely the emergence of local glazed pottery under the influence of Iraqi products, there is another crucial aspect to consider. It is the mobility of Arabic script and literature, both in it poetic and prose forms. For example, on a 10th century glazed plate found in Samarqand one can read lines from a poem by the famous Abbasid poet Abu l-'Atahiya (748-826), who sold pottery pots in his youth and, thanks to his poetic talent, served at the court of the famous Baghdad caliphs al-Mahdi, Harun al-Rashid, al-Amin

### Threads, Tropes, Technologies, and Terminologies - Tracing the Mobility of Central Asian Silks

#### **Zumrad Ilyasova**

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#### **Abstract**

The mobility of textiles across Central Asia in the late antique and early medieval periods is a phenomenon that can be studied under many different angles. One can focus on the movement of materials, specifically silk and the numerous legends that outline the different ways in which this precious commodity has been transmitted westward out of China. One can follow the movement of technologies and terminologies that travel along with the materials, passed on by both textile objects and craftspeople. Another point of investigation is the imagery that textile objects carry on their surface — motifs and patterns do not just cross spatial distances, they also transfer from textiles onto other media such as painting, architectural decor, wood carving etc. The methodologies in Central Asian textile studies range from microscopic fibre and pigment analyses to the construction of global models of silk trade as well as its use in other forms of economic and diplomatic exchange. Disciplinary, historical and political boundaries of the 20th century have created gaps and discontinuities within this methodological scope. The proposed paper will trace historiographical (mis-)conceptions on the mobility of the so-called Sogdian silks from their representations in 7th-8th century wall paintings in Samarkand to Panjikent to fabric fragments preserved in the Abegg Stiftung in Riggisberg based on latest research results and propose alternative lines of inquiry.

#### The Eilatan Culture in Fergana Valley: Origin and Development

#### **Genadiy Ivanov**

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#### **Abstract**

Questions regarding the origin, development, and chronology of the Eilatan or Eilatan-Aktam culture of the early Iron Age in Fergana have been raised repeatedly since the 1960s. However, researchers have yet to reach a consensus. The author's work on various sites of this period has provided material that allows for the presentation of the new views on these issues. The main bulk of the sites of the culture is graveyards, which are considered pastoralist. There are very few settlements of this culture found. Recent archaeological work on the Kuva hillfort in its lower layers has provided material that allows for the recognition of the continuation of Chust traditions at this site into a new historical epoch. Considering that the earliest known settlements with ceramic material similar to the set of ceramics found in pastoralist burials cannot be dated earlier than the 4th century BCE, the process of sedentism of pastoralists and the emergence of settlements with characteristic Eilatan ceramics likely began closer to the 3rd century BCE. It can be assumed that the sedentism of the tribes that left Aktam mounds was associated with the mixing of Eilatan-Aktam culture pastoralists with the indigenous agricultural population that had survived since the Chust culture period in Fergana. Prior to the discoveries at Kuva, it was believed that the direct successors of the Chust culture were the carriers of the Shurabashat culture in the eastern part of the valley. The new finds allow witnessing the continuation of Chust traditions in the central part.

### Adapting the Hellenistic Worldview: Bactrian Influences on Greco-Bactrian Art

#### Evgeniya Ivanova

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#### **Abstract**

The study of Greco-Bactrian art has been predominantly focused on the Hellenic influence and its impact on Bactrian art. However, it is essential to consider the reverse impact of the Bactrian cultural and philosophical heritage on the art produced during this period. The fusion of these cultural traditions resulted in a unique and hybrid art form that reflects the complexity of the cultural milieu in which it was produced.

To fully appreciate Greco-Bactrian art, it is necessary to examine how local culture influenced it. This examination allows for a better understanding of the ways in which different cultural traditions were incorporated into the art form. Moreover, this approach facilitates an understanding of the hybridisation process that occurred, leading to the emergence of a distinct artistic expression.

Therefore, the author proposes a perspective that analyses the adaptation of the Hellenistic worldview under the influence of Bactrian artistic, religious, and linguistic traditions. This perspective emphasises the need to contextualise Greco-Bactrian art within the broader cultural milieu in which it was produced. By doing so, one can appreciate the intricate ways in which different cultural influences interacted and shaped one another, resulting in a unique and complex art form.

#### Desert mobilities: results of the Uzbek-UAE expedition to the Qyzylqum

#### Fiona Kidd

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#### **Abstract**

Connecting the key Central Asian oases of Khorezm and the lower Syr Darya with Bukhara and Samarkand, and bordered by the Amu Darya and the Syr Darya, the Qyzylqum is an exceptional space for understanding mobility. Yet, although deserts comprise more than half of Central Asia, they are often shunned in scholarship as empty non-places; as unproductive spaces - Arrian's 'Chorasmian wastes' - and as places of retreat for mobile populations. The historical silence on these spaces renders largely silent also their inhabitants. Paradoxically, however, the desert/steppe is a productive and integrative space: visual art attributed to mobile populations in fact often reflects a rich awareness of other visual traditions; and even a quick glance at the Qyzylqum on Google Earth immediately reveals a rich mosaic of anthropogenic sites across this wide area. How can we re-align deserts as dynamic spaces that operated together with Central Asia's diverse ecologies as part of an integrated landscape system? How can we reassess conceptions of the desert to ensure a more inclusive narrative of the past? This paper will share the results of the first season of work by the Uzbek-UAE expedition to the Qyzylqum, in summer 2023, to start to address some of these issues. Our mutli-scalar, interdisciplinary approach to mobility in the Qyzylqum aims to elucidate how this space was inhabited, moved through and perceived over the long term, in order to better understand deserts as critical interactive elements in a wider landscape.

### Regions of ancient irrigation, mountain passes, and transmission of goods, peoples, cultures

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#### **Abstract**

Careful study of cultural transmission mechanisms, merchant routes and propagation of religious beliefs leads to appreciation of such geographic features as ancient irrigation regions and mountain passes. In the present paper, computational study of detailed relief of Asia was performed. All known mountain passes have been identified and their unified map was created. Together with that, depressions, old rivers and regions of ancient irrigation were computationally identified. Combination of mountain passes with ancient irrigation regions allows one to clearly understand and explain transmission routes and pathways of goods, peoples, cultures and religions. A number of promising regions was identified, where new discoveries may be made.

### "ZOROASTRIAN" (= "SOGDIAN"?) BURIALS OF THE CHUI VALLEY

#### Valerii Kolchenko

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#### **Abstract**

Migration and infiltration are forms of mobility. They are manifested as a movement of a group of people, and/or ideas and cultural standards. In relation to the Medieval Central Asia, there is a long-standing question of "Sogdian colonization" that has a particular relevance to the Chui Valley. The question was addressed in different ways: from the theory of migration (the resettlement of large groups of people and establishment of cities by them in the Chui Valley), to the theory of infiltration (the entry of small groups of Sogdians into local communities, which led to the adoption of "Sogdian cultural standards" locally). One of the indicators of the presence of the Sogdians is considered to be the spread of Zoroastrian funeral rituals. "Zoroastrian" burials were recorded in the Chui valley by various researchers, but there is no summarising work on this topic. Our report provides a historiographical overview of all the "Zoroastrian" burials of the Chui Valley, noted in publications for more than a century. An analysis of factual evidence brought together made it possible to create a typology of such burials. The proportion of "Zoroastrian" burials among the totality of studied medieval burials of the settled population of the Chui Valley was also determined. The next stage is a comparison of data on "Zoroastrian" burials in the Chui valley and in Sogd proper. The result of the comparison gives grounds for conclusions about the "Sogdian" nature of the settled population of the Chui valley.

### Sa'ensayi culture - migrants from Lower Volga with BMAC bronzes in Eastern Tian Shan

#### **Alexey Kovaley**

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#### Abstract

In the Sa'ensayi cemetery (Xinjiang, Urumqi district) excavated by Chinese archaelogists in 2006-2008 earliest burial pits (end of 3rd mill. BCE, so called Sa'ensayi culture) were dug out in the form of four-wheel wehicles and buried people were originally laid higher than at the bottom of the pit. We know only one place where burials in such pits were common. This is the region of the lower Volga and Manych, where such burials belonged to the so-called West and East Manych Catacomb cultures (2500-2300 BCE); in some of the pits, wooden four-wheeled charts were preserved, and the bones of the buried person lay on them. There is a similarity between potteries found in Saensai and these of the Manych Catacomb cultures. However, bronze artefacts of the BMAC culture were found in the "figured" pits of the Sa'ensayi: a cosmetic rod("pin"), a bronze basin, a mirror, a bronze pommel, fragments of cosmetic spatules. These are the first BMAC artefacts that ended up in Xinjiang. Most likely, they were brought here from Middle Asia by those people who left the "figure" pits of the Sa'ensayi. It is likely that the people of the Saensayi culture migrated from the Volga-Manych region to the Eastern Tien Shan through Central Asia, retaining in their new place of residence their ties with the developed cultures of Bactria and Margiana.

#### The stranger from Ulug – a long way from home

#### Sonja Kroll

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#### **Abstract**

Ulug Depe belonged to the major sites along the northern foothills of the Kopet Dagh Mountains in southern Turkmenistan with the first occupation during the Late Neolithic period. Through the millennia Ulug Depe was occupied by several cultural communities and experienced partly deep changes. The importance of long-distance interactions is especially evident in the earliest periods of the Early Bronze Age in Ulug Depe. It is a time of great changes that began during the Chalcolithic period, with cultural exchanges and movements involving Iranian, Pakistani and Afghan sites. In contrast to these connections to the west and south of Central Asia, we know very little about the connections that must have existed with the north and the steppe part of Central Asia. The talk will present new insights based on isotopic (87Sr/86Sr,  $\delta$ 18O) and paleogenetic (mt DNA) analyses of human individuals from Ulug Depe and provide true evidence for long distance migration. The results will give an idea how far the cultural connections and influences of the Early Bronze Age people in southern Central Asia really went.

# Introduction and Spread of Non-Native Economic Crops to the Chu Valley in the Second Half of the First Millennium CE: Archaeobotanical Evidence from the Novopokrovka-2 Site

#### Basira Mir-Makhamad

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#### **Abstract**

The Silk Road was the most elaborate network of communication and exchange in the ancient world; by the turn of the second half of the first millennium CE, commercial trade linked Asia and supported the development of a string of urban centers and settlements across Central Asia. The development of new settlements was directly associated with people, animal, and crop movements. Archaeobotany may generate evidence of population movement, cultural diffusion, and dietary diversification through time. In this preliminary archaeobotanical research, we present the first study of plant remains recovered at the Novopokrovka-2 site in the Chu Valley in Kyrgyzstan. The Novopokrovka-2 archaeobotanical samples yielded a larger spectrum of cereals, legumes, fruits, nuts, technical crop like cotton, and wild herbaceous plants that were culinary ingredients and fuel types used by people on the settlement. In this study, we contrast the results of this study with findings reported earlier from other archaeological sites in Central Asia dated to the second half of the first millennium CE. The aim of this study is to trace correlations between crops introductions and a far-reaching commercial market and cultural transmission processes in the seventh-ninth centuries CE throughout the region.

### Cultural links and changes in the ancient Central Asia: natural, political and economic factors (by the example of the Bukhara region)

#### **Andrey Omelchenko**

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#### **Abstract**

The Bukhara oasis has long been a region of contacts between northern pastoralist and southern agricultural groups of people since the Chalcolithic period. Arrowheads of the Zamanbaba culture (mid-3rd millennium BCE) were found at the Paikend plateau as well. During the Bronze Age, the lower reaches of the Zeravshan and Kashkadarya rivers became an important transit area for cattle-breeders of the Andronovo cultural sphere. After some hiatus Saka tribes appeared in the 7th – 6th centuries BCE. As attested by finds in Paikend and Varakhsha they mainly related to Khorezmian nomads. In the Achaemenid period micro-oases in north-western part of the lower Zeravshan with numerous wandering channels were the largest and most densely settled zone. The situation changed in the Hellenistic period, when the density of population increased in the new areas. Migration of Sogdians fled from the invasion of Alexander the Great's army and changes of the hydrography had a great influence in the process. East boundaries of the Seleucid state had been delineated under the co-reign of Antiochus Soter. Paikend, like a number of other fortresses, evidently, became an important point on the new road leading from Sogdiana to Margiana. Nomads who crushed the power of Hellenistic rulers have left mounds on the periphery of Bukhara oasis and many things in the Paikend's temple. New domains headed by nomadic chiefs formed. But almost all urban centers in the Bukhara oasis had begun growing from fortresses of Sasanid dominion only after the 4th century CE.

## The transmission of a 'military' motif to Chorasmia and Bactria around the 1st century BCE

#### Sara Peterson

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#### **Abstract**

Recent excavations at the Akchakhan-Kala ceremonial complex, close to the Amu Darya river in Chorasmia (present-day Uzbekistan), have generated some remarkable discoveries. Among the most important are wall paintings depicting three monumental deities wearing costumes with complex decoration, doubtless of emblematic significance. The headwear and weaponry of two of these figures are decorated with patterns of quatrefoil rosettes. It can be demonstrated that these represent roses.

Identical rose quatrefoils featured at the burial site of Tillya-tepe further south, in Bactria (present-day Afghanistan). They appeared in the warrior's grave on his jacket, and more importantly, on his elaborately decorated knife scabbard, a parade piece which was not destined for the tumult of the battlefield but was created for display and ceremonial purposes.

The pictorial convention for this rose imagery originated in the Graeco-Roman world, where it appeared on martial paraphernalia. It featured later on fortifications at Surkh Kotal, Bactria, and in several military contexts at Dura-Europos (present-day Syria).

There is a small body of research on the transmission of warfare technologies and weapon types between the Roman and Parthian Empires and the steppes. However, the dissemination of martial iconography and potential ideas associated with it has rarely been explored. It is hoped that a study of this distinctive motif can shine a light on the nature of cultural transfer arising from military interactions and conflict.

#### Mobility dynamics in the Oasis of Bukhara

#### **Rocco Rante**

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#### **Abstract**

The Oasis of Bukhara, since its urban origin, shown periods of important urbanization and demographic increase. These phenomena are due to different reasons, amongst which migrations, military occupations, trade.

This paper will present the effects produced by these phenomena within the oasis, and especially in Bukhara, Romitan and Paykend. The history of these cities can clearly show how these dynamics of population and depopulation rhythmed the whole oasis until modern and contemporary time.

This is the opportunity to present the latest archaeological results obtained by the Franco-Uzbek Archaeological Mission in the Bukhara Oasis.

### The Architecture and the Decoration of the Late Sogdian Palace at Sanjar-Shah

#### Michael Shenkar

The Hebrew University of Jerusalem/ University of Oxford (on sabbatical in 23-24)

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#### **Abstract**

Our recent excavations at the Sogdian site of Sanjar-Shah near Panjikent (northern Tajikistan) have brought to light evidence of the construction of a monumental palace during the 740s CE. The palace was decorated with figurative wall-paintings and architectural elements made of carved wood. It was destroyed in the third quarter of the 8th century, possibly during the al-Muqanna' uprising.

The paper discusses the architecture, the wall paintings and the carved wood from the palace in context of transformation of Sogdian culture in the 8th century. Overall, there are twenty fragments of carved beams and panels with geometric, floral and zoomorphic designs. Most decorative patters attested on the wooden fragments from the Sanjar-Shah palace find exact parallels in the materials from Panjikent and other Sogdian sites dated to the first quarter of the 8th century. Six fragments of panels were part of a freeze depicting juxtaposed, crouching ibexes. The Sanjar-Shah paintings are of the highest artistic quality and are new, outstanding monuments of Sogdian art. They include a complex floral freeze, a decorative ornament of crenelated antefixes, and a figurative composition of two priests worshipping a sacred fire.

## The End of the "Silk Road": Plague, Natural Disasters and Transformation of Central Asia, c.1330-1400

#### **Philip Slavin**

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#### **Abstract**

Despite the Central Asian origins of the Black Death, as established in a 2022 Nature article, the question of the impact of plague (and other exogenous crises) on local demography, economies, and societies in the fourteenth century, remains confined, almost exclusively, to Europe, largely because of a Eurocentric perspective of this field. The proposed paper will fill up that gap by considering the role and impact of biological and ecological crises on socioeconomic, urban and demographic decline and transformation of Chinggisid-ruled Central Asia between c.1330 and 1400.

The proposed paper will put forth a methodological framework to identify biological and ecological crises in archaeological and bio-archaeological record in Central Asia – roughly, between the Volga and West Xinjiang. It will be based on a database-in-process, collating archaeological data from >350 archaeological sites and graveyards excavated during the Imperial Russian-, Soviet- and post-Soviet eras. In particular, the paper will focus on the following indications of demographic and mortality crises: (1) site abandonment; (2) palaeoseismic activity; (3) multiple/mass burials; (4) burials with disproportionately high share of female and sub-adult skeletons, reflecting plague mortality patterns; (5) mixed cremation-burial graves (whereby corpses would be placed upon a small pyre inside a grave), associated by archaeologists with plague contexts.

The paper will, thus, reconsider the factors behind the demographic decline, de-urbanisation and nomadisation of Central Asia in the fourteenth century, stressing the bio-ecological factors, rather than the anthropogenic ones (particularly, Tamerlane's campaigns, traditionally blamed by historians), showing that the crisis commenced several decades before Tamerlane's

# Preliminary results of comprehensive studies of medieval Christian necropolises of Ilibalyk and Suleiman-tepa

#### **Denis Sorokin**

#### Almaty KZ

#### **Abstract**

The Usharal-Ilibalyk site, dated to the 12th-14th centuries AD, is the focus of a project that uncovers Christian burial practices and elite women's roles through meticulous archaeological excavations of 103 graves. DNA and forensic analysis are employed to reconstruct pathologies, age, ethnicity, and origins of the individuals buried there. Ongoing research investigates genetic ancestry and kinship patterns, while anthropological analysis enhances understanding of physical characteristics and cultural practices.

Similarly, the Suleiman-tepa site, dated to the 9th-13th centuries AD, is the subject of a project that explores a medieval Christian monastery and examines burial customs and social dynamics. Ongoing research expands the boundaries of the necropolis and conducts anthropological analysis of skeletal remains, shedding light on the cultural practices and social structures within the monastic community. Genetic analysis is also being conducted to investigate the genetic origins of the inhabitants of Suleiman-tepa.

Both sites actively examine the impact of diseases on ancient populations. Anthropological analysis helps identify disease evidence in skeletal remains, providing insights into the prevalence of diseases and their implications for society. Genetic analysis aims to identify ancient strains of pathogens, offering valuable information about disease prevalence, genetic diversity, and their societal implications.

Collaboration among archaeologists, geneticists, and anthropologists enriches our understanding of ancient societies. By integrating multiple lines of evidence, researchers gain nuanced insights into genetic ancestry, physical characteristics, cultural practices, social structures, and health conditions. This multidisciplinary approach contributes to our understanding of ancient populations, their interactions, and the impact of diseases.

#### Investigating the history and evolution of plague in Eurasia

#### Maria Spyrou

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#### **Abstract**

In the last decade, the growing field of ancient pathogen genomics has yielded chronological snapshots of microbial diversity, unravelling the evolutionary trajectories of various historically and presently significant infectious diseases. Notably, the zoonotic bacterium Yersinia pestis, the aetiological agent of plague, stands as the most extensively studied pathogen through ancient genomics. The history and evolution of Y. pestis are closely linked with its enduring presence and activity in sylvatic rodent populations across Central Asia, presently hosting the highest concentration of active plague reservoirs globally. This presentation will synthesize archaeological, historical, ecological, and genomic data from Central Asia to offer insights into various stages of plague evolution and history, both with regard to its prehistoric occurrences and historically recorded pandemics. Recent discoveries of basal Y. pestis lineages dating between 5,000 to 2,500 years ago, have shed light on the disease's widespread impact on prehistoric populations across Eurasia and has elucidated key genetic adaptations leading to its emergence as a highly virulent, flea-adapted, pathogen. Moreover, growing datasets of ancient Y. pestis genomes from historical periods have revealed Central Asia's role in the emergence of plague pandemic lineages, including those connected with Plague of Justinian (6th century CE) and the Black Death (14th century CE), as well as their contribution in the formation of present-day plague reservoirs in several regions across the world. The case of plague demonstrates how interdisciplinary research on past pandemics can contribute to our understanding of the processes that have shaped the contemporary infectious disease landscape.

### A Tale of Two Women: Medieval Dress, Jewelry, and Archaeogenetics Uncovered at Usharal-Ilibalyk (Kazakhstan)

#### **Charles Stewart**

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#### **Abstract**

Archaeological excavations at city of Usharal-Ilibalyk (Kazakhstan), which flourished between the eighth and fourteenth centuries, have uncovered 103 graves. These human remains and their associated artifacts are identifiable as Christian, because of their construction, orientation, and gravestones (kayraks), which bear crosses and Syro-Turkic inscriptions. So far, two burials standout because they belong to women who had conspicuous grave goods signifying their elite status. Forensic and DNA-analysis has also allowed our archaeological team to reconstruct their pathologies, age, ethnic, and geographical background. This scientific data, combined with their grave goods, allow us to reconstruct a clear picture of the roles that these women may have played within Ilibalyk society. One of these women may be interpreted as a khatun – a term used to designate the positions that wives of the rulers (khans) had in both Turkic and Mongol culture. Their religious identity also provides affords another layer of complexity, since Christianity has its own set of expectations for female leaders. This archaeological and archaeogenetic data complements what has been written in historical documentation, as well as providing new knowledge that was either never written or lost over the centuries.

# MOBILITY, CLASHES, MEETINGS: DEVELOPPING OF A NEW ARCHITECTURAL MODEL AT VARDANA WITH THE ADVENT OF ISLAM

#### Ilaria Vincenzi

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#### **Abstract**

The arrival of Islam in Bukhara oasis introduced into the local building tradition new models of civil architecture such as mosques, ribats and bathhouses. The last ones should have been already adopted by the second half of the 9th century AD, as attested in the Tarikh-i-Bukhara, where it is reported the construction of a bathhouse in the village of Iskijkat. The present paper deals with an early example of 'bathhouse' recently excavated in the Vardana citadel. The unearthed remains consist in simple bath units forming a structure that was built re-using the old walls belonging to the previous pre-Islamic palace, fired at the time of the Arab conquest led by Qutaiba. Although the structure was badly preserved and the general plan not fully understood, it yielded different types of artefacts, such as pottery, coins, glasses and carved baked bricks that confirm its identification as building devoted to bathing or sanitary purposes. Established during the Samanid period, the bathhouse underwent several reconstructions and remained in function until the 12th cent. AD. The modest architectural features that characterize this building, probably related to the peripheral position of the site and to the issues in the local water supply, differentiate it from the more traditional bathhouse models found in Central Asia; at the same time, these peculiarities give us the opportunity to reflect on the different ways a foreign model can adapt itself into the local pre-Islamic building tradition.

## Ethno-cultural processes in the South of Tajikistan in the Early - Middle Bronze Age.

#### Nataliya Mateevna Vinogradova

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#### **Abstract**

Ethno-cultural processes in the South of Tajikistan in the Early - Middle Bronze Age (middle of III -

beginning of II millennium B.C.)

The necropolis of Farkhor (around 2800/2700-2300 BC) is the earliest of all known burial sites in Southern Tajikistan, it is located on the Urtoboz hill at the outskirts of Farkhor, in the valley of Panj, two kilometres from the Afghan border. In the necropolis 69 burials have been found, all characteristic for their shaft-catacomb or pit structure. The skeletons are in crouching positions. Men were lying on the right side, women on the left. Ceramic vessels, knives, spatulas, pins, mirrors in bronze and silver were put in the grave, together with lamps, "rods", knobs, distaffs, arrow heads and pebbles. Almost all the graves contain also beads and pendants in lapislazuli, agate, turquoise, carnelian, gold. Another necropolis, Kangurttut 2, is located on the right bank of the small river Dehiboz, in front of the village of Kangurttut, where a Late Bronze settlement and cemetery were excavated for several years. Five burials were revealed. Materials of the burials at Farkhor and Kangurttut 2 also allow us to trace the contacts with the population of the steppe bronze cultures of Tajikistan: the Zaman-Baba and the Ancient Tulkhar burial grounds, the Darnaychi necropolis. In the funerary inventory of the Farkhor necropolis some ceramic forms testifying the earliest appearance of the Vakhsh culture in the south of Tajikistan have been met for the first time.

# Interdisciplinary Approaches to Deciphering the Complex History of Kesken-Kuyuk Kala: A Study in Medieval Central Asian Urbanism

#### **Dmitriy Voyakin**

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#### **Abstract**

This investigation explores Kesken-Kuyuk Kala, a medieval Eastern Aral region archaeological site, using scientific methodologies. Advanced topographical and stratigraphical surveys, planigraphy, C14 AMS radiocarbon dating, archaeological investigations of the city, its burial ground, and a detailed analysis of the ancient irrigation system have been employed.

Topographical surveys use geodetic equipment and unmanned aerial vehicles, generating detailed spatial data of the site's layout. Planigraphy contributes a microscopic view of architectural constructs, creating a comprehensive understanding of the spatial organization and architectural evolution.

Stratigraphical surveys examine layered structures within the city. Such data unravels various occupation phases, yielding a diachronic perspective on construction, habitation, and abandonment. Stratigraphical evidence serves as a foundation for interpreting historical response to sociopolitical changes.

Radiocarbon dating (C14 AMS) provides an accurate timeframe for unearthed artifacts, layers, and structures. This dating technique embeds the city's narrative within a broader chronology of Central Asian history, facilitating nuanced understanding of societal and cultural progression at Kesken-Kuyuk Kala.

Meticulous study of the ancient irrigation system includes cartographic analysis, excavation of canals, and radiocarbon dating of canal profiles. Such data yields insights into water management practices, agricultural strategies, and adaptive responses to environmental shifts. In summary, a scientific approach delivers extensive understanding of Kesken-Kuyuk Kala's historical narrative. Findings contribute significantly to academic discussions on urban development, societal organization, and environmental adaptation strategies in medieval Central Asia, enriching understanding of the region's past.

#### The population genomic history of western Eurasia

#### **Eske Willerslev**

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#### **Abstract**

In this presentation I will uncover the broader population genomic history of western Eurasia. Our recent ancient genomic studies have shown that the contemporary genetic makeup of this region was formed surprisingly late in history through several migration events. I will cover these events, from the early Stone Age hunter-gathers through the late Mesolithic huntergathers, the Neolithic farmers, the Bronze Age pastoralists, the Iron Age, and finally to the Viking period. I will also discuss the consequences of changes in lifestyle on pathogen pressures and the differences in disease risk across the populations of western Eurasia.