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The Oxus Auloi: Archaeological, Material and Art-Historical Context

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Abstract

This article examines the archaeological context of the Oxus Auloi, ancient wind instruments unearthed at the Oxus Temple in Takht-i Sangin, Tajikistan. Based on excavation records, the instruments were likely produced in the 3rd or early 2nd century BCE and deposited around the mid-2nd century BCE. Their spatial distribution in Corridor 6 – a space used for storing damaged or retired votive offerings – provides clues about their ritual treatment and fragmentation. The article situates these instruments within broader traditions of votive practice and ritual sound in Hellenistic Bactria, arguing that although they exhibit Greek stylistic traits, they were likely produced locally, reflecting cross-cultural entanglements in the region.

Keywords

Aulos – Takht-i Sangin – Oxus Temple – Ancient Bactria – Hellenism – Religion – Votive practice

1 The Oxus Temple in Hellenistic Bactria

Bactria was an ancient land in southern Central Asia that included parts of present-day Afghanistan, Tajikistan, and Uzbekistan. Part of the Persian Achaemenid Empire since the 6th century BCE, Bactria was conquered by Alexander the Great in 329–327 BCE and subsequently incorporated into his empire. After Alexander's death, Bactria formed an important satrapy of the Seleucid Empire, from which the local satraps became increasingly independent from the middle of the 3rd century BCE, leading to the establishment of an independent political entity known today as the Graeco-Bactrian Kingdom. It flourished in the first half of the 2nd century BCE, but collapsed around 140/30 BCE as a result of internal dynastic conflicts and external attacks by the Parthians, Saka, and Yuezhi.

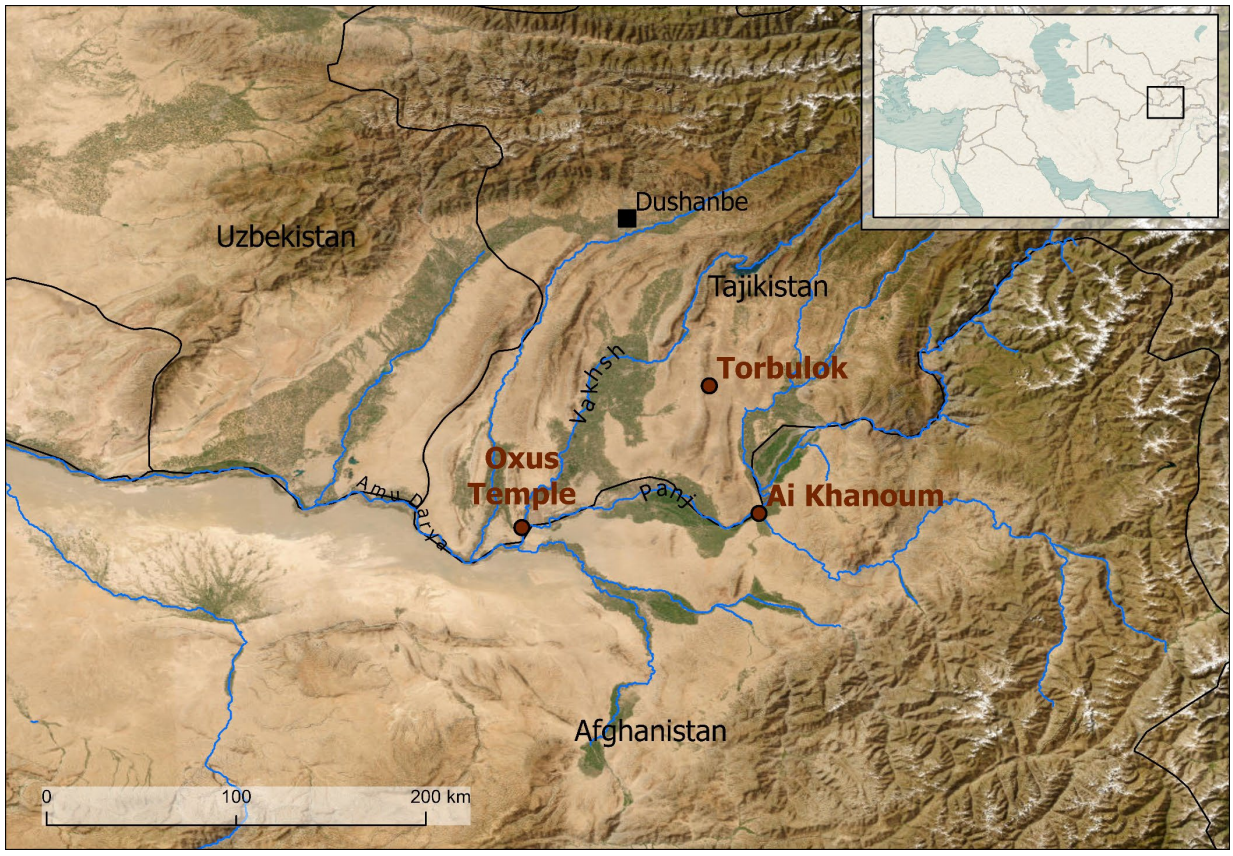


Figure 1: Ancient Bactria in present-day southern Uzbekistan, southern Tajikistan and northern Afghanistan.

One of the most important sites of Hellenistic Bactria is the Oxus Temple. It lies in the south of today's Tajikistan, on the banks of the Amu Darya, just below the confluence of the Panj and Vakhsh rivers (Figure 1). The temple was dedicated to the river god Oxus, the patron deity of the largest river in Bactria. In ancient times, this river was known as a single body of water called Oxos in Greek and Vaxšu in Iranian. Today, it is considered two separate rivers: the Vakhsh and the Amu Darya. The sanctuary was excavated from 1976 to 1991 by a Soviet team, led by Boris A. Litvinsky with Igor R. Pichikyan as the field director, and from 1998 to 2010 by a Tajik team led by Anjelina P. Drujinina.[1] These investigations uncovered a 44 x 50 m temple opening onto a large courtyard and framed by porticoes on two sides. The temple and courtyard were surrounded by a massive 100 x 85 m long and 6 m thick wall (Figure 2). Its layout seems to be based on local Bactrian traditions: it consists of an approximately square main hall (the *cella*), the roof of which is supported by four columns, and two projecting wings framing a wide entrance hall open to the east (*iwan*), also supported by columns and thus reminiscent of Achaemenid audience halls. The *cella* is surrounded at the back and sides by L-shaped corridors that were probably used as storage and service rooms.

While the sanctuary's walls are made of unbaked mudbrick, a traditional Central Asian building material, stone was reserved for elements of support, notably the column bases, whose form derives from Achaemenid architecture. Despite the Bactrian or Achaemenid architectural features,

[1] The final excavation reports are Litvinsky and Pichikyan 2000; Litvinsky 2001; Litvinsky and Pichikyan 2002; Litvinsky 2010. For a critical review of the results, see n. 2.

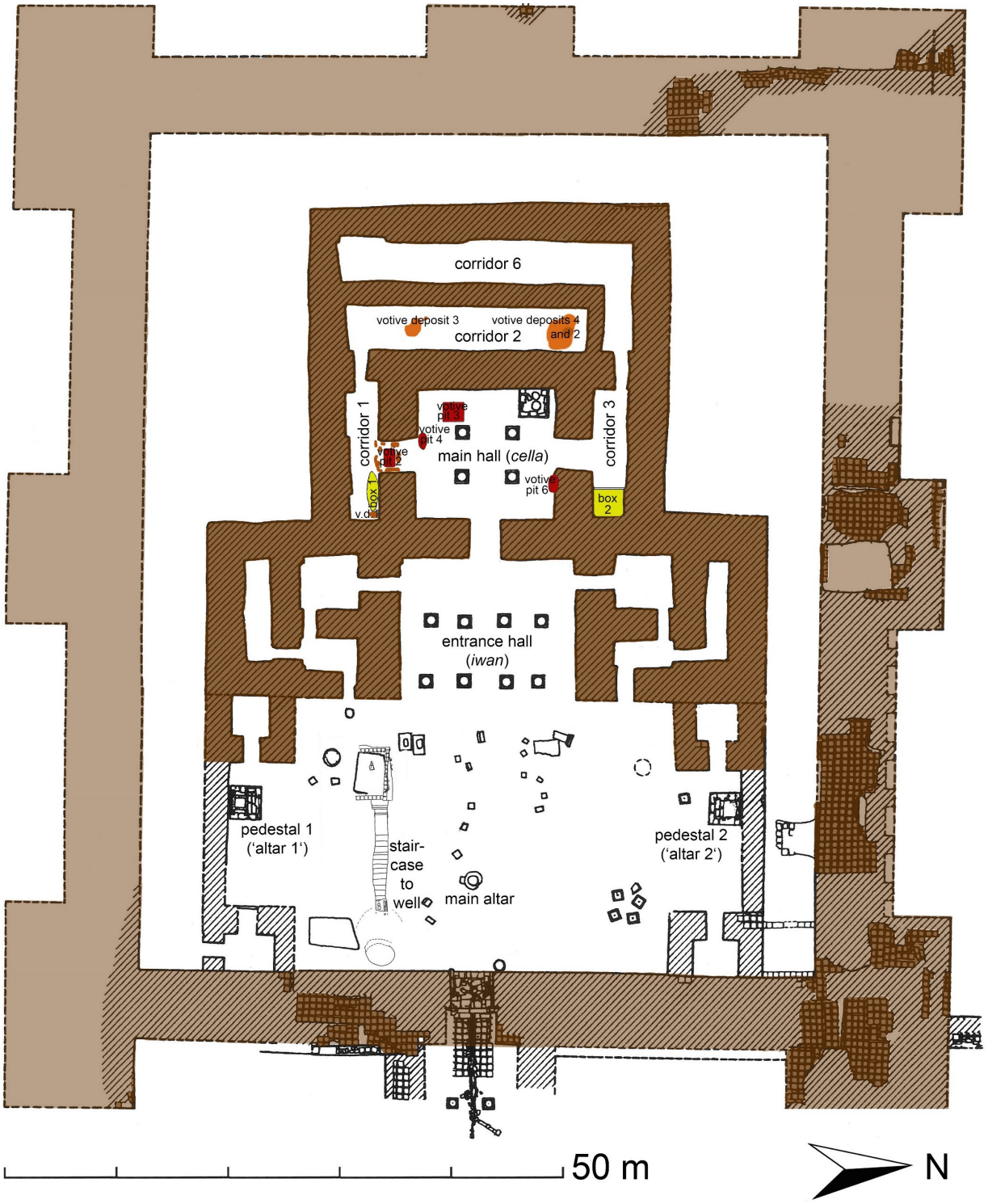


Figure 2: Layout of the Oxus Temple with the structures mentioned in the text. Adapted from Litvinsky and Pichikyan 2002: fig. 5 and Drujinina and Lindström 2013: fig. 6, edited by G. Lindström.

the enormous size of the sanctuary suggests that the Seleucid royal house initiated and financed its construction. Perhaps the intention was to build a central sanctuary dedicated to the most important god of the region, thus creating a common religious centre for the people of Hellenistic Bactria. In addition, the temple seems to have been important for the representation of Seleucid

or Graeco-Bactrian dynasts and elites, who were honoured by statues placed in the sanctuary. These statues, about half life-size, were made of unfired clay, covered with stucco and painted in colour – a technique borrowed from local building traditions.

The archaeological features do not give a clear picture of the rituals according to which the cult was performed.[2] There was a large altar on the axis in front of the temple, as was customary in Greek sanctuaries. Apart from its position, however, it bore no resemblance to Greek altars, being a conical table of rammed earth into which a large, irregularly shaped rock had been incorporated.[3] There is uncertainty concerning the existence of a cult image of the god within the *cella*, akin to Greek temples and the main temple of Ai Khanoum. This is due to the lack of careful archaeological documentation for the specific area where such an image would have been placed.[4] A 12 m deep well, accessible by a long staircase which cut through the *temenos* and led down into the earth, obviously played an important role in the cult of Oxus. However, the well-construction was damaged in the late or post-Graeco-Bactrian period, filled up with debris, with the remaining depression in the ground being used as a bronze foundry.[5]

The discovery of several thousands of objects within the temple provides evidence that worshippers made offerings to the god to ask for (or thank for) a favour.[6] Excavations revealed multiple pits in the *cella* and corridors, seemingly used for depositing damaged or discarded votive offerings. Above ground structures, such as collections of objects deposited on the floor or in box-like containers, were also identified in the corridors, apparently for the same purpose. In total, several thousand votive offerings were found in the temple, among which those inspired by Greek models received special attention in publications. These include a bronze figurine of an old man playing a double pipe or aulos, mounted on a pedestal with an inscription in perfect Greek (Figure 3). It reads Εὐχὴν ἀνέθηκεν Ἀτροσώκης Ὄξωι, which translates "[fulfilling] a vow, Atrosokes dedicated [this]

[2] The sanctuary was interpreted by the excavators as a "fire temple", assuming a Zoroastrian cult. However, this was generally rejected; see, e.g. Boyce and Grenet 1991: 178–79; Bernard 1994; Grenet 2005; Shenkar 2012; Francfort 2012; Drujinina and Lindström 2013; Bernard 2015; Lindström 2016; 2021a; forthcoming.

[3] While the plans in Pichikyan 1992: Fig. 1a, and Litvinsky and Pichikyan 2000: pl. 13, already indicated the altar's position, it was only vaguely described in Pichikyan 2008: 237, as a "round *pahsa* [made of rammed earth] altar set on a base of black stone (a meteorite?)". In contrast to this main altar, two large molded limestone plinths positioned symmetrically to the north and south of the *temenos*, labelled by Pichikyan 1987; Litvinsky and Pichikyan 2000; 2002 as "Altar 1" and "Altar 2", are more likely intended for statues rather than as altars.

[4] Lindström 2016: 289.

[5] For the deep well and its filling, including the debris of a bronze foundry: Drujinina et al. 2011 with most of the previous literature; see also Drujinina and Boroffka 2006; Boroffka and Mei 2013; Drujinina and Lindström 2013; Bernard 2015.

[6] Lindström 2016. Notably, the act of offering material gifts to the gods lacks evidence in pre-Hellenistic Bactria. The singular exception is the Oxus Treasure, likely dedicated to the god Oxus and intentionally deposited in the Oxus River, about 5 km south of Takht-i Sangin. This unique collection of objects stands as the sole indication that gift exchange as a mode of communicating with the gods was not entirely unfamiliar in Achaemenid Bactria.

to Oxos".[7] Characterised as a satyr by his half-bald head, pointed ears and snub nose, the figure could also have been recognised as the satyr (or silenus) Marsyas, Apollo's musical challenger, by audiences more familiar with Greek mythology. This statuette, with its figure from Greek mythology, its donor with an Iranian name and its dedication to a local Bactrian river god, refers to different cultural spheres coming together at Takht-i Sangin.

It is indeed striking that one of the few figures from the Oxus temple shows a musician with an aulos, given that around forty fragments of this very instrument have been found in the temple. However, since a fragment of a wind instrument has also been found in another Hellenistic sanctuary in Bactria, in the area of the so-called Niched Temple at Ai Khanoum, a site 100 kilometres east of Takht-i Sangin, a coincidence cannot be ruled out.

Figure 3: Aulos player, bronze statuette on a limestone socle (height 17.8 cm). Photograph by G. Lindström.

2 The archaeological context of the Oxus auloi

Based on coin finds, the Oxus Temple was founded in the late 4th or more likely early 3rd century BCE and remained in use until the 3rd century CE. Over its 500-year history, it underwent multiple phases of damage and reconstruction, with the first major destruction likely occurring around 140/30 BCE. As I have shown in previous studies on votive practice, this destruction was probably related to an invasion by the Saka and Yuezhi tribes, who invaded the Graeco-Bactrian Empire from the north and caused its collapse.[8] During this destruction, many votive and cult objects were damaged, including the bone tubes identified as wind instruments. Their fragments were buried by the layers of repairs that

[7] The statuette, the most famous object among the finds from the Oxus sanctuary, has been widely discussed, see e.g. Litvinsky et al. 1985; Litvinsky and Pichikyan 2000: 86–88; Litvinsky 2010: 184–204; Rougemont 2012: 196–98 no. 95; Bernard 2015: 55–58 with note 7; Lindström 2021a: 291–92.

[8] Lindström 2016; 2021b; forthcoming.

followed immediately afterwards, which indicates that they must have been made before the middle of the 2nd century BCE.

Although Boris A. Litvinsky dated the Oxus Auloi to this period and first published them in 1999, further examination of their context is needed to verify the dating and understand their storage and deposition. The bone tubes were discovered in Corridor 6, a 25-metre long and 3-metre-wide room with a right-angled annex that led to Corridor 3, which adjoined the *cella* to the north (cf. Figure 2). Its limited accessibility, the observation that it was not a passageway, despite its name, and the discovery of numerous fragments of votive offerings in this room suggest that Corridor 6 served as one of the temple's *thesauroi*, or storage rooms for objects that had been damaged or discarded for other reasons.[9]

Only one bone tube catalogued by Litvinsky **(047)** was found outside Corridor 6, in the doorway between the central hall and Corridor 1, but since this object could not be identified among the surviving bone tubes from the Oxus temple, it was apparently hypothetically described as a 'flute tube' or 'aulos' at the time of its discovery, but after cleaning it turned out to be an object with a different function, such as a hinge from a piece of furniture. For this reason, it is not included here.

To understand the following analysis, a few brief words are in order about how the excavations in Corridor 6 were carried out and how the finds were recovered, how the archaeological context was documented and how the finds were preserved and where they are kept today. Corridor 6 was excavated during the final campaigns focusing on the temple area in 1983 and 1984. Before excavation, its dimensions and shape were only faintly visible in the terrain. The area was divided into 25 'quadrants', which were in fact orthogonal sections measuring 1 x 3 metres. While most of these were excavated in 1983, only the northernmost quadrant, along with its adjacent annex leading to Corridor 3, was excavated in 1984.

The bone tubes, like most of the small finds from Corridor 6, were buried under up to five metres of debris from the collapsed walls of the temple, which had consisted of unfired mud bricks. The debris, compacted by rain, led to the good preservation of many organic materials, including the bone tubes. On the other hand, the compact debris could not always be excavated with fine tools such as trowels and brushes; instead, hoes and shovels were needed, which meant that some finds escaped the trained eyes of the excavators and were only discovered after they had ended up on the spoil heap with the excavated soil. However, most of the finds were found at the place where they entered the soil or where they were covered by the material of later levelling work. The excavators documented their find spot within the 'quadrant' grid and provided the finds with labels that indicated their find number and horizontal and vertical position. At the end of the working day, the data from the labels was transferred to lists, and the finds were roughly cleaned and packed with their labels. And at the end of the field season, the packed finds were delivered to the storeroom of the Archaeological Institute of the Academy of Sciences of Tajikistan in Dushanbe. Once

[9] Such as Corridor 3, 2 and 1, see Lindström 2016: 292–303.

the data from the find lists had been transferred to the store's inventory book, the excavators, who were based in Moscow, took the original archaeological documentation with them to prepare for publication. However, before the finds could be published, many of them had to be carefully cleaned and drawn. The information from the original labels was transferred to new labels, which were attached to the objects wherever possible. In rarer cases, conservation measures were also carried out, as in the case of the bone tubes. When working with the finds, in rare cases the labels were accidentally swapped or even lost.

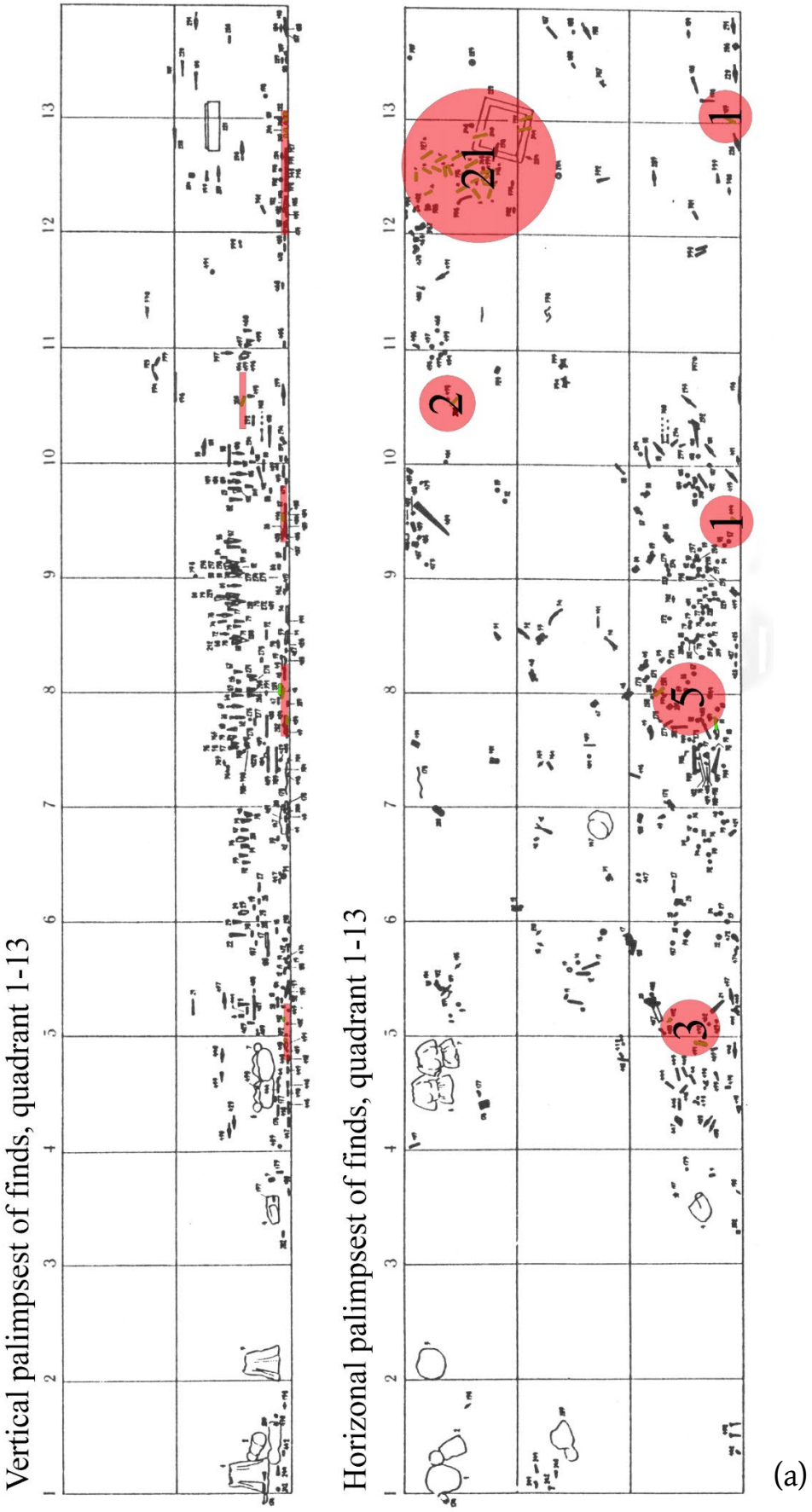
A significant challenge for the 2022 research was the dispersal of the bone tubes across multiple collections in Dushanbe. In 2001, some of the bone tubes were transferred from the storerooms of the Archaeological Institute to the newly established National Museum of Antiquities of Tajikistan, which is also part of the Academy of Sciences of Tajikistan, where they were put on display. In 2013, four of these tubes were further relocated to the National Museum of Tajikistan. By 2022, the assemblage was therefore divided between three spaces and two institutions, complicating both physical access and comparative study. While we were allowed to transfer most of the finds from the storerooms to the National Museum of Antiquities, the four bone tubes housed in the National Museum of Tajikistan had to remain there. This fragmentation posed considerable logistical and research challenges, making a comprehensive study of the entire set difficult.

3 Detailed analysis of the archaeological documentation

Compared to earlier campaigns, the documentation of the 1983 and 1984 excavations is relatively good, but is by no means easy to evaluate. To pinpoint the bone tubes' findspots within the corridor, various pieces of information needed to be cross-referenced. First, the individual find numbers of the tubes had to be identified. Unfortunately, these were not inscribed on the tubes but written on small paper labels rolled up and inserted into the tubes. As it turned out, some of these labels had been mixed up, leading to incorrect references in Litvinsky's publications. However, it was possible to match and correct the find numbers by cross-referencing pencil markings on both the bone tubes and the paper labels made prior to conservation efforts (Table 1 below).

Next, written and drawn excavation records were analysed. These include the aforementioned paper labels, which document the specific find numbers and their precise locations. The labels identify Corridor 6, noting the quadrant and the level measured from the 'virgin soil' (материк 'materik' in Russian), actually referring to the temple's foundation layers. In addition, inventory lists from the storage rooms of the Archaeological Department of the Academy of Sciences of Tajikistan offer brief classification of the finds and their locations, though these lists lack quadrant information.[10] The third set of records included drawings, which are the only surviving graphic documentation of Corridor 6. These drawings show a schematic plan of the horizontal distribution

[10] These lists seem to be copies of the original field records, which are housed at the Institute of Oriental Studies of the Russian Academy of Sciences in Moscow, with which both Litvinsky and Pichikyan were affiliated. As a result, the original records were not accessible for the studies.


Vertical palimpsest of finds, quadrant 1-13
Horizonal palimpsest of finds, quadrant 1-13
1
2
3
5
21
1
(a)

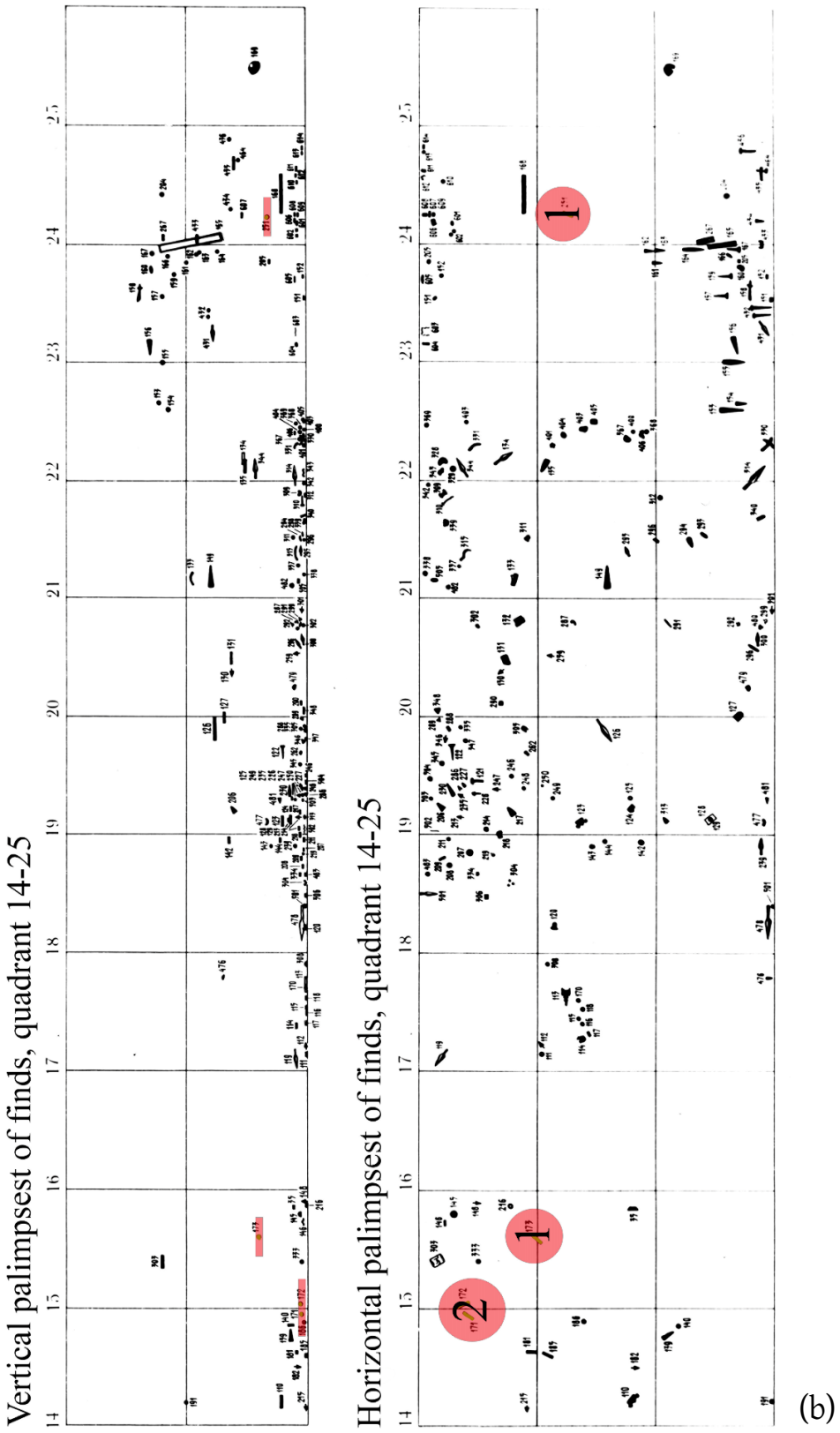


Figure 4: Corridor 6, vertical and horizontal palimpsest of finds, red circles indicate bone pipe finds with the number of bone tubes. (a) 'Quadrants' 1–13, adapted from Litvinsky and Pichikyan 2002: pl. 25, edited by G. Lindström; (b) 'Quadrants' 14–25, adapted from a print-ready copy, archive of Anjelina Drujinina, edited by G. Lindström.

of the finds, as a palimpsest of archaeological layers, and a schematic profile showing the vertical distribution of the finds as a similar palimpsest, with the finds each identified by their numbers (Figure 4).[11] However, the drawings were split across two different sheets, likely intended for publication on two pages of a comprehensive report of the excavation. Sheet 1 (Figure 4a) covered the southern 13 'quadrants', while sheet 2 (Figure 4b) depicted the northern 12 'quadrants'. But unfortunately, the publication that the excavators were aiming for was impeded by a number of factors, including the collapse of the Soviet Union, leading to Tajikistan's independence in 1991, and the Tajik civil war from 1992 to 1997, which made the finds stored in Tajikistan inaccessible to the Russian excavators. Additionally, the early death of long-time field director Igor Pichikyan in 1997 further complicated matters. As a result, only sheet 1 was included in the final excavation report published in 2000, and the quality was so poor that the find numbers are barely legible.[12] Sheet 2 was omitted. However, a copy of this sheet, along with other unpublished documents, was sent by Litvinsky to Germany, where Anjelina Drujinina[13] helped edit a German translation of the final report, which was published in 2002.[14] Though sheet 2 was not included in this edition, a copy remained in Drujinina's archives and became accessible for the studies on the votives, including the auloi. Unlike sheet 1, the find numbers on sheet 2 are clearly legible. The difference in reproduction quality makes it difficult to identify the bone tubes in the southern quadrants of Corridor 6 but easy to identify them in the northern quadrants.

Despite these difficulties, the exact locations of the bone tubes can be narrowed down or even precisely determined by analysing and cross-referencing written and drawn records. With a few exceptions, the bone tubes were found in a stratigraphic context that predates the aforementioned destruction of the sanctuary around 140/30 BCE, namely in stratigraphic layers between the foundation level, level 0.00 m, and Floor 1a, level 0.10 m (Table 1). The few exceptions can be explained as the result of later relocations due to construction work (**003**, **008** and **009** with **043**) or they were overlooked during the excavation and then found in the dump of the excavations (**010** and **011**).

As for the horizontal distribution of the bone tubes, they were scattered along almost the entire length of the corridor, namely in Quadrants 4 (**038**), 5 (**033** and **034**), 7 (**035**, **036** and **037**), 8 (**007** and **012**), 9 (**032**), 10 (**009** with **043**), 13 (**004** and **005**), 14 (**001**), 15 (**002** and **003**) and 24 (**008**). In the western and central section of Quadrant 12, reaching into Quadrant 13, a large cluster of 21 bone tubes was discovered. This archaeological context is documented on sheet 1 (Figure 5a, showing the relevant section enlarged), which, however, is blurred, so that only the numbers 4222, 4244, 4245, 4318 and 4327a (for 4327/1) can be identified,[15] which correspond to bone tubes **005**, **006**, **007**, **016** and **026**. The same area is also shown on a published sketch (Figure 5b), but, for unknown

[11] As the find numbers from the campaign of 1984 started with a 4, the finds were numbered consecutively from 1 to 496 (to be read as 4001–4496), obviously to save space.
[12] Litvinsky and Pichikyan 2000: pl. 25.
[13] Drujinina took part in the last Soviet campaigns in 1988 and 1989 and resumed excavations in 1998.
[14] Litvinsky and Pichikyan 2002.
[15] For the numbering on the drawings, see n. 11.

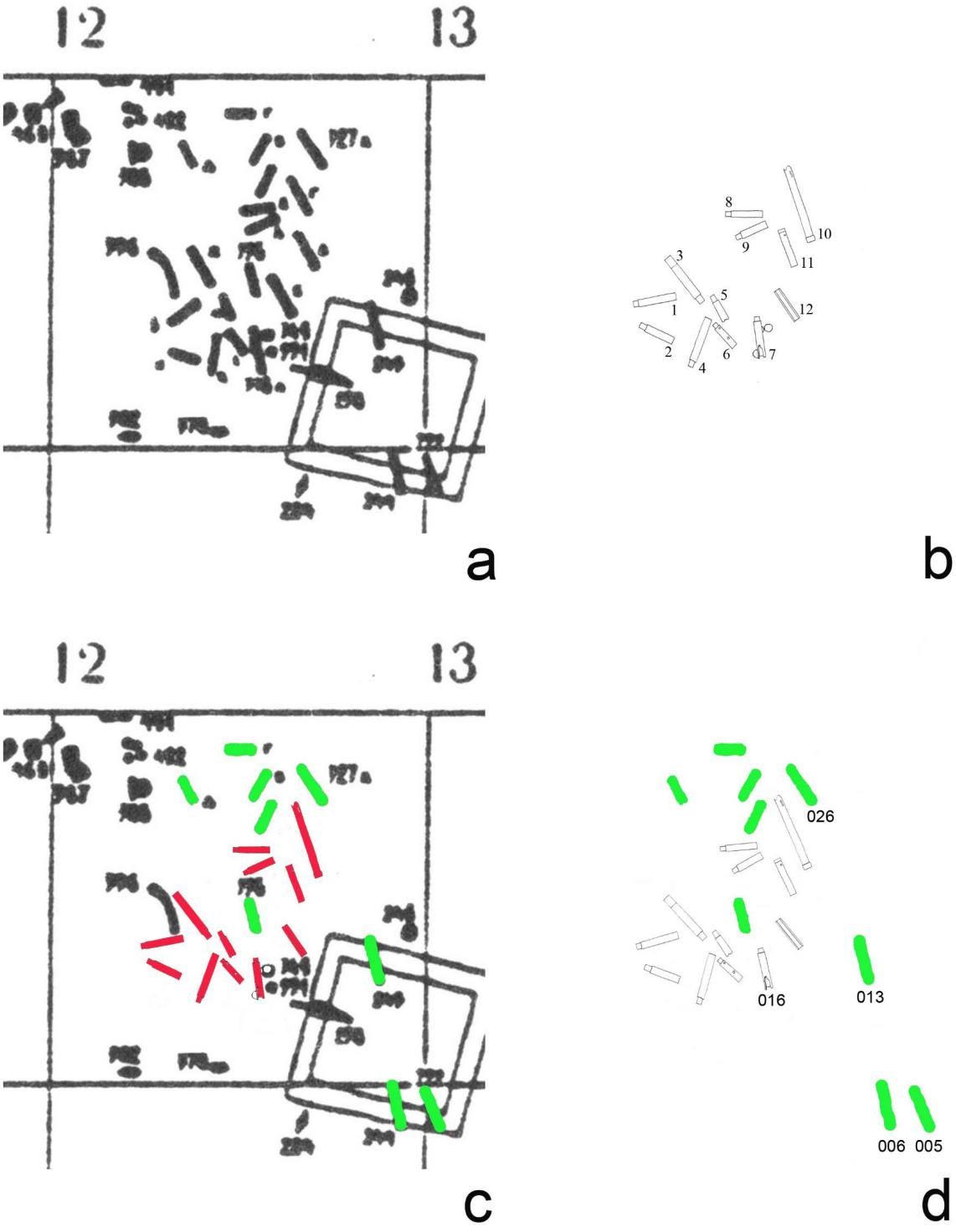


Figure 5: Cluster of bone tubes in 'Quadrants' 12 and 13:
a: Detail of the horizontal palimpsest of finds, adapted from Litvinsky and Pichikyan 2002: pl. 25, edited by G. Lindström.
b: Sketch of the bone tube cluster in 'Quadrant' 12, based on Litvinsky and Pichikyan 2000: pl. 26, and Litvinsky 2010: pl. 86.
c: Detail from the horizontal palimpsest (as in (a)), with the bone tubes shown in (b) highlighted in red and bone tubes shown only in the palimpsest (a) highlighted in green.
d: Cluster of bone tubes in 'Quadrants' 12 and 13, combining those illustrated in (b) with additional tubes shown only in the palimpsest (a).

reasons, with only 12 bone tubes.[16] Both top views can be aligned and thus show the same context (Figure 5c) with 21 bone tubes (Figure 5d).

According to the archaeological records, the bone tubes of this cluster were found at different levels between 0.00 m and 0.05 m (or 0.07 m?) above the 'virgin soil', actually the foundation layer. That means they were covered by or embedded in Floors 1 (0.00–0.05 m) and 1a (0.05–0.10 m). However, considering the density of this cluster, it seems hardly conceivable that they entered the ground at different times and only by coincidence at the same location within Corridor 6. The cluster of bone tubes in Quadrants 12 and 13 thus reflects a single deposition event.

With the help of the aligned drawings, an attempt could be made to precisely identify at least some of the bone tubes of this context and thus to determine whether this situation reflects the collapse of a bundle of previously intact auloi that were stored together in a container. However, this is to be ruled out by the results of the organological research by Stefan Hagel (see Hagel, this volume), which shows that neither of the Oxus auloi has both pipes preserved. But could it be that at least intact individual pipes were stored in the area of Quadrant 12/13 – that is, half auloi? This can also be excluded on the basis of the organological studies, because the bone tubes from the cluster belonged to up to seven different aulos pipes, namely to the Oxus pipes 001 (**031**), 009 (**021**, **022**), 012 (**013**), 019 (**018**, **019**, **025**), 026 (**017**, **020**, **026**, **028**, **030**), 036 (**014**, **023**, **024**), 042 (**005**, **029**) and to one or two additional pipes (**006**, **015**), as well as to one or two salpinges (**016** and **027**).[17]

The combination of archaeological and organological analysis shows that the pipes had already been dismantled before their deposition. None of the Oxus auloi were found with both pipes intact, and parts from different instruments were intermixed. This indicates a deliberate process of separation and burial, possibly as part of ritual decommissioning, rather than accidental collapse or storage of functioning instruments.

4 The wider context of the Oxus auloi

With the archaeological context of the wind instruments now clarified, their broader significance comes into question. First, why were these musical instruments found in the Oxus Temple, and what was their function? Were they cult instruments, used during rituals, stored as part of temple

[16] The sketch was included in three publications: in Litvinsky and Pichikyan 2000 it appears as pl. 26, in Litvinsky 2006 as Fig. 6 (both times without numbering of the individual bone tubes and with an incorrect scale); in Litvinsky 2010, published after Litvinsky's death, it appears as Fig. 86, with the individual bone tubes numbered from 1 to 12, but without a caption referring to the numbers, without a scale, and with the incorrect naming of Corridor 3 as the site of discovery. However, the corresponding caption (but without the illustration!) appears in Litvinsky 1999 on page 542 as "Flutes (auloi) from the Oxus Temple. Plan". The caption identifies only 10 of the bone pipes, namely No. 1 as 4171 (**001**), No. 2 as 4173 (**003**), No. 3 as 4183 (**004**), No. 4 as 4251 (**008**), No. 5 as 4260 (**009+043**), No. 6 as 4319 (**017**), No. 7 as 4325 (**023+024**), No. 8 as 4418 (**033+034**), No. 9 as 4424 (**035+036+037**) and No. 10 as 5006 (**039**). However, since cross-referencing could locate most of these specimens in other parts of the corridor, the caption is incorrect.

[17] For the discussion of these fragments as belonging to salpinges, see Sutkowska in this volume.

paraphernalia, and later buried accidentally when the temple was destroyed? Or were they votive offerings dedicated to the god Oxus, perhaps given by the musicians who once played them, becoming sacred property that could not be removed from the temple and thus deliberately buried? Another key issue is whether the auloi were imported from Greece or locally made. While a scientific analysis of the bones used to craft the instruments could provide a conclusive answer, this question can also be explored in the wider context of Hellenistic Bactria's material culture.

The fragments of wind instruments discussed in this article represent an intriguing, though relatively small, portion of the overall finds from the Oxus Temple. Soviet excavations uncovered more than 3000 objects and object groups, some with hundreds of individual pieces, bringing the total number of artifacts to over 5000. These artifacts were made from a wide range of materials, including gold, silver, bronze, iron, stone, terracotta, plaster, glass, ivory, bone, wood, and even textiles. While many of these fragmentary objects can be reconstructed into items with various functions – predominantly weapons and armour – the finds also include sculptures, vessels, utensils, weights, coins, toiletries, jewellery, clothing ornaments, furniture, and musical instruments.

Although only a few of these finds bear dedicatory inscriptions, such as the statuette of a satyr playing the aulos, it can be assumed that nearly all the objects discovered in the temple were votive offerings to the river god Oxus. This assumption is supported by several general observations, which align with earlier research on votive practices in Hellenistic and Kushan Bactria, particularly focusing on the Oxus Temple. The findings from this research, published in 2016, provide strong evidence that many of the objects were offerings made to the deity.[18]

This research uncovered compelling evidence of practices that closely resemble ancient Greek votive customs, even though they may not be directly connected. The presence of objects in the temple, many of which had no practical use – like statues – strongly suggests they were intended as gifts to the deity. This reflects the principle of *do ut des*, where offerings are made to a deity in the hope of receiving something in return or thanking for something, much like gift exchange between individuals, where reciprocity strengthens social bonds. In this divine-human interaction, worshippers used gifts as a way of communicating with the divine, underlining the transactional aspect of devotion.

Another indication that most of the objects found in the Oxus temple were votive offerings lies in the fact that they were preserved. Valuable items, especially those made of precious metals or bronze, could have been sold or recycled, but they were instead buried. This preservation is explained by a sacred prohibition on removing gifts from the temple, a principle similar to the Greek concept of *ouk ekphorá*. However, practical measures were sometimes needed to address the overcrowding of shrines with offerings. Worshippers would frequently bring new items to display prominently, both to show devotion and to gain prestige among other visitors. To make room for these new dedications, older offerings were periodically moved to *thēsauroí*, controlled storage spaces, though even these were also limited in capacity.

[18] Lindström 2016.

In some cases, temple authorities might have flexibly interpreted the sacred ban on removal, allowing for recycling – such as melting down bronze items to create new offerings. Despite this, there appears to have been some reluctance to completely destroy votive objects. Often, fragments of recycled or discarded offerings were kept within the sanctuary, with these fragments being regarded as *pars pro toto* – symbolically representing the whole of the original offering.

The large number of fragmentary objects found in inaccessible storage spaces like Corridor 6 suggests systematic practices of 'thesaurisation' – the ritual storage of offerings no longer on display. This aligns with well-documented Greek and Central Asian traditions, where old or damaged votive objects were periodically cleared from the main sanctuary but retained within sacred precincts. The selective preservation of only parts – such as carved feet from thrones or caskets – further supports a votive logic that valued symbolic fragments over complete forms.

However, the votive function of the Oxus auloi does not preclude their use as cult instruments in ritual musical performances. This dual role finds a parallel in another group of objects from the Oxus temple: the *perirrhanteria* – large stone basins on high stands that held water for ritual purification.[19] A dedicatory inscription on one such *perirrhanterion* from the temple indicates that these basins were also regarded as prestigious offerings. Similarly, the auloi may have been played during rituals before being dedicated as votive gifts.

Finally, the question of whether the auloi and salpinges found in the Oxus temple could be imports will be discussed. Considering the remarkable quality of the auloi, and also the innovative mechanism on one of the tubes, one might be tempted to speculate that the Oxus Auloi were crafted in the Greek world and imported to Bactria. However, the question of probable import could only be answered conclusively by strontium isotope analysis, which would determine whether the animals from whose bones the instruments were carved grew up and lived in southern Central Asia or outside the region. But although we had planned to carry out these analyses as part of the project, we were ultimately unable to obtain the necessary samples.

A key point argues against the idea that the Oxus wind instruments were imported from the Mediterranean and instead supports local production in Bactria. Among thousands of items found in Hellenistic Bactria, only a few can be identified as imports. Aside from some coins from the Greek West – which arrived as payment – the only imported items are four transport amphorae and 11 fragments of black-glazed pottery from Ai Khanoum, a Hellenistic town located about 100 kilometres east of the Oxus temple. The extreme scarcity of imported goods makes it very unlikely that there were regular trade routes between the Mediterranean and Bactria. Such established trade networks would have been necessary for importing specialized items like the auloi. Wind instruments such as these posed a unique challenge for export. While they had high practical value for musicians, their appeal was limited to a specific group – they would not have been generally valued as exotic curiosities. Therefore, Greek producers and traders, and also Near Eastern middlemen would have needed absolute certainty that buyers existed in Bactria before exporting these instru-

[19] Lindström 2016; forthcoming.

ments. This kind of assurance could only come from having well-established trade routes or a reliable network of intermediaries.

Given the lack of regular trade between the Mediterranean and Bactria, it is reasonable to assume that the auloi were made locally in Bactria. The instruments were likely constructed from materials sourced from local animals like sheep or donkeys. Additionally, the mouthpieces could have been made from reeds collected from the nearby floodplains, possibly by specialized craftsmen or even by the musicians themselves.

However, the similarities between the Oxus auloi and Greek models – in terms of type, construction, and tuning – suggest that local craftsmen were either trained in or familiar with Greek instrument-making traditions. In short, although the instruments appear similar to those made in Greece, the lack of evidence for regular Mediterranean trade supports the idea that the auloi were produced locally in Bactria using locally available materials.

5 Conclusion

The Oxus Auloi offer a fascinating glimpse into the cultural and musical traditions of Hellenistic Bactria. Their discovery within the Oxus Temple, a major religious center dedicated to the Bactrian river god Oxus, underscores their significance as both ritual objects and votive offerings. The spatial analysis of their findspots in Corridor 6 suggests a deliberate deposition rather than accidental loss, reinforcing their role in religious practices.

While the Oxus Auloi exhibit clear Greek stylistic and structural features, their production was likely local. In a region with scant evidence for Mediterranean imports, it is more plausible that Bactrian artisans adapted Greek models using locally available materials. This underscores not only the transmission of cultural forms but also the agency of local makers, who engaged creatively with foreign traditions to produce instruments that were meaningful within their own ritual and social context. While the precise function of the auloi within the temple remains open to interpretation, their presence among thousands of votive objects aligns with broader patterns of sacred dedication and symbolic preservation seen in both Greek and Central Asian religious contexts.

Future studies, particularly those employing scientific analyses such as strontium isotope testing, could provide further clarity on the provenance of the materials used in crafting these instruments. Additionally, continued research into the wider assemblage of Oxus Temple votives may offer deeper insights into the interactions between Greek and Bactrian cultural spheres. The Oxus Auloi thus stand as compelling evidence of the rich and complex cultural exchanges that defined Hellenistic Bactria, bridging artistic, religious, and musical traditions across regions and centuries.

Table 1: Synopsis of items.
NM: objects now in the National Museum of Tajikistan.
Q: 'quadrant'.
Corr.: corridor.
м.: м[атерик] (= on virgin soil).
n.i.: not identifiable.
Stratigraphic level: B = below floor 2, A = above floor 2 or dump.

Excavation number	Conservation number, noted on tube	Conservation number, noted on label	Project ID	Object description in inventory list	Location in Corridor 6, according to paper label	Location according to inventory list	Location according to Litvinsky 2010	Location in Corridor 6, according to schematic plan (if identified)	Location in Corridor 6, due to affiliation to an excavation number group	stratigraphic level
4171	25	25	**001**	"flute, bone"	Q14, 2cm	Corr. 6, 2	Corr. 6, 2cm above the ground	Q14, west		B
4172	16	16	**002**	"flute, bone"	Q15, 2cm	Corr. 6, 2	Corr. 6, 2cm above the ground	Q15, west		B
4173	3	3	**003**	"flute, bone"	Q15, 40cm	Corr. 6, 40	Corr. 6, 40cm above the ground	Q15, west		A
4183	29	29	**004**	"flute, bone"	Q13, on virgin soil	Corr. 6, м.	Corr. 6, on the ground	Q13, east		B
4222	27	27	**005**	"flute with a bronze ring, bone"	Q13, 2cm	Corr. 6, м.	Corr. 6, on the ground	Q13, central		B
4244	23	23	**006**	"flute with a bronze ring, bone"	Q12, on virgin soil	Corr. 6, м.	Corr. 6, on the ground	Q12, central		B
4245[20]	6	6	**013**	"flute, bone"	Q12, on virgin soil	Corr. 6, м.	Corr. 6, on the ground	Q12, west		B
4251	4	4	**008**	"flute, bone"	Q24, 35cm	Corr. 6, 35	Corr. 6, 35cm above the ground	Q24, middle		A
4260 NM	?	label lost	**009**	"flute, double, bone"	label lost	(label lost)	Corr. 6, 40cm above the ground		Q10, west	A
4260	-	-	**043**	see above	Q10, 40cm	Corr. 6, 40	Corr. 6, 40cm above the ground	Q10, west		A
4261/1	-	18	**010**	"flute, two pieces, bone"	in dump from corridor 6	Corr. 6, отвал = dump	Corr. 6, 40cm above the ground			A

[20] Litvinsky (2006: 454) erroneously lists the tube as 4281/2, likely due to label mix-up during his studies.

Excavation number	Conservation number, noted on tube	Conservation number, noted on label	Project ID	Object description in inventory list	Location in Corridor 6, according to paper label	Location according to inventory list	Location according to Litvinsky 2010	Location in Corridor 6, according to schematic plan (if identified)	Location in Corridor 6, due to affiliation to an excavation number group	stratigraphic level
4261/2[21]	40	40	**011**	(sub-number not listed)	in dump from corridor 6[22]	Corr. 6, отвал = dump	Corr. 6, 40cm above the ground			A
4281/1 NM	8	label lost	**012**	"flute, fragment, bone"	label lost	Corr. 6, 7	Corr. 6, 7cm above the ground	Q8, east		B
4281/2[23]	37	37	**007**	(sub-number not listed)	Q8, 7cm	(sub-number not listed)	Corr. 6, 7cm above the ground	n.i.		B
4316	13	13	**014**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 5cm above the ground	n.i.		B
4317/2	34	34	**015**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4318	1	label lost	**016**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	Q12, west		B
4319	19	19	**017**	"flute, bone"	Q12, 5cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4320	41	11	**018**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4321 NM	35	label lost	**019**	"flute, bone"	label lost	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.	Q12, 5+2cm[24]	B
4322	5	5	**020**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4323	9	9	**021**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4324	12	12	**022**	"flute, bone"	Q12, 5+2cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4325/1	17	label lost	**023**	"flute, bone"	label lost	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4325/2	-	2	**024**	(sub-number not listed)	Q12, 5+2cm	(sub-number not listed)]	Corr. 6, 3cm above the ground	n.i.		B

[21] Litvinsky (2006: 454) correctly lists the tube as 4261/2, but the original label was later lost and mistakenly replaced with 4327/(5).

[22] According to label attached accidently to 4327/5: the paper labels for **011** and **030** were obviously accidentally swapped and are therefore attached to the wrong tubes.

[23] Litvinsky (2006: 454) erroneously lists the tube as 4245, likely due to label mix-up during his studies.

[24] Like previous and following number.

Excavation number	Conservation number, noted on tube	Conservation number, noted on label	Project ID	Object description in inventory list	Location in Corridor 6, according to paper label	Location according to inventory list	Location according to Litvinsky 2010	Location in Corridor 6, according to schematic plan (if identified)	Location in Corridor 6, due to affiliation to an excavation number group	stratigraphic level
4326	10	10	**025**	"flute, bone"	Q12, 5cm	Corr. 6, 3	Corr. 6, 3cm above the ground	n.i.		B
4327/1	32	32	**026**	"flute, bone"	Q12, 2cm	Corr. 6, 2	Corr. 6, 3cm above the ground	Q12, west		B
4327/2	33	33	**027**	(sub-number not listed)	Q12	(sub-number not listed)	Corr. 6, 3cm above the ground	n.i.		B
4327/3	38	38	**028**	(sub-number not listed)	Q12, on virgin soil	(sub-number not listed)	Corr. 6, 3cm above the ground	n.i.		B
4327/4	30	30	**029**	(sub-number not listed)	Q12, on virgin soil	(sub-number not listed)	Corr. 6, 3cm above the ground	n.i.		B
4327/5	26	26	**030**	(sub-number not listed)	Q12, 5+2cm (according to original label, attached accidently to 4261/2)[25]	(sub-number not listed)	Corr. 6, 3cm above the ground	n.i.		B
4327/6	31	31	**031**	(sub-number not listed)	Q12, on virgin soil	(sub-number not listed)	Corr. 6, 3cm above the ground	n.i.		B
4414	20	20	**032**	"flute, bone"	Q9, 7cm	Corr. 6, 7	Corr. 6, 7cm above the ground	Q9, east		B
4418/1	36	36	**033**	"flute, bone"	Q5, 6cm	Corr. 6, 6	Corr. 6, 6cm above the ground	Q5, east[26]		B
4418/2	21	21	**034**	(sub-number not listed)	Q5, 6cm	(sub-number not listed)	Corr. 6, 6cm above the ground	Q5, east[26]		B
4424/1+2	7	label lost	**035**	"flute, bone"	label lost	Corr. 6, 3	Corr. 6, 3cm above the ground	Q7, east[26]		B
4424/3	24	24	**036**	(sub-number not listed)	Q7, 3cm	(sub-number not listed)	Corr. 6, 3cm above the ground	Q7, east[26]		B

[25] The paper labels for **011** and **030** were obviously accidentally swapped and are therefore attached to the wrong tubes.

[26] Only 1 piece mapped.

Excavation number	Conservation number, noted on tube	Conservation number, noted on label	Project ID	Object description in inventory list	Location in Corridor 6, according to paper label	Location according to inventory list	Location according to Litvinsky 2010	Location in Corridor 6, according to schematic plan (if identified)	Location in Corridor 6, due to affiliation to an excavation number group	stratigraphic level
4424/4	15	label lost	**037**	(sub-number not listed)	label lost	(sub-number not listed)	Corr. 6, 3cm above the ground	Q7, east[26]		B
4451	11	11	**038**	"flute, bone"	Q4, 5cm	Corr. 6, 5	Corr. 6, 5cm above the ground	Q4, east		B
5006	-	-	**039**	"flute, bone"	area 10, on virgin soil	Corr. 6, area 10, м.	Corr. 6, on the ground	Annex not drawn, tube not mapped	northern annexe of corridor 6	B
5030/1+2	-	-	**040**	"flute, 2 fragments, bone"	area 25, 2cm	Corr. 6, area 25, 0.02m	Corr. 6, 2cm above the ground	Annex not drawn, tube not mapped	northern annexe of corridor 6	B
5067 NM	28	label lost	**041**	"flute, ivory"	5cm	Corr. 6, 5m (sic)	Corr. 6, 5cm above the ground	Annex not drawn, tube not mapped	northern annexe of corridor 6	B
5068	22	22	**042**	"flute, ivory"	5cm	Corr. 6, 5m (sic)	Corr. 6, 5cm above the ground	Annex not drawn, tube not mapped	northern annexe of corridor 6	B

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For the sake of readability, the different spellings and transliterations of the names Litvinsky, Pichikyan and Drujinina have been standardized.

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