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# **Barikot, Swat: Excavation Campaign 2021-2022, Preliminary Report. Trenches BKG 16, BKG 17, and BKG 18**

by LUCA M. OLIVIERI, ELISA IORI, MICHELE MINARDI,  
EMANUELE LANT, ABDUL SAMAD, MASSIMO VIDALE,

with contributions by STEFAN BAUMS, GIUSY CAPASSO, OMAR COLORU,  
RITA DAL MARTELLO, MOIZZA ELAHI, NASIR MEHMOOD, GINEVRA PALMERI,  
MUBARIZ A. RABBANI, EHSAN SHAVAREBI, ROBERT N. SPENGLER III

Venio nunc ad istius, quem ad modum ipse appellat, studium,  
ut amici eius, morbum et insaniam, ut Siculi, latrocinium; ego  
quo nomine appellem nescio; rem vobis proponam, vos eam  
suo non nominis pondere penditote.

Marcus Tullius Cicero, *Verrinae* 4,1

Il presente rapporto descrive le tre principali aree scavate a Barikot (Swat) dalla Missione Archeologica Italiana in Pakistan nella campagna 2021-2022. La complessa serie di operazioni, tipica di ogni scavo archeologico, è stata resa ancora più complicata sia dai resti visibili che dalle distruzioni risultanti da una storia recente di scavi illegali. Tra l'altro notizie pubblicate su alcuni importanti materiali provenienti da quegli scavi, sono circolate recentemente in ambienti accademici. Le tre aree di scavo illustrate in questo rapporto riguardano i seguenti monumenti o strutture: un antico edificio sacro buddhista a pianta absidale con edifici annessi in funzione fino ad età tardo-antica (trincea BKG 16); la porzione di una piccola necropoli a inumazione di età storica (trincea BKG 17); una porta secondaria dell'antica città, aperta nella cinta muraria già da età indo-greca (trincea BKG 18). Il rapporto include un'analisi preliminare dei dati paleobotanici, radiometrici, antropologici, una presentazione della ceramica, delle sculture, delle monete e delle iscrizioni, e di alcune classi di materiali (ornamenti, figurine di terracotta, mattoni).

## INTRODUCTION

### *Game of Cards*

The spoliation of Sicily's antiquities denounced by Marcus Tullius Cicero has remained famous in historical annals. Far worse despoliation is being wrought today by cultural and financial elites, antiquarians and collectors in countries lavish in history and tradition. These include Pakistan, and especially its Northern regions, the Khyber Pakhtunkhwa (KP) province with its rich Gandharan heritage. Particularly severe was the plundering carried out by clandestine excavators in Swat, KP, in areas of the archaeological site of Barikot then not monitored by the Italian Archaeological Mission in the first decade of this century. These illegal activities (see Olivieri 2022a) were



Fig. 1 - Cutout of playing card used as a marking label by illegal diggers in Barikot.

witnessed in silence in 2002 (see Bopearachchi, Majumdar 2020: 43-44). Hundreds of sculptures and coins, certainly important epigraphic documents and seals, were stolen from the site, while architecture and structures were mutilated, deprived of their stratigraphic contexts, gutted by shafts, pits, and tunnels. The clandestine excavation work perpetrated at Barikot in the central area of the ancient city between 2002 and 2009, and then resumed on a larger scale in 2010-2011, was certainly conducted by specialized teams, probably by a single team of experts, whose “signature,” so to speak, was the use of poker-card cutouts to mark the most promising layers (see below) (Fig. 1).

During the excavations in 2021, we found several of these cutouts (in water-resistant plasticized paper) in the pits and their fills, the emptying of which took us almost a full month of work. In fact, the reader of this report will see in the following pages that the stratigraphic information

gathered were greater in the older structural periods, while almost zeroing out in the upper ones, where stratified deposits had been almost completely eliminated by the clandestine excavation.<sup>1</sup> For the interpretation of the later phases, therefore, we are left only with the analysis of the surviving structures deprived of both their finds and their contexts.

### *Previous Exploration and Conservation Activities at the Site*

The Italian Archaeological Mission in Pakistan started its activity at Barikot (Fig. 2) in 1977 (IsMEO, and then IsIAO) when Giorgio Stacul discovered the earliest sequence of the site (1700-800 BCE) (see refs. in Olivieri 2020a). It was only later (1984) that the first traces of the historic city were found by Pierfrancesco Callieri. In 1985, 1987 and 1990, the urban Defensive Wall and bastions of the city, along with stretches of the ancient urban area were unearthed (see Callieri et al. 1992; details in Olivieri 2020a). The discovery reinforced Aurel Stein and Giuseppe Tucci’s hypothesis that the site should be identified with the ancient city of Bazira (or Beira) of the Alexandrographers, later known as Vajirasthana (ibid.). From 1993 to 1995 a survey of the entire area was conducted, and later published (Olivieri 2003).

From 1996 onwards, the whole *ghwandai* (hill), that is the acropolis of the ancient city, was taken on lease (and still is since then) by the Mission. Excavations on the

<sup>1</sup> With exceptions: sectors BKG 16E and BKG 16W were relatively less affected, while the central sectors were severely damaged. As a result, the degree of detail given in this report is slightly unbalanced.

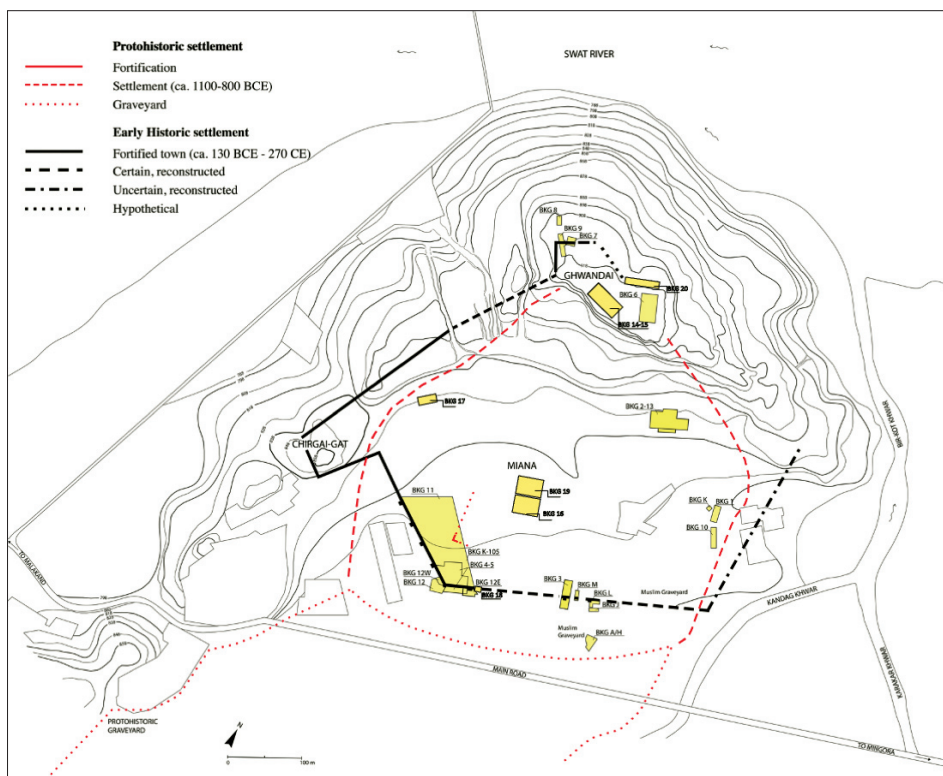


Fig. 2 - Map showing the location of trenches excavated from 1984 to 2022.

hilltop of Barikot were carried out from 1998 to 2000 (see e.g., Callieri et al. 2000), and later resumed in 2018 (Olivieri 2022a). The podium of a Shahi Hindu temple on the Eastern terrace of the acropolis was unearthed, while on the Western terrace a complete sequence ranging from the Bronze Age to the Ghaznavid and pre-modern periods was documented. Excavations and conservation work at the acropolis are still ongoing (Fig. 2).<sup>2</sup>

In 2001, after religious extremists had tried to destroy the freshly discovered Shahi temple on the Barikot hilltop, the Italian Archaeological Mission buried the temple to save it from further damage. In the same period, at least since 2002, illegal excavations started at the centre of the site. The practice stopped in 2006, although it resumed later until 2008, when the Pakistan Army established on the hilltop an artillery base to fight against the Talibans (Fig. 3).<sup>3</sup>

Illegal excavations resumed again in Swat in 2010, we presume until March 2011, when finally a large scale project was launched by the Mission in cooperation first

<sup>2</sup> The restorations are carried out as part of the two-year project “Saving the archaeological site of Bazira,” funded by ALIPH and implemented by ISMEO. The project started in spring 2022 (<https://www.aliph-foundation.org/en/projects/saving-the-archaeological-site-of-bazira>).

<sup>3</sup> Between 2004 and 2007, fieldwork was conducted in the Kandak and other areas by the Italians, and no fresh work was done in Barikot. Excavations at the acropolis resumed in 2018 and are still ongoing.



Fig. 3 - The Barikot acropolis in 2020: aerial view of the top-hill (from NNE).

with the Federal Department of Archaeology and Museums (DoAM, Federal), then, after the implementation of the 18<sup>th</sup> Constitutional Amendment, with the KP authorities. The project, named “Archaeology Community Tourism Field School” (ACT) was carried out in the framework of the Pakistan Italian Debt Swap Agreement (PIDSA) (Olivieri 2017). With the ACT project in full swing, from 2012 onward, thanks in part to the support of the military authorities, clandestine excavations throughout Swat,<sup>4</sup> and particularly in Barikot, were stopped altogether.

As a result of an agreement between ACT and the provincial archaeological authorities (DOAM KP, Directorate of Archaeology and Museums), the Chief Minister of Khyber Pakhtunkhwa in 2014 approved purchase of land at Barikot (and other 11 sites), upon which the provincial government spent 2.8 million euros. Thus, thanks to the efforts of the DOAM Directorate, 5 ha of the available archaeological land at Barikot in 2018 was acquired by the provincial government (including the centre of the site), while another 2 ha of land is currently in the process of being purchased.

The area of the trench BKG 16 (see below), which corresponds to one of the most promising areas in the centre of the ancient settlement, is now owned by the KP government. The previous owners of the land, “possibly” complicit in the illegal excavations, built two buildings after 2012; one, incomplete, was partially demolished during the 2021 excavation campaign; the other, now confiscated, was utilized as a temporary deposit for archaeological tools, and in 2022 was designated as the Barikot Office of the Sub-Regional Office of DOAM KP (SRO).

LMO and AS

<sup>4</sup> See the final report on the 2012 excavation at the site of Amluk-dara, near Barikot (Olivieri 2018a).



## THE EXCAVATION SEASON AND THIS REPORT

Excavations at the site (October 2021-February 2022), were licensed by DOAM, and were carried out in trench BKG 16 by Elisa Iori, Michele Minardi, and the present writer (EI, MM, LMO). Moizza Elahi, Mubariz A. Rabbani and Ginevra Palmeri participated also in the excavation campaigns (EE, MAR, GP). The work was facilitated by local officials from the Mission and DOAM: Fazal Azeem, Fazal Malik and Shtamand supervised the excavation; Abid was responsible for the flotation, Rahim Khan for washing the ceramics, Anwar Hussain and Rustam for preliminary restorations; Shafiq Ahmad was responsible for administration, Ali for logistics and transport, and, last but not least, Yusuf was in charge of food and accommodations at the Mission House in Saidu Sharif.

The fieldwork was funded by the Italian Ministry of Foreign Affairs and International Cooperation, and by ISMEO and Ca' Foscari University of Venice, with contributions from the University of Padua and the Max-Weber-Kolleg/Universität Erfurt.

In November 2021, based on the results of a brief survey I had carried out in 2017, a limited excavation on site BKG 17 was opened, North-West of the ancient urban area of Barikot (KP government land). Here, a relatively recent agricultural work had exposed a row of early-historic graves and other archaeological features. This part of the work was carried out by Massimo Vidale, Emanuele Lant and Giusy Capasso (MV, EL, GC).

The discovery of a portion of the ancient urban road in BKG 16 (see above) convinced us to open a final trench (BKG 18) along the ancient defensive wall (in the KP government land), where the presence of one of the urban gates had previously been hypothesized (Olivieri 2015; Iori et al. 2016). Eventually this gateway was found, partly ruined, but clearly visible. This part of the work lasted from November 2021 to February 2022 under the supervision of Nasir Mehmood (NM), EI and LMO.

Throughout this long excavation season, Nasir Mehmood acted as DOAM representative.

Before the closing of the excavation, stuccoed and moulded parts were consolidated with injections of hydraulic lime with Microacril/H<sub>2</sub>O (1:20). Stucco surfaces were protected by a coating of Microacril/H<sub>2</sub>O (1:20).

In this report the stratigraphy of the main trench BKG 16 is presented in chronological order. For its specific characteristics, the BKG 16 NE sector is described separately. The description of the work carried out in the two smaller trenches, BKG 17 and 18, is presented in excavation order (inverse chronological order). Wall units and stone floors are given in square brackets [-], layers in round brackets (-), and negative features (pits, cuts) in angular brackets <->. The term "layer" always indicates a positive stratigraphic unit (or SU). Measurements are always expressed in metres (m; e.g., 1.0, 0.05). Vertical and aerial photographs were taken with the technical assistance of Mr Malak Waqar Ahmad and Mr Malak Abrar Ahmad. All plans and sections of the excavation of BKG 16 are by Michele Minardi, those of BKG 17 by Emanuele Lant. The photographs and drawings are all the property of the Mission and may only be reproduced with permission. In the composite figures, if not otherwise indicated, the internal sequence (a-d) is arranged clockwise starting from top left. Diacritics have been omitted in the text, but are used in the contributions by Stefan Baums (SB) and Ehsan Shavarebi (ES).

A final remark: what follows represents a preliminary report of a still on-going archaeological excavation the first phase of which was completed just a few months prior to this publication. The reason for this publication lies in the importance of the findings, which deserve, in my view, to be swiftly shared. More in-depth studies will follow on due time, supplementing the data presented here with additional ones extracted from those already gathered and known by us, and from those that will come from the enlargement of the trenches planned for 2023. In this regard, some key data obtained more recently in November 2022 from trench BKG 16 are partially contained in this report (see footnotes) and include important new radiocarbon dates, which, I can disclose in advance, confirm the ancient dating of Building H (Period 4). Not everything which is here described has been represented graphically or photographically:





Fig. 4 - The Barikot hill and the Swat valley seen from SSW. Photo by Carla Biagioli.

materials are perhaps presented unevenly, but this was done for the sake of conciseness, with a view to choosing what would be most useful to the reader. Finally, commentary notes are to be considered entirely preliminary and as items for future discussion.

#### *The Importance of the Site and the Buddhist Tradition*

The importance of the Barikot site need not be recalled here. One only has to skim through the vast bibliography devoted to the site, only partly cited in this report, to appreciate it. Barikot's good fortune also lies in its long sequence of known occupation, ranging from 1700 BCE to 1500 CE, largely assessed through a careful series of radiocarbon analyses, which has resulted in a reconstruction of the site's cultural phases (called "Macro-phases"), from the Bronze Age to the pre-modern period (see Olivieri 2020a). Another very important aspect concerns the city's function as an agricultural colony, an important source of control over the immense (for the time) agricultural resources represented by the Swat's double-crop production (Fig. 4). This and the implications in the political history of the region (including the rationale behind Alexander the Great's campaign of 327 BCE) were addressed in recent studies (Olivieri, Iori 2021; Olivieri 2022b).

The excavation of autumn-winter 2021-2022 underlined another aspect of the site's exceptional nature, namely its importance in the history of Buddhism. Indeed, the main monument revealed by the excavation (called Building H in this report) is a monument that has been characterized as cultic and certainly Buddhist since its founding (Period 4: 3<sup>rd</sup>-2<sup>nd</sup> century BCE). The monument must have been of particular importance as a receptacle for important relics (at least since Period 5) since it underwent a long series of reconstructions and modifications that, however, always preserved the centrality of its sancta sanctorum (Stupa G in this report), which is retained even when the surrounding structure is modified and augmented, leaving only the top of the stupa protruding.

So far, the importance of the site for the history of Buddhist architecture has focused on the late Kushan and subsequent structures (3<sup>rd</sup> to 4<sup>th</sup> century CE), which have been dealt with

in many publications, but also on the cultic terrace BKG 6 with its monumental substructures and the later construction of a Vaishnavite temple in the Shahi phases of the city (7<sup>th</sup>-10<sup>th</sup> century CE) (see Olivieri 2022b). In fact, also in the final stages of Buddhism, even those characterized by the Ghaznavid military occupation of the site, it remained important for Buddhist pilgrimage, as the discovery of *tsatsas* has confirmed. As we will see shortly, Tibetan tradition still preserved the memory of Barikot in pre-modern times.

The site is known as Bazira or Beira in the sources of the Alexandrians, this being the phonetic transcription of the toponym known in the Sanskrit/Prakrit diglossia as Vajra/Vāira, “diamond, thunderbolt” which is the ancient name of the settlement, perhaps referring to the acropolis, whose distinctive shape stands isolated in the Swat valley plain. The toponym is not well attested in later phases, but its reappearance in the Late Antique tradition up to present times (Bir, Bari-) testifies to its long continuity. We do, however, have an inscription from a stone bowl (a relic container) (CKI 404; Salomon 2000) which mentions a toponym, Vajrakūḍa (Vajrakūṭa), (“the Vajra peak”) which in my opinion can be associated with Bazira/Vajra-Beira/Vāira i.e., Barikot (see Baums 2019: 169-70). The latter is mentioned as Vajrasthāna (“the fortified place of Vajra”) in a Shahi-era inscription found on the acropolis of Barikot and now in the Lahore Museum (LM 119) (see the contribution of O. von Hinüber in Olivieri 2020a). Finally, in a 15<sup>th</sup>-century Tibetan text (*The Blue Annals*), Barikot is not only recorded as the main centre of Tantra teaching in Swat and its surroundings, but also as a city, maybe a capital town, certainly a residence of the famous king Indrabhuti, the mentor of the sadhu Padmasambhava, known as Guru Rimpoche in the Himalayas. In the text, Buddha himself makes a prophecy about king Indrabhuti, whose seat was located “In the Northern quarter, in Śrī-Vajrasthāna, Oḍḍiyāna [Swat]” (Roerich 1949: 361).<sup>5</sup> The fortunes of the Vajrasthāna toponym in the Ghaznavid and Ghurid epochs will be discussed by Matteo Sesana in a forthcoming article.

The archaeological information reported in the following pages gives a greatly enlarged picture, and illustrates the site’s importance for the earliest stages of Buddhism in the region.<sup>6</sup> What is certain is that from the earliest historical stages, the ancient city and Buddhist culture were interconnected: the history and antiquity of Building H in Trench BKG 16 testify to this.

LMO

## EXCAVATION REPORTS

### *The Excavation Season 2021-2022*

At the end of October 2021, when the ISMEO-Ca’ Foscari Italian Archaeological Mission fieldwork on the city’s acropolis was coming to an end, L.M. Olivieri, the Mission’s Director, with the permission of Dr Abdul Samad Director DOAM, started exploring a series of looters’ trenches in the central area of the ancient city, in the land recently acquired by the provincial archaeological authorities (Figs 5-6).

Our excavation trench was named BKG 16. The excavation area is located a few dozen meters from what was the city’s main religious monument, a stupa with a stuccoed and red-painted podium with a reconstructed diameter of about 20 meters. This

<sup>5</sup> Curiously, the toponym is absent in Wylie 1957

<sup>6</sup> Buddhist sources mention a city called Sthūlakoṣṭha, translated as “the Granary,” which in the past was identified by P.G. Bagchi with Barikot/Bazira. This was the city where the Śunga king Puṣyamitra was defeated by two kings (Indo-Greeks?), who were protectors of Buddhism and where earlier the mother of the mythical Oḍḍiyāna king Uttarasena, a contemporary of the historical Buddha, was said to have converted to Buddhism (Coloru, in press).



Fig. 5 - Overhead view of the central area of the city showing the position of the trenches.

monument, largely vandalized by clandestine excavations, which also took place between 2002 and 2009, is now hidden by the foundations of a high voltage pylon. The remains of the monument, still visible in a photograph from 1938 (but strangely unnoticed at the time; Fig. 7), were seen by archaeologists of the Italian Mission during the excavation of the pylon foundations in 1990.

Soon after we started our work in BKG16, we saw the whole flat-grounded site was disturbed by large and deep robbers' pits and trenches. We were initially perplexed by the difficulty of delimiting such activities, and we soon discovered, to our surprise, that those boundaries invisible on the terrain actually corresponded to the ancient structures: the entire area had been

an open-area illegal "mine" and emptied of its ancient stratigraphic accumulations. The scale of the destruction was unexpected.

What we had guessed from early observations of the terrain was to us first confirmed by some eyewitnesses present in the area before 2010 (the area at that time was known to be within the walls of an archaeological site) and ultimately by the archaeological excavation itself: the flat surface of BKG16, as it appeared at the beginning of our operations, had been artificially shaped by levelling of the ground with a bulldozer. The bulldozer soil levelling allowed the robbers to determine the presence and the arrangement of the walls on the site (in some other areas, at this stage, coins were searched for and found with metal detectors). This action erased all the later stratigraphic accumulations and razed most of the structures of periods 8-9, flattening also the topmost portion of the temple, and cutting Section NW. The architectural spaces that had been identified were then cleared: the thieves obviously had the intention to reach the "Gandharan layers," and in doing so, they quickly got rid of the superimpositions of the later periods. Inside and outside the "*temenos*" (i.e., the Periods 6-9 precinct) the thieves stopped digging only when faced with layer (320), thus successfully destroying the entire stratigraphic record. This alluvium context, known in several other areas of the site of Barikot,<sup>7</sup> for such clear

<sup>7</sup> See for instance Olivieri et al. 2019.





Fig. 6 - Six images of the site over time: 2006, 2009, 2010, 2011, 2017, 2022 (from left to right, top to bottom). © GoogleEarth photo.

features as its deep yellow colour and compactness, was impossible to miss, and it thus guided the thieves to their final goal (their knowledge apparently led them to believe that (320) was sterile subsoil). The workforce employed by the robbers was large, and it probably operated in winter or on rainy days (evidently not during the dry season)<sup>8</sup> to avoid being observed and possibly for the same reason to keep up with a tight schedule, also operated at night. We have observed that sometimes the terrain was first tunnelled in order to “explore” new areas and, if necessary, afterwards entirely opened to the sky (for instance, so that heavy loads, such as statues,

<sup>8</sup> Numerous layers of mud wash were seen during the removal of the robber’s backfills, sealing a “day’s work.” It might be a sign of this also that several cough syrup bottles were retrieved during the same operation.



Fig. 7 - A 1938 view from SSE of the Barikot hill (after Barger, Wright 1941: pl. 1.2). The vertical arrow marks the position of a larger stupa.

could be removed).<sup>9</sup> At the end of their operation, the robbers started their backfill. This was undertaken with method and purpose: drystone walls were always built between the ancient structures in order to contain the discharged material and ease the filling of the emptied spaces. It seems that the robbers' intention was to cover their traces, and seemingly to allow the exploitation of the area in the aftermath of the furtive action.<sup>10</sup>

Once the pits were emptied and the intact archaeological levels were reached, the excavation of BKG 16 revealed a very interesting monument preserved, despite vandalism, for over three meters in height. The monument was partly covered by an unfinished, partially unsafe, modern building. During the excavation (as seen in Figs 8-9) part of this building, with the permission of the DOAM, was gradually demolished, both to expose the area and for safety reasons (Figs 8-13).

The monument (Building H) has an apsidal podium on which stands a cylindrical cell, open to the W, that housed a small stupa. The monument is located inside a rectangular precinct (also open to the W). At the sides of the monument are minor monuments. The staircase leading to the cell has been reconstructed in three phases, the most recent dating to the 2<sup>nd</sup>-3<sup>rd</sup> centuries CE, contemporary with a series of rooms in the form of a pronaos leading to an entrance that opened onto a public courtyard over-

<sup>9</sup> Remains of tunnels were seen (dug, opened and then backfilled). A set of four D batteries, likely used for a powerful torch, were found in the backfill. Our eyewitnesses related that life-size stone statues had been lifted from the site.

<sup>10</sup> Many such structures were always recognized, as the excavation consistently followed a stratigraphic methodology, but we decided not to document them in detail.





Fig. 8 - Six images of the site over time: October-November 2022 (from left to right, top to bottom).

looking an ancient road, probably one of the main roads that led from one of the city gates to the ancient city centre (see Trench BKG 18) (Fig. 12). In total, 9 structural periods (Periods 1-9) have been identified, some of them subdivided into phases (e.g., Phase 6.1). Each period is associated with a Macrophase on the basis of relative and absolute datings.<sup>11</sup> Illustrations of each period are given by means of a combined structural plan (see Pl. I-II) and phase plans (following Pls).

<sup>11</sup> For sequence of Macro-phases and charts see Olivieri 2020a.



Fig. 9 - Six images of the site over time: November-December 2022 (from left to right, top to bottom).



Fig. 10 - The BKG 16 trench at the start of work (view from the N). The edges of the illegal excavation pits are clearly visible.





Fig. 11 - The largest pit at the W limit of the trench (actually several intercutting pits dug at different times).

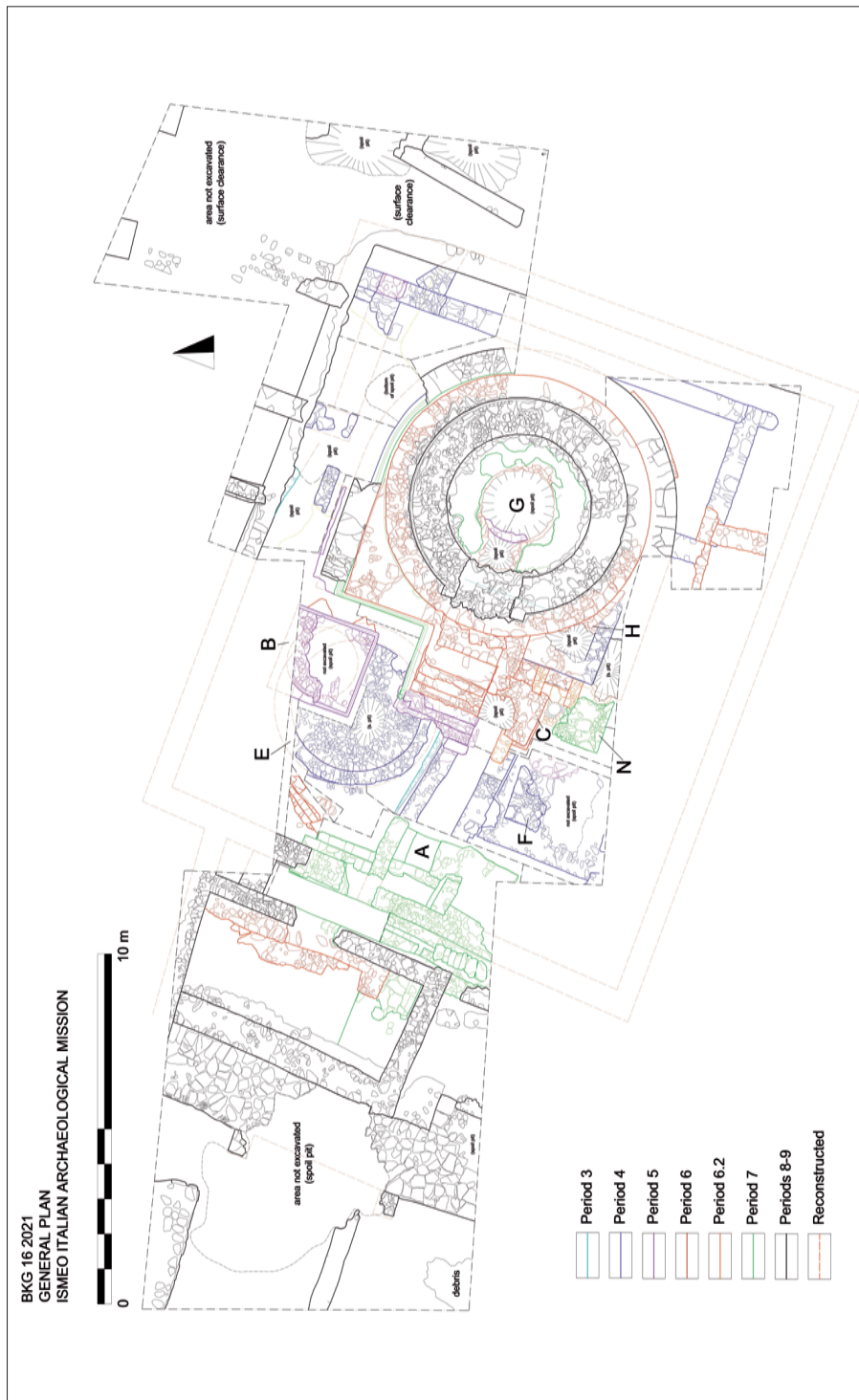


Fig. 12 - Pits and rough walls left by illegal diggers at the E limit of the trench.





BKG 16: orthophoto. Photo by MIM.



BKG 16: combined structural plan. Drawings by MM.



Fig. 13 - Aerial view of BKG 16 (N at the bottom).

LMO, EI and MM

### *Trench BKG 16*

#### Period 1 (Macrophase 0)

Phase 1 was documented within trial trench TT 16; it was excavated in the N sector of the trench (Fig. 14) thanks to the discovery of a single anthropogenic surface (503), reached at depth -9.10, on which a fragment of an unfired brick (c. 0.25/0.30/0.10) with ash and traces of combustion on top and around it was found, together with a sub-globular lithic fragment (BKG 8233) interpretable as a tool. Flotation of the clay from the brick did not reveal the presence of seeds to be processed for dating.

#### Interphase 2

In trial trench TT 16 a thick of abandonment phase was documented, characterized by sterile alluvium layers devoid of organic inclusions, alternating between lenses with crushed stone and sand.

The stratigraphic top of Interphase 2 is not intercepted by structures in the Northern part of the trench and in fact constitutes the surface on which structures related to





Fig. 14 - TT 16. Left: the period 1 surface (503); right: TT16 during the dig.

Period 4 are built in this sector. In locus BKG 1614 the stratigraphic top of Interphase 2 is represented by layer (431) and the two preceding layers (433) and (432). On layer (431) rests wall [270] that belongs to Period 3.

### Period 3 (Macrophases 1-2; Pl. III)

A clear structural phase was documented at two sectors in the trench, at loci named BKG 1614/BKG 167 W and BKG 1615/BKG 167 E. At both loci, the structural phase is characterized by regular wall structures built with horizontal slabs bonded with clay-based mortar, possibly with purified clay-based plasters.

#### Phase 3.1 (Macrophase 1)

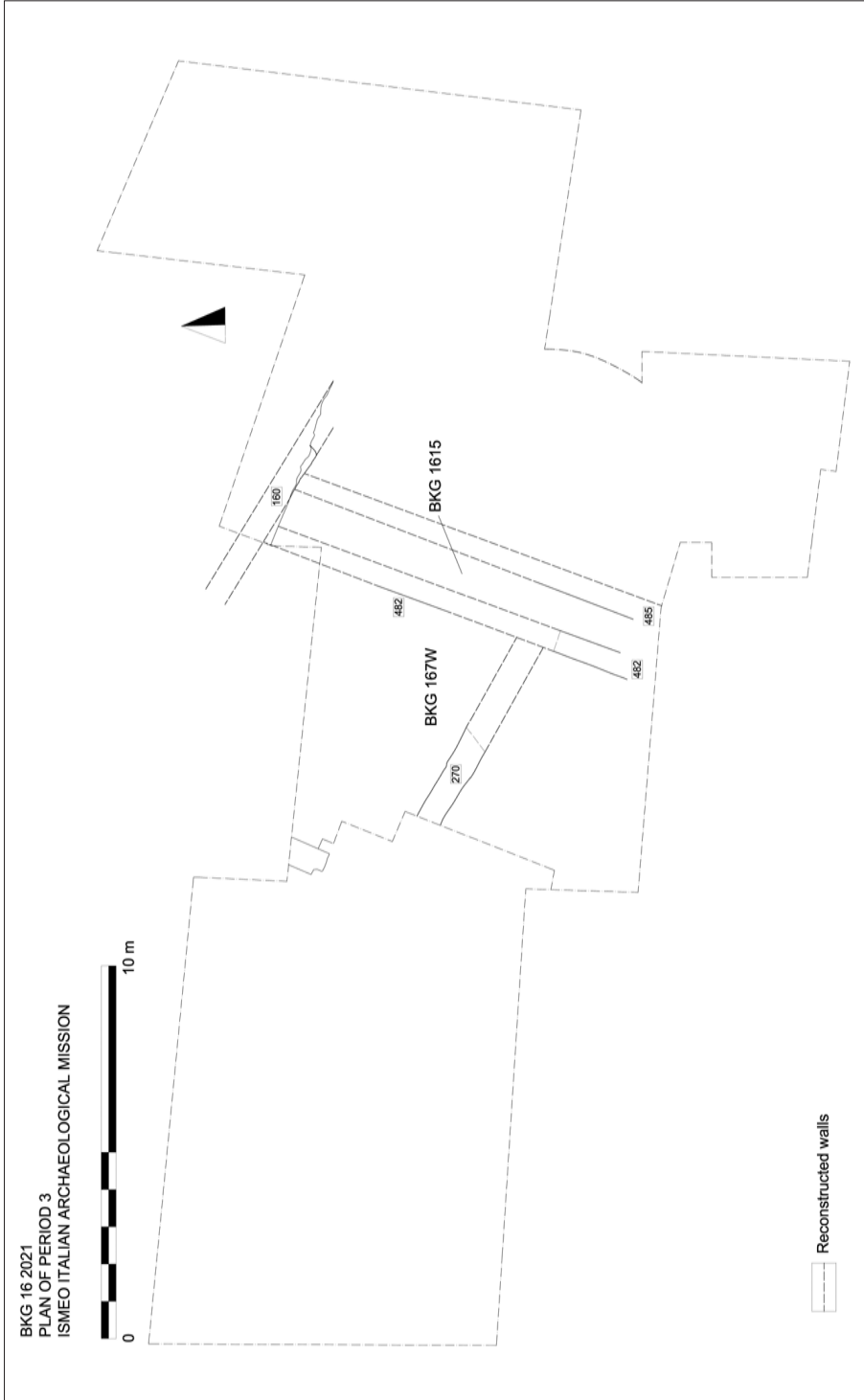
In BKG 1614/BKG 167 W an E-W wall [270] preserved for about 2.5 m was identified. Wall [270] is built on layer (431) at -6.91 and is preserved to -4.58 (Fig. 15).

In BKG 1615/BKG 167 E two parallel N-S walls were identified: at W [482], at E [485], which by characteristics and elevations can be associated with the same phase as [270] in BKG 1614. A stretch of [482] was also revealed in the BKG 167 E locus (see Period 4). In this locus it was not possible to excavate down. The razed wall surfaces were documented at -4.51 and -4.87, respectively (Fig. 17c).

In sector SE (Fig. 17), to the clayey floor (431) correspond to floors (757) and (759) at -7.11 and -7.16. On these layers rests a collapse of clay blocks [758] probably belonging to structures located outside the limits of the trench (Fig. 16d).

#### Phase 3.2 (Macrophase 1)

In BKG 1614, layer (431) is covered by two anthropogenic layers (427a) and (427b), which can be interpreted as the levelling of the inner floor sealed by a trampled surface (426) on which a clay hearth [425] and the low N-S wall [417] that closes the locus to the E are built. The floor (426) is covered by two layers (in stratigraphic progression): (424), (423). The latter represents the last floor before the abandonment of the hearth [425].



BKG 16: Period 3. Drawings by MM.



Fig. 15 - BKG 1614: Period 3; note that in Figs 15b-d, N is on the right.

#### Period 4 (Macrophase 2b-3a; Pl. IV)

Structural Period 4 concerns the reuse of structures from the previous period and the construction of a larger and more complex structure referred to as Building H. It is unclear whether the earlier structures were all well visible and above ground, although based on the limited excavation evidence this seems likely. One clear point, however, is that Building H was built on a steep slope or escarpment sloping to the S.





Fig. 16 - BKG 16 SE: Period 3 (walls of Periods 3-4).

#### Phase 4.1 (Macrophase 2b)

Documented in BKG 1614, BKG 167 and in BKG 1615. Two accumulation layers (416) and (414) are documented in BKG 1614: the former has the characteristics of

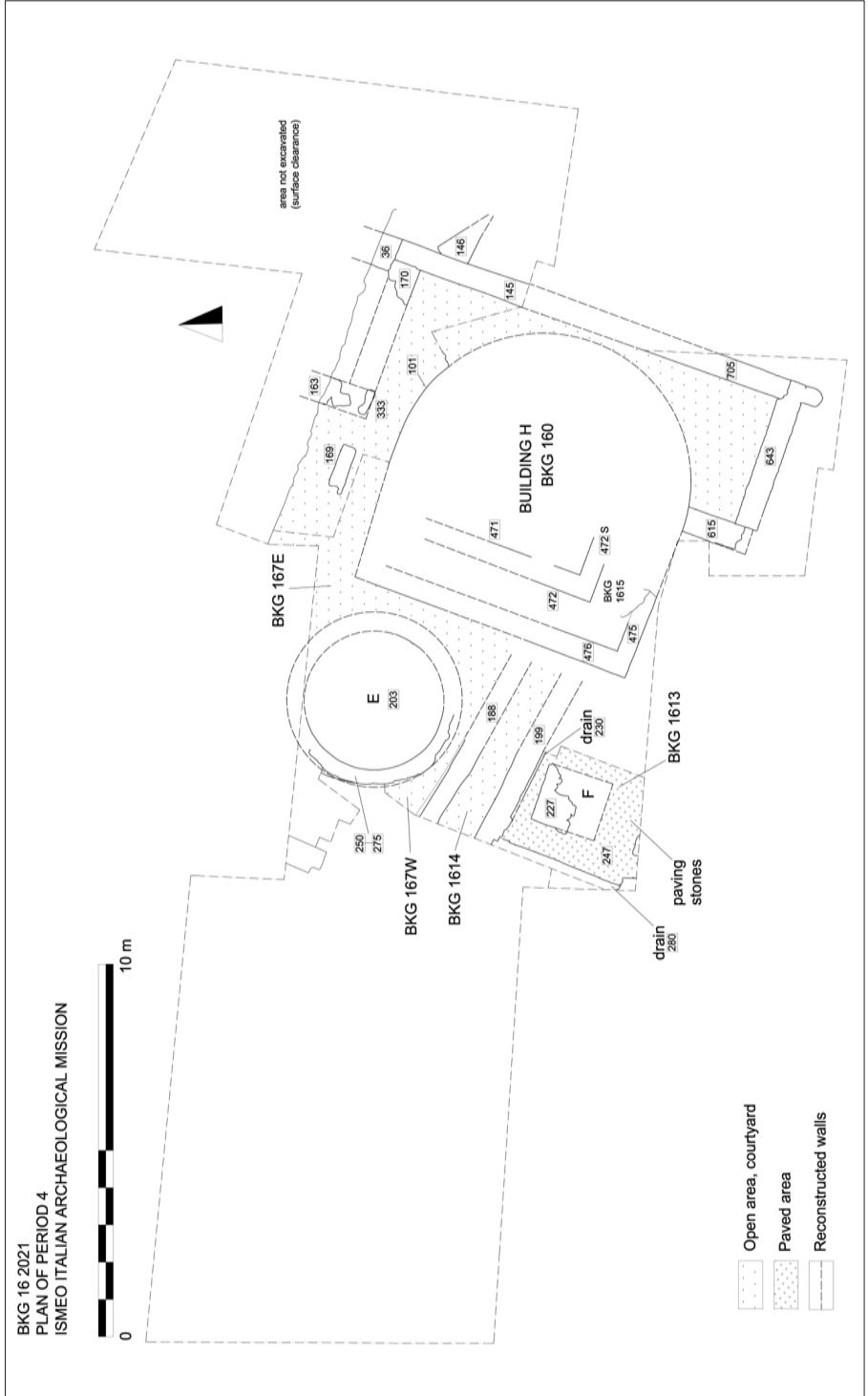




Fig. 17 - On the left two views of BKG 1614: a: (412), d: (408); b: BKG 167 E (406); d: BKG 167 E: wall [476] at the level of (406).

an abandonment layer, the latter appears to be a heavily manipulated work surface, characterised by many scattered stones, which have also accumulated on the surface. Layer (414) can be interpreted as the first anthropic layer associated with the building





BKG 16: Period 4. Drawings by MM.

activity that later characterised Period 4.<sup>12</sup> From layer (414) comes a copper alloy “Taxila-Gandhāra” coin (BKG 7743), the upper fragment of a pottery censer (BKG 7773) and a small fragment of white mica. Floor (414) is covered by four layers of fill, with scattered stones, connected to the first construction phases of Period 4: (413), (412)<sup>13</sup>, (411)<sup>14</sup> and (410)<sup>15</sup> (Fig. 17a). On top of this, at -4.93 rests the wall [199]. Opposite is still visible wall [270] on whose razed surface at -4.57, wall [182]-[128] is erected. The main difference of these Period 4 walls from the earlier ones mainly concerns the use of small pebbles and blocks and thicker slabs and not only partially worked slabs placed horizontally. From this point BKG 1614 takes on the characteristics of a corridor between two walls. The stratigraphy documented above (410) comprises artificial fill layer (409) and the gravel trampled surface (408) at -4.65, corresponding to layer (271) (-4.60/-4.58), which corresponds to the footing of Stupa E (see below) unearthed in the adjacent BKG 167 W (Fig. 16). From layer (408) comes a bronze pin with a disc head (BKG 7551).

Locus BKG 167 W corresponds to a portion of an open area within which is set the construction of a solid circular building (henceforth: Stupa E) whose base [275] is built from -5.09/-5.13 on the clay plane (415) (Fig. 17). The base was built above ground, and subsequently filled in with layers (278) and (271) at -4.58. At this same elevation corresponds the razed surface of wall [270] on which wall [188]-[128] is built. A second circular structure [203] corresponding to the *medhi* of Stupa E is erected on the base [275]. The interior of [203] is disturbed by a deep shaft excavated during recent illegal excavations.

To the E of BKG 1614, in locus BKG 1615, on walls [482] (razed surface -4.51) and [485] (razed surface -4.87) were built walls [475]-[476] and [472]-[472 S], respectively. Again, the Period 4 walls have small blocks and cobbles as well as thicker and better worked slabs (see Fig. 18b). After construction of the walls, the interior space is increased with three layers (483), (481) and (473). The latter (at -4.17) certainly corresponds to the last preserved floor level in this locus, the overlying stratigraphy having been removed by recent illegal excavations. Flotation of layer (473) returned 1 pomegranate peel fragment and 1 grape seed. Other grains from (473) are directly dated to 290-209 BCE 1 $\sigma$  66% – 400-196 BCE 2 $\sigma$  99%. Seeds from (485) provided a direct date of 288-227 BCE 1 $\sigma$  56% – 322-200 BCE 2 $\sigma$  99.6% (the complete set of radiocarbon data will be published by Fabio Marzaioli, Isabella Passariello and Filippo Terrasi in a forthcoming contribution). The stratigraphic events concerning this locus (related to Period 5) were reconstructed thanks to the section left by the modern pit.

Raised walls [474]-[475] and [472]-[472 S] are part of a larger and more complex structure referred to as Building H. The plan of this is known from a series of sound-

<sup>12</sup> From (414) we obtained only a good 2 $\sigma$  reliability, which gave the assumed date 384-195 99% 2 $\sigma$  (see below). It should be noted, however, that the ‘Taxila-Gandhāra’ coins are tentatively dated by numismatists to 185-160 BC).

<sup>13</sup> The layer is partly contaminated, probably by rodents or ants; flotation revealed the presence of a small bone, modern seeds, and a dung pellet (carbonized, ancient).

<sup>14</sup> The layer is partly contaminated, probably by rodents or ants; flotation revealed the presence of modern seeds and insect galls (carbonized, ancient).

<sup>15</sup> The layer is partly contaminated, probably by rodents or ants; flotation revealed the presence of many modern seeds including legumes, and other types.



Fig. 18 - BKG 16; a: a view of Stupa E and BKG 1614 (Period 4); b: BKG 1615, the overlapping structures and the evidence of the Period 6 stone filling. Bottom: Stupa E and neighbouring structures.

ings and partial exposures that covered at least three sides of it. The structure consists of a central building with an apsidal plan with a rectilinear front on the W side and a curvilinear course on the E side. Building H is enclosed, at least at the rear, by a small



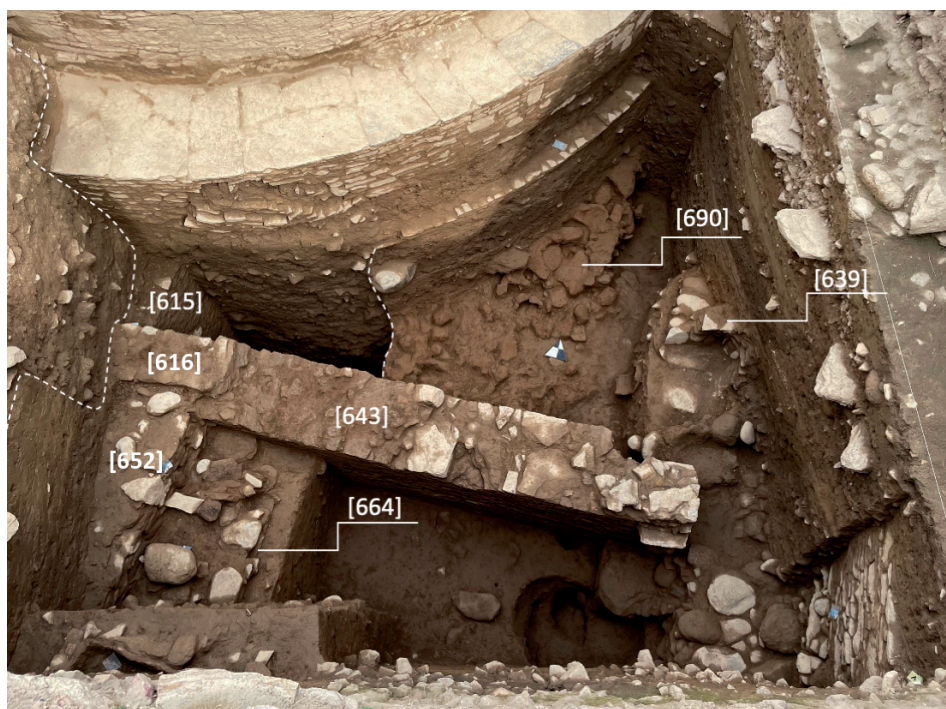


Fig. 19 - BKG 16 SE: General view of structure of Periods 4-6.

rectangular precinct (a kind of transverse rectangular aisle). The building is located within a rectangular enclosure uncovered to the S [643], E [705]- [145] and N [170] of Building H. Due to the N-S sloping surface, in the SE sector the enclosure's walls [643]-[705] were provided with a solid ledged base (h. c. 1.05) resting directly on Phase 3 floors (757) and (759). The internal floor of the enclosure is layer (714) (depth -5.75), that is the uppermost of a series of filling layers artificially placed to level the inner surface of the enclosure. To the S, outside the enclosure, is an external irregular trampled surface (753) at a lower level (at -6.74) (Fig. 19).

The filling layers are mostly dark loose accumulation layers rich in ashes, with a high concentration of potsherds, especially from cooking pots and serving vessels, fragments of tander, animal bones particularly frequent in layer (715), and few medium-sized stones. Among the finds coming from these layers are (from bottom up): a small perforated terracotta figurine representing a zebu (BKG 8374) from layer (752); a female terracotta figurine of the *Channavira*-type (BKG 8335), the upper part of a terracotta incense burner decorated with two embossed female heads with hair ornaments (BKG 8336), part of a basin with flat bi-everted rim surmounted by one tiny circular "saucer" lamp (BKG 8344), and an arrowhead (BKG 8366) coming from a refuse layer rich in ash and seeds (722); a fragment of a small schist casket (BKG 8333) from layer (717); a krater-like vessel with handle (BKG 8370), a female terracotta figurine of the *Channavira*-type (BKG 8334), a single-moulded female terracotta figurine (BKG 8338), black-on-red painted dishes with triangular rim (BKG 8341, BKG 8345), and a dish with golden slip on the external surface (BKG 8340) coming from layer (715).

On the later floor (711) inside the enclosure lies an accumulation layer (707) in which an arrowhead (BKG 8279) and a dagger-shaped pendant (BKG 8317) decorated with three incised circles with dots in the middle (Cf. Taxila, see Marshall 1950-51, pl. 199 n.14) were found.<sup>16</sup> Outside the enclosure there are a series of thinner irregular surfaces alternating with layers of ash and accumulation layers. Two of them, (716) and (718), contained conspicuous fragments of white mica.

It should not be further emphasized how partial the data are, both because of the recent damage to the area, which has been affected by extensive clandestine excavations, and because of the complicated structural history and relative overlapping of masonry structures. Nevertheless, the elements collected are sufficient to propose a reconstructive hypothesis. The apsidal Building H was built partly by exploiting pre-existing structures and partly by constructing new ones.<sup>17</sup> Structures [476] and [475] represent the W and S sides, respectively, of Building H (see Figs. 20, 21). Of wall [474] we know the elevation of the S ledge (-4.51), which rests on the Period 3 structure [482]. On the opposite side, to the N, the starting level of [474], which again rests on [482], is at a higher elevation (-3.63) corresponding with the preserved upper part of the widening of Stupa D. This rests on floor (406) (-4.15), which corresponds to an external walking surface located between Building H and Stupa D (referred to as BKG 167 E) in structural phase 4.2 (see below). No excavation was conducted below this due to space limitations. The situation illustrated shows that when Building H was built the pre-existing outer wall [482] was still visible and was simply raised. The visible difference in masonry technique was perhaps masked by a clay-based plaster.

#### Phase 4.2 (Macrophase 3a?)

The widening of Stupa E with the belt [250], which is documented in both BKG 167 W and BKG 167 E, should be placed in this phase. Belt [250] rests directly on the foundation of Stupa E [275] (Fig. 18, bottom). This corresponds to the outer floor (262) in which two post holes are preserved (at -4.43). At this stage a doorway between BKG 167 W and BKG 1614 was functional (threshold [219] at -4.15). The difference in elevation between (262) and [219] corresponds to slightly more than one standard elevation. The threshold in BKG 1614 gave access to floors of which certainly the last was (252) (at -4.17). A small above-ground stretch of wall [199] remained visible at this stage, while the rest was covered by (252). From floor (252) came a small fragment of white mica. Thus, from Corridor BKG 1614 there was easy access to the area BKG 1613 located immediately S of the corridor. BKG 1613 is characterized by a raised [247] paved floor of which two sides are known, both flanked by masonry

<sup>16</sup> In November 2022, during conservation work in this sector of the excavation area (see note below) at -4.20 (i.e., on the layer covering (711)?), a billon drachma of Menander I Soter (BKG 8984) was found [LMO].

<sup>17</sup> In November 2022, part of the structure [654], i.e., the late bench-like structure (a horseshoe-shaped raised platform) built in Period 7 around Building H, had to be dismantled during conservation work. The structure was at risk of collapse due to an underlying cavity left by illegal diggers. In this way, a number of structural issues were clarified. 1) The apsidal wall [475] was built without a foundation pit, directly on the ground, here reinforced with tiny sherds, at -5.20. 2) At only one point is wall [475] built on top of a pot that contained ashes and charred material, intentionally left there. 3) Immediately above the foundation level, the E side of the original apsidal wall [475] ([475a]) was built against the older portion of wall [615] ([615a]), a Period 3 wall that was used in Period 4 as a structural part of Building H. 4) In Period 4.2 (here corresponding to -4.80) the layout changes: the most recent elevation of [615] ([615b]) ends against the elevation of the apsidal wall [475] ([475b]) [LMO].





Fig. 20 - Excavation in BKG 1615.

drainage channels: the N side, parallel to the top of the wall [199] bordered by channel [230] and the W side bordered by channel [280]. On the floor [247] at -4.08 rises a square podium [227] preserved to -3.60, possibly a column base (Base F).



Fig. 21a - Two views of sector BKG 167 during the excavation of Periods 5-6 (top) and 6-7 (bottom) structures.

The oldest external floor between Building H and Stupa D in locus BKG 167 E is floor (406) (-4.15). Layer (406) is characterized by ash accumulations sealed by the presence of water and small concentrations of baked clay suggesting remnants of perhaps cultic activities. Layer (406) is covered by layers (405) (-3.96) and (403), the





Fig. 21b - Two views of sector BKG 167 during the excavation of Period 3 (top) and 4 (bottom) structures.

latter corresponding to the preserved top of the widening [250] of Stupa D (here -3.63) and corresponding to the hiatus between this structural period and the next.

In the absence of structural contiguity and on the basis of the elevations, we can preliminarily attribute to this phase some changes in the internal structure of Building



H. As we have seen, on the same alignment as [472] is wall [471], a poorly preserved portion of which was found to the N by excavating the final intact part of the hole left by recent illegal excavations inside Building H. Wall [471], characterized by horizontal slabs, has a stretch at -4.08 (thus confirming that it is a different structure from [472]) resting on top of a layer of yellowish soil devoid of inclusions (462). This is covered by the beaten dark clay floor (456) (-3.98), which corresponds to the interior floor of Building H in this structural period. On top of (456) were found the anthropomorphic terracotta figurine BKG 7938 and the grey pottery *patera* fragment with black slip BKG 7939 (see Pl. XIXg). Flotation of (456) yielded 208 charred cotton seeds, 1 pomegranate peel fragment, 1 grape seed, and 3 *Ziziphus nummularia* seeds. Given the limited space, it was not possible to distinguish the subsequent floors of Period 4, which were documented with a collective number (452) (up to -2.89), the top of which corresponds to the floor on which, in Period 5, a small base built in the centre of Building H at -2.89 is set (Stupa G, see below). Seeds from (452) provided a direct date of 3-84 CE 1 $\sigma$  68% – 54-204 CE 2 $\sigma$  99% (see above).

#### Phase 4.3 (Macrophase 3b)

At this stage the excavation of the now unified area BKG 1614-1613 revealed a series of trampling layers placed over the artificial fill (252) (the top of which is at -4.17) up to layer (224), covered by a stucco lens (223)-(229), the top of which is at -3.58, and which can be considered the caesura between this and the later structural period. From this layer comes a conspicuous fragment of white mica (BKG 7671). In this phase the access between BKG 1614 and BKG 167 W is walled off ([218]).

#### Period 5 (Macrophase 3b-4; Pl. V)

This structural period shows substantial modifications to Building H, the complete obliteration of Corridor BKG 1614, the demolition of Base F and Stupa E, and then, on the razed surface of the latter, the construction of a new votive monument (Base B), of which a square podium survives on which a portion of a circular-plan structure is set. The latter, based on the ratio of side length to height, can be either interpreted as the surviving base of a masonry votive column (as in Pl. XIV.b), or as the base of a stupa (Figs. 21-22). In this period Building H was (on both the SE and NE sides) still partially surrounded by the walled precinct.

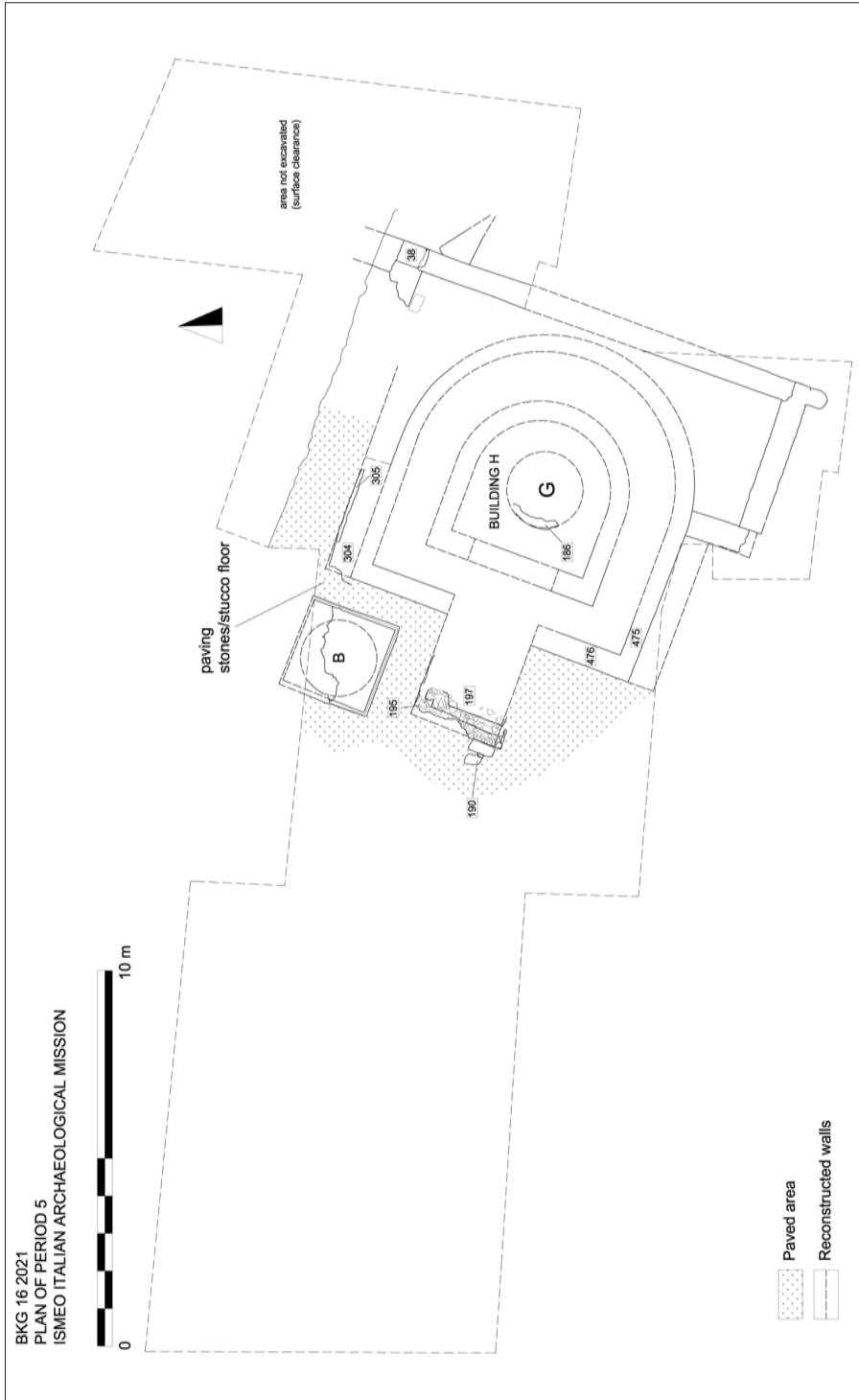
In sector SE, the accumulation layer (700) covering floor (703) -5.05, partially covers the enclosure's wall [705] (razed surface -4.93), while wall [643] remained visible (razed surface -3.68) and continued to delimit the area to the S. To this phase may correspond the external surface (713), at -5.50 – sloping towards the S – where a coin of Azes II was found (BKG 8329). The following accumulation layers (697), (695) and (693) completely obliterated wall [705]. All these layers are rich in pottery while other types of finds are rare.

The top of layer (693) at -4.50, with fired clay spots and charcoal stains on the surface, represents another floor.

#### Phase 5.1 (Macrophase 3b)

During this phase, Base F and Stupa E are demolished to gain space and construction material.

The low foundation of the new Base B rests partly directly on the razed surface resulting from the demolition of Stupa E, and partly on a filling plane (221)-(223) that



BKG 16: Period 5. Drawings by MM.



Fig. 22 - General view of Court 167 from SSW.

levelled the area after the demolition (-3.93/-3.91) (Figs. 21a-b). Base B has a high podium (*c.* 1.40 m) with a square base (*w. c.* 2.50 m) with a projecting slab string course, above which stands the circular body (*diam. c.* 2.00 m) of what could be either a small stupa or a column. The careful masonry features slabs with small blocks cushioned with clay-based mortar.

#### Phase 5.2 (Macrophase 4a)

The floor of Base B, which is shared with the entire BKG 167 Court is partially preserved (floor (283) at Building H, -3.63) has a paved part facing Building H. Only one slab remains of the paved floor [190], the rest having been cut by recent illegal excavations.

#### Phase 5.3 (Macrophase 4a)

Once the construction of Base B was completed, the first activity recorded in this phase concerns the construction of a low plinth [223]-[150] built at -3.55, on which a staircase is set, slightly retracted with four steps ([196a], which is poorly preserved, [196b], [195] and [197]) up to -2.92. The base of the staircase [223]-[150] is buried up to -3.49, which corresponds to the edge of the paved floor [190]. We have no other information: we can therefore imagine the existence of a long landing that gave access

to the interior of Building H. In this phase the external wall of Building H and the podium of base B were plastered.

Building H, i.e., Cell BKG 160, housed at its centre a small circular structure with a diameter of 2.00 m, certainly a stupa (Stupa G), of which a strip of the podium [186] has survived the havoc of illegal excavations, starting from -2.89, which corresponds to the summit elevation of the highest of the four steps of this phase that have been preserved (Fig. 23). A series of fragments of *chattravali* (umbrellas and spacers), including an umbrella with a diameter of 1.60 m, half of which is preserved, found in the fills of the holes left by the illegal excavations, may refer to both the summit structure of Stupa G and that of Base B. In terms of size, the 1.60 m diameter umbrella could be the largest umbrella of one as well as the other (Figs 24, 36).

The floor plan of Building H continues to be that reconstructed on the basis of the previous structural period, if one excludes the enlargement of the inner floor (up to -3.31/-2.90 as documented in the section of BKG 1615) and the consequent addition of a small staircase and a long landing leading to the inside of a cell (BKG 160) in the centre of which was Stupa G. We have no residual information on the floor plan of Cell BKG 160; it is probable that this had an apsidal plan and continued to use the previous walls [472] and [471], the latter modified to allow access to the cell itself.

#### Phase 5.4 (Macrophase 4b?)

The area in front of Building H (now called Court BKG 167) is thus larger and partially paved at -3.49. The further surviving portions of the floor plan show that this, beyond the part immediately facing the staircase ([190]), was of beaten earth and defined as a yellowish clay floor with traces of stucco and charcoal (165)<sup>18</sup>. This presents a somewhat variable elevation: -3.36 to the N where it covers the remains of Stupa E and flanks the elevation of Base B); -3.46 to the S where it covers the remains of the Base F area.

In the W sector of the trench, in locus BKG 168, was revealed a portion of a room that by elevation could be connected to Phase 5.2. Of the room (known also as Room M), which is oblong and parallel to the front of Building H, only the floor levels and part of the perimeter structures have been brought to light, but its structural relations with Court BKG 167 and Building H are unknown. However, it is important to define the elevation of the floor level (470) (-3.46), which is at the same level as the nearby Court BKG 167. Room M is bounded to the N by wall [422] with drain hole [465], to the E by a low wall [468]-[469], to the S by wall [434]. On floor (470) was found a bowl fragment with Kharoshthi inscriptions (BKG 7960), and accumulations of ash and stone slabs which are not easy to interpret (Fig. 25).

#### Period 6 (Macrophase 5a; Pl. VI)

In Period 6, Building H is enclosed in a rectangular enclosure (or precinct) open to the W. In this structural phase, further important structural changes occur to Building H and the area in front of it (Court BKG 167). The main changes are as follows: the artificial filling of the interior of Building H, which is transformed into a full podium incorporating Stupa G; the construction of a circular cell BKG 160 on the body

<sup>18</sup> The layer is partly contaminated probably by rodents or ants; flotation revealed the presence of modern seeds including oat, wheat husks, and melon seeds.





Fig. 23 - Two views of the remains of Stupa G. Top: the pit dug by the illegal diggers through the structure is clearly visible here. Bottom: the starting point of the drum of Stupa G.

of the podium and around Stupa G; the consequent raising of the staircase up to -1.60, which corresponds to the interior elevation in Cell BKG 160; the construction of a new, larger precinct around Building H (note that the position of Building H within the new precinct is not perfectly centred).



Fig. 24 - Remains of *chattravali* fragments.

In sector SE, Period 6 saw the demolition of a structure in fired/baked bricks [690] from Building H which may correspond to the upper part of the stone structures of the building (Fig. 19). The collapse of fired/baked bricks and another earlier layer of compact clay (692), that cover only the area immediately around Building H, lay on



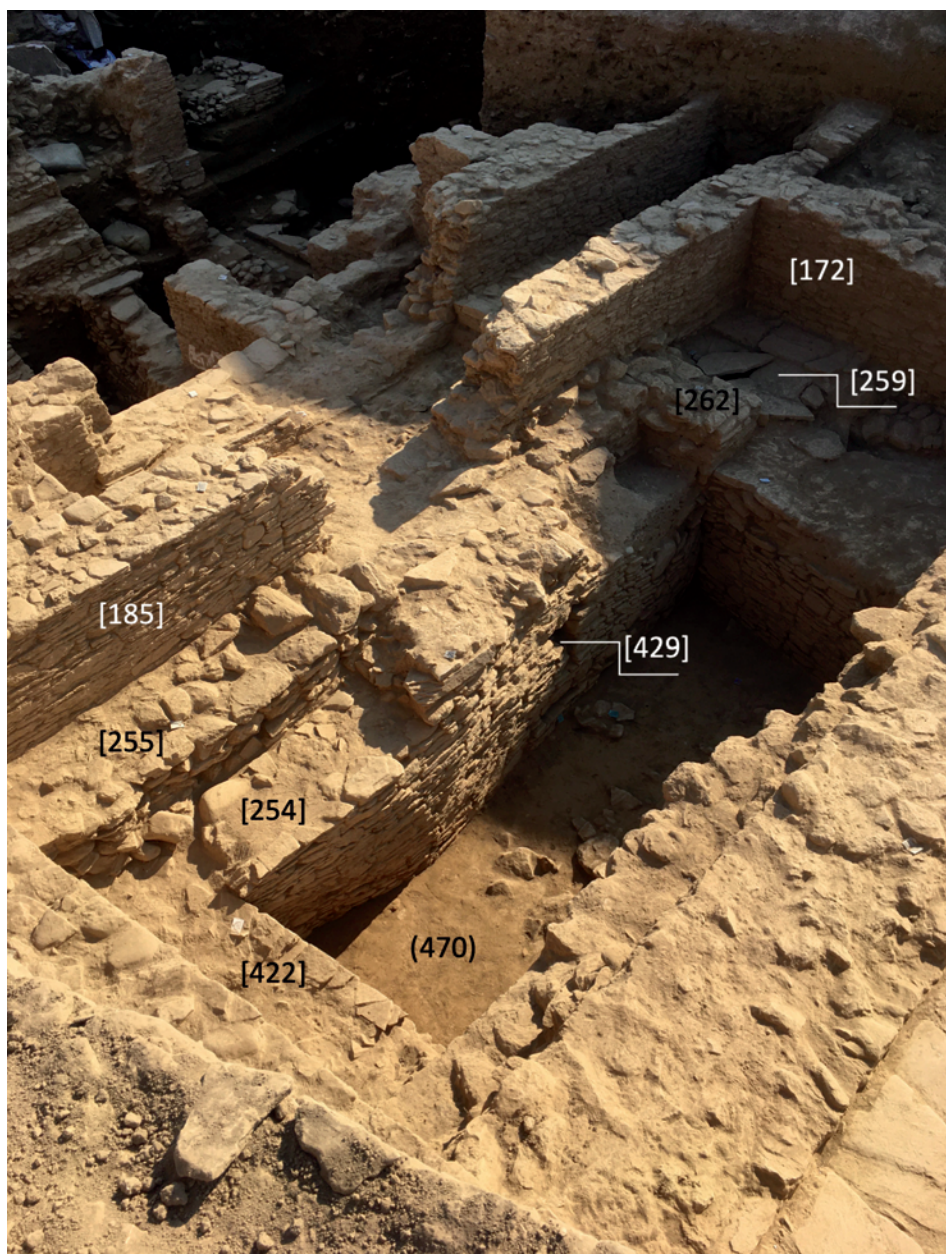
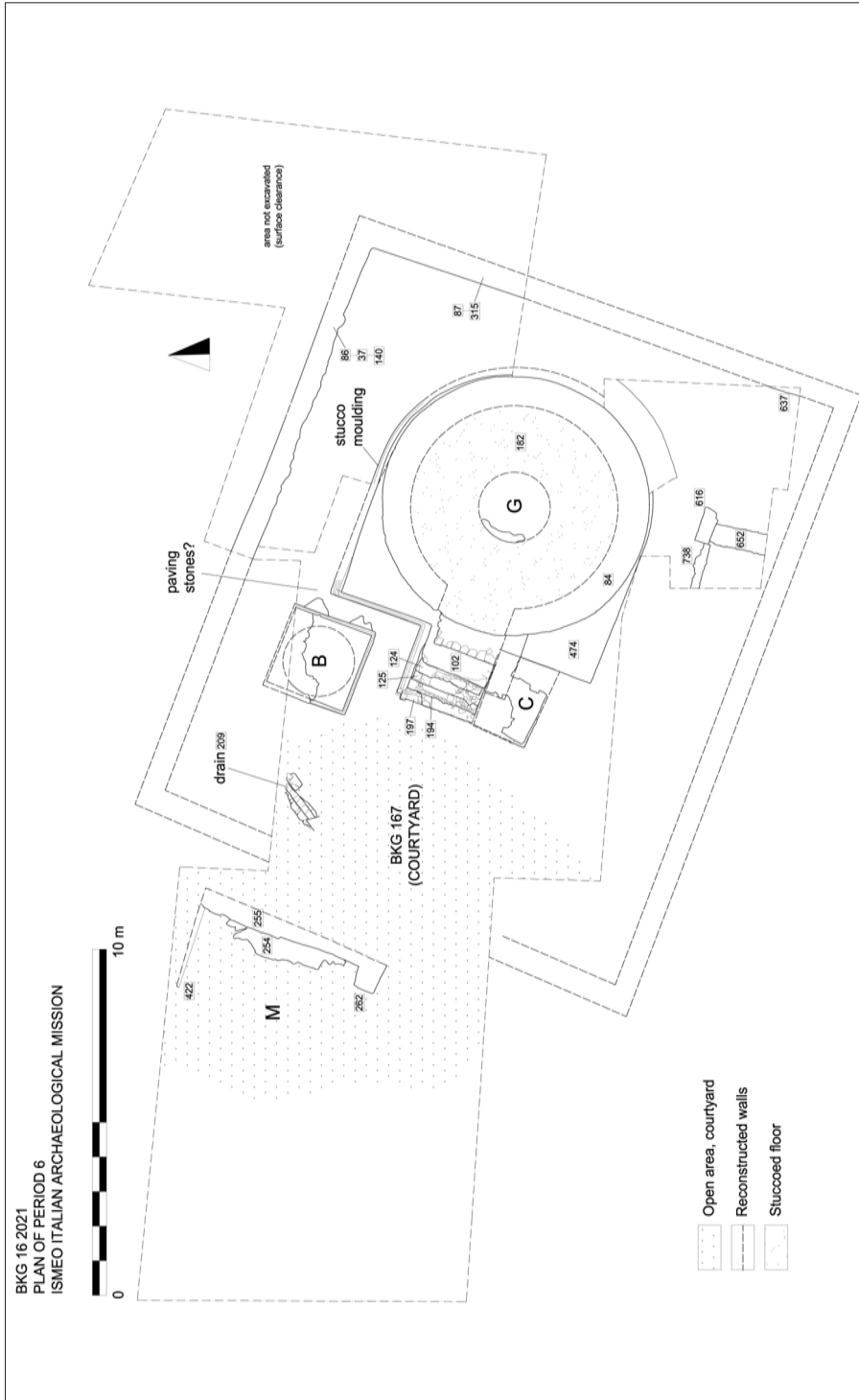


Fig. 25 - Room M in BKG 168.

layer (693) at average depth -4.50. Collapse [690] extends all over the surface to the N of [643] and is covered by accumulation layers connected to leftover or waste material from the reconstruction of Building H: (685) and (683) contain small fragments of pottery and stone chips of processing waste, (682) is a heap of well-arranged large and medium-sized slabs of schist, while (675) and (672) are more compact layers.





BKG 16: Period 6. Drawings by MM.



Fig. 26 - BKG 16 SE: end of Period 6.

The latter, with two large flat stones on top, represents the new floor (depth -3.98) of the area enclosed within the new precinct (Fig. 26). In this period walls [643]-[615] are still in function (visible for c. 0.25). Floor (672) is associated with a semicircular domed structure [639] (width 0.60; l. 0.30; h. max. 0.50) (Fig. 26) that goes under the E limit of the trench. The structure is made of stone and is covered internally by several patches of plaster. Adjacent to this, to the N, are three large pebbles placed in a row (l. max 0.30) and covered by a thick layer of fired clay [671]-[669]. To the extreme N of [643] is added a low wall [689], 0.53 wide, that leans against its S face and continues toward E where it is covered by the foundation of the later precinct wall [637]. This structure, topped by a large stone at its Western end, may indicate an entrance to an unexplored area. Structure [689] rests on floor (688), at -4.63, and is probably connected to structure [706], of which the N side was only partially detected below the foundation of the later wall [637] (see phase 7). The difference in level between (688) and (672) is explained by the artificial raising of the internal floor. From one of the accumulation layers (673) associated with this phase comes a pyramidal scale weight (BKG 8199) in green schist decorated at the edges with a row of bead-and-reel, ending with a lobate leaf.

In a later transitional phase (end of Period 6/beginning of Period 7?), room BKG 687 is created to the S by the construction of the NS wall [652] leaning against the S side of wall [643]. The elevation of the latter was increased through the construction of a rough short wall [616]. The first floor of room (670) BKG 687 was reached on a very limited surface. In the same phase, to the W of wall [652], resting on layer (744) at depth -3.93, is associated a fireplace delimited by pebbles.

In a following moment of the same transitional phase, in room BKG 687 a well-structured fireplace [664] is constructed against wall [652] in association with floor (666), depth -3.64 (Fig. 19).

Due to a large pit excavated by pillagers it is not possible to identify the floor of the new precinct [637].<sup>19</sup> Period 6 stratigraphy subsequent to the construction of the semicircular structure [639], to the N of wall [643] was also greatly disturbed. With this period is associated a series of accumulation layers that completely covered structures [643]-[615] and the semicircular structure (possibly a phase of reconstruction). The portion of layers that it was possible to excavate did not contain notable finds apart from two terracotta tokens for a *navakankari*-type board game in layer (667) that were also found in earlier Periods.

#### Phase 6.1 (Macrophase 5a)

The filling of the interior of Building H is demonstrated by two pieces of evidence. The most important is visible on two sides of the residual section left by the illegal excavation of a pit within BKG 1615. From -3.31/-2.90 (corresponding to the last accretion plane of Building H in Period 5) at least up to -2.25 (i.e., up to the preserved top of the corner formed by walls [476] and [475]), the entire space is filled with horizontally arranged stones (fill [474]). In effect, the entire Building H was filled in and transformed into a solid podium. On this new podium [95]-[101] a circular shrine (Cell BKG 160) with an unpreserved W entrance was built. The perimeter structure [84] has an external diameter of *c.* 7.0 m. Neither the thickness nor the internal diameter is known, since the structure was reduced and then covered by an aedicula, also circular but later. Inside Cell BKG 160, evidence of the transformation of Building H into a solid podium has also been documented: the top of the layer of stones (452bis [not to be confused with (452)]) (-2.17 to -1.67) constitutes the levelling of the stuccoed floor [182] of the cell of Building H in period 6 (see below). The stuccoed floor [182], with a mean elevation of -1.64/-1.62, effectively envelops the elevation of Stupa G at the height of the incipient curvature of the *anda*, as shown by the grouting at the circumference of the monument. The monument, with the exception of the base [186] of the podium, was completely removed by looters.

Within Period 6, the access staircase to Building H shows at least two clearly recognisable phases of structural alterations associated with a progressive increase of the external floor level in Court BKG 167. However, it must be said that the mean elevation of the floor level of Court BKG 167 in the two phases was deduced from structural elements, because the stratigraphy here has almost completely been obliterated by illegal excavations.

At this stage, the new staircase is built at -1.60. The raising of the staircase not only modifies the previous steps, but also enlarges the body of the staircase with the construction of, for example, the (clearly visible) external body N [144a], which in the upper part is linked with the new steps, while in the lower part it abuts the Period 5 steps. The lowest steps ([196a], [195]) are buried, with the new floor at -3.44. Step [197] is rebuilt, to which the new step [194] is attached; steps [125], [124], [102] and [81] are added up to -1.60, which corresponds to the internal elevation in cell BKG

<sup>19</sup> To the S of BKG 687, an inscribed sherd (BKG 8350) was found in deposit (730), which covers a surface (737) with a fireplace.



160. The cell threshold [80] corresponds to the maximum elevation of the perimeter wall [84] (-1.32) from which it would then be possible to excavate easily inside the cell (-1.62). Step [125] still had in situ part of a slab (stair riser) with part of a dedicatory inscription in Kharoshthi (BKG 7394); a stair riser with a second inscription (BKG 7493) was found reused in a Period 8 floor (see the contribution by Stefan Baums below).<sup>20</sup>

Near the S corner of the podium of Building H is a narrow space with what remains of an unclear structure formed by several walls, perhaps paved (a tank? from the N: [479], [478], [477]), which is excavated towards the S (-2.95/-2.90). A W-E masonry wall [228], placed alongside the steps, may also have been part of this.

#### Phase 6.2 (Macrophase 5a)

The outer floor of Court BKG 167 is raised to -3.18/-3.15; the first step is now [196b], the tread of which is reconstructed to accommodate the new floor. It is interesting that, in preparation for the moulding of the staircase body (and podium), a clearly visible additional body is constructed to the N [144b], built against [144a] (see above), with the torus, shell and lath moulding framework characteristic of this structural phase.

In fact, at this stage both the staircase body and the podium body of Building H are stuccoed with a torus, cavetto and fillet moulding. The same treatment is reserved at this stage for the podium of Base B. At this stage, the podium body of Building H is raised by incorporating the prominence of the perimeter masonry of Cell BKG 160 ([84]). In this same phase, the podium of Base B was also stuccoed in the same style. The stuccoing of the podium of Building H is repeated several times until the construction of the external paved bench (or socle) [99] in Period 8.

In this phase, abutting the S side of the older body of the steps of Building H (which here does not have an added body unlike the N side), a small accessory votive monument (perhaps a column base or pillar) Base C was also built, covering the small structure or pool and the structure [228]. Base C presents a prominence at -3.20 on which a square podium rises, preserved for approximately 1.30 m.

In BKG 167 NW, to the W of Base B is a raised masonry drain. The E shoulder of the drain ([209]) has a drainage hole towards BKG 167. Shoulder [209] rests on layer (168) at -3.16. Layer (168) is the only remaining edge of the floor in BKG 167 in this phase and corresponds to layer (282) in Court BKG 167 NE, between Base B and Building H.

In the area to the W of Court BKG 167, in BKG 168, over (470) (see Period 5), against [255] is built in Phase 6.2, wall [254] with drain hole [429]. In this period the limit of BKG 168 (former Room M of Period 5) is unknown. Three floor levels have been documented in correspondence with this in BKG 168 (Fig. 27a-b). From the oldest (457), at a mean elevation of -3.40, with a clay bench and an ash heap, comes 1 circular terracotta token for a *navakankari*-type board game, a writing object

<sup>20</sup> Stefan Baums, following the formula of the text (see below), rightly suggests that inscription BKG 7394 should have been to the right of or above inscription BKG 7393. Considering that BKG 7394 was found firmly attached to the left end of step [125] BKG 7393 should have been part of step [197] (which was the first step in Period 6). It is possible, however, that the two inscriptions were originally in the correct order mounted together as part of a single step in Period 5. Their date attributed to Period 5 would also seem to be tenable on palaeographic grounds (see Baums, below).

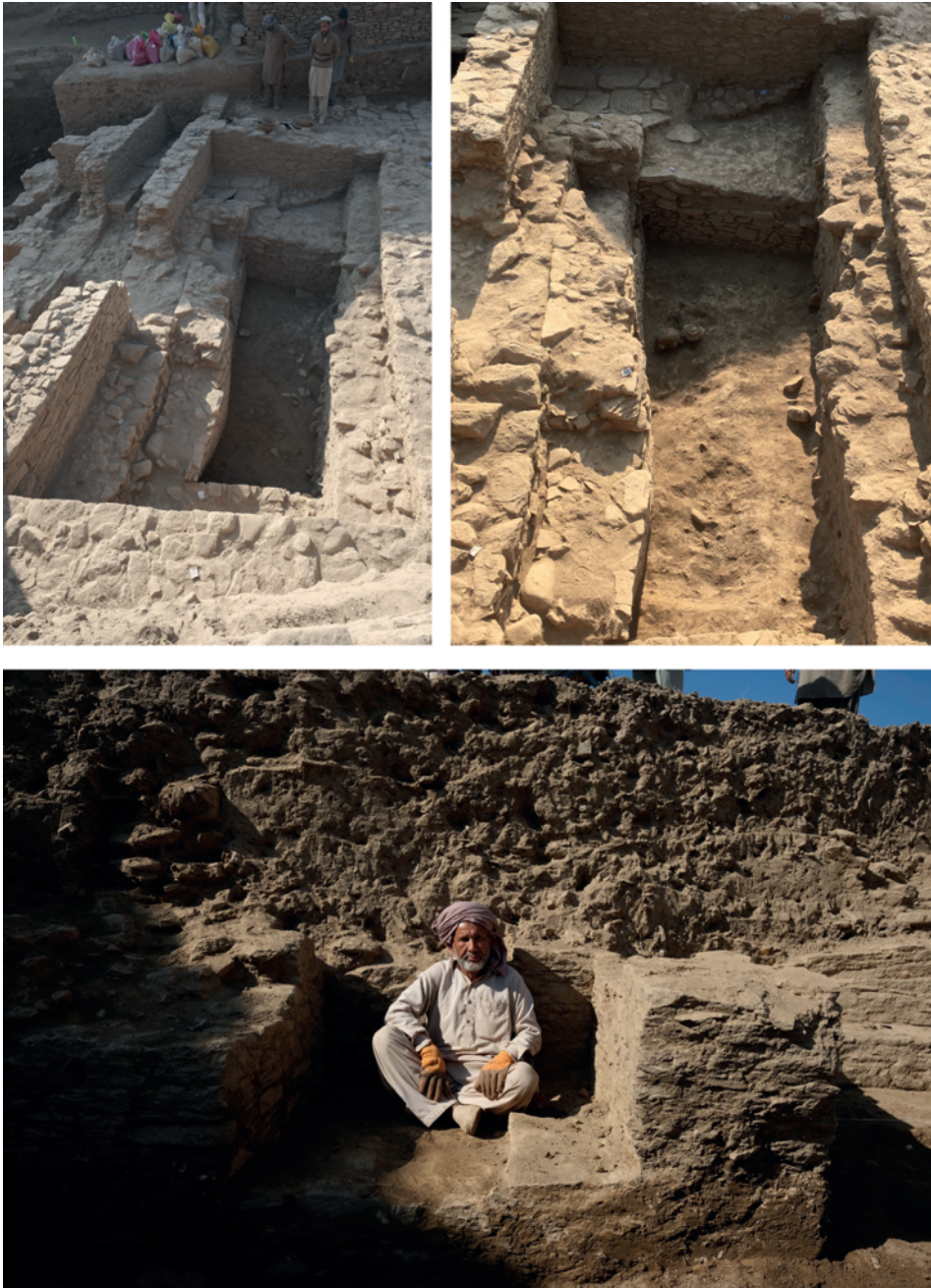


Fig. 27 - BKG 167: a: floor (457); b: floor (428). Bottom: Niche A.

(crayon) in red ochre (BKG 7984), a pottery lamp (type V 6), a Late Kushan copper alloy coin (BKG 7925); flotation of the deposit produced 93 charred cotton seeds and two fragments of pomegranate peel. Seeds from next floor (455) provided a

direct date of 110-250 CE  $1\sigma$  87%. From this floor, at a mean elevation of -3.37, came a repaired bowl in ancient dark grey ware (BKG 7979), a fineware bowl with two stamped leaf motifs (BKG 7953), a fragment of a plain bracelet in white glass imitating a shell; flotation brought to light 208 charred cotton seeds, 1 grape seed, 1 seed *Ziziphus nummularia* seed, and 1 fragment of pomegranate peel. The floor (428) shows a mean elevation of -3.20, which corresponds to the mean elevation of Court BKG 167 in the same phase. From floor (428) come an important series of finds: 3 circular terracotta tokens for a *navakankari*-type board game, 3 fragments of plain shell bracelets, a lamp BKG 7955 (type V 6), a sculpture base in greenish-grey schist BKG 7840, two dark grey ware bowls repaired in antiquity (BKG 7861 and BKG 7862), a fragment of a bowl with a Kharoshthi inscription (BKG 7912), and a fragment of a keeled bowl painted in light ochre with a large circle and festoon motif (BKG 7914). In addition to these, a considerable quantity of organic residues also came from (428), including charred seed fragments (240 cotton, 3 grape seeds, 1 seed of *Ziziphus nummularia*) and 1 fragment of pomegranate peel. Seeds from (428) provided a direct date of 118-210 CE  $1\sigma$  96% – 60-236 CE  $2\sigma$  99%.

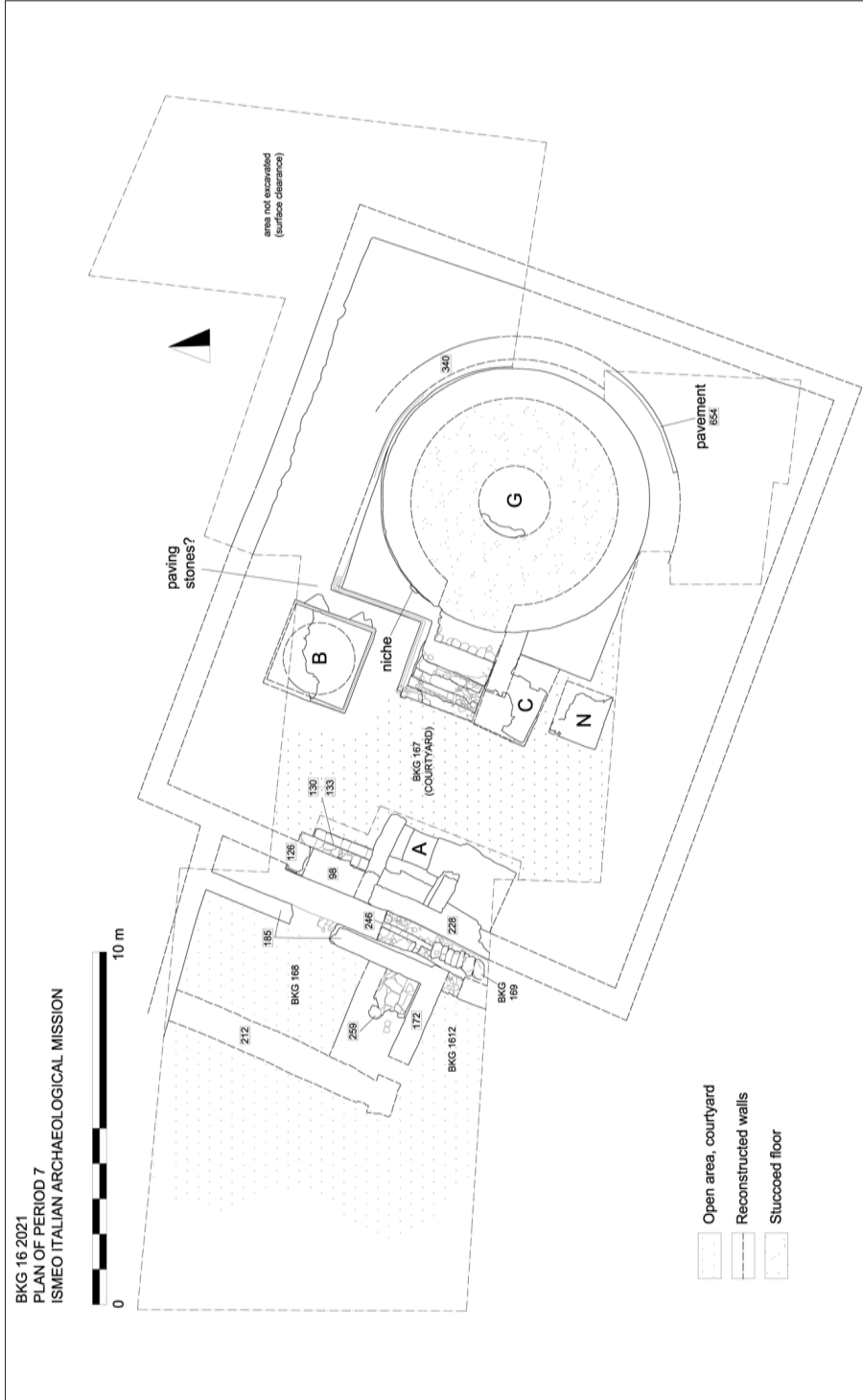
#### Period 7 (Macrophase 5b; Pl. VII)

In this structural period the Base B does not change at all, and few changes are recorded in Building H. The floor level in the BKG 167 courtyard increases—we are now at *c.* -2.90, the first usable step of the staircase in Building H is now [195], and drain [209] is consequently buried. New accessory votive monuments are built in the SE sector of BKG 167. In the BKG 168 area, Room M is buried and new spaces are defined, finally now well connected with the structural situation in Court BKG 167. At this stage, finally, Niche A is built open in the W perimeter wall of Court BKG 160, next to the entrance, which at this time is accessible through BKG 168 and BKG 169 directly from the paved courtyard BKG 1611, that opens onto an inner urban street. In Building H the floor of Cell BKG 160 is re-plastered, while a paved path (or pavement) was laid around the outer wall ([340]).

In the SE sector, Period 7 and the following periods were heavily damaged by illegal digging and the stratigraphy was preserved only in a few portions of the trench. All the stratigraphy close to wall [637], only partially detected, has been disturbed. The top of layer (653), average depth -3.33, that is a compact clayey layer that completely covers the semicircular structure of Period 6, may be the internal floor of the new precinct. However, this suggestion is only based on indirect considerations. Layer (653) abuts against a moulding of Building H. It is covered by a series of layers (648), (641), (644), of which there were also traces in the few other portions of the trench untouched by illegal digging.

In (641) a loose darkish layer rich in charcoal (average depth -3.20) with traces of water flow on the surface, was found a deposit of at least four sub-globular jars (Fig. 28) together with three shell bangles (BKG 8187, BKG 8190, BKG 8191), a perforated cowrie shell (BKG 8196) and a few iron objects. In the SW corner of the sector there is a layer very similar to (641) and at approximately the same depth is (636). This is covered by two accumulation layers, (635) and (634), rich in ash and large animal bones, plus a heap of ash (644). On top of them lies a compact clayey layer (631) in which a Soter Megas coin (BKG 8207) was found.





BKG 16: Period 7. Drawings by MM.



Fig. 28 - BKG 16 SE: layer (241).

#### Phase 7.1

With the floor level at *c.* -2.90, and the stair elevation partially reduced, a small structure is built in Court BKG 167 to the SE of Base C: this is probably the residual base of a square podium, perhaps a column or pillar base (Base N). This was probably built against the SW corner of the podium of Building H. The lower dado





Fig. 29 - A view of the Period 6 and 7 structures related to the W entrance to Court BKG 167.

of Base C is buried and the new footing elevation corresponds to the floor marker of Base C.

Niche A is located immediately to the left outside the Court BKG 167 entrance and is defined by walls [91] (the W perimeter wall to the left of the entrance), wall [121], which flanks the entrance and wall [134], which is the back wall of the niche (Fig. 29). The N side of the niche has a raised counter. The niche could have housed a life-size sculpture, the size of the stucco fragments of the seated Buddha, of which part of the unbaked clay structure remains (see BKG 6202, BKG 7207, BKG 7326, etc.) (See Fig. 27 bottom).

From Court BKG 167, two steps ([130]-[133]) now lead to an articulated structure at -2.32, which gives access from the W to Court 167. This consists of two parallel oblong rooms (oriented approximately S-N), Room BKG 169 and Room BKG 168. That Room 169 was the main entrance to Court 167 from W is evidenced by the discovery of the moulded masonry base of the left jamb, projecting into BKG 169. The base has a central and a lateral recess for insertion of the doorframe. The threshold ([98]), not entirely preserved, that opens in wall [430] must have been c. 2.50 m wide. The left W side of the jamb of the door is well preserved, with a moulded stone base and a space for the wooden frame (Fig. 30).

Room 168, which in this phase is bounded by the following walls: [185] to the E (with an opening for communication with BKG 169), [162] to the N, [172] to the S, and [212] to the W. In wall [172] there was a threshold that gave access in this phase to a room to the S, BKG 1612, a courtyard adjoining an external public area (not excavated). Two floor layers, one above the other, belong to this phase: (402 N) at -2.31, and (401) at -2.21. Both layers are disturbed by the remains of a recent spoliation pit (401 yielded a fragment of an inscribed bowl BKG 7921). Nonetheless, important





Fig. 30 - Threshold [98] (left W side).

finds were collected from the undisturbed lateral residues: from (402 N) five bowl fragments with Kharoshthi inscriptions (BKG 7895, 7896, 7897, 7898, 7899), the base of a censer's container (BKG 7994); a fragment of mother-of-pearl, three shell bracelets, one of copper, 3 circular terracotta tokens for *navakankari*-type board games, 3 pottery lamps (type V 6), a sprinkler pouter (Eastern Sigillata Ware type), a Kanishka II copper alloy coin (BKG 7742), several pieces of hardware (cramps, square nails, possibly belonging to a small storage room with wooden doors). In (401) were found a bowl fragment with a Kharoshthi inscription (BKG 7921), four square-section nails together with a whole cramp (see above), 2 shell bangles, a circular terracotta token for a *navakankari*-type board game, a terracotta spindle-whorl, and a fragment of a red-coloured stucco frame decoration (four-petalled rosette and festoon). These finds, although fragmentary, are important because they help us to assign phases to the many fragments of sculptural stucco materials found in the ditch-fill drains of the illegal excavations, as well as the numerous fragments of censers found in the same ditch-fill contexts (Fig. 31).

#### Phase 7.2

In the locus BKG 169 on the S side there is a masonry drain [246] with a cover (and could therefore be walked on), which collects water from the S and from a drain on the W side coming from Room BKG 168 (S part) placed under a raised floor (421) partially paved in the S part of Room 168. A large fragment of white mica (BKG 7841) came from floor (421). The threshold between Room 168 and Courtyard 1612 was walled-in by wall [261]. In this phase, access from Courtyard 1612, thus from W, is possible through an open passageway in BKG 169 which is accessed by walking along the drain cover [246] towards the S (Fig. 32a).



Fig. 31 - BKG 168, layer (401) Excavations in progress.

#### Period 8 (Pl. VIII)

This period presents important changes with particular reference to Building H. The floor of Court 167 in a first phase is kept at the mean elevation -2.90 but is raised at a later stage and maintained in this phase at approximately -2.50; the staircase floor of Building H is consequently shortened further. Around the sides (excluding the front)

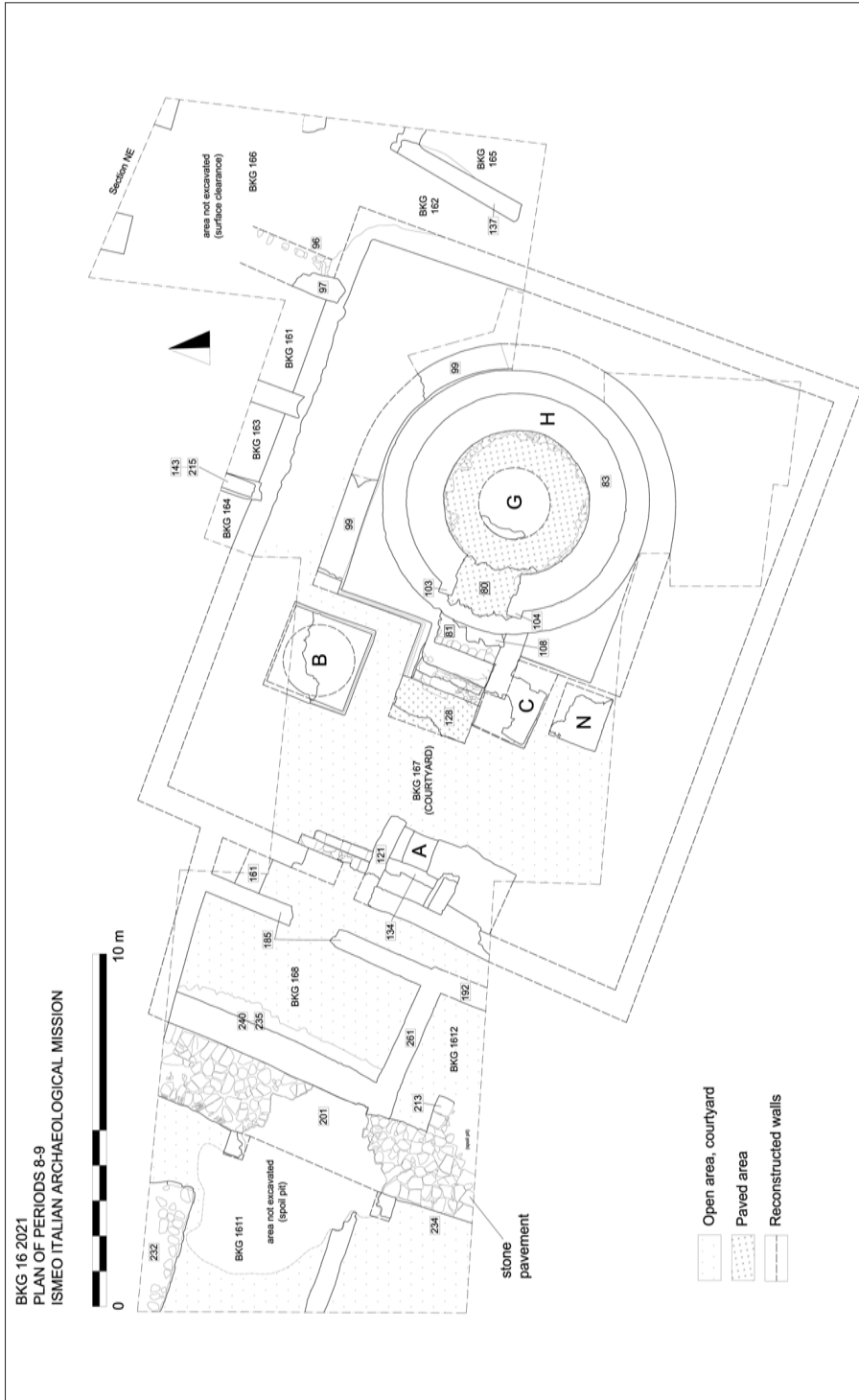




Fig. 32 - BKG 16: a: drain [246]; b: moulded base of the jamb of Cell BKG 160; bottom: the open (public) area BKG 1615.

of Building H, a low masonry paved bench [99] is built with a carefully paved upper surface. In Building H, Cell BKG 160 is reconstructed, with a smaller diameter, and the floor level raised on the inside. In this phase, Room BKG 168, now accessible





BKG 16: Periods 8-9. Drawings by MM.



Fig. 33 - BKG 16 SE: Period 8.

from the outer room BKG 1611, has a floor surface (265) made of rammed earth, which (although much disturbed by illegal excavations) has preserved intact fragments of shell bracelets, a whetstone, a fragment of a grey ware bowl with a Kharoshthi inscription (BKG 7729) and a fragment of a censer (BKG 7548).

The SE sector preserves the portions of overlapping floors contemporary with the construction of the paved bench [99] made of purified compact clay. The earlier floor (626) is at mean elevation -2.98, on which rests in the SW a very rough structure [627] made of a single layer of pebbles arranged to support two postholes (?). In the same portion, the following floor (623), at -2.85, is associated with a cist [619] delimited by vertical slabs which goes under the section of the S limit of the trench (Fig. 33). These are followed by another two floors made of compact purified clay with traces of plaster on top: (617)=(617) at average depth -2.78 and (607)=(612) at -2.70 (Fig. 34). The upper stratigraphy in BKG 16 SE has been completely disturbed by illegal digging.

#### Phase 8.1

The reasons for the construction of the paved bench [99] on three sides of the podium of Building H may be structural as well as ritual in nature. We do not know whether it could have been used for ritual circumambulation, although the careful paving of the upper surface would not rule this out. The construction of benches to



Fig. 34 - BKG 16 SE: Period 8.

support structures (remember that Building H is built transversely to a sloping area) is attested in phases contemporary with this one at Barikot, for example in Shrine 1023 in sector K of trench BKG 11 (Macrophase 5b). In front of the staircase of Building H, a small paved bench obliterates step [194] and keeps visible step [125] with part of the dedicatory inscription; the other part of the inscription (BKG 7393) is reused, upside down, as one of the slabs of the counter (Figs 35-36). This low counter consists of a pavement [128] and a retaining wall [149], with a rubble fill. The structure was built together with the paved bench [99], of which it shares the height (c. 0.50 m) and the average summit elevation (-2.50).

In this phase the upper part of Cell BKG 160 is modified, narrowed to diameter 4.00 m, with a perimeter wall [83] c. 1.00 m wide. The new cell still has an entrance with square projecting mullions ([103] and [104]), to which a stone pillar base (not inventoried) may belong (Fig. 23 top, right). The outer face of the perimeter wall [83] has a fold c. 0.50 m from the projection. The perimeter wall [83] is built directly on a podium floor that, covering the entire surface of the podium, also constituted the internal floor level once the new cell was built. The new floor [182], made of stone, has a mean elevation of -1.25.

#### Phase 8.2

The progressive silting up of the courtyard BKG 167 to the mean elevation of -2.50, which corresponds to the low wall [99] and floor [128] in front of the staircase of Building H, is recorded. In this phase courtyard BKG 167 was flanked on the N and E sides by a series of rooms (see below “Section NE”), and was accessible, as





Fig. 35 - The surviving portion of [128] during the excavation.

mentioned, directly from the courtyard BKG 1612 which, with its two paved surfaces, must have been part of the urban road network (Fig. 32, bottom).

LMO and EI



Fig. 36 - The surviving portion of [128] before the excavations (see on the side parts of the *chatravali* abandoned by the illegal excavators).

#### Sector BKG 16 NE

The following section offers an overview of the excavation of the North-Eastern corner of the temple enclosure of BKG 16. The area concerned, which was delimited by structures aligned on a NW-SE axis (with the exception of wall [160], *infra*), covered approximately 24 sq. m and lays between the latest “temenos” (henceforth “precinct”) (Periods 8-9) of the apsidal/circular temple and the shrine itself (see Pl. I). The excavation reached the sterile alluvium context (layer 320) on which most of the structures of the area had been directly founded (*infra*),<sup>21</sup> while, because the intention was to obtain data on the more elevated constructions bulging out from the exposed section of the terrace North of BKG 16 (Section N), the ground external to the late enclosure wall was only subject to a surface clearance (i.e., the NE rectangular-shaped extension of the excavation limits).

Although the area and the rest of BKG 16 were severely affected by such protracted and organized clandestine drudgery, we managed to gather precious information from two fragments of undisturbed stratigraphic deposits, the Southern and the Northern ones, which were left intact by the robbers (they were used as boundaries and/or steps to carry on their activities in their deep trenches and thus were not destroyed). Thanks to the stratigraphic excavation of these artificially delimited deposits, we were able to gather key data on to the relative and absolute chronology of the site.

<sup>21</sup> A deeper sounding in context (320) was commenced at the end of the field season.



## The Southern Deposit (Section F-F')

The larger of the two portions of stratigraphic accumulation that were left partially undisturbed by the robbers occupied the E corner of the precinct interior (section C-C' = Pl. IX.c). This accumulation measured 3×4 m, covering an area of approximately 10 sq. m. The area was "sounded" on both sides of a narrow strip of terrain running NW-SE in what was left of layer (12) (Pl. IX.d). This limited portion of terrain was probably kept to be used as a passage to gain access to the NW portion of the area that, on the contrary, was almost completely dug up to layer (320). Even a Period 9 lime tank [130] was not left undisturbed by the robbers' action(s). A single negative context number, <6>, has been given to the pit(s) created by the looters.

Context (12) was overlaid by the remains of a stucco preparation (17), possibly used to lay a stone slabs pavement in periods 8-9. Based on the finding that layers (30), (35) and (41) contained postholes and had uniform, flat surfaces that extended all over the area, and on their relations to other layers, we determined that they were clearly secondary dirt floor levels, along with layer (50)<sup>22</sup>, and that they all belonged to periods 6-7. Also, layer (22) might have been a floor level, probably in phase with layer (301) of the Northern deposit (section D-D' = Pl. IX.a).<sup>23</sup>

The contexts overlaid by layer (12) appeared to be artificial fills. For instance, layer (18) was a compact greyish brown layer of silty sand mixed with ashes and small charcoals evenly distributed in the context. It contained fragments of animal bones, fragments of iron nails, cowry shells, numerous pottery fragments, a worn Kushan copper-alloy coin issued by Kanishka I (BKG 7433), a fragment of a marble reliquary (BKG 7373), and a fragment of a schist "toilet tray" (BKG 7374). It also contained the gilded head of a Boddhisatva 7.5 cm-height in a three-quarter view (BKG 7413) and a similarly sized and carved head of a mature bearded man (BKG 7354); clearly, both were from a bas-relief decoration that had been already damaged/discharged in antiquity. This material was probably dug in the vicinity of the area and conveniently dumped at the site, and thus it ought not to be necessarily considered as originally part of the decoration of the temple.<sup>24</sup>

An earthen floor (30), differently from the others ground surfaces, had a sloping surface towards the NW.<sup>25</sup> It was a layer cut by <32> that during the excavation seemed to be a foundation running in parallel to trench [87], but it was much more likely a rudimentary drainage system implemented in Period 7 to fight against water stagnation and to be connected with fill (29) and pavement [340], which was an antecedent of paved bench [99] (see Period 7).

<sup>22</sup> Lumps of fired clay were found in the context.

<sup>23</sup> The stratigraphic relation to [99] in this area was not established as a baulk was left on the SW side of the deposit to preserve structure [99].

<sup>24</sup> So the heads quite likely did not belong to the temple decoration. Of the other stratigraphic units overlaid by (18), layer (21) was a yellow silty layer of natural formation; layer (22) was a compact brown layer characterised by coarse-grained sediments with pottery sherds, charcoals and ashes (in lesser quantity compared with layer (18)), and in it, an heavily worn copper-alloy coin was found (BKG 7434); and layer (29) was a compact context mainly composed of stone debris (coarse pebbles), also containing pottery sherds and fragments of animal bones, which clearly was a fill discharged from the SE.

<sup>25</sup> From the fill of this cut, layer (31), came, among other materials, a fragment of a reliquary lid (BKG 7808), and a sculptural fragment of green schist (BKG 7810). Cf. with layer (18).



An earthen floor (50) corresponded to a levelling of the area through different fills done after the erection of wall [315], and thus of [87], in order to raise the ground level of this part of the monument after the partial demolition and re-use of more ancient structures such as dry-stone walls [145] and [146] belonging to an earlier precinct of Period 4. In this period (Period 6), the precinct was apparently redesigned (enlarged and raised) in parallel with the transformation of the temple (see “Periodization”).

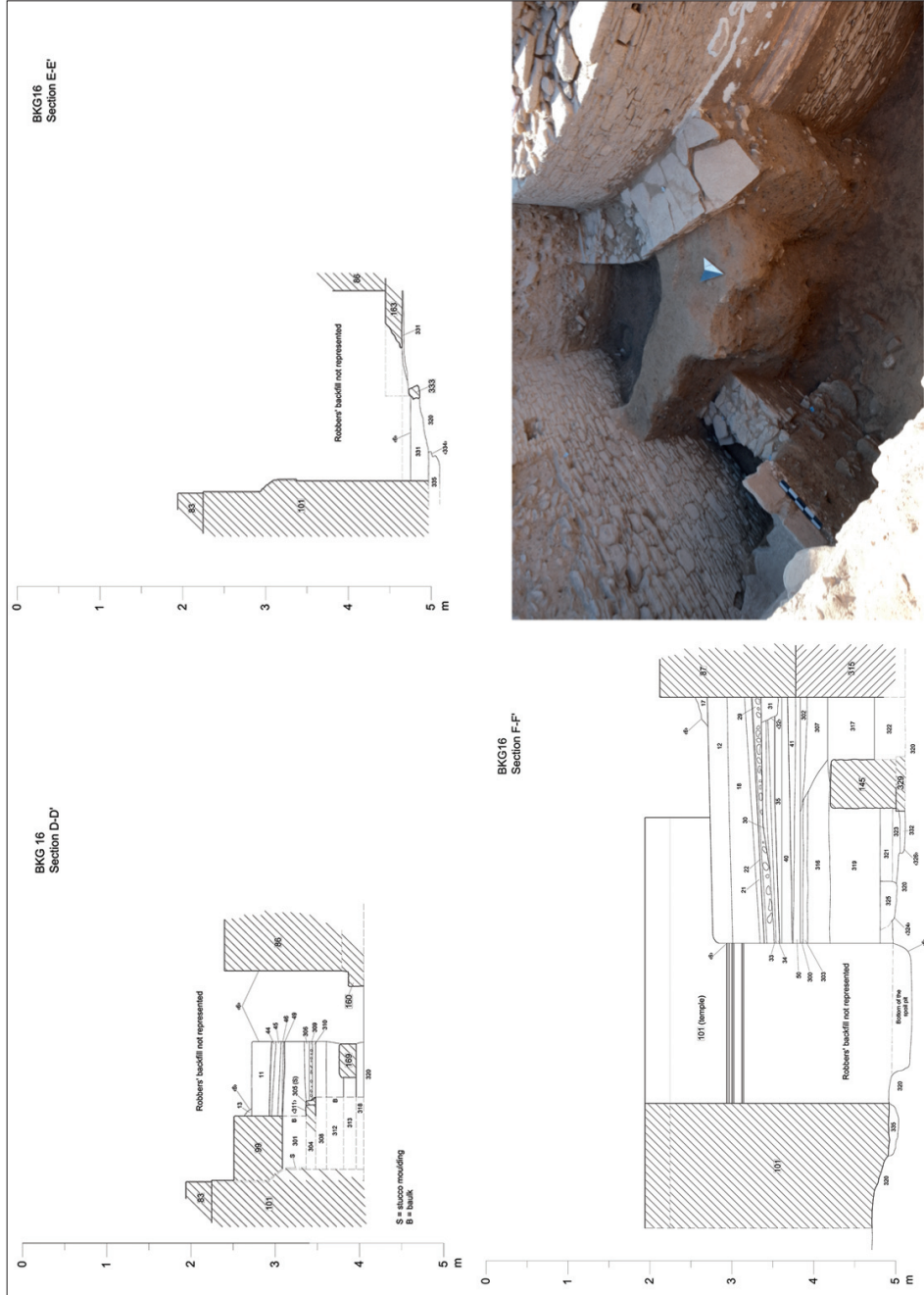
Wall [145] was overlaid by several contexts, including layers (321) and (323), both cut by <324> (which also cuts (320)). Its fill (325) gave us the billon drachm of Menander I Soter (BKG 7712), and fragments of “fish-plates” (Pl. IX.e). This material was mixed with abundant ash, charcoal, and other ceramic sherds and discharged and buried in this spot possibly at the beginning of Period 5, when the external layout of the temple was modified: wall [145] was razed and the area filled with (319), (317), and so on, up to (50) (*infra* for the earliest structural enhancement linked to [304] and [305] in the Northern deposit). Cut <324> was clearly a trash pit in which, accidentally, the silver drachm, which gave us a *terminus post quem* for such a structural change, was lost. During the excavation, due to operational issues, a baulk was left around the period 8-9 paved bench [99]. Thus, we were able to ascertain the relation of this late enhancement of the temple layout to the general stratigraphy only in the Northern deposit. It seems, however, that layer (18) was still overlying [99] and that the layer overlaid by this late structural addition should be floor level (22).

The Northern Deposit (Section D-D’ = Pl. X.a) and Other Stratigraphic Remains (Section E-E’ = Pl. X.b)

This deposit was the smaller of the two portions of stratigraphy left undisturbed by the robbers in the excavation area. Almost square in shape (it quite likely was used as a step by the looters to descend into the “dig”), it had a side of approximately 0.8 m and was located NE of the paved bench [99], which surrounded the temple in periods 8-9 (Pl. IX.6). It was cut by the robbers on all of its sides (<6>) except for the Southwestern one in connection with [99]. Some remains of stratigraphic accumulation were also left NW of the main Northern deposit.

Context [13] (similar to [17] of the Southern deposit) seemed to be a gypsum preparation of a lost pavement abutting the paved bench [99]. Below this, we found a series of contexts that had formed during a certain interval of time after the construction of [99], which was built on the fill of <311> and floor level (301).<sup>26</sup> The level marked by (301) (quite probably correspondent to layer (12) of the Southern deposit) was created after the deliberate destruction and razing (cut <311>) of a previous addition to the external ring of the temple (wall [101], and of the related stratigraphy); it consisted of a rammed clay structure [304] decorated with an applied stucco moulding [305] (Pl. IX.g). This had to be related to the transformations that occurred in Period 5. As was observed in the Southern deposit, in this area more ancient walls,

<sup>26</sup> Layer (49) was a lens of silty clay of natural formation overlaying layer (301); layer (46) was mainly a grey context of ashes mixed with clay and sand; layer (45) was a compact clay layer, possibly a floor surface; layer (44) was again of natural formation and mainly composed of gypsum residues evenly distributed on its flat surface; and layer (11) was a thick deposit of yellow silty layers not dissimilar to (12) and of possible natural formation—perhaps rammed and employed to lay down a floor, as the gypsum residues contexts (13) and (17) seemed to indicate.



BKG 16 NE: from top to bottom, left to right: a) Cross-section D-D'; b) Cross-section E-E'; c) Cross-section F-F'; d) The Southern deposit before excavation viewed from the N (Drawings by MM). The narrow yellowish strip of ground on which the North arrow is placed is what remains of layer (12) after the looters work. In the picture the bottom of the robbers backfill in the N part of the area is still partially cleared.



BKG 16 NE: from top to bottom, left to right: e) The Southern deposit viewed from the NE: pit <324> is crossed by the baulk left to keep bench [99] in situ. On the right the deepest “sondage” made by the robbers in context (320) to ascertain the depth of the structures of the temple [101]; f) The Northern deposit before excavation viewed from the NE; g) The Northern deposit after the partial removal of (308) viewed from the NE. View of [304] and [305] (a “baulk” was left to keep stable paved bench [99] and in section (301) is also visible); h) The remain of wall [333] and the apsidal wall [101] viewed from the E: on a stepped (320) it is possible to observe cut <334>, its fill (335), and the partially excavated layer (331).





such as wall [169], were razed, and the area was then filled up to the elevation of (308), that is, the earliest floor level of Period 5 here recognized.

Some important data were also luckily extrapolated from the area immediately SE of the Northern deposit in correspondence with wall [163] plus [333].<sup>27</sup> Although this area had been almost entirely cleared by the robbers, it was still possible to ascertain the stratigraphic relation between the temple perimeter [101] and (320), that is, the foundation of its external apsidal basement (see Section B-B' = Pl. IX.b). Layer (320) in Period 4, if not earlier in Period 3 (as witnessed by the unfortunately completely "robbed" wall [160], which was quite possibly the only visible remnant of Period 3 in this area), was prepared in order to lay the foundation of the templar structures. This layer of alluvial formation overlaid layer (337), a context of chips of stones of anthropic origin; layer (338), a thick alluvium similar to (320)<sup>28</sup>; and eventually layer (339)<sup>29</sup>. Layer (320) had a clear incline from the NW to the SE and unevenly sloped from the NE. Wall [163] was laid down above (331), a fill (it contained pottery sherds, including those of "fish plates," and small charcoals) that was used to even the gradient surface of (320). The same was done with layer (335), which was used to fill a depression on the terrain (320) on which [101] stood (Pl. IX.h). Layer (335), directly overlaid by wall [101], contained fragments of "fish plates" which in consequence have for us a significant chronological meaning. Cuts <334> and <326> were done in (320) as shallow foundation trenches to better adapt depressions in (320) to lay the structures (cf., in the Southern deposit, <326> cut to lodge [329] socle of [145]).

#### Other Walls

Wall [145] was bonded to [170], constituting a corner of the earliest enclosure, possibly of Period 4, of the temple. The alignment of [169] and the symmetrical structures found in the SW corner of the same enclosure (wall [615]), seemed to confirm this supposition. In a later period, when these walls were razed and before they were covered by fills, part of this structure was possibly transformed and reused as a staircase, as shown by a threshold [38] built at the corner of [145] and [170] and directly over the latter. The partially despoiled [170] was thus used as a small raised passage like a stair. Another wall [36], on which [86] (the second enclosure) was later built, continues the structure made by [145] and [170] beyond the excavation limits to the NE (i.e., the same [86]). Apart from walls [36] and [170], which were founded over a thin concrete-like layer made of chips of stones [330], and [146], which was overlying [145] and built over (322), all of these walls (or their foundation socles) were built directly on (320).<sup>30</sup>

<sup>27</sup> [333] is what was left by the robbers of the end of the wall [163] to the SW.

<sup>28</sup> In colour (yellow) and consistency albeit more homogenous.

<sup>29</sup> A sondage was made in (320) to ascertain the prehistoric stratigraphy of the area; it was stopped at 9 m of depth during the excavation of (339) (see above: "Period 0").

<sup>30</sup> Both walls [36] and [170] were laid over preparation (330) which was used to level a S-facing slope of (320); wall [170] is also partially founded over socle [329] which was built to substruct and delimit the same (330). Wall [170] is thus synchronous to [145] and [36]. Differently, on its Western side, wall [36] was lodged in a foundation trench, <27>, which cut (320). The fill of <27> did not contain any material of relevance. All this cut features and fills were done in order to level the uneven original surface of (320). Cf. *supra* <334> and <326>.

Unlike wall [87], built over its lower portion, that is, wall [315], which was necessary for evening the sloping surface of (320), the NW-SE wall of the later enclosure showed three main constructive stages: wall [86] overlaid [37], which overlaid [140]. This latter was a foundation offset built over (320) (cf. [329] relative to [170]). The stratigraphic accumulation was here unfortunately completely destroyed. Wall [37] was the first elevation of the later enclosure (cf. [315]), and it was further raised with [86], which was laid directly on the topmost part of the razed wall [36].

#### Periodization (see Pls III-VIII)

Period 3—The only testimony left in the excavation area of this early stage was wall [160], which was preserved only because it was partially overlaid, and thus sheltered, by the later precinct structure [86] (in this portion there was no foundation offset). Wall [160] was already razed in antiquity, almost certainly at the beginning of Period 4, when the first precinct was built. The layers associated with these structural remains were all destroyed by the looters. We can assume such a chronology for [160] for three reasons: the first is because of its orientation NNW to SSE, which differs from all the other structures documented in the area. The second is because it is parallel to wall [270], found in BKG 167W (see plan of Period 3 = Pl. III). The third is because [160] is laid over context (320) although, this is not necessarily significant for the purpose of chronology.<sup>31</sup> The building technique did not differ from the one used for the dry-stone walls of the later periods.

Period 4—The walls of Period 4 all belong to structures razed at the end of this stage and possibly re-used before being completely obliterated by the filling done during Period 6. Not much can be said with regard to the layout of the structures defined by these walls, but very likely they all belonged to a first precinct encircling the temple. The temple itself, or as much of it as was possible to observe in the area between the parts left in situ of paved bench [99], unfortunately already cleared by the robbers, was founded both directly on context (320) and partially on layer (335), which was created to level the uneven surface of (320) (see Section E-E' = Pl. IX.b). That context (320) was the ground level of the first temple as also shown by wall [169]—which was cut on its NW and SE sides by the robbers—founded over layer (318), one of the layers (the others were (330), (331), (332) and (335) related to different walls) that overlaid (320) and that were laid to level this ground so that new structures could be based on it.<sup>32</sup>

Period 5—The most significant alteration of this period was the enhancement of the decoration of the temple podium created in relation to a new floor level (308), *c.* 0.5 m above the older one of Period 4. At this stage, wall [169] was obliterated and the area filled with material to reach the new floor level of walls [304] and [305]. We do not know if this was also the case for wall [163], and for its Western end [333], because of modern cut <6> that destroyed all the stratigraphy here, but this might have been possible by reason of the presence of a wall infill [328] (visible in section below [86]) done over [163] in parallel with the erection of [140], [37] and so on.

<sup>31</sup> E.g., as shown by [145] and [315].

<sup>32</sup> On the basis of radiocarbon data (which became available when this Report was already in pre-print), layer (332) (and therefore the subsequent (335)) should be ascribed to Period 5: grain samples provided a direct date of 4-78 CE 1σ 76% - 54-130 CE 2σ 99% (see above) [LMO].



Although they were somehow altered, the other structures of the old precinct, such as [145], [146] and [170], were probably still functional, even though transformed (the partially razed wall [170] became a stair way, and a threshold [38] was created on the top of it at the angle formed with [145]). Even if the connections between the layers of the Northern and of the Southern accumulations have been severed, it seems that the space once delimited by [145] was only filled in the next stage: the greatest accumulations, that is, layers (319) and (317), were formed on (321), which was very likely the floor level of Period 5 (see Section F-F' = Pl. X.c).

Period 6—In this period, the walls associated with the Southern accumulation (once part of the earlier precinct, then re-used as a passage way) were eventually all obliterated and the second, larger, precinct was built. The stratigraphic build-up formed by layers (319), (317), (316), (307), (303)<sup>33</sup> and (302) was, at this stage, completely human-made, with the specific aim of filling the area up to the new desired level of floor (50) and then, after a certain period of use, of floor (41). The external extension of the original podium of the temple [304], with its stucco moulding [305], seems to have been now razed. The new torus, cavetto and fillet moulding decorating [101] was stuccoed at this stage (section D-D' = Pl. IX.a). Context (301) was composed of a fill of a later date, quite possibly of Period 8, created by the cut <311> erasing the ancient stratigraphy to prepare the terrain to lay [99] (this is a clear example of a negative interface).<sup>34</sup> Because of that, the Northern accumulation will not help us in understanding the later stages of life of the monument.

Period 7—Floor levels (35) and (30) should belong to this later stage. The surface of layer (30) was cut by a long and narrow trench (c. 20-30 cm of width) running in parallel with the wall [87]. Not being a foundation trench, cut <32> was most likely a rudimentary drainage system put in place to fight water stagnation and dampness in such an enclosed space: no drains have been otherwise found in this constricted corner, where, however, several silting layers have been recorded. As noted above, the sloping of floor level (30) and the presence around the temple of pavement [340] might also hint at the necessity to remedy issues of dampness and ease passage in an area subject to water accumulation. This might also be possibly indicated by the addition of loose filling material in the following period. Pavement [340], prepared with two layers of small square-shaped stone slabs, measuring 7-10 cm per side and having a height of 1.5-2 cm, encircled the apsidal area of the temple;<sup>35</sup> it is clearly the forerunner of paved bench [99], which would fulfil the same purpose.

Periods 8 and 9—In this last stage, paved bench [99] was built around the temple, from the front (but not on the façade) all along its curvilinear perimeter. Although it was impossible to ascertain the relation between [99] and floor (22) in the Southern accumulation due to the presence of a baulk, it is very likely that the [99] was built over this floor level (cf. (301) in the Northern accumulation). Layer (21) consisted an accumulation of silt deposits over (22), while layer (29), overlaid by the latter, was a

<sup>33</sup> This layer contained fragments of bricks that were underbaked.

<sup>34</sup> For an elaboration of this term in the context of Swat, see Olivieri 2020b.

<sup>35</sup> This context, located exactly below the baulk left to preserve in situ [99], was seen by us only after the heavy rains of the winter of 2021 and the erosion of its section. Iori unearthed a larger portion of [340] in the opposite corner of the precinct (see plan of Period 7 = Pl. VII).

homogeneous dump of unwrought stones of 15-30 cm possibly laid to prepare the floor for the drainage of rainwater and to offset dampness. For the same reason, layer (18), quite damaged by the work of the robbers, and rich in ashes and diverse materials (*supra*), might have been another fill used as a floor level laid over silting (21). After a certain interval, over thick silting (i.e., contexts (11) and (12)) and perhaps rammed for the occasion, a layer of gypsum, was laid ((17) and (13)), possibly to support paving. In correspondence to this floor level, a stone tank, built with spolia, was used to prepare lime.

MM

#### Period 9—Section N (Fig. 37)

The upper stratigraphy of the trench, originally characterized by a strong S-sloping gradient, was cut by recent terracing work that obliterated the Period 9 structures (see general plan). Only in the vicinity of the NE sector has a portion of the section resulting from the cut made by mechanical means around the 1990s been preserved. The section is above the NE side of the BKG16 trench. It is 5.5 m wide and 3 m in maximum height and it is located about 4.0 m from the border of the main trench. The height difference was already present at the beginning of the excavation campaign; the feature was probably cut by a mechanical excavator.

The objective of the study of this section was to define the structures encased inside the profile, recognize their place in the stratigraphic sequence and reconstruct any visible connections with the structures in the BKG16 trench below. From what has been uncovered, [60] seems to be a wall predating the other structures, which lean against it and were built on (61), a layer 0.2 m higher than the bottom of the section, whereas [60] continues below. [62] forms the corner of the later wall [63]. The left part of [63] is inclined forward, which may have been caused by the collapse of an upper structure (wall, door frame) or by the pressure of deposits against the top.

Between [63] and [67] there is a pack of hard soil, which is of the same consistency as (65), the layer on top of [63]. The gap could indicate a possible threshold.

Wall [67] continues below ground and seems to be connected to the perpendicular wall emerging from the space in front of the section. [68] is a later addition.

The top of (65) can be interpreted as a floor level. The layer is roughly 0.5 m thick, without significant inclusions; it is quite homogenous and topped by occasional small stones. The length of the floor level is clearly outlined by a gap of a few centimetres, which descends further to the left, sloping into (66). Above [67]-[68] the soil of (72) has the same texture as (65). On top of (65) is layer (69), filled with medium-large stones, which is interrupted by sloping depositions of large stones. These indicate a pit excavated in the layer and refilled. A similar situation is present in (74). Another possibility, comparing the profile with its leftward continuation, is the presence of a gradual slope to the West covered by larger stones—maybe excavated building material from ancient dry-stone walls. Layer (73) is the soft topsoil, with frequent bioturbation, due to roots and animal burrows.

GP

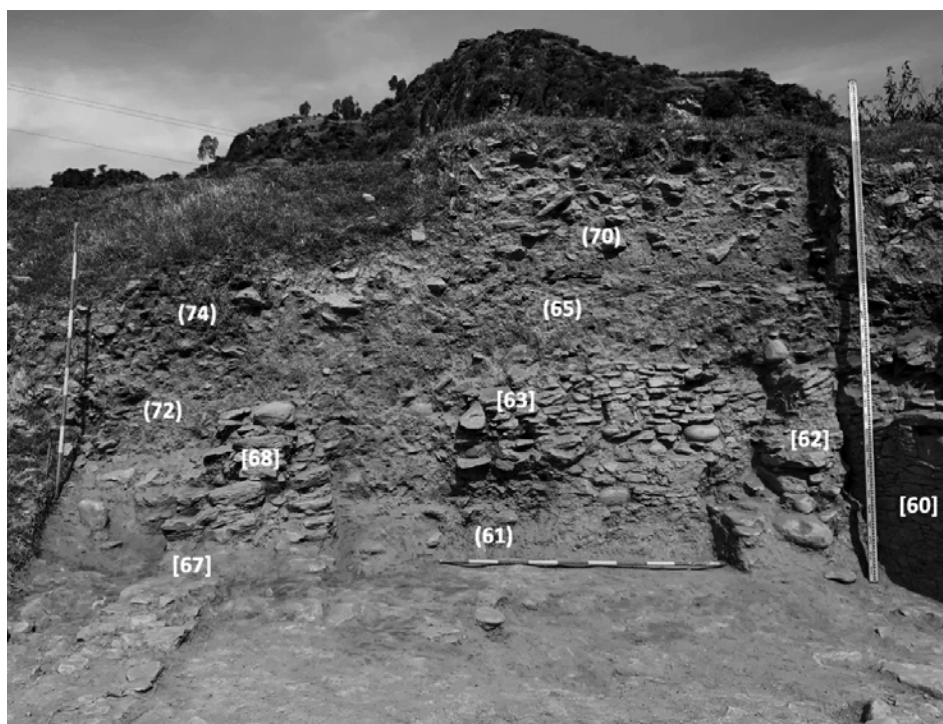


Fig. 37 - BKG 16: Section N. Elaborated by GP.

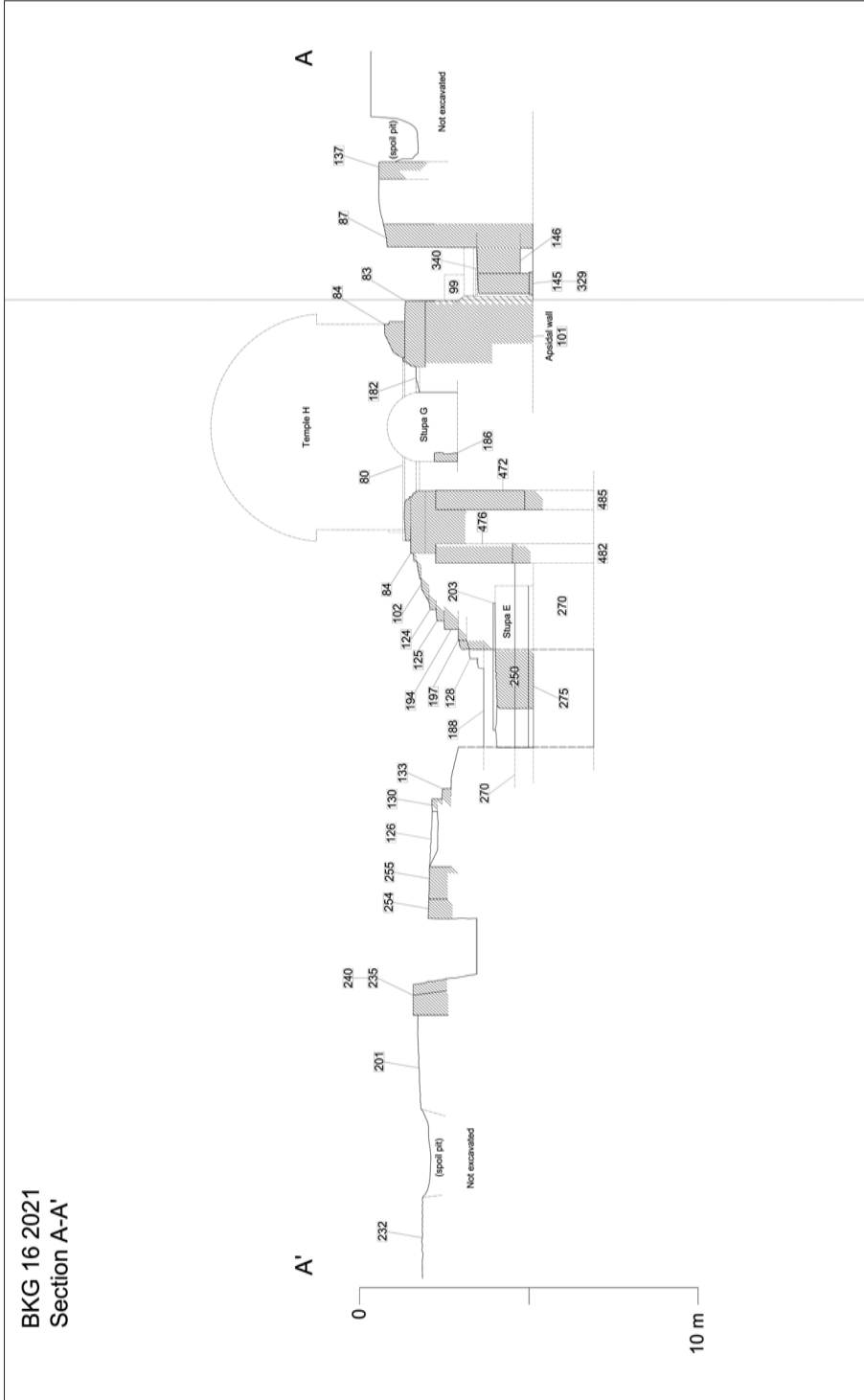
#### ADDITIONAL NOTES.1: “BRICK AND STONE MONUMENTS” (PL. XIII)

R.A. Coningham et al. in their contribution on the earliest phases of the Lumbini site (2013), use a happy turn of phrase (Dittmann 1984), recalling the “spread of brick and stone monuments across South Asia, ascribed to the patronage of Asoka” (Coningham et al. 2013: 1105). In another work E. Iori (in Olivieri, Iori 2021: 43), discusses instead the invisibility of the Maurya stratigraphic horizon, vis-à-vis the high visibility that Asoka’s edicts must have had in the territories in which they were implanted (in the Swat regional context, the Asokan inscriptions at Manshera, Shabazgahri, Sirkap).

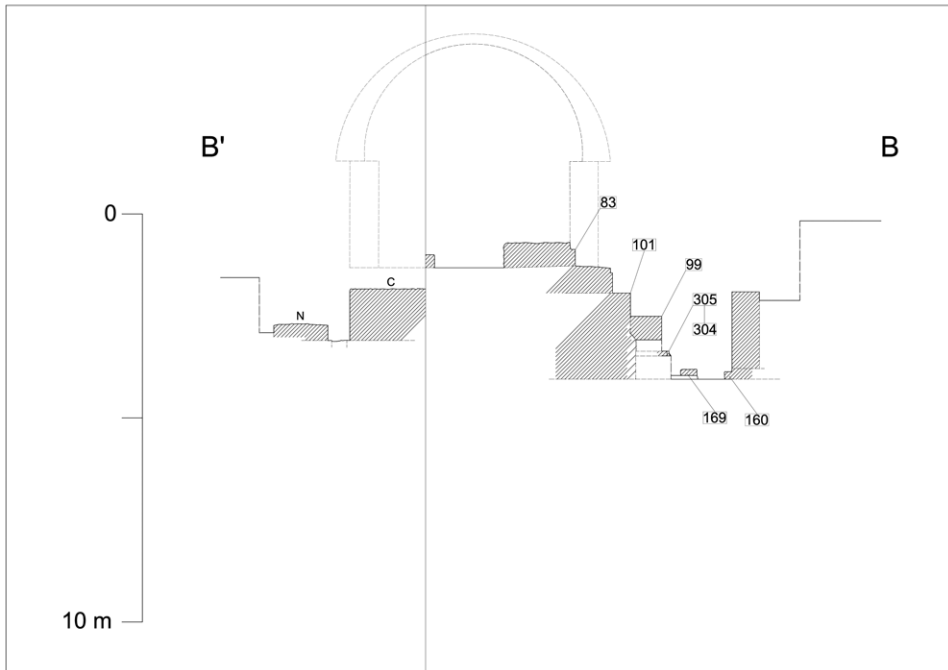
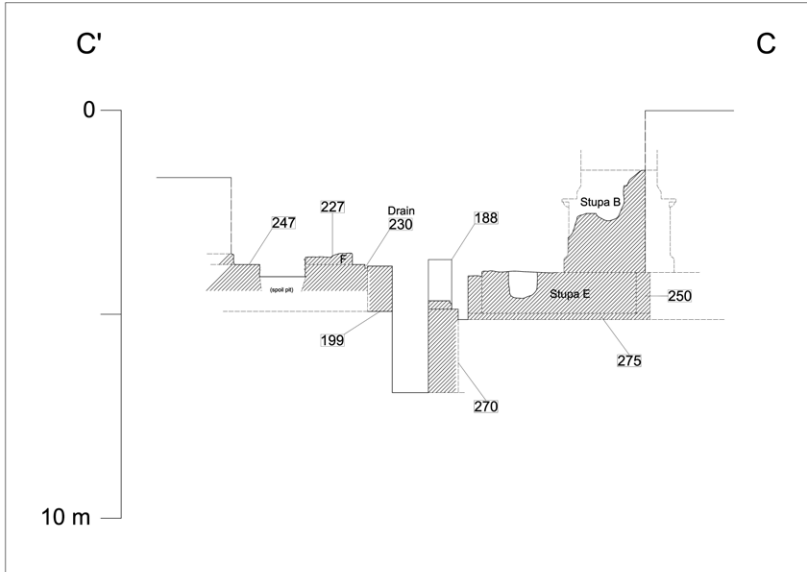
We, therefore, agree with our colleagues, who conclude that “archaeologists have limited themselves to exposing stone and brick Buddhist monuments and have failed to penetrate the ‘Mauryan Horizon’” (*ibid.*: 1105). The phrase “brick and stone monuments,” beyond any easy generalizations, has something very characterizing, especially when viewed from a region where construction is often in stone, although sun-dried brick standing structures on stone bases are already attested at the beginning of the 1<sup>st</sup> millennium BCE. In Swat these bricks appear only around the 6<sup>th</sup>-7<sup>th</sup> century CE.

The evidence of Trench BKG 16 is, therefore, of the utmost importance. For the first time in the history of Barikot excavations, a considerable number of fired/baked bricks, most of them from the backfills of the illegal excavations, with two exceptions in BKG 16 SE (collapsed structure [690]) and BKG NE (layer (302) in particular). Here a Period 6 layer of dismantled bricks refers clearly to a structural episode related to the first two phases of Building H. As will be explained in the following sections, this “brick and stone” architecture of Periods 4 and 5 possibly refers to brick elevations built on low stone walls (e.g., [485], [260], etc.).





Section A-A'. Drawings by MM.



Sections B-B' and C-C'. Drawings by MM.



Top: BKG. 7053; bottom: BKG 7547.



The bricks found at BKG 16 are all fired, parallelepipeds of different heights: 0.043/0.044 m, 0.05/0.055 m, 0.070/0.071 m (in just one case a height of 0.063 m is recorded).

In a few cases can we reconstruct the shape and size of rectangular bricks found in BKG 16E ([690]): 0.24/0.20/0.07 m.<sup>36</sup> Most of these bricks have a bright red fabric with patches of white, fairly concave surfaces (with a kind of hollow frog-type indentation), and finger-made brick-marks: two or three parallel lines (in only one case curved); from the fact that there are no thick traces of calcareous encrustations, it can be inferred that the mortar used was clay-based.

## ADDITIONAL NOTES.2: THE APSIDAL MONUMENT. THE INDIAN BACKGROUNDS

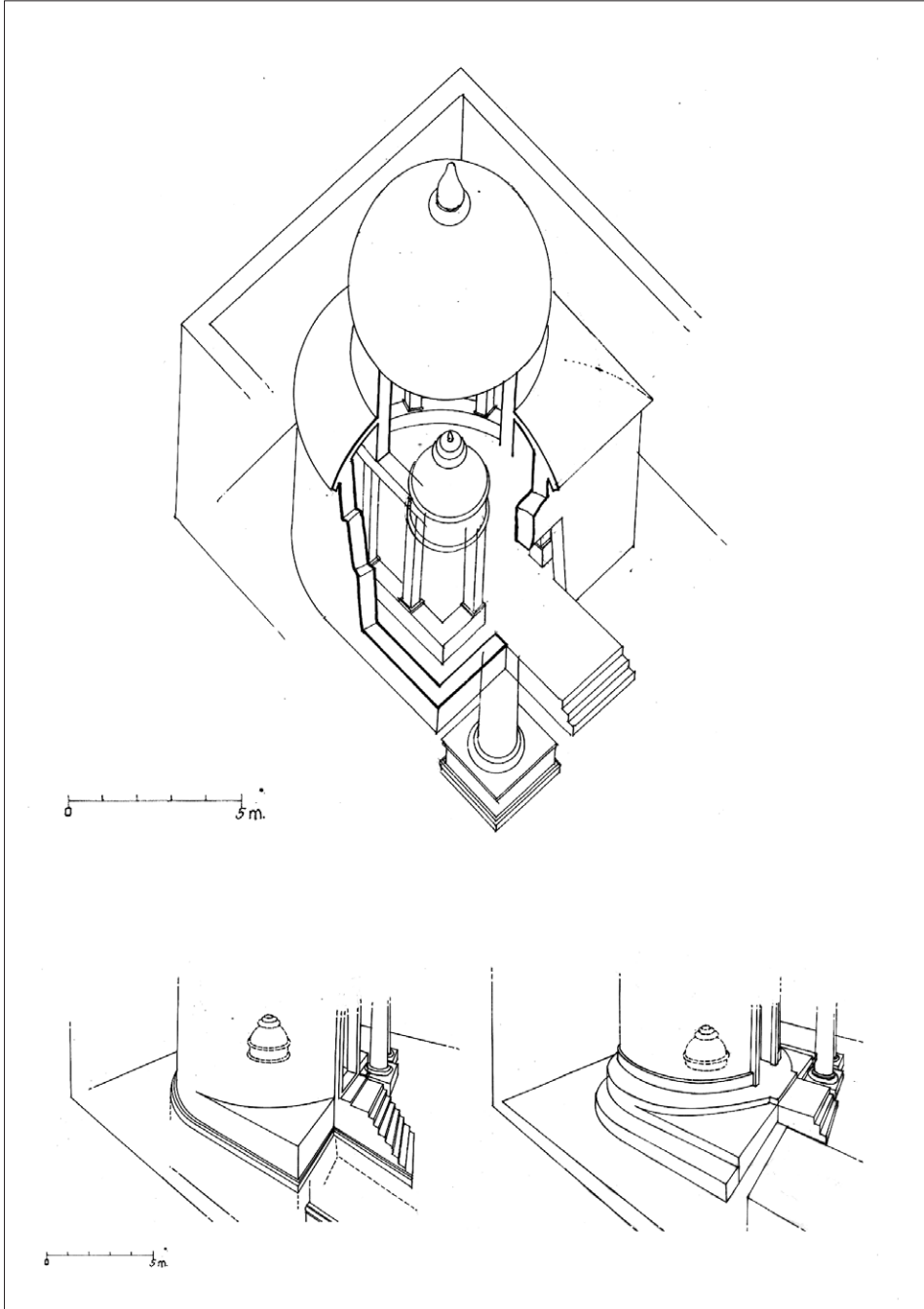
The issue of “brick and stone monuments” discussed just above refers to the complex issue of the typology of the main monument of Trench BKG 16. On the basis of the reconstructed archaeological sequence, Building H, as a Buddhist monument, was initially configured as a sacred empty space that was demolished and rebuilt around the middle of the 1<sup>st</sup> century CE. Although Building H has undergone a long and invasive series of reconstructions and modifications, it has maintained from its foundation (Period 4) to its last phase (Period 8) an external apsidal plan.

The question of apsidal buildings has been much debated (see e.g., Ray 2004: 349-351). It is an ancient architectural plan in North India; although there is no certainty about its origin and development. One hypothesis is that this typology refers to *chatya*-like structures (Coningham and Young prefer the term *griha*), that is, shrines with a circular plan to which an elongated front porch was added (Fogelin 2015: 89-93). The earliest clear evidence is of the free-standing structure of Bairat (Piggot 1943) and the rock-cut structure of the Barabar Hills (refs in Fogelin 2015). Due to their associations with Asokan inscriptions, we know that the former is certainly a Buddhist building (MRE III), while the latter belongs to the Ajivika sect. Certainly, the shorter plan of Building H represents a typology in its own right, which can be considered something different to the apsidal long-nave structures.<sup>37</sup>

In its earliest form Building H (Period 4) was a double-chambered apsidal monument without an axial or central entrance. At the back, the building has a kind of transverse rectangular nave. Seen in plan, the monument presents a double horseshoe-shaped structure, or concentric nave, separated by a space or corridor (BKG 1615) a little over a metre wide. The latter may have served as a circumambulation path. We do not know the elevation: the double walling suggests a double roof, possibly featuring an outer pitch (resting on the outer wall) and a raised central roof (resting on the inner structure). The front was rectilinear, and—if the roof was double-pitched—could have had a double-arched façade or gable, as some sculptural models suggest (cf. for instance the celebrated cross-shaped reliquary from Shaikhan-dheri). The covering of the pitched roofs was probably of plant material, as seen in many reliefs. The external structure was built of stone with a fired brick upper portion (see above). The internal structure may have consisted of a series of wooden supports resting on the low horseshoe-shaped inner wall, somewhat similar to the model we know from the rock architecture of Maharashtra, e.g., in the main *chatyas* of Karla and Bhaja (see Fogelin 2015: fig. 4.10). The building is located within a rectangular enclosure. We could not explore the inner side of the chamber except for

<sup>36</sup> Measurements differ from the “Mauryan” brick standards attested in the Ganga-Yamuna doab (e.g., from 0.16×0.10×0.05 to 0.42×0.26×0.08 and 0.48×0.30×0.10; from different sources).

<sup>37</sup> The latter, regardless of their Buddhist (or non-Buddhist) affiliation, are well attested from the 1<sup>st</sup> century CE onwards at Sirkap, Dharmarajika (Taxila; see Colliva 2005), and Zar Dheri 2, while, farther to the East, others (among many) are attributed to a period from Early Historic (Sanchi, Sarnath, near the Asokan pillar), to Historic periods (Mat, Sonkh 1 and 2). The internal structure of the Sirkap temple actually shares an important element with Building H, namely the narrow perimeter corridor.



Isometric sketch drawings of Building H in Periods 5, 6 and 8 (from the top). Drawings by Francesco Martore.

a test trench dug by widening a small trench left by illegal diggers. It is certain that in Period 4, there was no Stupa G in the centre of Building H. Therefore, it should be assumed that the centre of the cell was empty. On the other hand, if we take the *chatya* (free-standing and rock-cut) structures as a term of comparison, if there were a stupa, it would have been located to the back, close to the curvature of the apse, where obviously—given the structural overlap—it is not possible to excavate.<sup>38</sup> The interior floor levels reached uncovered an interesting combination of organic and human-made materials: a large concentration of cotton seeds (208), an Indian-type terracotta figurine (see below), and a fine grey pottery dish bottom (a kind of *patera*), thickly slipped and well-polished with a circular incised pattern (see below).

Although in Period 5 the general characteristics of Building H did not change, the front of the shrine was equipped with a raised central entrance, accessible via a flight of steps (with a “lock-shaped” plan), while the geometric centre of the interior space was monumentalised with the construction of a stupa (Stupa G). Overall, the plan of the entire structure was somehow adapted to a new concept, namely a frontally focused architecture.<sup>39</sup> When the monument was rebuilt around the mid-1<sup>st</sup> century CE (Period 6), Building H radically changed its general characteristics and was transformed again into a completely different structure. In the reconstruction, the external apsidal form was maintained, but the inner chamber was filled with earth and layered stones. The outer wall of the apse was demolished, perhaps retaining the stone part and removing the brick elevation, the debris/collapse of which was documented at the SE side of Building H (see above). This way the former chamber was transformed into a raised apsidal podium on which a circular chamber, accessible via a central staircase, was built. The development of the upper part from a double apsidal plan to a single circular plan also implies a substantial change in the elevation, as certainly from this period onwards the roof was a simple dome. In fact, the mechanical conditions for a lower pitched roof and central dome do not exist, because this would (as in the case of the double square plan of Gumbat-Balo Kale)<sup>40</sup> require a doubling of the cell masonry. Also in this case, the covering of the roof slopes probably consisted of plant material. The structure of the circular cell is still preserved in Period 7, when the floor, now covered with stucco, surrounds the dome of Stupa G, at the height of its springing point.

In the final phase (Period 8), the cell was demolished and on its base created space for the erection of another cell, also circular, but with a smaller diameter. The entrance door was furnished with two projecting jambs and the interior floor laid in stone. At this point only the top of the dome of Stupa G, with its *chattravali*, was visible. Finally, a low benchlike structural was added around the apse of the podium. Both the projecting jambs and the low benchlike structural element can be found in circular shrines of Kanjar-kote (Faccenna and Spagnesi 2014: fig. 516). Of this, however, we only know a portion of the base plan, which may have been circular and not—as in our case—apsidal. This typology was quite rarely documented in Gandhara. Some good examples (without stupas inside) have been documented near Barikot: besides Kanjar-kote (mentioned above), at Gunyar, Gumbatuna, and Tok-dara (respectively in Faccenna and Spagnesi 2014: figs 523, 524; Olivieri 2003: fig. 16).

It cannot be excluded that the features of Building H in Periods 6-7 are an example of the otherwise elusive “chambered” or ‘womb-stupa’ (*gathuva*) monument, mentioned in the Senavarma inscription, maybe like the Ekakūṭa stupa of the Senavarma inscription.<sup>41</sup> Apart

<sup>38</sup> On the presence/absence of a stupa in the apsidal temple of Sirkap hypothesized by J. Marshall, see Colliva 2005: 21.

<sup>39</sup> Cf. the round “lock-shaped” *chatyas* at Bavikonda and Thotlakonda in Andhra Pradesh. Cf. also the two elliptical Hindu temples at Besnagar (Vidisha) and Nagari (Chittor) (respectively 2<sup>nd</sup> and 1<sup>st</sup> century CE) (Mishra and Ray 2017: 5).

<sup>40</sup> See the final report on Gubat-Balo Kale: Olivieri 2018b.

<sup>41</sup> The Ekakūṭa stupa underwent a structural odyssey before reaching its final form, which was given to it by Senavarma, the great king of the Odiraja. The structure might have been partly built with perishable



from the double roof (see the discussion above), a possible comparison with the architecture of Building H (Periods 6-7) can be seen in panel B 920 from Butkara I (see Faccenna 1995: 253), which is a panel attributable to the mid-1<sup>st</sup> century CE (Fig. 38).

LMO

### ADDITIONAL NOTES.3: THE APSIDAL MONUMENT. THE HELLENISTIC BACKGROUNDS

This chronology of the cultic monument in Barikot (Building H) raises questions about the religious policy promoted by the Greek rulers toward Indian religious communities and in particular the Buddhist one. In addition, one might ask whether influences of Greek architectural models can be detected in the design of the building.

In a recent talk at EAA 2022, I pointed out that Swat is the only region in which archaeology has so far provided data confirming the patronage in favor of Buddhism by Menander I (ca. 165-130 BCE).<sup>42</sup> Supporting evidence has been provided by the Great Stupa of Butkara I sacred complex whose restoration and expansion date precisely to the Indo-Greek ruler's reign (Olivieri 2021: 407-408). The archaeological study suggests that Building H, although built before the 2<sup>nd</sup> century BC, was in operation during or immediately after Menander's time when it still retained the apsidal plan. To understand how an apsidal monument might have been perceived in Indo-Greek times, we need to understand whether and to what extent apsidal buildings were present and known in the Greek world. The first apsidal—and to a lesser extent oval plan—buildings appeared in Greece during the Early and Middle Helladic periods (Mazarakis Ainiyan 1989). That plan was seldom adopted during the Mycenaean age but regained popularity in the following period. The sanctuary of Poseidi (Chalkidiki), dating to the Early Geometric Period, is one of the earliest apsidal edifices with religious functions (id. 2016: 19). In the late 8<sup>th</sup> century BCE, the first urban temples took on the apsidal plan that previously characterized the dwellings of the elites.<sup>43</sup> However, from the end of the 7<sup>th</sup> century BCE onwards, the apsidal plan was not used anymore in the context of domestic architecture but for some time it continued to be adopted for other types of buildings.<sup>44</sup> It is clear that the apsidal plan was not unknown to the Greek world at an earlier historical phase. However, in order to consider the Hellenic perception of the Building H as a religious monument, one should first understand whether this architectural typology was already widespread in Greek religious architecture in the immediately preceding centuries. Indeed, we must allow a certain amount of time for an architectural tradition to be strong enough to provide models to be exported even across great

structures (wooden and other plant material), otherwise one cannot understand how it could have been burnt by lightning. On the other hand, that the stupa was “accessible” (G. Fussman's interpretation of line [2a]; Fussman 1982) suggests that it was inside an enclosure. During the renovation, which included the elevation and perhaps a partial filling of the structure, the relic chamber with a dedicatory inscription by an ancestor of Senavarma was found, a dedication that was then replaced by that of the new king. The relics remained in peace until, probably in the 1970s, clandestine excavations smuggled out the very famous relic-casket with the equally famous gold foil inscription, the longest and most important document in the history of the Buddhist principalities of ancient Swat. A last note: while nothing is known about the inscription, still owned by an unknown private collection, the reliquary with its precious contents was recently acquired by the Louvre Abu Dhabi Museum (inv. no. LAD 2009.021).

<sup>42</sup> “Power through religion and religion through power. Royal agency and local cults in Hellenistic Central Asia and NW India” (in preparation).

<sup>43</sup> Mazarakis Ainiyan 2016: 16. In the Archaic Period the apsidal and oval plan for domestic architecture is abandoned, see Lang 2007: 188-189. Examples of apsidal plan temples in Neils 2016: 166.

<sup>44</sup> E.g., two apsidal *bouleuteria* at Olympia, (late 6<sup>th</sup> and the first half of the 5<sup>th</sup> century BCE), see McK. Camp II 2016: 135.

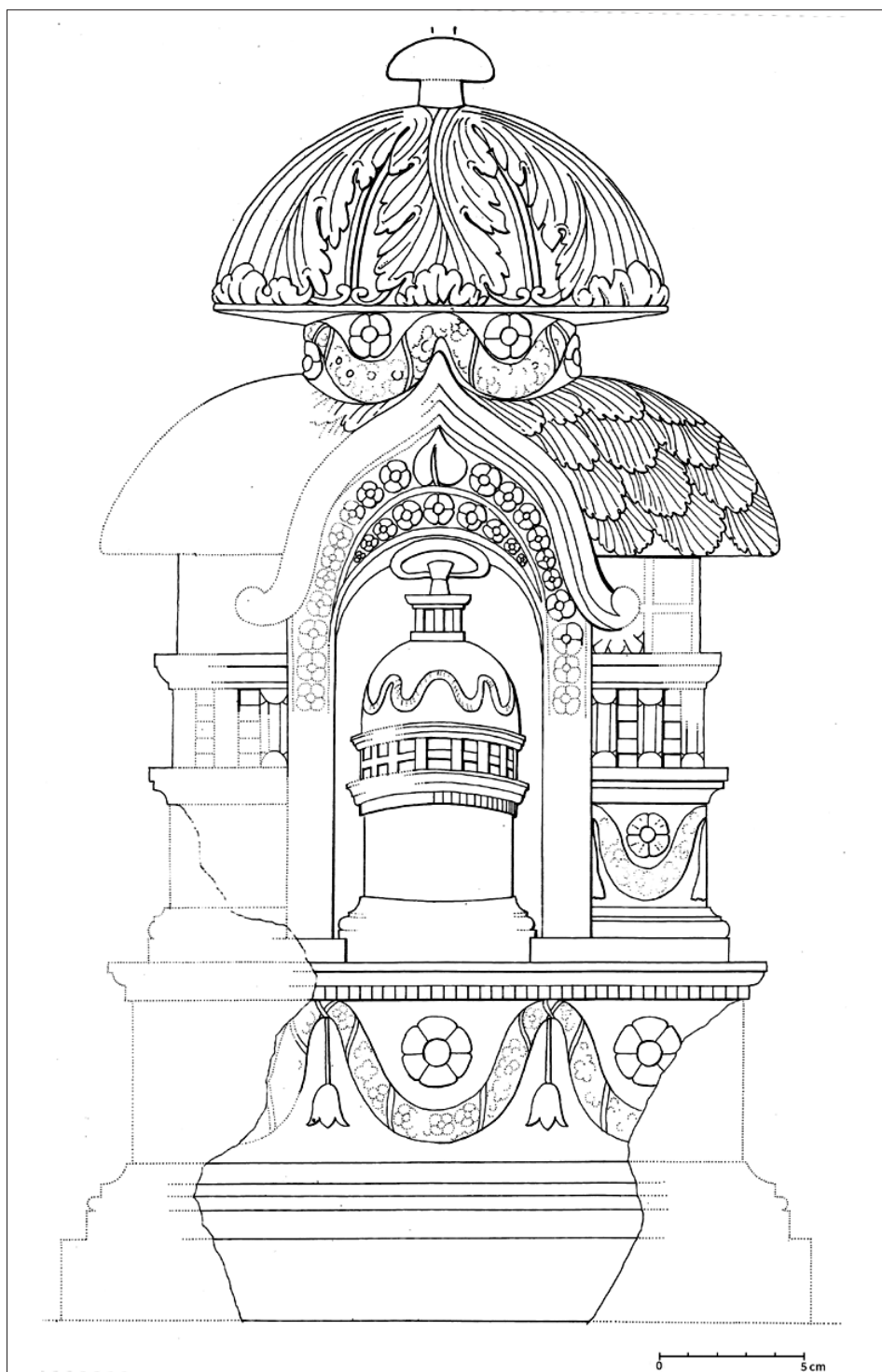


Fig. 38 - The monument represented in panel B 920. Drawings by Francesco Martore.

distances.<sup>45</sup> Since the Buddhist monument at Barikot dates before the 2<sup>nd</sup> century BCE, in order to justify such remodeling we should expect analogous architectural features in the Greek world during the 4<sup>th</sup>-3<sup>rd</sup> centuries BCE to be widely disseminated.

It must be said that for the early Hellenistic period we do not have enough points of comparison. Apsidal spaces are present within some Macedonian royal palaces. They are present at Pella, during the reign of Antigonos II Gonatas (277-239 BCE) but it is hard to determine whether they were employed as a sacred space or not.<sup>46</sup> In Section B of the palace of Demetrias there is an apsidal space dating back to phase 3 (late 3<sup>rd</sup>-early 2<sup>nd</sup> century BCE). In these cases, however, we are dealing with spaces within a larger building and not independent structures in their own right. However, two apsidal monuments that might have had some influence date to the Early Hellenistic period. The *Hieron* of the sanctuary of the Great Gods at Samothrace consists of a long structure with an internal apsis that was used for high-level initiation rituals into the mysteries there (Webb 1996: 9-10). The second example is the enigmatic *Apsidenbau*, i.e., an apsidal building built on the acropolis of Pergamon in the last quarter of the 3<sup>rd</sup> century that later was incorporated into the celebrated Great Altar. The function of this monument is unclear, but it is generally thought that under Attalos I (241-197 BCE) it had a religious function possibly for the dynastic cult or for the worship of the hero Telephos, the mythical ancestor of the Attalid dynasty (Schwarzer 1999: 278-285; Queyrel 2005: 112-147). Could these structures have served a Greek eye as a model of interpretation for Building H in Barikot? The problem is that these architectural features cannot be detected in the Hellenistic Far East, and this is even more true in the case of Pergamene art whose models enjoyed a wide range of dissemination. In Hellenistic Central Asia, religious architecture followed models inspired by the Achaemenid world (Mairs 2013: 98-103), while the existence of Greek-style temples still remains unproven. On the other hand, the Buddhist monument at Barikot seems to have been directly inspired by documented local models (Ray 2004). It is clear that the individual in charge of remodelling the pre-existing apsidal monument (hypothetically in Period 3.3) chose the path of continuity with a local architectural model whose characteristics may not have sounded entirely alien to a Greek/Hellenic audience. However, this process of identification, if it ever took place, must have been limited to a very small group of individuals. In the few cases known to us (including the case of the Building H), Indo-Greek rulers and their officials patronize local cults by adopting Indian rituals and artistic traditions, as is evident from the Butkara I Great Stupa, the monument of Barikot, and the Garuda-pillar at Vidiśa where the Greek ambassador Heliodoros proclaims in a Prakrit inscription to be a devotee of Vasudeva-Krishna (Mairs 2014: 117-133). In addition, the prevalence of the Indian language as a medium for official promotion or expression of religious piety seems a telling factor of the preference for Indian tradition by the ruling elite.<sup>47</sup> As for Buddhism, we see that during the 2<sup>nd</sup> century BCE royal patronage seems limited to a specific area, i.e., Swat, and we cannot find other elements suggesting that the Greek kings supported exclusively this religion in other regions. The official image promoted by Menander, at least on his coinage, is that of a traditional Hellenistic monarch while elements that may recall

<sup>45</sup> Several scholars proposed eastern Mediterranean architectural models for the origin of the apsidal plan in India although the evidence provided is far from being conclusive, see Dhavalikar 1974: 61.

<sup>46</sup> The Northern sector of Section I-II.A and three apsidal podiums in the Northern portico area, see Kopsacheili 2013 [vol II]: 7-9.

<sup>47</sup> For example, three inscribed votive offerings possibly to honor the god Bhava deposed by two officials bearing Greek names and one Indian individual bearing the Greek title of *episkopos*. Of the three inscriptions only one is in Greek, while another is bilingual Greek-Prakrit, and the third one is only in Prakrit, see Falk 2009: 25-42; Rougemont 2012: 88bis. As for Buddhism, the first inscribed votive offerings by officers bearing a Greek name and/or title are only in Prakrit, see Baums 2012: 204-205.



Buddhism are virtually absent.<sup>48</sup> So why this apparent investment of Menander for Buddhism in Swat? My hypothesis is that Swat, where Buddhism was thriving, had always been a key region to control other provinces thanks to its extraordinary agricultural wealth. Menander was interested in supporting Buddhism there in order to strengthen his control over the area. The restoration and monumentalization of Mauryan buildings were meant to create a link with the dynasty that had ruled over a great part of India and played an important role in spreading Buddhism. Reviving the memory of the Mauryans (as it appears to be the case with Building H) was a way for Menander to connect his rule to a glorious past and obtain legitimization not only towards his Greek opponents but also towards the Sunga dynasty, which had put an end to the Mauryan rule.

OC

## THE PALEOBOTANICAL RECORD

A total of 87 samples for archaeobotanical analysis were collected during excavation, with plant remains retrieved through flotation, and all samples were analysed at the Paleoethnobotany Laboratories at the Max Planck Institute for Geoanthropology in Jena, Germany, by Dr. Rita Dal Martello and Dr. Robert Spengler (for previous archaeobotanical analyses of Barikot materials, see Spengler et al. 2021). The ancient plant remains, mostly seeds, were preserved by charring, and a total of 2,700 identifiable plant remains were found in the samples analysed. A few samples had very high quantities of uncarbonized seeds that appear to be modern intrusions (i.e., 16-330 sample 38; 16-410 sample 14-23; 16-231 sample 4; 16-211 sample 3), and 9 samples did not contain any ancient plant remains (16-256 sample 1; 16-432 sample 41; 16-427 sample 40; 16-419 sample 30; 16-41 sample 2; 16-285 sample 55; 16-283 sample 15; 16-408 sample 53; 16 TTN 501 sample 59).

The archaeobotanical assemblage retrieved during the 2021-2022 excavation season is composed of grains of cultivated cereals, cotton, several fruit and legume species, and seeds of field weeds. Cotton has the highest number of retrieved remains, represented by whole and fragments of seeds (*Gossypium* cf *arboretum/herbaceum*; n=1043). This is followed by grains of barley (*Hordeum vulgare*; n=639), rice (*Oryza sativa*; n=332), and free-threshing wheat (*Triticum aestivum*; n=160). Identified legume species include, pea (*Pisum sativum*; n=87), lentil (*Lens culinaris*; n=77), possible mungbean (*Vigna* sp.; n=52), vetch (*Vicia sativa*; n=38), bitter vetch (*Vicia* cf *ervilia*; n=30), horsegram (*Macrotyloma uniflorum*; n=31), and grasspea (*Lathyrus sativus*; n=16), and grains of what has been preliminary identified as either pea or vetch (*Pisum/Vicia* sp., n=83) due to a lack of preserved seed coat. Of interest, there were 3 grains of chickpea (*Cicer* cf *arietinum*), however they were very badly preserved. Fruits include grape (*Vitis vinifera*; n=32), jujube (*Ziziphus nummularia*; n=10), fragments of *Prunus* kernels (possibly almond; n=3), and Rosaceae seeds (possibly local wild apple/pear; n=10). Two mineralised seeds of hackberry (*Celtis caucasica*) were also found. Additionally, 19 large fragments of pomegranate peels were also recovered (*Punica granatum*). The rest of the archaeobotanical remains are from weedy/wild taxa (i.e., *Galium* sp., seeds of Cyperaceae and Poaceae), and seeds or other plant remains that could not be more specifically identified, including over 700 badly preserved cereal grains that could be not identified to species and have been grouped into the category *Cerealia*, over 100 undifferentiated legume fragments, 25 unidentified seeds, and over 190 unidentifiable plant fragments.

RDM and RNS III

<sup>48</sup> The wheel depicted on isolated issues can be interpreted both as a traditional Indian reference to a king ruling according to *dharma*/justice and a reference to the wheel of *dhamma*, see Bopparachchi 1991: 87-88, 314.

## SOME DATING MATERIALS

The disaster caused by looting forced us to reconstruct events and structural phases by sometimes following clues rather than hard evidence. If up to a certain point the structural information is well-defined and clear, with some exceptions, the same cannot be said for the information an archaeologist expects to obtain from the finds. Here it is not so much a matter of the finds themselves (we will look at some classes of them later), but of what they allow us to understand about the context to which they relate. Thanks to previous studies of the material from Barikot, and from other sites, we are able to present a few cases that have, so to speak, been saved from the shipwreck.

We have already discussed fired/baked bricks, while later on we will deal more generally with the issue of pottery, which remains to date the best studied material from our excavations at Barikot. For example, what answer can we give to the question “what kind of cultic activity was practised in Building H”? Unfortunately, we are not in the fortunate condition that allowed us to understand the functions of the so-called Temples B and K in Trench BKG 11, for example. In those areas, the perfectly preserved condition of the stratified deposits, sealed under the earthquake collapse with which the life of the city came to an end in Macrophase 5b, allowed us to formulate substantial hypotheses about the ritual activities practised there (see Refs).

### Terracotta figurines

A very important class of finds are terracotta figurines, both human and animal, because of their short lifespans (when broken, intentionally or not, they are abandoned) and rapid formal change. The presence of animal and human figurines in cultic contexts, although not fully elucidated, is now attested, both in Barikot and in the Buddhist sacred areas of Swat (Esposito 2019: 288, tab. 2; Alterio 2019: 527). The discovery within the cell of Building H at the top of floor (456) (Period 4) of an anthropomorphic terracotta figurine BKG 7938 is extremely important (Pl. XVa).

The figurine is defined as belonging to the so-called *Channavira*-type, which is well attested in Barikot in Macrophase 2b (BKG 1565/TF 0445; BKG 3793/TF 0637), Macrophase 3a (BKG 1340/TF 0423; BKG 4568/TF 0309), Macrophase 3a4 (BKG 3642/TF 0621; BKG 4568; TF 0309), i.e., from the late 3<sup>rd</sup> century to the mid 1<sup>st</sup> century BCE (data from Esposito 2019). The association of the *Channavira*-type figurine with a fragment of grey ceramic *patera* with black slip BKG 7939 and 208 charred cotton seeds and 1 fragment of pomegranate peel is also extremely interesting, not least because, as we have seen, the concentration of charred cotton seeds (and pomegranate peel flakes) is typical of the areas where cultic activities took place at BKG 16, despite the chronology (in Building H/Period 4 and in Room BKG 168/Period 7).

### Offering stands

A very important and entirely new discovery in Barikot (at least in these phases)<sup>49</sup> concerns conspicuous fragments of what are referred to in the Taxila excavations as “standard censers or offering-stands.” Marshall maintains (with good reason, in my view) that these are censers for burning substances rather than offering-stands (Marshall 1951: 421, pl. 125: nos. 130, 131, 132a-c). Again, according to Marshall, this is typical material from Sirkap periods II and III, thus 1<sup>st</sup>-2<sup>nd</sup> century CE. The fragments from BKG 16 are all made of refractory pottery with sand and lime, well-slipped in bright red, and distinguished by sharp flanges and convex walls, as if they were imitations of metal objects.<sup>50</sup> These vertical objects with flanges and a wide foot are the body of the censer. On the mouth was placed a concave container in which combustion took place. Of these containers we have an example from the excavation (BKG 7994) containing combustion residues in the form of very hard ashy concretions on the bottom, as if they were the result of

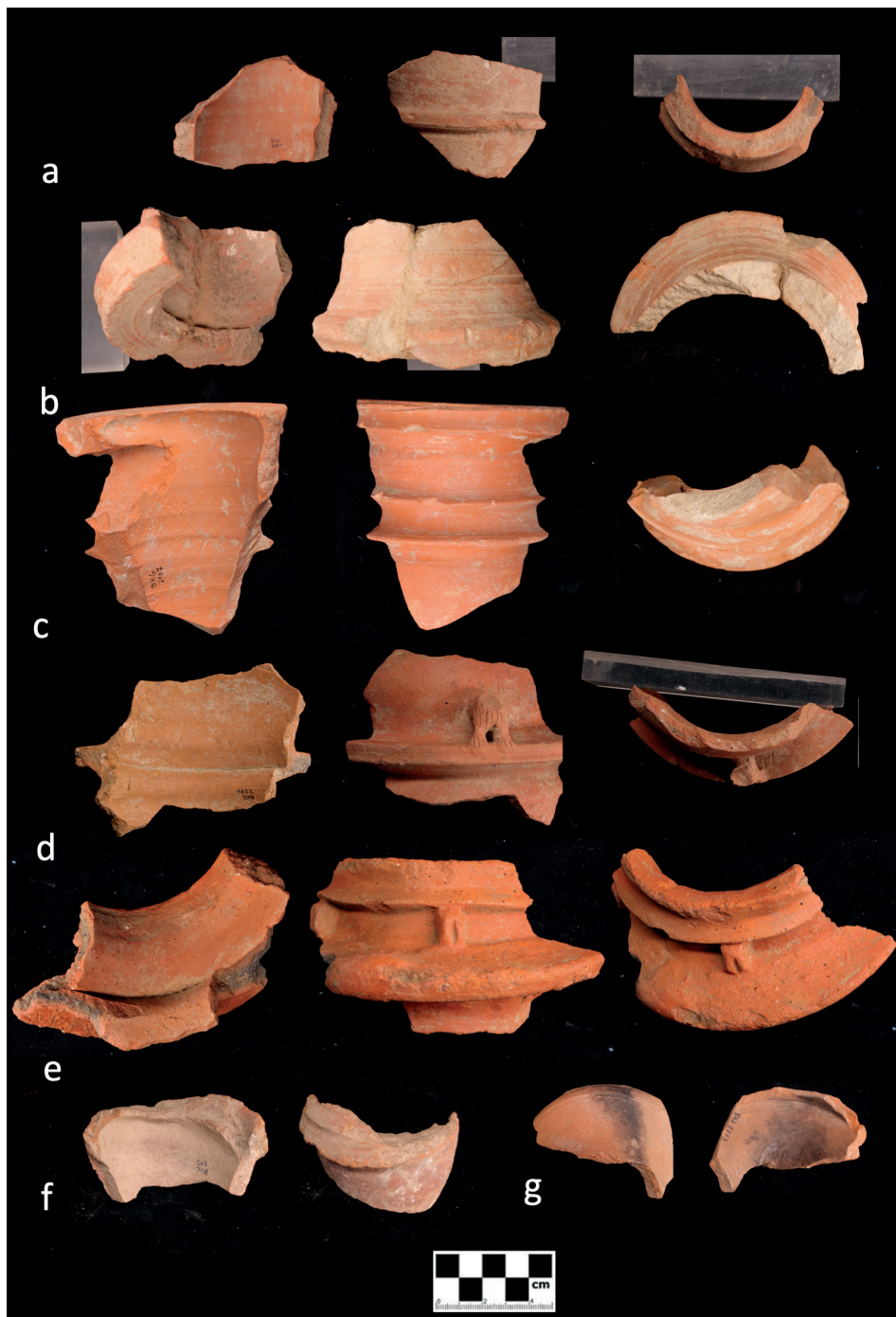
<sup>49</sup> We first became aware of this material (mostly handled-censers) in the Shahi and Ghaznavid phases (Macrophases 8b and 9) at the top of the acropolis.

<sup>50</sup> See Stone 2004 with bibliography.



Terracotta figurines: a) BKG 7938; b) BKG 8181; c) BKG 8080; d) BKG 8179; e) BKG 8334; f) BKG 8335; g) BKG 7885; h) BKG 7917. Standard censers (or offering-stands): a) BKG 7994; b) BKG 7548.





Standard censers (or offering-stands): a) BKG 6591; b) BKG 7012; c) BKG 7107; d) BKG 7285; e) BKG 7550; f) BKG 7108; g) BKG 5089.

burning oily or resinous substances. Similar traces have also been noted in small thick-walled jars from the Kushana phases in other areas of Barikot.<sup>51</sup> Of particular interest are the specimens BKG 7550 and BKG 7285, both of which correspond to the top of the body of these censers, and both of which have projecting decorations between the flanges: BKG 7285 in particular has a series of protruding lion-like false-figured brackets. These types of standing censers are known from Sirkap and Shaikhan-dheri, although they are infrequent in NW India. On the other hand, they are rare in the Ganga-Yamuna doab, where portable types generally prevail with handles (handled-censer type: Härtel 1993: VII.17). The impression is (Marshall would be again right here) that these are objects with closer parallels in the Iranian (and Mesopotamian) world than in India itself: on the other hand, morphologically they practically echo some of the “fire altars” that we find on Kushana coins for instance.<sup>52</sup> We should not be surprised to find them in these contact territories like Swat and rather clearly from Kushan phases (the stratified pieces are from Periods 7 and 8). What is surprising though is that this type had never before been found in Barikot, despite the fact that here the studied pottery record exceeds 100,000 sherds. In BKG 16, we have at least nine specimens, three from stratified layers. Two of the latter are from Room BKG 168, one from layer (265) (Period 8) and one from layer (402 N) (Period 7). The assemblage of the former also contains intact fragments of shell

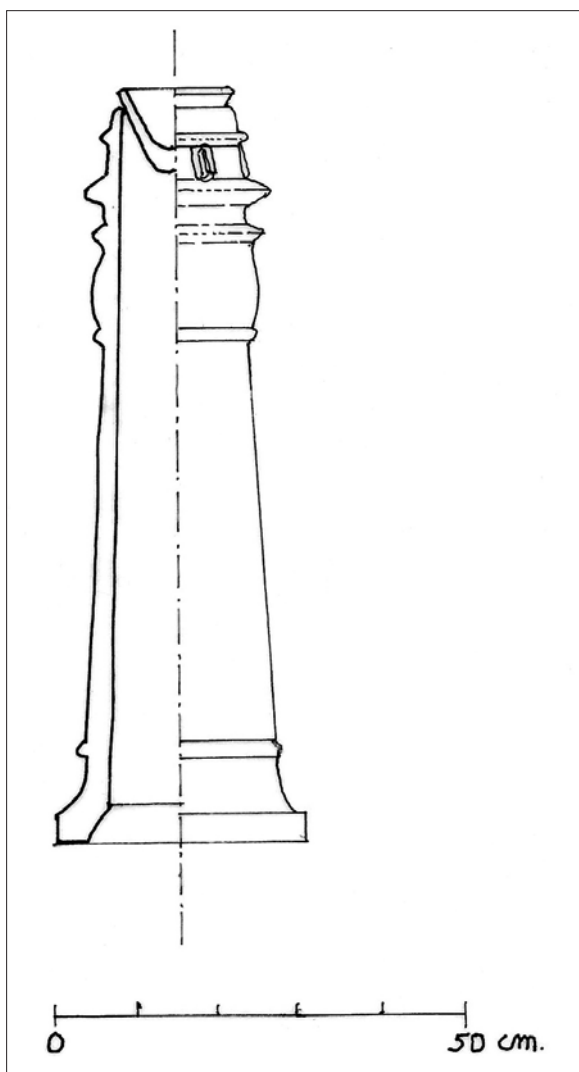


Fig. 39 - Reconstruction of censer BKG 7550.  
Drawing by Francesco Martore.

record exceeds 100,000 sherds. In BKG 16, we have at least nine specimens, three from stratified layers. Two of the latter are from Room BKG 168, one from layer (265) (Period 8) and one from layer (402 N) (Period 7). The assemblage of the former also contains intact fragments of shell

<sup>51</sup> Unfortunately, the results of the analyses were not yet available when this report was in print.

<sup>52</sup> These “fire altars” seem to depict a tall object with the body marked by close ribs or rounded flanges, with a wide foot, topped by a horizontal surface as if it were the rim of a container-burner. For the varieties of these “fire altars”/censers on the Kushan coin (usually depicted on the obverse, in the left field next to the standing figure of the king), see e.g., Göbl 1984, table VIII (Altäre: nos. 1-15). See also Verardi 1994 : 31-33, but especially fig. 32.



Top: bronze pin BKG 7671; Bottom: conch-shell BKG 8195.

bracelets, whetstones, a fragment of a grey ceramic bowl with a Kharoshthi inscription (BKG 7729). From (402 N) we recovered, among other finds, three fragments of bowls with Kharoshthi inscriptions (BKG 7896, 7897, 7898, 7899); a fragment of mother-of-pearl, three shell bracelets, three pottery lamps (type V 6), a sprinkling pourer (Eastern Sigillata Ware type) and a late copper



alloy coin (Kanishka II; BKG 7442). The relationship between these objects and the deposits of burnt cotton seeds found together with pomegranate peel flakes is still to be studied. Should an association between censers and cotton seeds be found, it would potentially open a new chapter in the history of these plants in Buddhist culture.

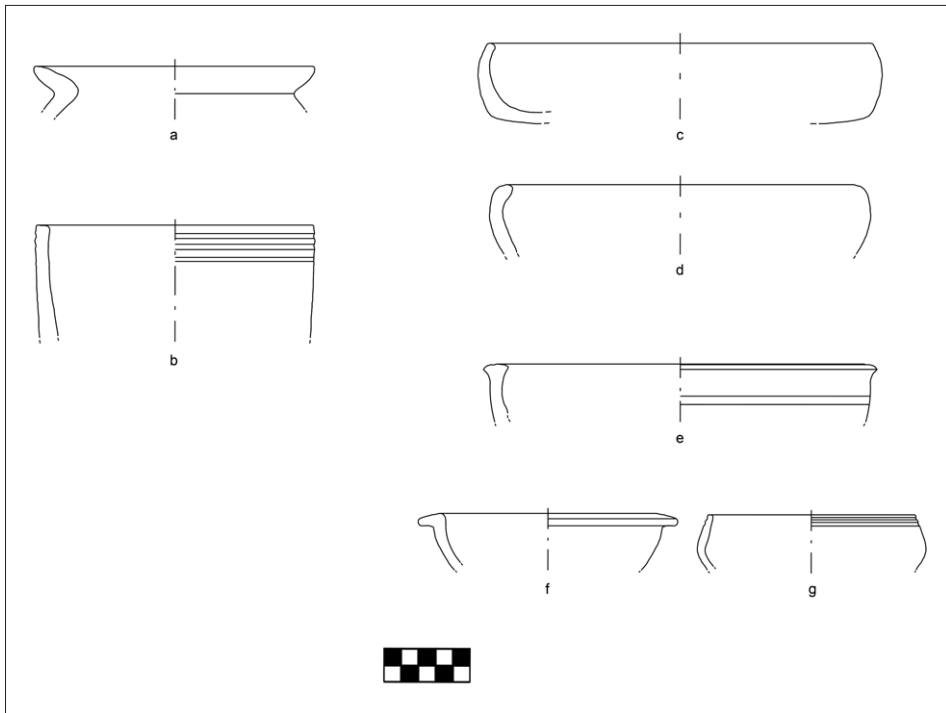
A different type (possibly part of an upper container-burner) (BKG 7773) was found in layer (414) of Period 4, which *post-quem* is given by a copper alloy “Taxila-Gandhāra” coin (BKG 7743).

From the same Period 4 comes a very important bronze pin with a flat disc head found in layer (408) (BKG 7551). The object finds substantial comparison in a pin found in Sirkap in period II (Marshall 1951: 586, pl. 182.233 (8)) (Pl. XVII).<sup>53</sup>

LMO

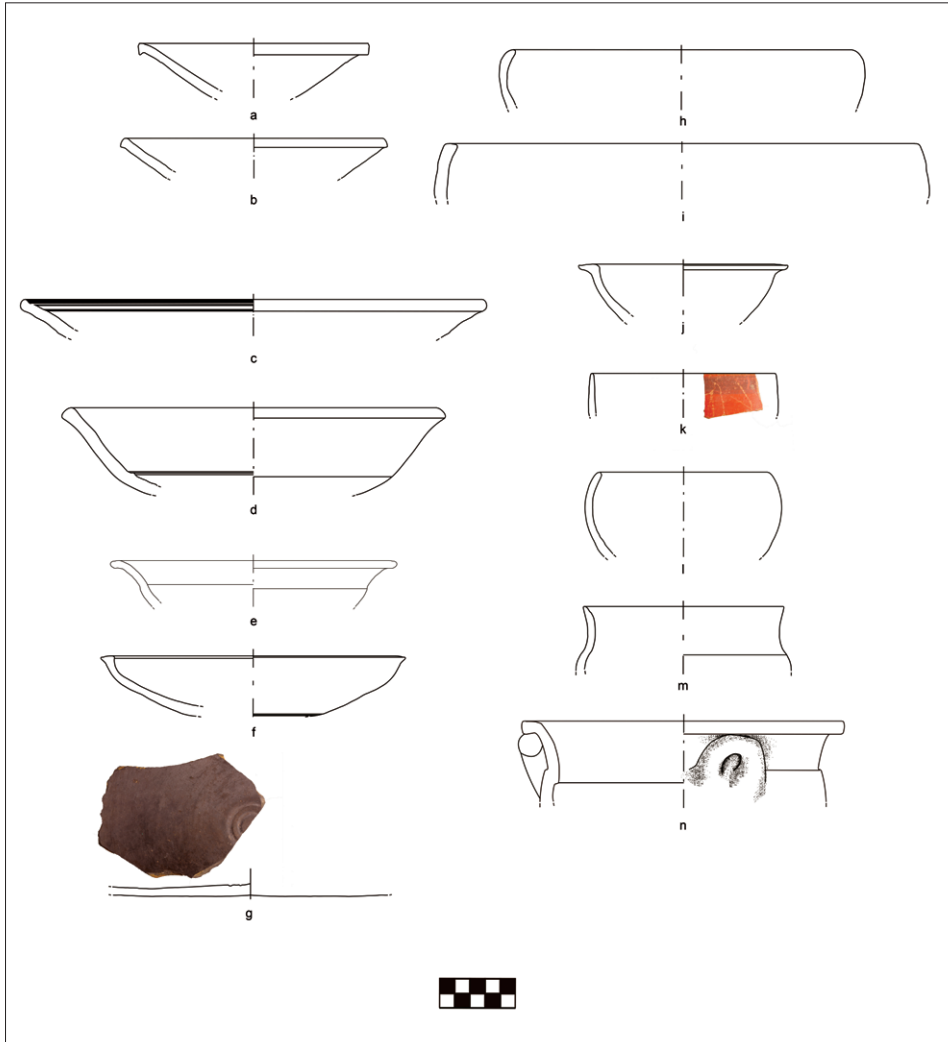
Pottery

PLATE XVIII

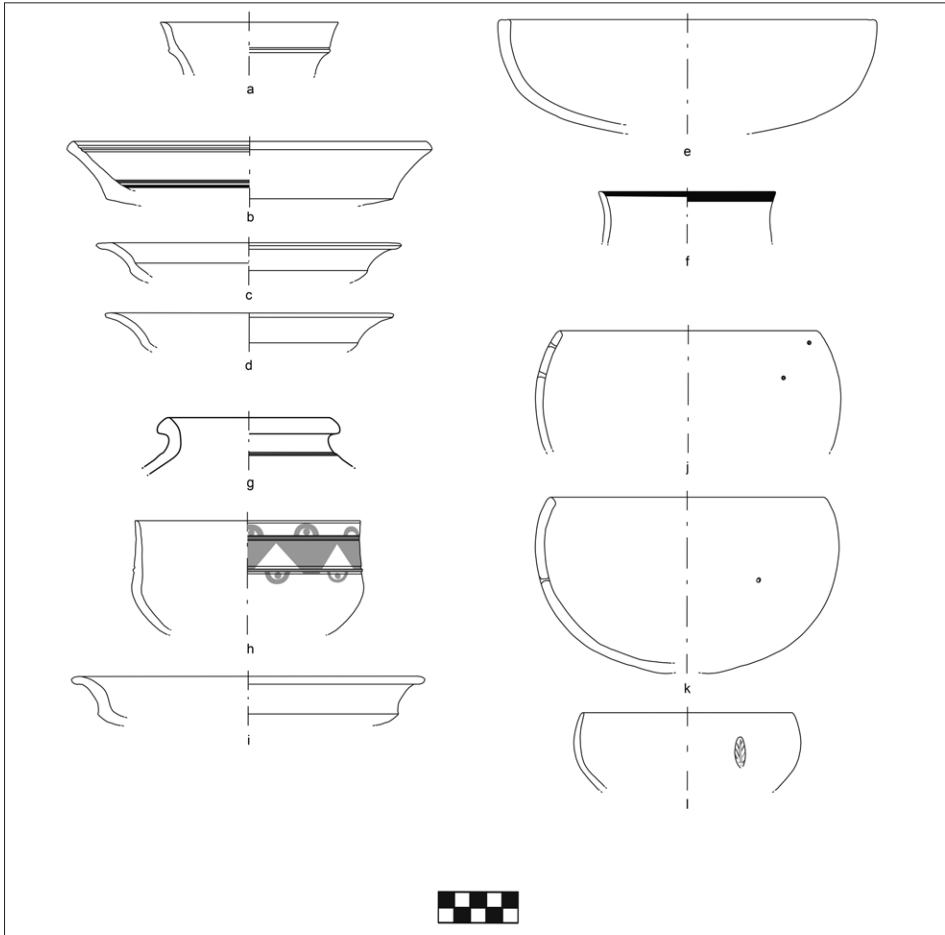


Period 3: a) BKG 7943 (Olivieri 2020a: CAc 2), cooking pot with sub-globular body, pointed everted sloping-in rim; red ware; b) BKG 7934 thick-walled bowl with vertical sides and flat rim, with three parallel grooved lines below the rim; red ware; c) BKG 7970 AAc *parath* or *thali* with vertical wall and flat (rough) bottom; red ware, red slip; d) BKG7968 ABa 4 *thali* with simple inflected rim; red ware, red slip; e) BKG 7966 bowl with clubbed bi-everted rim with grooved line on top; red ware, red slip; f) BKG 7983 ABc 3.1 almost hemispheric small bowl with flat horizontal (sloping-out) rim; red ware, red slip; g) BKG7981 carinated small bowl with inverted side, simple rim, two parallel grooved lines below the rim; red ware, red slip (ext.).

<sup>53</sup> From layer (630) (unfortunately the filling of a pit dug by illegal diggers) comes a conch-shell (BKG 8195, Pl. XVII), a medium-sized well-preserved specimen of *Lambis millepeda*. The conch (*śaṅkha*) was certainly used in the cultic performances associated to Building H.



Period 4: a)-b): BKG 7768 - BKG7932 (Olivieri 2020a: Class ABc 1.2) *plats-à-poisson* or fish plates, red ware, red slipped; c) BKG 7987, dish with oblique walls, simple rounded rim with internal groove; painted black-on-red: two parallel lines on the int. side; red ware, red slip; d) BKG 7731 (Olivieri 2020a: ABa 2.3) carinated bowl with simple rim, deep groove inside around the bottom, black-slipped ware (burnished); e) BKG 7545 (Olivieri 2020a: ABc 4.3) carinated bowl with everted, convex sloping-in rim, grey ware, black slip; f) BKG 7767 bowl with high slight carination and flat rim, red ware; g) BKG 7939, flat base of a *patera*/dish with two concentric grooved circles; black-slipped ware (burnished); h) ABa 2.2 (Olivieri 2020a): *thali* with pointed inflected rim, red ware; i) ABa 3.2 (Olivieri 2020a): *thali* with simple flat rim, red ware; j) BKG 7739, ABc 3.1 hemispherical bowl with flat everted rim, red ware; k) BKG 7926 (Olivieri 2020a: ABc 5.2) bowl with simple upright rim, red ware; l) BKG 7960 (Olivieri 2020: ABc 5) “Gandharan bowls” with incised Kharoshthi inscription; grey ware, black slip; m) deep bowl with carinated body and upright pointed (sloping-in) rim; n) BKG 8370, krater-like vessel with decorative handle, red ware; Macrophase 3a, (Olivieri 2020a: 123-124).



Period 5: a) BKG7973 (Olivieri 2020a: CCa 3) jug pointed carinated (sloping-in) rim, red ware, red slip; b) BKG 7950 (Olivieri 2020a: AA 1) serving dish with carinated body, everted wall and simple rim, two parallel grooved lines below the rim (int.) two parallel red and black painted lined at the carination (int.); red ware, red slip; c) BKG 7694 (Olivieri 2020a: ABc 4.3) carinated bowl with everted flat horizontal rim; grey ware, black slip; d) BKG 7700 (Olivieri 2020a: ABc 4.3) carinated bowl with slightly everted sloping-in rim; black-slipped ware (burnished). e), BKG 8369 (Olivieri 2020a: ABa 2.2) *thali* with simple rim; red ware, red slip; f), BKG 7936 (Olivieri 2020a: ABc 5.2-3) small bowl with upright wall and a slightly flared pointed rim painted with a black line (int./ext.); red ware, red slip. Period 6: g) BKG 7449 (Olivieri 2020a: CAB 1) small jar with (sub) globular body and round everted rim, ridge on top-shoulder; with incised Kharoshti inscription; red ware, red slip; h) BKG 7914 (Olivieri 2020a: ABc 5.4) deep convex bowl with upright wall, pointed rim, row of triangles pointing downward delimited by two double grooved lines and painted garlands (?); red ware, red slip; i) BKG 7530 (Olivieri 2020a: AA 1.3) carinated dish with everted flat horizontal rim; grey ware; j) BKG 7861 (Olivieri 2020a: ABc 5.1) “Gandharan bowls,” round bowl with simple rim, two pierces; grey ware; k) BKG7862 (Olivieri 2020a: ABc 5.2) “Gandharan bowls,” round bowl with simple sloping-in rim, pierced; grey ware; l) BKG 7953 (Olivieri 2020a: ABc 5.4/2.3) convex bowl with pointed rim, a row of stamped leaves; red ware.

EI and GP



## The Graves

The graves investigated in this campaign can be traced back to the same construction technique. They are characterised by a covering or roof of large parallel slabs, aligned on the long side, with the interstices closed by smaller stones, all resting on walls of vertical slabs. All the graves had the same approximate N-S orientation.

The foundation cut of the grave pits started at a higher level than that in which the slabs are located and is always recognizable up to the top of layer (3); the profile of the cut tends to be V-shaped. In the lower part, in correspondence with the slabs covering the walls of the pit, between the limit of the excavation and the slabs themselves, the material used for the filling of the interstices is generally finer both than that present in the layer in which it is excavated and that used for filling the part above the cover slabs of the burials. Very few archaeological objects (mainly pottery) were found in these layers.

As far as we could see, the cemetery only contained single graves. The bodies were always laid supine, in an empty space, without any kind of accompanying objects.

### Grave 1

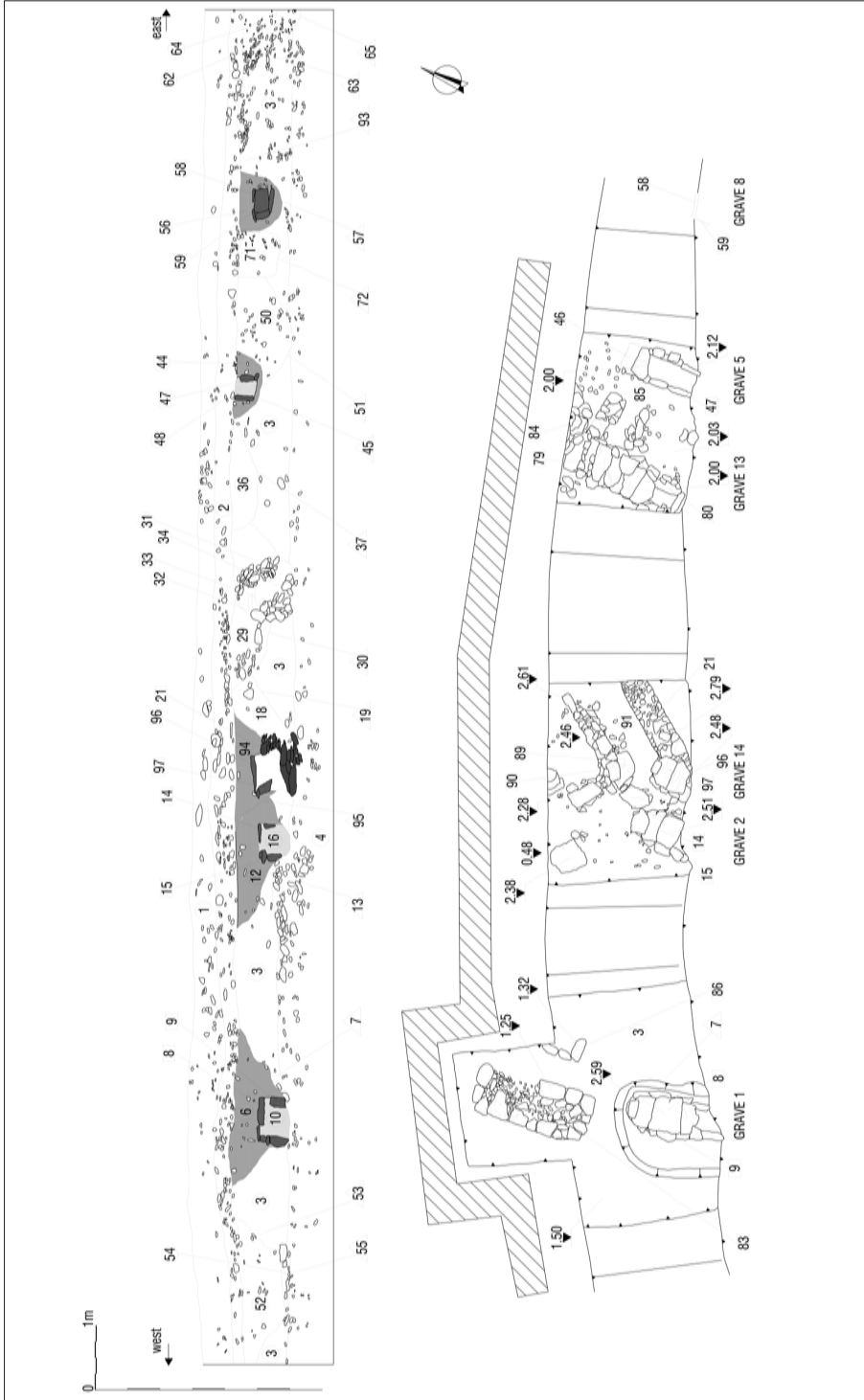
Facing S; the surviving part measured approximately 1.70 m in length, 0.44 m in width (0.80 m including the thickness of the stone facing of the walls) and 0.30 m deep. The walls were clad with vertical stone slabs that extended down to the bottom. The short side was formed by one large vertical slab, but the last stones of both long sides tended to slope in towards the interior of the pit. This gave the Northern part of the grave a slightly rounded contour. In section, one could clearly see that the space between the slabs and the cut was filled with fine silty/clayish sediments, probably to better seal the structure. The skeleton, well preserved, lacked only part of the lower limbs (being preserved as far as the femurs). The skull was turned upwards, and the mandible was slightly dislocated.

### Grave 2

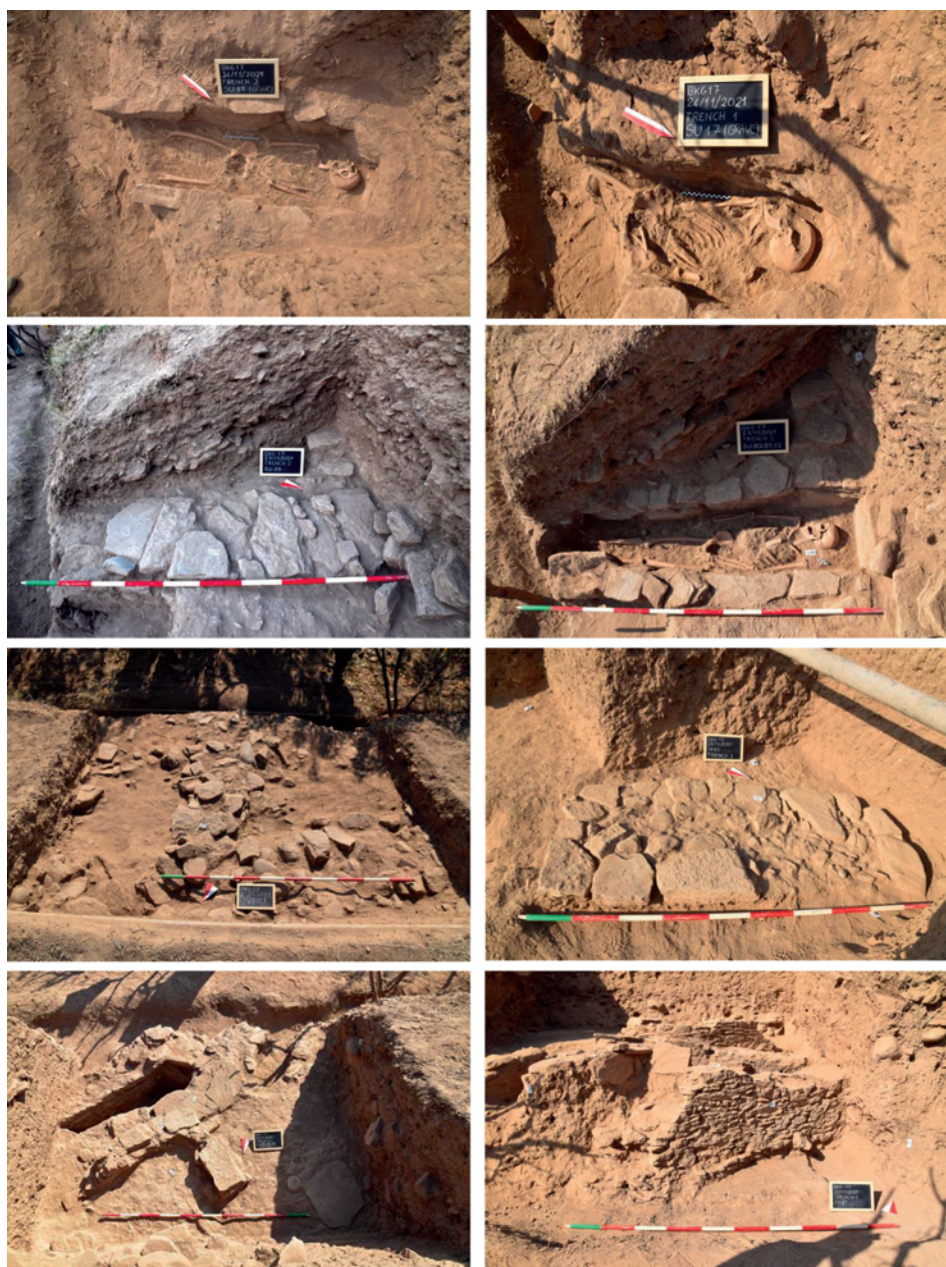
Truncated towards S; the surviving part measured approximately 1.05 m in length, 0.40 m in width (0.70 m including the thickness of the stone facing of the walls) and 0.30 m in depth. Only in the upper part of the sides of the pit were covered with stone slabs; the lower part remained earthen. The short side was formed by three stones, so the plan of the preserved part had a curved shape at the end. The skeleton had lost its lower limbs. The cranium was turned towards the West. The left hand seemed to be resting on top of the pelvic area.

### Grave 5

Truncated towards the S; the surviving part measured approximately 1.30 m in length, 0.35 m in width (0.55 m including the thickness of the stone covering of the walls) and 0.30 m in depth. The walls were covered with vertical stone slabs that reached down to the bottom. The short side did not have any stone cladding but was simply earthen. In section it was clearly visible that the space between the slabs and the side of the cut was filled with finer material, probably to better seal the stone cist. The skeleton was preserved as far as the femurs. The skull was completely inverted, and the mandible dislocated. Given the narrow space in which the skeleton was firmly



BK 17: Plan and wall section. Drawings by EL.



Figs 40a-h - From top to bottom, left to right: a: Grave 1 with skeleton; b: Grave 2 with skeleton; c: roof of Grave 13.; d: Grave 13 with skeleton; e: Trench 17.1 layer (1); f: feature 15; g: overview of Trench 17.1 with walls [21] and [89]; h: wall [21].

placed (as also in the other cases), such a displacement implies that the grave had been re-opened and its contents partially manipulated. However, we found no stratigraphic evidence of such re-opening.



### Grave 13

The grave is largely intact, with only the S-facing part collapsed inwards. It measured approximately 2.10 m in length, 0.40 m in width (0.75 m including the thickness of the stone covering of the walls) and 0.30 m in depth. The walls of the pit were lined with stone slabs that reached the bottom, the short sides being formed by single stone slabs. On the long East side, towards the S, there was a river pebble. The plan of the tomb was rectangular. The skeleton was complete and well preserved. The skull faced W, with open jaw. The left hand rested on the pelvic area.

### General Features

The differences between the tombs relate to the lining of the sides of the grave-cuts. While Grave 2 is covered with stone slabs only at the top, the others have slabs reaching to the cut bottom. Grave 2 has slightly rounded corners, a feature allowed by the use of several stones in the short sides. Graves with slab walls, on the other hand, have only one large slab in the short side preserved, which makes them more angular (or rectangular) than the others. Grave 1 has slab walls all the way to the bottom, but its only short side is slightly rounded (this grave is also truncated to the S). Graves 5 and 13 have slab-lined walls down to the bottom and markedly rectangular plans. Graves 8 and 14 are poorly preserved; only the short side towards N survives. Grave 8 seems to have had a rectangular floor plan and stone slab walls down to the bottom. Grave 14 also had walls formed of stone slabs reaching to the bottom and the short side is formed of a single slab. However, the floor plan of the latter grave was certainly not rectangular but somewhat irregular, since it used the existing wall as its E side [21].

Grave 13 has a river pebble between the slabs on the S side (near the feet of the skeleton). A large river pebble is also present above Grave 14. If the latter grave was similar to the other better-preserved graves, this pebble would have been near the head of the deceased, possibly meant as a burial marker.

The fact that all individuals buried here were female (see below, next paragraph) may, or may not be, significant. Of course, the excavated areas suggest that the graves were set in regular rows, with the same orientation, on artificially terraced ground. This would be normal and expected in a cemetery built in the described topographical setting, but reflects a certain care in the maintenance of the graves. Such a horizontal location of the graves is confirmed by the water-lain deposits in eroded cavities clearly visible in section, where horizontal lenses of gravel, with abundant hard, heavy garnets, selected by hydraulic-gravitational processes, lie parallel one above the other (63) (65) (62) (64)—which would have been impossible along a steep slope washed by rainwater. They certainly point to the presence, downslope, of a retaining wall.

## COMPARISONS WITH OTHER SITES

Despite the diffusion of Buddhism in the region in the Saka-Parthian period, there is evidence of a certain conservatism in funerary practices amongst the ruling families. An emblematic case is the Butkara IV site (Olivieri 2019) where the main structure, a monument consisting of three chambers, yielded the remains of at least twenty individuals whose bones have undergone manipulations comparable to those that were practised in protohistoric times until at least 50 CE at the end of the Saka Parthian period. The funerary monument of Butkara IV was built

in the same period, between the first and second extensions of the sanctuary of Butkara I, and was still in use after the foundation of the sanctuary of Butkara III.

The cases of Saidu Sharif and Sarai Khola are quite different but interesting. These cemeteries consist exclusively of single graves dug directly into the ground; the dimensions of the graves were closely related to those of the deceased, there are no grave goods, and they had East - West orientations (Halim 1970-1971: 59-89; Olivieri 2016a: 566-570). In Saidu's cemetery, the single burials have no grave goods and are accompanied by some stones that might have served as markers (although in this case they were located on the centre of the grave). It was by studying the position of some of these stones that the hypothesis of burial in empty spaces (i.e., inside coffins made of perishable material) was put forward, at least in some cases (Olivieri 2016a: 563-573).<sup>54</sup>

In the two-phase cemetery of Sarai Khola, burials have similar features but with a different E-W orientation. At this site, in the first phase of the cemetery, several burials have river pebbles used as markers placed at the feet and head level of the buried individual. In the second phase, the top of the graves was "secured and sealed" with river pebbles. In both phases, the interior of the tomb was filled with very fine sediment (Halim 1970-1971: 59). Another characteristic common to both sites is the attention given to the position of the deceased in the tomb. In the case of Saidu Sharif males were laid on their backs with their heads to the W and their faces to the N. Women, on the other hand, were laid on their right side (Olivieri, 2016a: 563). The orientation of the Sarai Khola bodies is similar for men, while women are also laid in a supine position with at least one hand resting on top of the pelvic area (Halim 1970-1971: 59, Bernhard 1969: 102).

The BKG 17 site shows close similarities with Butkara IV in chronology (see *above*), in the square-shaped tomb structure made of stone in line with tradition—and, if the hypothesised chronology turns out to be correct, in a certain conservatism in the practice of funerary rituals rooted in earlier traditions practised by elites.

Other similarities can be found in the cemeteries of Saidu Sharif and Sarai Khola. In these cases there is a focus on orientation (although different from that recorded in BKG 17), burial within an empty space in Saidu Sharif, the use of stones (including river pebbles) as markers and, especially at Sarai Khola, the position of the skeletons. In the case of BKG 17 it is conceivable that the river pebbles found over the graves had the function of marker because they stood out, being clearly out of context, far from the riverbed of origin. With regard to the rightward rotation of the skulls, it is not possible to state with certainty that this was constantly practised at BKG 17; post-mortem rotations may have influenced it, as attested in at least one case where the skull was inverted (Grave 5).

EL and MV

#### PRELIMINARY BIOARCHAEOLOGICAL INFORMATION<sup>55</sup>

The table below shows the results of the anthropological analysis of the human remains from Graves 1, 2, 5, and 13.

<sup>54</sup> These two sites are not isolated in the funerary landscape of Swat. After the end of protohistoric burials around 800 BCE (Vidale et al. 2016), a change in funerary customs can be observed, with a drastic reduction in burials. This phenomenon does not seem to be attributable to the spread of Buddhism as it was already observable in previous centuries (Olivieri 2019: 232). Other burials are also dated to the pre-Buddhist phase, e.g., in Aligrama Trench b with different dates ranging from 756 BCE to 52 CE (Olivieri in Narasimhan et al. 2019b: 164-165), and the single *ad muros* burial at Barikot, dated to 182-45 BCE 100% 2σ cal (163-128 BCE 40% 1σ cal, Olivieri 2020a: Appendix 6).

<sup>55</sup> The recovery, taphonomic analysis, and anthropological study of the human remains of the site BKG 17 were carried out in the framework of a Ph.D. program at the Department of Cultural Heritage of the University of Padua. The information here briefly presented here is part of a more detailed, unpublished report by GC.

TABLE 1  
Anthropological analysis of the human remains from Trench BKG 17

Grave	Representation	Sex	Age at death	Stature estimation
1	50-75%	F	50+	157(± 3) cm
2	50-75%	F	45-50	NR
5	50-75%	F	25-28	158(± 3) cm
13	75-100%	F	30-35	159(± 3) cm

The osteological sample consists of 4 individuals, differently preserved because modern agricultural terracing works have cut the graves at different heights; only Grave 13 contained a complete individual.

The morphometric traits of the skull and pelvis allowed us to identify four females (Acsádi and Nemeskéri 1970). The age at death was estimated based on the fusion of the cranial sutures (Meindl and Lovejoy 1989a), the degree of tooth wear (Lovejoy 1985), and the degenerative changes of the sternal end of the ribs (İşcan *et al.* 1985), the auricular surface (Lovejoy *et al.* 1985; Meindl and Lovejoy 1989b), and the pubic symphysis (Todd 1920; Brooks and Suchey 1990).

Where possible, the stature was estimated based on the length of long bones (Pearson 1899).

In line with their advanced age, the individuals from Graves 1 and 2 show dental and skeletal degeneration: both have lost several posterior teeth during life and show dental caries and abscesses. Moreover, the individual from Grave 1 shows osteoarthritis on cervical vertebrae and diffuse osteophytosis on the rims of vertebral bodies (Ortner 2003). The same individual shows a morphological anomaly in the shape of the skull, which appears underdeveloped in an anteroposterior direction (Fig. 41). A 3D documentation of the skull was produced.

In two individuals (Graves 1 and 5) both the coxal bones show the pre-auricular sulcus, an alteration commonly related to pregnancy and childbirth (Igarashi *et al.* 2020; Waltenberger *et al.* 2021). The individual from Grave 13 does not show the pre-auricular sulcus, while it was not possible to observe its occurrence for the individual from Grave 2, because the grave was cut right at the level of the pelvis and both the coxal bones of the individual were not preserved.

GC



Fig. 41 - Frontal view (a) and posterior view (b) of the skull of the individual from Grave 1 (Female, 50+). 3D model by GC and EL.



## CHRONOLOGY

Pending radiocarbon dating, the following hypothesis is proposed on the basis of the materials. The burial structures of BKG 17 seem to be more recent compared to the sites mentioned above. In fact, the tombs seem to be set above buried remains of the Saka/Parthian or Early Kushan period, while the more recent material found in the upper layers is not later than the Kushano-Sasanian period. This would preliminarily suggest a date around the 1<sup>st</sup>-2<sup>nd</sup> century CE.

### SOME DATING MATERIALS

#### A terracotta figurine

The upper part of Layer (3) in Trench 17.3 yielded one of the most remarkable objects: the head of a moulded terracotta female figurine (BKG 7885) (Pl. X.g). This artefact resembles other similar figurines of the Saka-Parthian phase of Barikot (Coloru et al. 2021: fig. 12, 118). Other similar terracotta figurines have been studied typologically in an unpublished dissertation (Esposito 2019). All these comparable objects can be ascribed to the first two centuries CE, but in particular to Macrophase 3b (c. 50 BCE-50 CE).

EL

#### Pottery

The material presented here (Pls XXII-XXIV) is a selection from the plates reproduced in Lant 2022, unpublished.

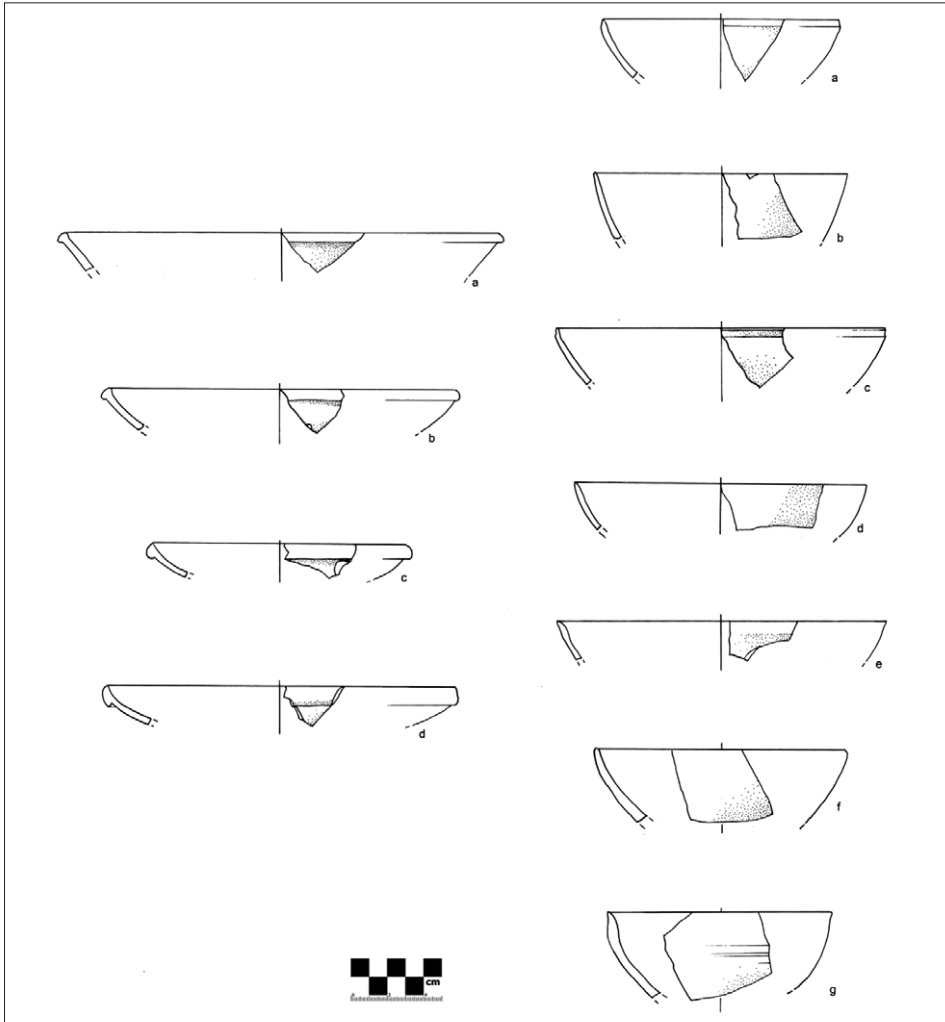
EL and MV

#### *Trench BKG 18* (Pl. XXV)

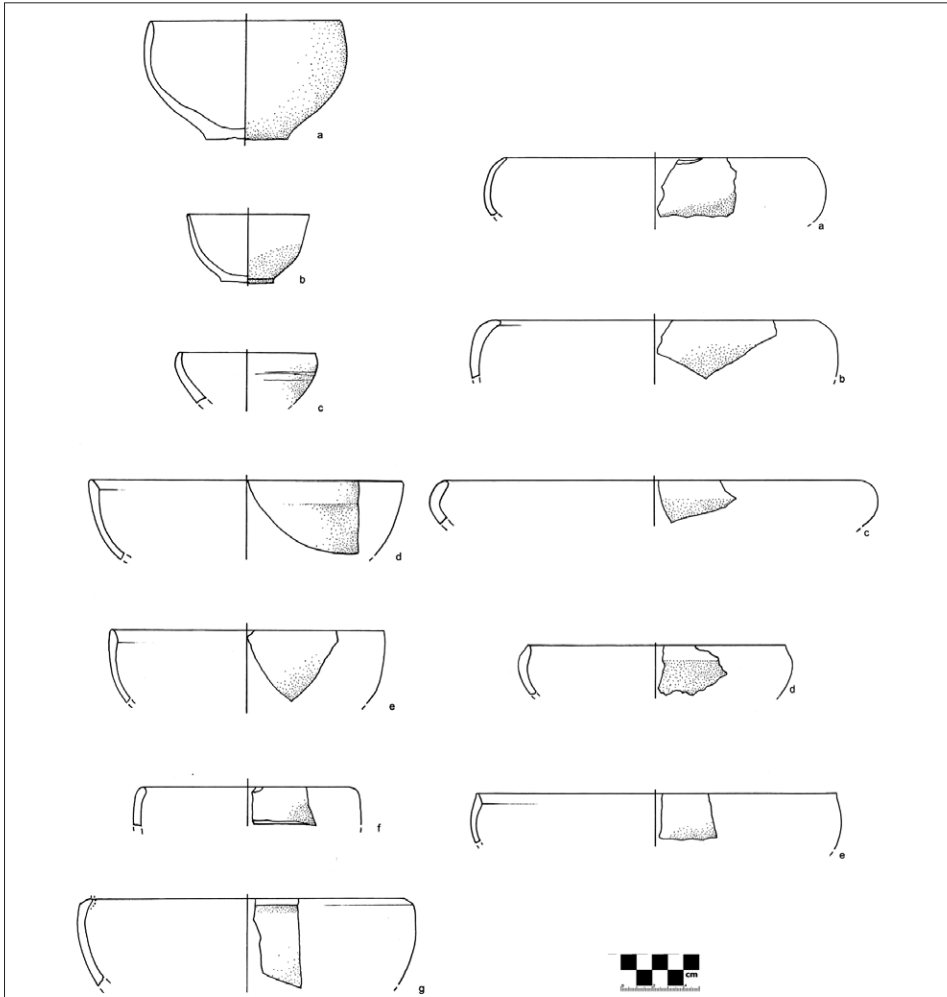
Excavation at the site was triggered by the results of the 2016 excavation campaign in the nearby Trench BKG 12 E (Iori et al. 2016). Trench BKG 12 E is located immediately to the W of BKG 18 and was dug in the area surrounding the first E bastion of the Defensive Wall of Bazira/Barikot (S stretch). The evidence obtained from the excavation of BKG 12 E sheds new light on the organization and functions of the external area of the Wall (S stretch = Wall [1]), with special reference to Macrophase 3b (the so-called “Saka-Parthian” phase, c. 50 BCE-50 CE).

The extramural sectors investigated in the past had revealed little evidence beyond their defensive features (BKG 3 = Callieri et al. 1990; Trench BKG L and M = Filigenzi 1985: 436, 437-438; BKG 4-5 = Callieri et al. 1992; Olivieri 2003; BKG 12 = Olivieri 2015), the drainage system (BKG 4-5, Callieri et al. 1992), and the external passageway network (BKG 12 = Olivieri 2015). However, the presence of extramural structures identified during the survey of the Bir-kot plain had suggested that in historic times “a built-up area existed *extra moenia* for dwelling purposes” (Olivieri 2003: 35), and that the structures identified were in some way involved in the defence of a city gate.

The discovery in BKG 12 E of a large pit-well with associated structures offered the opportunity for a closer examination of the use of the extramural area, showing that already in Macrophase 3b (as indicated by the earlier results of trench BKG 12 = Olivieri 2015) urban needs led to an everyday use of the area immediately outside the city wall.

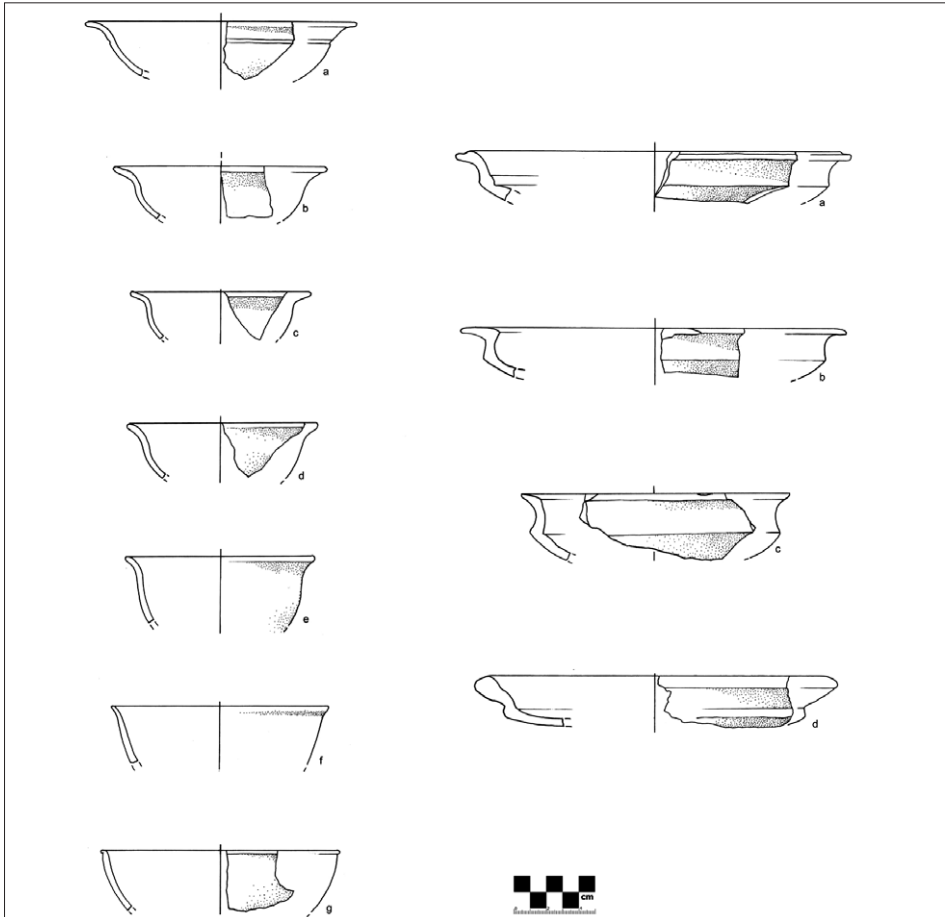


Left column: Olivieri 2020a: AA 3.1, *plats-à-poisson* or fish plates. Wide-open bowls with everted or bi-everted rims. a) very fine red ware with mica, red slipped, yellowish red; b) very fine red ware with mica, very light brownish gray; c) very fine red ware with mica, light reddish brown; d, fine red ware with mica, red slipped, reddish yellow. The four specimens come from a single layer, (76), cut by the excavated graves. Their diameters range from 14 to 24 cm; the paste is fine, reddish and in two cases slipped red. Cf. Barikot Macrophase 3a, 2<sup>nd</sup> century BC (Olivieri 2020a: 109-110, with further comparisons with Charsadda). Right column: Variants of Olivieri 2020a: ABc 2.1 “fine bowls with thin open rounded walls and simple and/or pointed rims” (Olivieri 2020a: 152). a) (18), fine red ware with mica, red slipped, red; b) sporadic, fine red ware with mica, red slipped, reddish brown; c) sporadic, fine red ware with mica, red slipped, red; d) BKG-17, sporadic, very fine red ware with mica, red slipped, red; e) BKG-17, SU (36) base, fine red ware, red slipped, yellowish red; f) (76), fine red ware with mica, red slipped, light brown; g) (76), very fine red ware with mica, red slipped, reddish brown. Small (Ø 12 to 18 cm), thin-walled bowls of similar descriptions are rather common in the BKG-17 excavated trenches. ABc 2.1 and ABc 5 belong to the “Gandharan bowls” (Olivieri 2020a: 152-153; Macrophases 3a and 3b). ABc 2.1 specimens were found in layer (76), the surface from which the graves were dug, and from the lateral fillings of the pits of the graves themselves.



Left column: Other “Gandharan bowls,” variants of Olivieri 2020a: ABc 5.2-5.3, small thin-walled bowls with convex walls and simple/pointed rims. a) (76), very fine red ware with mica, red slipped, light reddish brown; b) (18), top of grave, very fine red ware with mica, detached with a string, strong brown; c) (18), top of grave, medium coarse red ware with grog and mica, red slipped, strong brown; d) (76), fine red ware with mica, red slipped, pale brown; e, (36) base of the pit, fine red ware with mica, reddish brown; f) (18), top of grave, medium coarse gray ware with mica, black slipped, dusky red; g) (76), medium coarse red ware with white inclusions, red slipped, light brown. “Gandharan” bowls of this or similar types became more common in Macro-phases 4 and 5 (Olivieri 2020a: 157; Callieri 2020: pls. 86-87). Three specimens (a, d, g) come from SU (76), the substratum in which the graves were dug; the others seem to have been variously linked with the use of the graveyard and the graves themselves. Right column: Thicker, medium-sized flat bowls with neatly restricted mouth and (often) pointed rims (*thalis*). a) (76), very fine red ware with mica, red slipped, yellowish red; b) (84), medium fine red ware with mica, red slipped, pinkish gray; c) (76), medium fine gray ware with mica, reddish gray; d) contact between (2) and (3), very fine red ware, red slip with mica, light red; e) (84)-(85), fine red ware with mica, red slipped, red. Olivieri 2020a: ABa 3-4, red ware medium-sized, thick-walled flat restricted bowls, are a “key type” of the Early Historic period sequence of the region (Olivieri 2020a: 112, with a specific discussion; Callieri 2020: pls. 13-15, 46-54).





Left column: Small thin-walled bowls - from specimens with a continuous S-shaped contour, to bowls with an outwards flected rim (f and g). a) (76), very fine red ware with mica, red slipped, yellowish red; b) (76), fine red ware with mica, red slipped, reddish brown; c) (76), fine red ware with mica, red slipped, reddish brown; d) sporadic, fine red ware with mica, reddish brown; e) BKG-17, SU (76), fine red ware with mica, red slipped, light reddish brown; f) BKG-17, contact between SU (2) and (3), fine red ware with mica and schist particles, yellowish red; g) sporadic, very fine red ware with mica, red slipped, reddish brown. In Olivieri's typology, the reference Classes would be ABc 4.1 (whose walls are anyhow thicker than the specimens in discussion) and ABc 4.3 (the so-called "tulip bowls"; see also Class ABc 3.1 in Callieri 2020: pl. 70, 3-5). The proposed chronology range between Macrophase 3a, 3b and 4 (Olivieri 2020a: 155-156). Right column: Flat carinated bowls or dishes. a) sporadic, lateral fillings, medium fine red ware with mica, red slipped, reddish brown; b) sporadic, very fine red ware with mica, slipped red, light reddish brown; c) (76), medium fine red ware with mica, red slipped, red; d) contact between (1) and (2), coarse red ware with mica and schist fragments, slipped red, reddish brown. Class AA 1.1 (Olivieri 2020a: 108-109) "low slightly carinated (or S-shaped) everted-rim vessel" or more simply "carinated bowl" is another key type of the specialistic literature on the pottery industries of the Early Historic periods of the region. Although the specimens from BKG 17 have a sharp corner point (carination) absent in Olivieri's Barikot type-form, like many other ceramic forms of our context these vessels are common in Macrophase 3b (Saka-Parthian period), very frequent in Macrophase 4 (early Kushana period) and decrease in late Kushana times. See also Callieri 2020: pls. 1 and 3-6.



An interesting parallel for a hypothetical defensive precinct comes from BKG 3, which yielded a rectangular structure built to the S of the bastion, parallel to Wall [1], and stretching Eastwards, creating a large room, BKG 310, which was interpreted as a blockhouse (Olivieri 2015: fig. 10).

The evidence from BKG 12 E led us to consider the accessibility of the pit-well. The hypothesis was then proposed of the possible presence of a city gate in the immediate surroundings. That would have been the most reasonable explanation for the location for the pit-well in such a place. Even if the location of BKG 12E, so close to the SW corner of the S side of Wall [1], does not seem the most suitable point for a main gateway, the hypothesis of a secondary gate nearby was put forward. Moreover, the presence of a pit-well outside the Wall, and maybe close to a secondary gate, would have been similar to the so-called 'water-gates' of Sirkap (Marshall 1951: 115; Ghosh 1948: 42).

Finally, taking advantage of the fact that the archaeological area of Barikot had in the meantime been acquired by DOAM, and having obtained permission to work there, we lastly dug a small trench where we thought a secondary city gate might be located, connected to the pit-well of Macrophase 3b.

#### Fall 2021

The trench was initially 16.5 m long, 2.60 m wide in the W sector, then 8 m from the W end it narrowed by approximately 0.40 m, being 2.20 m wide in the E sector. The elevations in Fall 2021 were taken from point 0.00 corresponding to the maximum preserved height of the Wall in the adjacent trench BKG 4-5. After removal of the surface layer the excavation proved particularly fortunate in that it uncovered a large breach in the structure of Wall [1].

#### Periods 6-5 (Macrophases 6-5b)

The surface of [1] is cut by several negative episodes, the most notable of which is the widening of a breach <14> and <15>, which uncovered a compact floor with gravel and sand, evidently a late trampled surface. Further cutting activity was revealed in Sector E, with the <21> and <21bis> cuts terminating respectively on the [6] and [8] planes excavated in [1]. These are planes with flat and slide slabs, respectively. The former is certainly a water collection area (connected to the late drain [8]) and the latter a wash-house (we have further examples in Macrophase 5b in BKG 11). Immediately to the E of the breach there is also an actual drainage channel [4] reinforced by well-constructed abutments. On the basis of finds the early phases reached during the 2021 work can be dated to the Kushano-Sasanian period (= Macrophase 5b).<sup>56</sup>

#### Winter 2022

During the winter season trench BKG 18 was extended 1.50 m to the S and to the N in correspondence to the breach.

<sup>56</sup> In addition to the pottery, see the terracotta figurine in Pl. XV.h and Late Kushan Vasudeva-type coins BKG 8026 and BKG 8027.

#### Periods 5-4 (Macrophase 5b-5a)

The N extension revealed the presence, at a distance of approximately 0.90 from Wall [1], of threshold [12] (w. 0.98). The threshold, equipped with a base [12] and large postholes (l. 0.19-0.26) for door jambs, [50] and [51], placed 3.67 m apart, must have been associated with the late city gate. The first trampled surface (13) associated with the threshold covered the razed surface of the city wall and might be contemporary with the late structures, [6] and [8], uncovered in the previous season (= Macrophase 5b). The presence of a large gate at a time when the ancient city wall was not in function suggests that in the Kushano-Sasanian period the city was nevertheless delimited by a defensive structure, perhaps a palisade, that followed the outline of the ancient wall, but of which evidence was eliminated during modern levelling work in the area.

#### Periods 3-2 (Macrophases 4-3b)

Below the floor (13) externally associated with the threshold are a series of accumulation layers of loose soil alternating with collapse of stones that cover the razed surface of Wall [1] and fill the breach. From these layers come several small finds mostly associated with the early Kushan and Saka-Parthian phases: the fragment of a dish with Kharosthi inscription (BKG 8177), a spout in the shape of an elephant's trunk (BKG 8179), a repaired shell bangle (BKG 8188), part of a relief (BKG 8206), several marine shell bangles and tokens, a Baroque lady (?) (BKG 8348), but also a late Kushan coin (BKG 8209).

#### Period 1 (Macrophase 3a)

Below this sequence of accumulation layers, a flat surface narrowed toward the S (w. 1.80 at S, 2.73 at N) and furnished with two pairs of recesses, at the S and N limits, was reached. This seems to be the threshold of a service door with double closure of the Wall [1] associated with a level (36) of yellowish compact clay to the S. From the accumulation layers that cover the external trampled surface come two single-moulded female terracotta figurines, (BKG 8180) and (BKG 8181), another one with a collar (BKG 8229) and the base of a grey stone dish (BKG 8205). The levels reached at the end of the 2022 fieldwork probably correspond to the Indo-Greek phase.

LMO, EI and NK

#### BEADS, SCULPTURES, INSCRIPTIONS, AND COINS (BKG 16, BKG 17 AND BKG 18)

##### BEADS (PLS XXVI-XVII)

In total, 51 well-dated beads and pendants have been found in the latest excavations at the trenches BKG 16 and 18, many others were found in the filling of the illegal excavators. This section describes only a few new specimens amongst those recovered in well-stratified contexts. An exception is, however, made in the case of two specific beads—the chronology of which may be tentatively proposed based on cross-comparative studies with earlier work (Rabbani 2019; 2020a; 2020b; 2022).





a) A spherical bead of carnelian (BKG 8212); b) a lenticular short barrel bead of marine shell (BKG 8211); c) a drop pendant of marine shell (BKG 8260); d) a butterfly nut bead of glazed quartz (BKG 8262); e) A long barrel bead of amber (BKG 7745). Photos by MAR



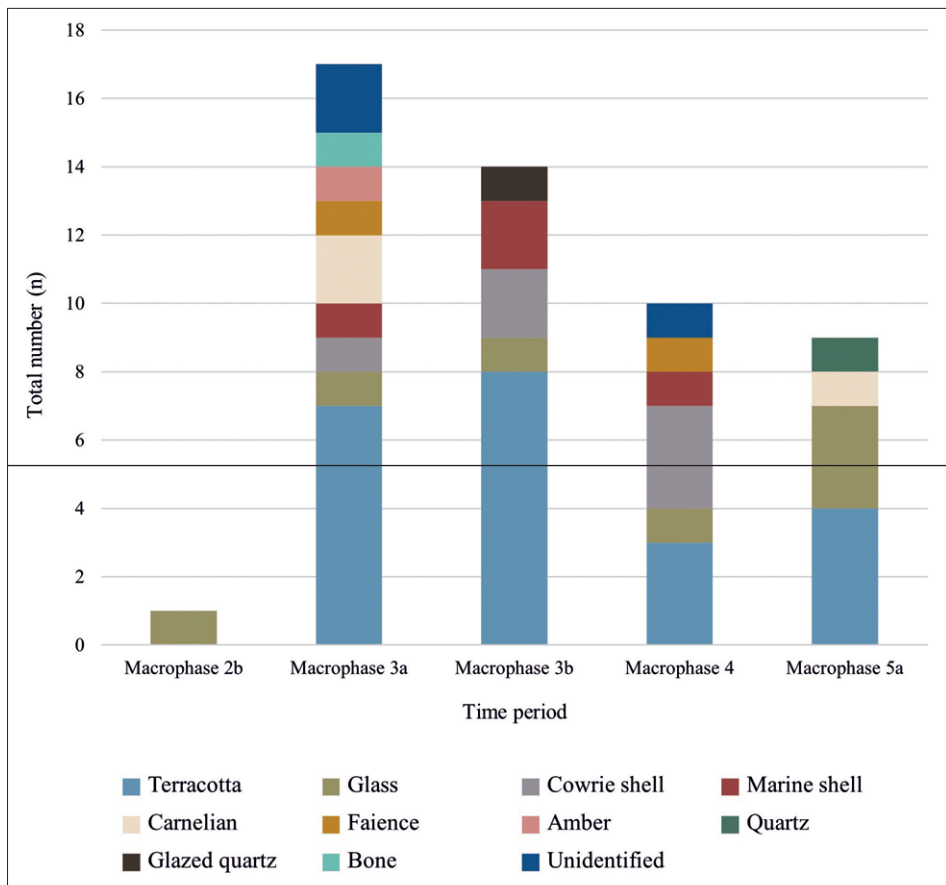
a) A dagger-pendant of bone (BKG 8317); b) a spacer bead of marine shell with three perforations (BKG 6310); c) a hexagonal faceted long biconical bead of carnelian (BKG 7883). Photos by MAR.

### Raw Materials' Provenance

A broad range of raw materials were acquired to produce the beads and pendants found at Barikot. The list of raw materials includes terracotta, followed by glass, perforated cowrie shell, marine shell, carnelian, faience, amber, bone, quartz, and glazed quartz (Table 2). Additional studies in the future will help determine the precise geographic locations from which these materials could have been acquired. The marine shell and cowrie shell would have been acquired from the coastal regions that are some 1200 km to the South (Kenoyer 1983; Gaur et al. 2005: 944; Yang 2011: 2-3; 2018; Micheli 2014: 225; 2020: 246-247). The carnelian could have come from either the region of Sistan in Iran over 1200 km to the West or Gujarat some 1200 km to the Southeast (Tosi 1969: 374; Law 2011). Although no resource areas of amber are known from South Asia and Central Asia, notable occurrences can be found along the distant North Sea and Baltic Sea coastal regions, the Eastern African coast, and the Northern region of Burma (Marshall 1951: 740; Kashani et al. 2011; Ahuja 2018: 117; Duturaeva 2022). Glass, faience, and glazed quartz may have been traded in finished form or can be the result of an on-site production (the presence of some pieces of glass waste leaves the question open).

TABLE 2

Raw materials of the new collection of beads (Note: Number of beads shown is not representative of the total number of beads in circulation at the site during the individual periods)



## Internal Comparisons

The excavations at Barikot have revealed several examples of beads that correlate chronologically with the typological features of beads analysed in earlier studies (Rabbani 2020a; 2020b; 2022). Among the beads made from semi-precious stone materials, they include, for example, a spherical bead made from carnelian (BKG 8212: Pl. XXVI.a). BKG 8212 was found from trench BKG 18 and was in circulation at the site during the Hellenistic periods (Macrophase 3a). The use of spherical carnelian beads during Graeco-Bactrian period of Barikot (Macrophase 3a1) is already well-documented from earlier studies (Rabbani 2022) and, as such, the results not only support our existing interpretations in terms of the use of long-distance semi-precious stone materials at Barikot during the Hellenistic times but also the integrity of our chronological assignments for the finds.

Earlier studies have also demonstrated the popularity in the use of beads made from marine shell that occur in many different shapes deriving from the Saka-Parthian and Kushana periods of Barikot. This long-distance material was probably imbued, as indicated in earlier studies, with some form of symbolic-ideological value and meaning in relation to the Buddhist faith, which was anchored in the religious landscape of the region at the time (Rabbani 2020a; 2022). It is only under the Saka-Parthians that the adoption of Buddhism translated into the expansion in the production of monastic settlements, sacred literature, and figurative art in Gandhāra dominating civil life and the religious landscape—a process that continued on and culminated in the Kushana period (Callieri 2002; Coloru et al. 2021: 127). In this regard, the recent excavations have, interestingly, revealed more evidence not only for the use of marine shell beads but also cowrie shells connected to the Saka-Parthian and Kushana cultural orbits. The excavations at trench BKG 16 SE (inside the rectangular precinct surrounding Building H) have, for instance, led to the discovery of a lenticular short barrel bead of marine shell, which is dated to the Saka-Parthian period (BKG 8211: Pl. XXVI.b). Similar types of beads have already been documented in earlier work (Rabbani 2022).

Previous studies have, in fact, demonstrated the use of marine shell among the people of Barikot during the earlier Hellenistic times already, although possibly on a much more reduced scale in comparison to the later Saka-Parthian and Kushana periods (Rabbani 2022). Now that we have clear evidence for the archaeological ‘visibility’ of Buddhist influence within the urban landscape of Barikot prior to the Kushana and even Saka-Parthian periods (Olivieri 2022c: 218-222), a potential association of marine shell with Buddhist devotional practises and ideas during this earlier Hellenistic horizon cannot be entirely ruled out. Pl. XXVI.c shows, for example, a drop pendant of marine shell, which has been found in the excavation of trench BKG 18 and is dated to the Hellenistic periods of Barikot (Macrophase 3a). Drop pendants have been found in the excavations of Barikot before (Rabbani 2022) and are dated to the post-urban phases of the site (Macrophases 6 and 7-8). This new data, therefore, indicates, in contrast to what was believed previously, the circulation of drop pendants in the city already occurring during the Hellenistic times.

Another important discovery is a butterfly nut bead of glazed quartz, which has been found from trench BKG 18 and is dated to the Saka-Parthian period of Barikot (BKG 8262: Pl. XXVI.d). It represents the second butterfly nut bead that has been identified in the assemblage thus far. The other sample is dated to the Mature Kushana period of Barikot (Rabbani 2022). Butterfly nut beads imitate the shape of a sacred fig, *Ficus religiosa* or pipal leaf, which is native in the foothills of the Himalaya (Burkill 1946). Similar types of beads have been found from Sirkap in Taxila and are reported to date to the 1<sup>st</sup> century CE (Beck 1941: pl. V, 23-24). Since there is currently no conclusive evidence for the production of beads made from vitreous material at Barikot, it is possible that BKG 8262 may have been imported in a finished state from a larger urban centre such as in Taxila. The ancient history of pipal leaves can be traced to various ceramic paintings, signs in the Indus Script and forms of artistic media including seals associated with the Indus Tradition (Mahadevan and Bhaskar 2018; Mallah and Shafiq 2017; Panjwani and Sen 2010; Srinivasan 2009). This sacred fig is considered to have a relig-



ious significance in the later periods as this is the Bodhi tree under which the historical Buddha is believed to have mediated and attained enlightenment. Pipal leaves can, in fact, be clearly recognised, decorating various Gandhāran art reliefs (Miyaji 2008; Srinivasan 2009; Tanabe 2017/2018; Khan 2019: 78-79). It is, therefore, possible that the bead maker attempted to imitate the shape of *Ficus religiosa* probably for devotional and ceremonial purposes related to Buddhism.

Although the use of amber, as a raw material, is documented at Barikot during the Turki-Shahi period (Rabbani 2022), the excavations have led to the discovery of a unique long barrel bead of amber (BKG 7745: Pl. XXVI.e) from the earlier Hellenistic levels represented at BKG 16 (Macrophase 3a). Amber beads are also reported from sites in the Taxila Valley from the late centuries BCE (Marshall 1951: 740). Dilnoza Duturaeva has, in her recent study of the evidence, shed light on aspects of trade and the transfer of amber, as indicated by the archaeological and literary records, to Central Asia and China (probably from the Baltic and/or Burmese deposits) especially between the late centuries BCE and the early centuries CE (So 2013; Duturaeva 2022: 183-189). It is, therefore, likely that the amber of Barikot was introduced to the Swat Valley through the prevailing long-distance interaction route systems that linked the Baltic or the Burmese regions to Gandhāra during the Hellenistic periods. Geological sources in the Baltic region are, in fact, a more likely possibility considering the evidence for cross-cultural links that are well-documented between the East and the West especially within the context of trade with the Roman Empire at the time (Marshall 1951; Olivieri, Iori 2021; Duturaeva 2022).

Another find with an unconventional shape is represented in the assemblage, which is a dagger-pendant of bone decorated with the well-known double concentric circles with a central dot motif (BKG 8317: Pl. XXVII.a). It has been found from trench BKG 16 SE and dates to the Hellenistic periods of Barikot. The distinctive circle-and-dot motif have a long-lived tradition in South Asia carved on fired steatite seals from several Indus sites (Kenoyer 2009: 12, 22; Parpola 2013: 40-41). This design can also be seen on the exterior surface of a fired steatite bead (among other finds) from the protohistoric period of Barikot (Rabbani 2019; 2022). Although the precise meaning is difficult to determine, the use of this motif at Barikot during the Hellenistic times provides evidence of a continuation in cultural practises tied to the earlier protohistoric tradition of the site. Typologically similar dagger-pendants of bone and ivory are also known from other sites such as in the Taxila Valley (Marshall 1951: 747; pl. 199: 13-14), which are reported to date to the late centuries BCE (Marshall 1951: 654; Dwivedi 1972: 72).

Dagger-pendants were probably imbued with symbolic meaning and must have functioned as amulets of some kind (Dwivedi 1972: 72)—an association, which finds support from the fact that BKG 8317 was recovered from within a major Buddhist area context. This shape does, in fact, continue on into the later periods and has been documented among the carnelian beads found at the sacred Buddhist site of Butkara I dated between the 1<sup>st</sup> and 3<sup>rd</sup> centuries CE (on display in the Swat Museum), providing further evidence (at least as far as the Swat Valley is concerned) of a religious and/or symbolic function of these specific ornaments.

#### The Chronology of Unstratified Beads: Two Examples from BKG 16 and BKG 17

As already mentioned, 51 samples have come from well-stratified and sealed contexts. Some additional beads were, however, found but they derive from areas of what have been identified as modern smuggler pits within the walled sector of the city. Although archaeological artefacts that derive from disturbed contexts cannot be used for precise dating purposes, the preliminary examination of some of the affected beads has not only provided some new useful information in terms of raw material and shape identifications but also allows us to suggest a tentative chronology for them based on reliable chronological parameters established in earlier studies (Rabbani 2022). In this regard, the discovery of a unique marine shell spacer bead from BKG 16 is important (BKG 6310: Pl. XXVII.b) as it has been produced with three perforations. Earlier studies have demonstrated the popularity of marine shell among the inhabitants of Bari-

kot especially during the Kushana times (Rabbani 2022). Their beads come in a range of shapes and include a diverse collection of spacer beads. Based on this evidence, we may tentatively associate BKG 6310 with the Kushana periods of Barikot.

In addition to the archaeological field activities carried out at the trenches BKG 16 and 18, a limited excavation took place in the North-Western area of the urban site (trench BKG 17). This productive work, although partly affected by post-depositional disturbances (especially by modern agricultural practises), revealed a row of six graves interred with deceased female occupants. These graves are characterised by an as of yet unverified age (radiocarbon dating results are still pending) but the main phase of use appears to date (based on the typological analysis of the ceramic material from the surface of the cemetery) to the Saka-Parthian period of Barikot. There is one particular bead, which stands noteworthy among the recovered finds: It is a hexagonal faceted long biconical bead made from carnelian (BKG 7883: Pl. XXVII.c), which shows traces of polish and heavy grinding on a hard stone.

Faceted biconical or barrel shaped beads of stones and other materials usually form a characteristic feature of the ornamental traditions of the people of Barikot and the wider region during the Kushana and Kushano-Sasanian periods as indicated by the archaeological evidence and the visual art of Gandhāra (Rabbani 2020b; 2022). Also, there is evidence for post-abandonment activity at the scene characterised, according to the excavators, by traces of disturbance and possibly re-opening of some of the graves of the cemetery during the Kushana period. Therefore, on the basis of the available information, it seems that BKG 7883 may date to either the final stages of Saka-Parthian occupation of the site or to a period slightly later than the Saka-Parthian period. The excavations have thus far revealed only a single carnelian bead, short biconical in shape, from the Saka-Parthian period (Rabbani 2022), so it is not possible to comment on the range of shapes used to manufacture carnelian beads during this vibrant time.

MAR

## SCULPTURES FROM BKG 16

### Stucco

The corpus includes fragments from standing and seated figures. Architectural elements in stucco include fragments of wall decoration and cornice. Two main techniques of production were used: some fragments come from pieces that were modelled by hand on the spot, while others were made using moulds. Some of these have a sensitive and expressive quality that demonstrates virtuosity in modelling by hand. The stucco inclusions for the modelled sculpture show coarser mortar. A few pieces also retain traces of polychrome. Although, stucco sculptural finds have not been found in proper context (see this report, above), majority of the stucco fragments from BKG 16 are associated to monuments of Period 7, 8 and 9 (= Macrophases 5a-b and 6). Potentially, BKG 7045, 7500 and 7115 are part of the same sculpture, which may have been placed in Niche A (see above this report, Fig. 27 bottom). In addition to the objects described below, there are approximately 70 other stucco fragments from sculptures as well as architectural decoration. These will be elaborated upon in the final publication.

BKG 7312—Head, Buddha (Pl. XXVIII.1a)

BKG 16 (117)

H. max. 9.7; w. max. 7.9; t. max. 4.5

Broken below the neck. Right ear missing. Nose is chipped.

Hand-modelled head of Buddha with face and part of hair preserved. The heavy, half-closed eyes and upturned mouth lend a serene and smiling (doll-like) quality to the visage. The Buddha's hair is rendered in a stylized manner and texture is attained through shallow

depressions. Traces of paint are evident through well-preserved red lines marking the eyes, mouth, ears, nostrils, hairline as well as the base. The back view shows that the core of the head is composed of coarse stucco layers. Stucco is also amassed behind the left ear to support it.

BKG 7115—Head, Buddha (Pl. XXVIII.1b)

BKG 16 (117)

H. max. 13.6; w. max. 13.7; t. 2.7

Broken and worn. Right cheek, lips and chin are chipped.

Fragment of a hand-modelled sculpture with partially preserved face of the Buddha. With the upper part of the face broken off, only part of the left eye, nose, damaged lips, and chin are preserved. Despite damage, the sensitively modelled nose and lips imbue the sculpture with an expressive quality. The rear view shows that it is composed of coarse layers of stucco. Other fragmentary stucco finds associated with this object attest that it likely formed part of the face of a seated Buddha statue (cf. BKG 7045).

BKG 7500—Drapery, lower hem (Pl. XXVIII.1c)

BKG 168 (1)

l. max. 20.5; w. max. 13.4; t. max. 6.8

Fragment.

Broken part of the Buddha's robe. It is hand-modelled in stucco with traces of red color surviving amid the naturalistically modelled folds of varying thickness. The drapery shows central folds that may have belonged to the lower, curved part of the *sanghāti* of either a standing Buddha figure or one seated in *padmāsana*.

BKG 7045—Drapery, right knee (Pl. XXVIII.1d)

BKG 16 W (1)

h. max. 22.2; w. max 25.3

Fragment. Recomposed from three pieces.

The fragmentary part of the right knee and *sanghāti* of a seated Buddha figure, hand-modelled in stucco. The large number of folds are rendered in a naturalistic manner. This drapery fragment may be associated with BKG 7115. Another fragment (BKG 7326), containing a circular hole for a wooden frame, likely made up the core of the draped knee.

BKG 6124—Buddha (Pl. XXVIII.1e)

BKG 16 (1) + BKG 16 (107)

h. max 29; w. max 17; t. max 9.7

Fragment. Lower body preserved. Feet, right arm, and left hand are missing.

Lower body of a draped standing Buddha in hand-modelled stucco. The rough unfinished rear-face demonstrates that it was part of a bas-relief or niche decoration. The Buddha stands with his left knee bent while the draped left arm reaches forward to hold the robe (*sanghāti*). The organic treatment of the body is reflected through the slight swell of the lower belly, visible through the carefully articulated drapery of the over robe with side folds. Part of the lower robe (*antaravāsaka*) is also visible near the right leg. A few traces of red colour are preserved on the pelvis and legs.

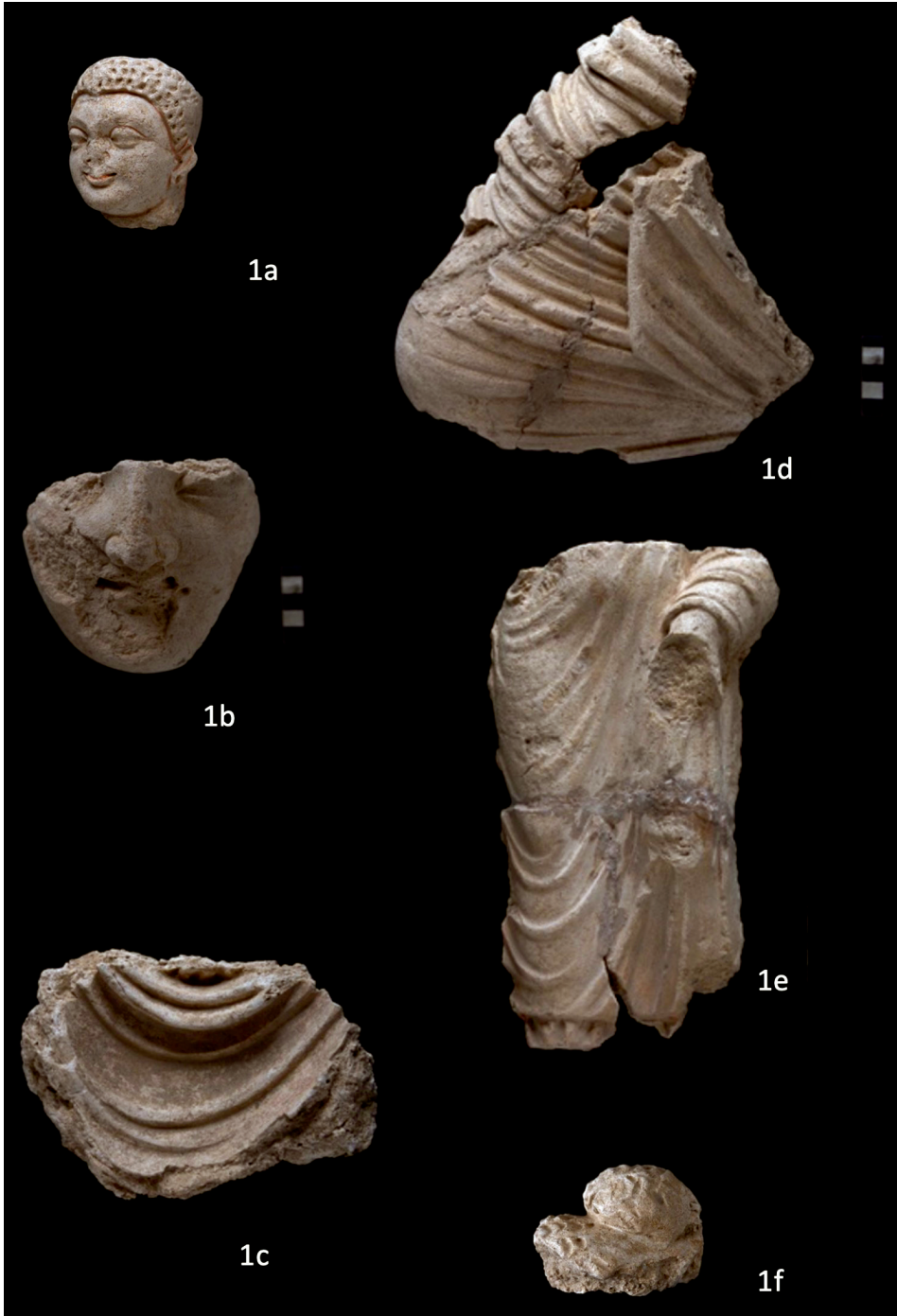
BKG 6586—Head, Buddha (Pl. XXVIII.1f)

BKG 16 (5)

h. max 8.3; w. max 8.8

Fragment with only upper part of the hair preserved.

Fragment from the top of the Buddha's head in hand-modelled stucco. The back view demonstrates that its core is composed of coarse stucco layers. The hair is rendered in stylized



1a) BKG 7312; 1b) BKG 7115; 1c) BKG 7500; 1d) BKG 7045; 1e) BKG 6124; 1f) BKG 6586.  
Photos by Aurangzeib Khan.



curls by making vertical rows of waves on the head and the *usnīsa*. The head may be associated with other fragments from the site (cf. BKG 6603; 6595; 6415; 6602; 6601; 7038; 7116 etc.).

### Stone

Fragments of stone sculpture include stelae, statuettes, relief panels, narrative friezes, and architectural elements. Exhibiting varying forms of style and craftsmanship, the objects in this corpus are also carved out of different types of schist (e.g., green schist, grey schist, dark grey schist etc.). Other than BKG 7840, none of the pieces come from a secure context. All stone pieces from BKG 16 align with the reconstructed stratigraphy and structural periods, i.e., Periods 5, 6, 7 and 8, roughly encompassing a period from 1<sup>st</sup> century CE to late 3<sup>rd</sup> century CE.

### Stelae

Recent finds from BKG 16 include small stelae which were portable cult objects, either donated as votive offerings or used as objects of private worship in the context of a domestic cult (Olivieri 2011, Id. 2016c). Stelae from BKG 16 largely conform to similar finds from the urban site of Barikot in earlier excavations (cf. BKG 2304, 1591 etc.) dating to Macrophase 5a (Olivieri 2016b, 2016c). Based on reconstructed stratigraphy, this class of objects can be assigned a date of early to mid-3<sup>rd</sup> century CE. Aside from the more common bodhisattva figures, stelae from Barikot and other sites (currently studied by Cristiano Moscatelli) also include representations of non-Buddhist deities. The presence of non-Buddhist figures in this corpus sheds light on the continued worship of local divinities in cultic contexts.

BKG 6200—Bodhisattva (Pl. XXIX.2a)

Grey schist

BKG 16 (5)

h. max 16.4; w. max 8.5; t. max 5.2

Fragment. Chipped. Arms and lower body are missing. Parts of nimbus are broken off. Face, hair and right side of the body is eroded. A hole for staple on the lower left side at the back.

Fragmentary stela of a standing, haloed bodhisattva wearing an *uttariya* covering his left side but exposing the right shoulder. His hair is adorned with a string of beads and a ring around the topknot. Ornaments sported by the bodhisattva include a torque, long necklace with a central stone, long cross-piece to right shoulder and pendant earrings. The nimbus has a plain border. Chipped remains of the right arm indicate that it may have been raised with the palm facing outward in a gesture of *abhayamudrā*.

BKG 7360—Armoured figure—Skanda-Kartikeya (?) (Pl. XXIX.2b)

Grey schist

BKG 16 (117)

h. max 24; w. max 15.5; t. max 6.4

Fragment. Chipped. Head, right arm and legs below knees are missing.

Fragment of a stela depicting a standing male figure clad in armour. The armour consists of a scaled coat and a breast disk hanging on a cross-body chain. His left hand is placed on his hip. On the left shoulder and arm, he wears a shield (?) carved in the shape of a lotus flower. The shield is surmounted by a hollow bowl or cup. Although the usual attributes are missing, this may be a representation of Skanda-Kartikeya.

BKG 7354—Head (XXVIII.2c)

Grey schist

BKG 16 (18)

h. max 7.6; w. max 6.2; t. max 4.1

Fragment.

Broken head of a male figure with a moustache and beard. Creases and lines carved into the forehead convey the advanced age of the figure. The short beard is articulated in thick strokes and the large moustache curls upwards at the ends. The hair on the head is rendered in a cap-like manner, with thick strands brushed forward. The angle of the head indicates that it was meant to be seen from a three-quarter view. Roughly executed back of the head shows that it was originally attached to a stela.

BKG 7365—Buddha (Pl. XXIX.2d)

Grey schist

BKG 16 W (1)

h. max 10.8; w. max 10.8; t. 3.6

Fragment. Head and hands are not preserved.

Fragmentary statuette representing the Buddha, possibly seated in *padmāsana* on a pedestal. The back of the statue is summarily executed with fewer details. There is a concretion of stucco on the surface of the statuette. The pedestal is decorated with filleted opposite triangles.

BKG 7364—Bodhisattva (Pl. XXIX.2e)

Grey schist

BKG 16 W (1)

h. max 8.4; w. 10.9; t. 5.2

Fragment with encrustations. Entire upper part broken with only the bodhisattva's feet and the pedestal preserved.

A fragmentary statuette of a bodhisattva standing on a pedestal. Only his feet and pedestal survive. The feet are depicted wearing thong sandals. The decorated pedestal has an upper band incised with a net of oblique lines. Below the band are three square panels, diagonally bisected into triangles, with each containing a smaller indented triangle. The back face is very rough.

BKG 7840—Buddha (?) (Pl. XXIX.2f).

Green schist

BKG 168 (428)

h. 14.0; l. 16.0; w. max. 7.4. Tool marks: w. 0.6. Tenon: l. 4.3, w. 2.6

Fragment. Only feet are preserved.

Base with a pair of bare feet from a standing Buddha stela. The base has been reworked with incised cross hatched lines. A tenon is preserved on the bottom. There are traces of tool marks on the sides and striations on the bottom. This is the only piece which comes from the stratified Period 6 context = Macrophase 4a/beginning 5a (see BKG 7413).

#### Other Pieces

Finds from BKG 16 include fragments from statuettes, relief panels and architectural elements. They are mainly carved out of grey schist. Most of these pieces can be dated to the 3<sup>rd</sup> century CE.

BKG 6690—Figured railing post (Pl. XXIX.2g)

Grey schist

BKG 15 (55=3C)

D. 7.8; h. 23.3

Fragment. Chipped and damaged.

A figured railing post in cylindrical shape. Despite its badly damaged condition, remains of a female figure, carved against the post and standing on a rounded base, can be clearly identified. She is depicted wearing either a *paridhana* or a long tunic with *uttariya*. The ends of the *uttariya* loop around her shoulders and fall to the sides of the figure. Decorated

double-anklets adorn her feet. The rounded bottom of the post has been cut and chiseled, perhaps to fit into a base or support. Despite its poor state of preservation this object can be roughly classified under the same style and chronological period as that of the stelae from BKG 16.

BKG 7413—Head, Bodhisattva (gilded) (Pl. XXIX.2h)

Grey Schist

BKG 16 (18)

h. max 7.5; w. max 5.7; t. max 3.5

Fragment.

Broken head from a small Bodhisattva statuette. It retains traces of gilding along the hair as well as on the face. The front part of the hair is backcombed and arranged around the forehead while the rest is gathered in a top knot secured with a cord made of beads. The eyes are rendered with incised irises. The position of the head indicates that it was to be viewed from a three-quarter angle. The piece comes from a Period 6 context (see BKG 7840).

BKG 6362—Right hand, Bodhisattva (?) (Pl. XXIX.2i)

Grey schist

BKG 16 (07)

h. max 3.6; w. 1.6; t. 1.5

Fragment.

Bejewelled right forearm, broken off from a small bodhisattva (?) image. The hand is raised in the gesture of *pseudo-cinamudra*.<sup>57</sup> The wrist is adorned with a cuff (bracelet) consisting of five rows of square-cut beads. Part of the drapery is also visible on the back the hand. This hand may be associated with a fragmentary bodhisattva figure (cf. BKG 7345).

BKG 6096—Bodhisattva (Pl. XXIX.2j)

Grey schist

BKG 16 (1)

h. max. 15.5; w. 11.6; t. max. 5.0

Fragment. Encrustations. Head, neck, right arm, shoulder, and lower body are not preserved.

A fragmentary torso of an ornamented seated (?) bodhisattva. The *uttariya* is draped across his chest and looped around his left shoulder. The broken right part of the chest is bare. His ornaments include a short necklace with amulets, and a long necklace with a large central stone. The remains of the lower part of an earring are also visible on the left shoulder. The torso may be associated with a fragmentary head (BKG 7050).

BKG 7050—Head, Bodhisattva (Pl. XXIX.2k)

Grey schist

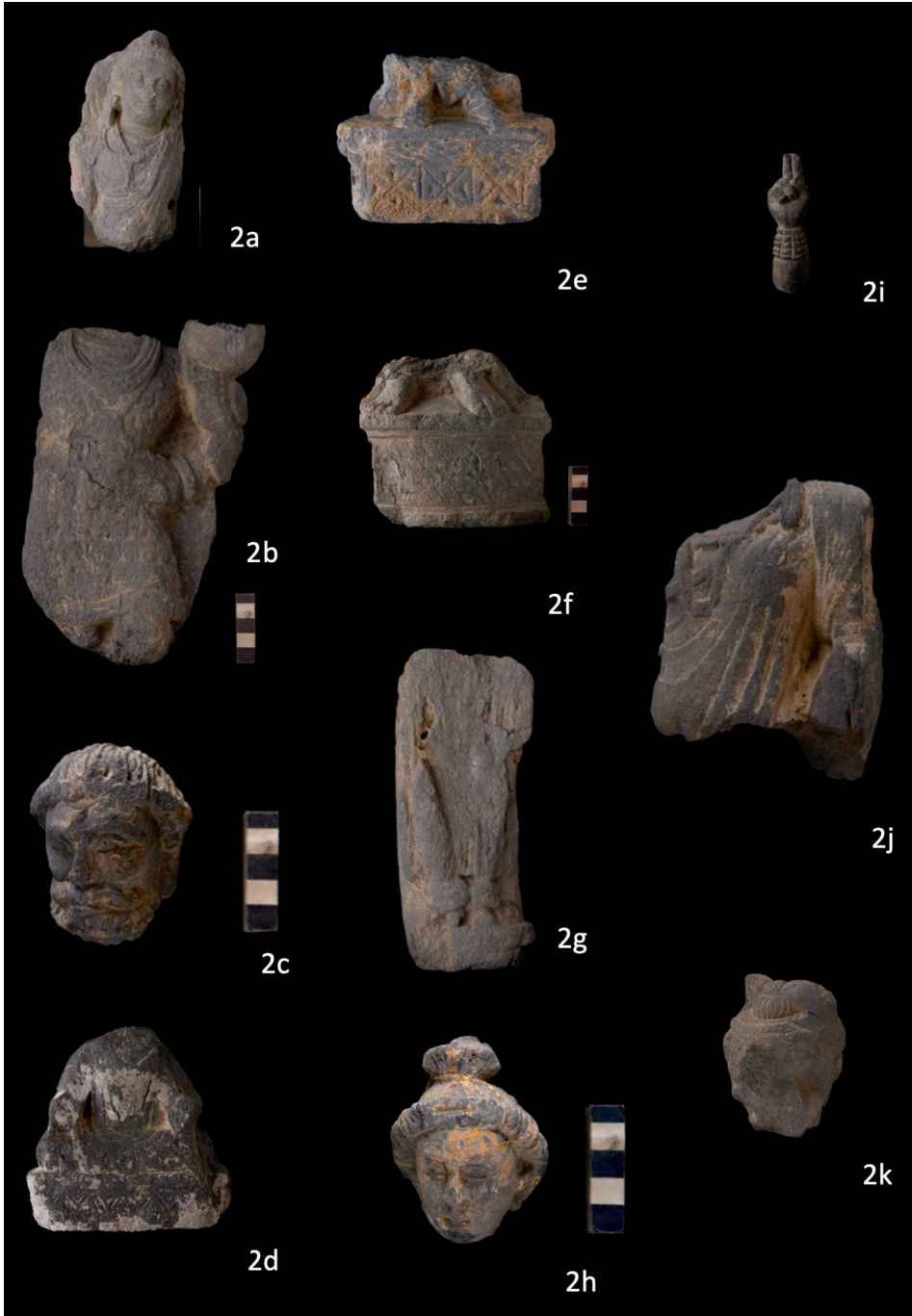
BKG 16 (89)

h. max 9.5; w. max 6.9; t. max 4.4

Fragment. Defaced.

A head of a bodhisattva. The face is completely obliterated. The central mound of hair is secured with a twisted diadem and knotted into two lateral folds separated across the middle. The locks of hair on either side of the face are rendered in undulating lateral waves. Parts of the broken ears are also preserved. The head may be associated with a fragmentary torso of a bodhisattva (BKG 6096).

<sup>57</sup> The same gesture is made by a bearded Herakles-type bust on the short necklace of a Gandharan Bodhisattva in the holdings of the Royal Ontario Museum (ROM no. 939.18.1).



2a) BKG 6200; 2b) BKG 7360; 2c) BKG 7354; 2d) BKG 7365; 2e) BKG 7364; 2f) BKG 7840; 2g) BKG 6690; 2h) BKG 7413; 2i) BKG 6362; 2j) BKG 6096; 2k) BKG 7050. Photos by Aurangzeib Khan.



BKG 6229—Bodhisattva (?) (Pl. XXX.3a)

Grey schist

BKG 16 (05)

h. max 12.6; w. max 12.9; t. 6.6

Fragment.

Only the draped shoulder, arm and part of chest is preserved from a fragmentary standing bodhisattva or Buddha statue. The drapery is rendered schematically through incised lines.

BKG 6450—Nimbus (Pl. XXX.3b)

Grey schist

BKG 16 (3b)

D. > 25; w. max 13.3; t. max 3.2

Fragment.

Nimbus with a full-blown lotus flower carved within a plain fillet. The border of the nimbus is decorated with pipal leaves above the fillet. Less than half of the object is preserved. Traces of flat chisel are present on the rare face.

BKG 7032—Male devotee (Pl. XXIX.3c)

Grey schist

BKG 16 (56)

h. max.12.7; w. max 8.9; t. max. 4.2

Fragment. Broken and heavily worn with only silhouette visible.

A fragmentary male figure, likely broken from a relief panel. Although the relief's surface is weathered and most of its details have been chipped off, the bare torso, turbaned head and characteristic pose of a male devotee can still be clearly discerned. The figure faces towards his left and holds both hands in the devotional gesture of *añjalimudrā*. The snake-like shape protruding behind his head may also refer to his identity as a *naga* devotee.

BKG 6627—Cornice (Pl. XXX.3d)

Grey schist

BKG 16 (55=3C)

h. 2.7; w. 8.8; t. 2.9

Fragment. Slight encrustation.

Fragment of a decorative architectural element such as a cornice. The front face is carved into a row of alternating horizontal lozenges and rosettes between upper and lower plain fillets. Other similar fragments recovered from the site (cf. BKG 6230, 7426, 7281, 7280 and 7705) were likely parts of the same piece. The back face has a tenon for anchorage.

BKG 6230—Cornice (Pl. XXX.3e)

Grey schist

BKG 16 (05)

l. max 11; w. 2.7; t. 3.4

Fragment of a decorative architectural element such as a cornice. The front face is carved into a row of alternating horizontal lozenges and rosettes between upper and lower plain fillets. It likely formed part of a longer piece as suggested by other similar fragments in the corpus (BKG 6627, 7426, 7281, 7280 and 7705). The back face has grooves for anchorage.

BKG 7426—Cornice (Pl. XXX.3f)

Grey schist

BKG 16 (117 bottom)

l. max 10.6; h. max 2.5; w. max 3.1

Fragment. Chipped and encrusted.

Fragment of a decorated cornice carved with a row of reverse bordered ogival leaves. It likely formed part of a longer cornice piece as suggested by the presence of several other fragments in the corpus (cf. BKG 7281, 7280 and 7705).

BKG 7275—Cornice (Pl. XXX.3g)

Grey schist

BKG 16 (117)

l. max 8.1; h. max 3.7; t. max 2.9

Fragment. Slight encrustations.

Cornice fragment with a row of bordered ogival (upright) leaf-and-dart (cf. BKG. 7077).

BKG 7277—Cornice (Pl. XXX.3h)

Grey schist

BKG 16 (117)

l. max 16.5; h. max 2.8; t. max 5.8

Fragment

Cornice fragment with a row of rosettes with six lanceolate bordered petals and a pistil. It has three sockets on the upper face and a single socket on the lower face. The fragment may be associated with another similar fragment (BKG 7276).

BKG 7071—Harmikā (Pl. XXX.3i)

Grey schist

BKG 16 (107)

h. max 3.7; t. max 19.6; w. max 9.9

Fragment.

Fragment of a harmikā decorated with a scroll of pipal (*asvattha*) or ivy leaves. The elongated shape of the leaf in the scroll ends in a long, tapered point. Coupled with the lack of tendrils, these aspects are reminiscent of a pipal rather than an ivy scroll.<sup>58</sup> The scroll is carved on two sides of the front face as well as on the lower face of the harmikā panel. The upper face retains traces of marks made by a flat chisel as well as preparation lines. Two sockets are also present on the upper face.

BKG 6097—Figured relief panel (Pl. XXX.3j)

Grey schist

BKG 16 (1)

h. max. 12.8; w. max. 13; t. max. 4.65. Tool mark: w. 0.9

Fragment. Heavily chipped. More than half of the relief is broken.

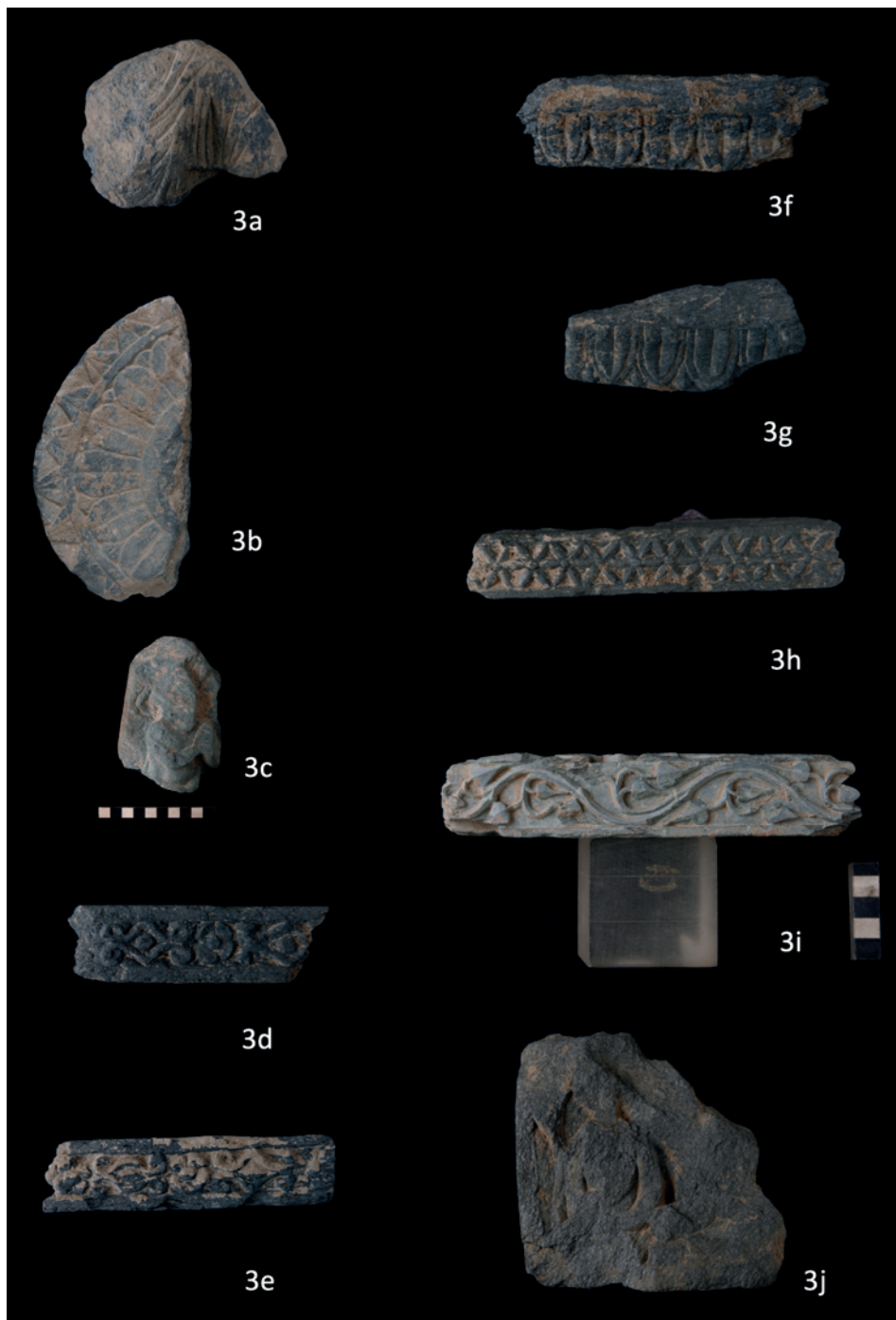
A relief panel with a figured field. The base has a smooth band. The silhouette of two male figures, seated next to a tree, is visible. The second figure sits in a manner reminiscent of the seated Buddha's pose. Traces of tool marks made with a flat chisel are retained on the back face. A tenon is also present on the upper face.

#### Fragments from a Single Frieze

Particularly noteworthy in the stone finds from BKG 16 is the presence of 24 fragments that originally formed part of a longer two-tiered narrative frieze that may have adorned a minor stupa. The frieze is carved out of chlorite schist with a quintessential green hue.<sup>59</sup> Despite its

<sup>58</sup> This motif is akin to one on a stair riser relief from Butkara 1 (cf. Tanabe 2017/2018: fig. 9), but the stems of our scroll are more elongated.

<sup>59</sup> This was a valued lithotype that was local to Swat and frequently used for carving Buddhist sculpture in the early period of artistic activity—circa 1<sup>st</sup> century to early 2<sup>nd</sup> century CE (see Olivieri 2022).



3a) BKG 6229; 3b) BKG 6450; 3c) BKG 7032; 3d) BKG 6627; 3e) BKG 6230; 3f) BKG 7426; 3g) BKG 7275 ; 3h) BKG 7277 ; 3i) BKG 7071 ; 3j) BKG 6097. Photos by Aurangzeib Khan.

present fragmentary condition, it follows a characteristic structure and iconographic scheme. It is divided into two superimposed registers. Originally, the lower register displayed chronologically sequenced scenes from the historical life of the Buddha Śākyamuni, running from right to left and divided by architectural elements such as Corinthian columns. Biographical episodes such as ‘Siddhartha goes to school’, ‘First bath of the Buddha’ and ‘Distribution of relics’ etc., originally populated the frieze. The upper register sports a continuous vine scroll supported by Gandharan-Persepolitan columns with zoomorphic capitals. It likely portrayed ‘genre’ scenes framed within Gandharan-Persepolitan columns. This class of sculpture from BKG 16 is characterized by a strong interest in the organic treatment of figures and diagonally arranged dynamic compositions (see BKG 7051). The overall quality of carving, subject matter and material suggests close artistic connections with the frieze from the Main Stupa at Saidu Sharif. The two-tier (or double register) composition and the smaller scale of the frieze, however, aligns more with examples of double narrative friezes in grey schist from minor stupas of Saidu Sharif. The frieze can, thus, be assigned a date from late 1<sup>st</sup> to early 2<sup>nd</sup> century CE (Periods 5/6 = Macrophase 4a).

BKG 7047—Vine scroll with Gandharan-Persepolitan capital (Pl. XXXI.4a)

Green schist

BKG 16 (56) + 16 (89)

h. max 10.9; w. max 13.4; t. max 3.2

Fragment. Recomposed from two pieces.

A fragmentary part of the upper decorated register from a figured relief panel. The upper band has a detailed carving of a continuous vine scroll with leaves, tendrils and grapes between two fillets. The lower band is decorated with zoomorphic figures: two back-to-back seated zebu bulls with a lion head emerging between them. The broken part of a column shaft is visible under the Gandharan-Persepolitan type capital (cf. BKG 6363).

BKG 6363—Vine scroll with Gandharan-Persepolitan capital (Pl. XXXI.4b)

Green schist

BKG 16 (7)

h. max 7; w. max 9; t. 2.1

Fragment.

Broken part of a figured relief panel. The upper band is delicately decorated with a vine scroll comprising of leaves, tendrils and grapes. Lower band is decorated with zoomorphic figures: two back-to-back seated zebu bulls which originally formed the composite bell-like capital of a Gandharan-Persepolitan type column. A lion head is depicted between the two bulls (cf. BKG 7047). Chisel marks are visible on the lower back part.

BKG 7048—Relief panel with haloed figure (Pl. XXXI.4c)

Green Schist

BKG 16 (89) + 16 (117)

h. 11.2; w. 7.2; t. 2.9

Fragment. Recomposed from several pieces. The column capital is broken.

Figured relief panel portraying a male figure standing next to a framed column. The framed Gandharan-Corinthian column is recomposed from several pieces. A separate fragment depicting a Gandharan-Corinthian capital (+ BKG 7048 bis) may be associated with this column. The male figure, depicted on the right side of the column, is characterized by a halo around his turbaned head and a moustache on his face. The halo may allude to his identity as Siddhartha. The figure’s head is also recomposed from several pieces found during the excavation. Wearing an Indic dress of a *paridhana* with an *uttariya* looped around his left shoulder, he stands in a frontal pose with a pronounced bend in his left knee. The overall stance of the figure conveys movement. The drapery is naturalistically carved to articulate a variety of folds. This fragment joins perfectly with two other frag-





4a) BKG 7047; 4b) BKG 6363; 4c) BKG 7048; 4d) BKG 6575; 4e) BKG 7051. Photos by Aurang zeib Khan.

ments (+ BKG 6575, 6574), portraying a narrative scene with three haloed and turbaned figures. A small socket for a tenon is present at the back.

BKG 6575—Haloed figure (Pl. XXXI.4d)

Green schist

BKG 16 (5)

h. max 10.6; w. max 4.7; t. max 2.8

Fragment. Arms, feet and head are missing.

Fragmentary male figure from a narrative relief panel. He is clad in an Indic dress of *paridhana* with an *uttariya* looping from the side, towards the front, and up the left shoulder. Traces of a halo, clearly carved around the broken head, may allude to his identity as Siddhartha. A fragmentary head with a turban and moustache (BKG 6217) may be associated with this figure. The male twists his body towards the left presenting the viewer with a dynamic three-quarter view. This figure is part of a relief panel that portrays two other male figures with nimbus as well (cf. BKG 7048 and 6474).

BKG 7051—Relief panel, Siddhartha's contest (?) (Pl. XXXI.4e)

Green schist

BKG 16 (89)

h. max 21.2; w. max 13; t. max 3.8

Broken and chipped. Heads of figures are missing.

Panel with four male figures carved in high relief and arranged around a central “column of sheaf”. The “sheaf column” visually conveys an outdoor setting. Creating a well-balanced composition, the figures—two depicted on the right side of the column and two on its left—formally mirror and complement each other. The two figures flanking the sheaf are depicted frontally, while the other two are represented in active poses, facing away from the sheaf in a three-quarter view. The figure on the far right has an intact halo which, despite the broken head, clearly establishes his identity as Siddhartha. Siddhartha is clad in wrestler's clothes (short loin-cloth type *lungi*), while the other three figures wear *paridhana* and *uttariya*. With his right leg firmly planted behind him and left leg bent, Siddhartha tilts forward, moving towards the right side of the panel. The figure on the far left is portrayed in a similar pose but with his back towards the viewer. With his leg planted behind him, he struggles with an unknown object on the left side of the panel. The formal and iconographic elements of the panel refer to narratives of young Siddhartha competing in physical contests such as the Tug of War (cf. Butkara III 1982-1-36). The presence of a “sheaf column”, however, recalls another Gandhāran relief with a haloed Siddhartha cutting a tree, visually portraying the narrative of a timber logging competition (see Tucci 1967: 10; contra see BI 2839: here the “sheaf column” represents a large quiver).

#### Earlier Pieces in Green Schist (1<sup>st</sup> Century CE)

Several architectural elements from BKG 16, carved in green schist, particularly exhibit close stylistic and material affinities with some pieces from the site of Saidu Sharif I. Saidu Sharif I sculpture is known for its virtuoso style of carving as well as its characteristic use of green schist (Olivieri 2022c with refs). Pieces in this class of sculpture from BKG 16 can, therefore, be assigned an earlier date—that is second half of the 1<sup>st</sup> century CE (Period 5 = Macro-phase 4a).

BKG 7284—Bracket (Pl. XXXII.5a)

Green schist

BKG 16 (117)

l. max 20; w. 5.7; h. 7.35

Fair. Tenon is missing.



5a) BKG 7284; 5b) BKG 6687; 5c) BKG 7074; 5d) BKG 6098. Photos by Aurangzeib Khan.

Bracket; double volute type with vertical (central) double groove. It has vertical sockets for a bracket spacer on both sides. The bracket closely resembles similar pieces from Saidu Sharif in terms of style and material (cf. SSI 248).

BKG 6687—Bracket (Pl. XXXII.5b)

Green schist

BKG 16 (55=3C)

h. max 7.1; w. max 6.2; t. max 13.5

Fragment.

Bracket; double volute type with vertical (central) groove. It retains a vertical socket for a bracket spacer. A tenon is present. Traces of flat chisel are also visible on the tenon.

BKG 7074—False railing pillar (Pl. XXXII.5c)

Green schist

BKG 16 W (1)

h. max 13.8; t. 5.8; w. 5.4

Fragment.

False railing (*vedika*) pillar (*stambha*). The upright front face has a curvilinear profile at the top and a central vertical band with lateral oblique planes. The upper tenon is partially preserved. The pillar has two sockets on each lateral face for the insertion of crossbars. Preparation lines are also visible on the lateral faces above the sockets. Both in terms of material and design, it strongly recalls similar false railing pillars from Saidu Sharif (cf. SSI 318).

BKG 6098—False railing pillar (Pl. XXXII.5d)

Green schist

BKG 16 (1)

h. max. 10.4; w. 5.5; t. 4.4

Broken and chipped. Back face and parts of the upper face are corroded.

Broken false railing pillar with a central vertical band. The front face is inscribed with marks. The lateral faces are smooth, but they retain preparation lines. Two sockets for crossbar are present on the left face (cf. BKG 7074).

ME

#### INSCRIPTIONS AND SEALS (PLS XXXIII-XXXIV)<sup>60</sup>

Trenches BKG 16 and 18 have brought to light 22 new inscribed artefacts, in addition to those already published in Baums 2020 and Fussman 2020. As usual, many of these are small pottery fragments with isolated Kharoṣṭhī akṣaras that do not yield any clear meaning. They will be fully documented in the next excavation report on the site. Eight inscriptions among the new discoveries from BKG 16 are, however, sufficiently well preserved to be interpreted. Five of these are on pottery, two on stair risers, and one on a seal. Together, they make important new contributions to our understanding of Barikot as a Buddhist site.

#### Pottery Fragments

Four inscribed pottery fragments were retrieved from the floor of Room M, which contained incense burners, cotton seeds, and pomegranate peel flakes, and may be interpreted as

<sup>60</sup> CKD, CKI, CKM: see Baums, Glass 2002-b.





a) BKG 7896; b) BKG 7895; c) BKG 7912; d) BKG 7899; e) BKG 8350; f.1-2) BKG 7946.

a kind of *gandhakuṭī* (see above). One of these (BKG 7912) is stratigraphically dated to the end of the 1<sup>st</sup> century CE, three (BKG 7895, 7896, and 7899) to the end of the 2<sup>nd</sup> century CE. Three fragments appear to contain parts of a donative formula addressed to the local monastic community:

saghe cadu /// (BKG 7896)  
 [sa]ghe /// (BKG 7895)  
 [dada]vihare /// ... /// ? [vi na] (BKG 7912)

The first two of these can confidently be restored to *saghe cadurdiśami* (or similar) “to the (Buddhist) community of the four directions.” Both potsherds are paleographically compatible with each other, with the open type of *sa* that agrees with a dating in the 2<sup>nd</sup> century CE.

The third fragment is particularly important as it seems to name the local monastery that was the recipient of the donation. It preserves five akṣaras on its left side, and what appear to be three akṣaras on its right side, separated by a gap that may mark the beginning and end of an inscription running around the vessel—the interpretation here adopted. The beginning of the inscription then consists of a clear *vihare* preceded by two akṣaras that look like two rather long instances of *da*, or possibly *na*. Of the three akṣaras at the end, the first cannot be read, the second looks similar to the *vi* of *vihare*, and the third is possibly a narrow, ill-defined *na*. We can accordingly translate: “In the Dada (or Nada, or Dana) Monastery ...” If the reading *Nada* is adopted, then this could be the well-known Indian name *Nanda*, possibly with reference to the founder of the monastery. A well-preserved example of a water pot with this type of donative formula is CKI 370 (*aya pañighaḍe saghe cadurdiśami acaryana sarvastivatana parigrahami pu[r]nagaranami*: “This water pot is for the community of the four directions, in the possession of the Sarvāstivāda masters in the Purnaga Monastery”).

The reading of the fourth inscription from Room M, on a much better preserved bowl, is almost certainly:

/// [ś]ir[a]sa (BKG 7899)

The first akṣara has an additional horizontal line at the bottom that appears, however, to be an accidental scratch, and the second akṣara similarly has a short diagonal line floating above it that looks like a vowel mark *e* but is probably secondary damage. There is no writing after the third akṣara *sa*. It seems likely that here we have a personal name ending in *-śira-* (cf. Baums, Glass 2002– s.v. *Dhamṇaśira*, *Dhammaśira*, *Budhaśira*, and *Samghaśira*), and that the inscription, consisting maybe only of this name, is an indication of ownership of the vessel.

Another, clear ownership inscription (BKG 8350) hails from the floor of another room and is stratigraphically dated to the middle or end of the 2<sup>nd</sup> century CE. It sits under the rim of its vessel and is completely preserved, with empty spaces on the right and the left indicating its beginning and end. The inscription consists of a name followed by a title:

budheasa ṣ[a]maṇasa (BKG 8350)

The name *budhea-* appears to correspond to Sanskrit *Buddhaka*, a short form for any monastic compound name starting with *Buddha-*. In the Gāndhārī corpus, this name is previously attested as *Budhaka* in the list of provisions CKD 117 from Niya in Central Asia. The title is clearly *ṣamaṇa-*. A vertical line through the left part of the head of *ṣa* resembles a vowel mark *e* or *i*, but will have been either added in error, or possibly be a secondary scratch. The inscription thus means “Of the monk *Buddhaka*.” Paleographically, the *sa* with its half-closed head is more archaic than the open-headed *sa* of the inscriptions discussed above, in spite of the later dating of the present fragment.

#### Stair Risers

Two step fragments from the Main Sanctuary (Building H) bear inscriptions on their risers. One of these (BKG 7394) is stratigraphically dated to the end of the 1<sup>st</sup> century CE.



a) BKG 7394; b) BKG 7393. Photos by Aurangzeib Khan.

The other (BKG 7393) has been secondarily reused in a context dating to the middle or end of the 3<sup>rd</sup> century CE. They read as follows:

[sagha]rakṣida[p]utrasa /// (BKG 7394)  
 /// sava budha puyaīta madapida puyaīta [] (BKG 7393)

The former appears to indicate a donor whose personal name is lost: “... son of Saṃgharakṣita ...,” while the latter can be translated as “All buddhas are honored, mother and father are honored.” The monastic name Saṃgharakṣita is well-attested in Gāndhārī inscriptions as well as documents from Central Asia (cf. Baums and Glass 2002– a s.v. *Saṃgharakṣida*).

The two inscribed pieces are compatible with each other in the size and placement of the akṣaras and in their paleography, including a type of *sa* with half-open head that supports a date in the 1<sup>st</sup> century CE. In general in this type of formula, expressions of honor to buddhas and family members occur after the name of the donor (cf., for instance, the relic inscription CKI 257 “... *śatrulekeṇa kṣatraveṇa subhūtikaputreṇa bhagavato śakamune dhātave pratiṭhāvita ... sarva budha puṣyāyita ... matapitu puṣyāyita ...*”), and the last word of BKG 7393 is followed by what looks like a sentence-final punctuation mark. This alone suggests that BKG 7394 was originally situated to the right of or above (i.e., textually before) BKG 7393. Since BKG 7394 was found firmly attached to the left end of the stairs (see above), and also considering the empty space to the right of the text on BKG 7393, a placement of BKG 7394 as a separate step above BKG 7393 would appear to have been their original disposition. The damaged surface on the left side of BKG 7394 should at least have contained the personal name of the donor in the genitive case and a word for donation (probably *danamukhe*) that it grammatically depended on—with possible further elements on this or another, lost stair—resulting in a reconstructed combined reading:

[sagha]rakṣida[p]utrasa (\*X-sa danamukhe ... ) sava budha puṣyāyita madapida puṣyāyita [] (BKG 7394+7393)

#### Seal

Trench 16 yielded, from an unstratified looters’ pit, an inscribed seal (BKG 7946). The central standing figure, apparently female, on the seal impression faces to the right, holding a branch in her right hand, with a tree in her back.<sup>61</sup> In the right margin of the seal is a Kharoṣṭhī inscription consisting of five akṣaras that can be read as follows:

aramiasa

This would appear to be a title in the genitive corresponding to Sanskrit *ārāmika*-, marking the seal as the one “of the gardener” or “of the person in charge of the Buddhist *ārāma*.” The word is previously attested in Gāndhārī in the scholastic manuscript CKM 30 (*adiḍa anagaḍa aramiyabhava asti* “the state of a gardener is past and future; Cox 2013, 54). The title also occurs once (with name) in the form *arāmaka*- in a Brāhmī inscription at Bharhut (Lüders 1963, 167–169) and twice (with and without name) among the graffiti on the island Socotra (Strauch 2012: 106, 145–146). For its possible meanings cf. Trenckner et al. 1924, and Edgerton 1953 s.v. *ārāmika* (Schopen 2006, 48, and Silk 2008, 42–44). In the context of Barikot, the specific Buddhist sense seems possible.

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#### COINS (PL. XXXV)

The excavations at Barikot in autumn 2021 and winter 2022 have yielded 43 coins of various periods, ranging from the 2<sup>nd</sup> century BCE to the 10<sup>th</sup> century CE. Stratigraphically, they are distributed between Macrophase 2b-3a (middle of 3<sup>rd</sup> to late 2<sup>nd</sup> century BCE) and Macrophase 8b (late 8<sup>th</sup> to mid-10<sup>th</sup> century CE). The majority of these coins are found in the trenches BKG 16 and BKG 18. A few coins (including the Hindu-Śāhi issues) are from trench BKG 20, i.e., from the acropolis. A preliminary list of these coin finds is given in the table below.

<sup>61</sup> Material aspects and the iconography of this seal will be discussed in detail by Pierfrancesco Callieri in a forthcoming article.



TABLE 3  
List of coins found in trenches BKG 16, 18 and 20

Periods and rulers		Number of coins
Autonomous Coinage of Taxila-Gandhāra		2
Indo-Greek Kingdom	Menander I Soter	1
Indo-Scythian Kingdom	Azes [II]	2
Kuṣān Empire	Soter Megas	4
	Kaniška I	3
	Huviška	2
	Vāsudeva I or successors (Oēšo type)	8
	Kaniška II or successors (Ardoxšo type)	2
	Uncertain Late Kuṣān	4
Sāsānian Kuṣānšāhs (Kuṣāno-Sāsānian Governors)	‘M...’ (‘Mēzē’?) [Kuṣānšāh]	1
	Kawād [Kuṣānšāh]	1
	Uncertain Kuṣāno-Sāsānian Types	3
Small <i>Aes</i> Coinage of Gandhāra-Uḍḍiyāna		1
Hindu-Śāhi Kingdom	Sāmanta Deva (?)	4
Unidentifiable coins		5
<b>Total</b>		<b>43</b>

The coin finds from the 2021/22 excavations are generally similar to the complex of coin finds from earlier excavations at Barikot.<sup>62</sup> Precious-metal coins are extremely rare among the single finds from Barikot. Most of these finds are made of copper or copper alloys, representing the small change used in everyday life.

The earliest coins from the 2021/22 excavation season are two post-Mauryan autonomous issues of Taxila-Gandhāra, dated roughly to 185-160 BCE. Both pieces are found in Trench BKG 16. The first piece (copper, quarter *kārṣāpaṇa*, round flan, 2.46 g.) depicts on its both sides a three-arched Buddhist ‘*stūpa*’ topped with crescent with a taurine in the right field (Pl. XXXV.a).<sup>63</sup> From this type another piece has been found at Barikot in the excavation season of spring 2017. The second piece (copper, *kārṣāpaṇa*, quadrangular flan, 11.8 g.) depicts an elephant advancing right with a small three-arched ‘*stūpa*’ above on the obverse, and a quadrate incuse on the reverse, showing a lion standing left with a *swastika* above and a three-arched ‘*stūpa*’ in the left field (Pl. XXXV.b).<sup>64</sup> From this type, six further pieces (three uncertain) were found at Barikot during previous excavation seasons.

<sup>62</sup> A complete catalogue and analysis of the coin finds from all the 22 excavation seasons at Barikot between 1984 and 2022 has been prepared by the present author and is currently in press: Shavarebi (forthcoming). For a brief report of the project with general remarks on the complex of coin finds from Barikot, see Shavarebi 2021. It should be mentioned that the coin finds from the first five seasons between 1984 and 1992 had been previously published by MacDowall, Callieri 2004.

<sup>63</sup> Mitchiner 1973, Type T.19; Mitchiner 1975-76, Type 583; Pieper 2013, № 1094.

<sup>64</sup> Mitchiner 1973, Type P.16; Mitchiner 1975-76, Type 538; Pieper 2013, № 1081.



Selected coins from trench BKG 16: a) BKG 7743: autonomous issue of Taxila, 2.46 g, 12 mm; b) BKG 8495: autonomous issue of Taxila or Puṣkalāvātī, 11.8 g, 19 mm; c) BKG 7712: billon drachm of Menander I Soter, 2.47 g, 17 mm; d) BKG 6104: billon drachm of Azes [II], 2.1 g, 12 mm; e) BKG 8329: large copper unit of Azes [II], 13.5 g, 26 mm; f) BKG 7534: uncertain Kuṣāno-Sāsānian type (overstruck on a Late Kuṣān type?), 1.7 g, 10 mm.

The only Indo-Greek coin from this season is a corroded silver/billon drachm of Menander I Soter from his late reign (ca. 144-130 BCE) found in Trench BKG 16. It depicts diademed bust of the king facing right on the obverse, and a standing figure of Athena Alkidemos on the reverse (Pl. XXXV.c).<sup>65</sup> Another piece of the same type was found at Barikot in spring 2016.

The coinage of the Indo-Scythian Kingdom is represented by two coins of Azes [II] (late 1<sup>st</sup> century BCE to early 1<sup>st</sup> century CE) from this excavation season, both found in Trench BKG 16. The first piece (billon, debased drachm, 2.1 g.) depicts the diademed king mounted on horse, riding right, holding a whip in his outstretched right hand on the obverse, and figure of Zeus Nikephoros standing in three-quarter profile on the reverse—the reverse of our piece is heavily worn and unclear (Pl. XXXV.d).<sup>66</sup> The other piece (copper, heavy unit, 13.5 g.) shows a humped bull standing right on the obverse, and a lion standing right on the reverse (Pl. XXXV.e).<sup>67</sup> Numerous specimens from these both types have been previously found at Barikot and other excavated sites in the Swāt Valley (Butkara I, Udegram, Gogdara III, etc.).

<sup>65</sup> Mitchiner 1975-76, Type 215; Boppearachchi 1991, Ser. 13; Bordeaux 2018, Gr. G1. A further Menander coin of another type (BKG 8984) was found in November 2022 near the S side of the apsidal wall of Building H (see above fn. 16).

<sup>66</sup> Alam 1986, Typ 6b (№ 1075), 6/1b (№ 1077); Senior 2001, Type 105; Fröhlich 2008, Ser. 2-5 (lifetime), 31 (posthumous).

<sup>67</sup> Alam 1986, Typ 13a (№ 1094); Senior 2001, Type 102; Fröhlich 2008, Ser. 26-27.

The above-mentioned five pieces play a key role in establishing the chronology of the earlier phases of Trench BKG 16.

The majority of coin finds from this season, as one may expect, are copper coins of the Kušān Empire (1<sup>st</sup> to 4<sup>th</sup> century CE). This period is represented by 23 pieces out, i.e., 53.5 % of the coins found during the 2021/22 excavations. A comparable situation may be observed in the complexes of coin finds from the earlier excavations at Barikot between 1984 and 2020 (202 out of 442 pieces = 45.7 %) <sup>68</sup> and the excavations at the Stupa of Butkara I between 1956 and 1962 (179 out of 281 pieces = 63.7 %) <sup>69</sup>. This clearly shows the speedy development of monetisation and growth of money traffic in the Swāt Valley under the Kušāns. The 23 new finds from Barikot include four coins of Soter Megas <sup>70</sup>; three coins of Kaniška I from his second emission at Mint B (Taxila or Kaśmīr?) with the deities Miiro, Mao, and Nana on the reverse <sup>71</sup>; two coins of Huviška from Mint A (Kapiśā or Gandhāra?) with the figure of the king reclining on couch on the obverse, and Miiro and Mao on the reverse <sup>72</sup>; eight coins of Vasudeva I type with Oēšo on the reverse <sup>73</sup>; two coins of Kaniška II type with Ardoxšo on the reverse <sup>74</sup>; and four uncertain Late Kušān coins. The attested Kušān types in the finds from the 2021/22 excavations are all present among earlier finds from Barikot.

Out of the five Kušāno-Sāsānian coins found in the 2021/22 excavations, only two pieces can be identified with relative certainty. <sup>75</sup> The fabric of the Kušāno-Sāsānian finds shows that all these five pieces are produced by a Gandhāran mint. One of the uncertain pieces seems to be overstruck on a late Kušān issue (Ardoxšo type?) (Pl. XXXV.f). Overstriking coins of the rivalling neighbours was commonly practiced in Gandhāra and Uḍḍiyāna during the late 3<sup>rd</sup> and first half of the 4<sup>th</sup> century. Overstrikes of Kušāno-Sāsānian and Late Kušān coins are not only found at Barikot, but also at various sites in Gandhāra, e.g., in a large hoard of Late Kušān and Kušāno-Sāsānian copper coins from Gangudher (Azīz Dherī). <sup>76</sup>

The next group of coins from Barikot is what I have conventionally named the ‘small *aes* coinage of Gandhāra-Uḍḍiyāna’. These are light, tiny pieces of copper or copper alloy in irregular shapes, cut from larger sheets of copper. The devices on these coins are hardly identifiable, but those with identifiable traces seem to be influenced by Late Kušān or Kušāno-Sāsānian coinages. <sup>77</sup> A single piece of this type with no identifiable device has been found in the autumn 2021 season.

The latest coins are four Hindu-Šāhi copper pieces of Sāmanta Deva (elephant/lion type). <sup>78</sup> These coins are probably minted in Gandhāra (Hund?) and are found at various sites in the Swāt Valley (Barikot, Butkara I, Udegram, etc.).

Due to their poor physical condition, the last five pieces remain unidentifiable. Among them is a halved copper piece, which, due to its fabric and size, might be associated with the large copper denominations of the Indo-Scythian king Azes [II] (bull/lion type). A number of halved and quarter pieces of the same copper type of Azes [II] have been already recorded from earlier excavations at Barikot. <sup>79</sup>

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<sup>68</sup> Shavarebi (forthcoming).

<sup>69</sup> Göbl 1976, № 68-246.

<sup>70</sup> Göbl 1993, № 58-66; Jongeward et al. 2015, № 177-206.

<sup>71</sup> Göbl 1984, Types 797 (Miiro), 802 (Mao), 806 (Nana).

<sup>72</sup> Göbl 1984, Types 821/824/827/830 (Miiro), 836 (Mao).

<sup>73</sup> Göbl 1984, Types 1008, 1010.

<sup>74</sup> Göbl 1984, Type 1017.

<sup>75</sup> Göbl 1984, Types 1125 (‘M...’), 1126 (Kawād).

<sup>76</sup> Khan, G.R. 2008, pp. 208-209; 2009, pp. 45-46.

<sup>77</sup> In the catalogue of earlier coin finds from Barikot, MacDowall names these pieces ‘sub-Kušān’; see MacDowall / Callieri 2004, pp. 40-41, 69.

<sup>78</sup> MacDowall 1968, Type 41-45. N.B.: Not found in BKG 16, 17 and 18; these coins were found in BKG 20 (on the Barikot acropolis).

<sup>79</sup> Shavarebi (forthcoming).

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*This excavation report is dedicated by the authors to the memory of Prince Mian-gul Adnan Aurangzeb, head of the former ruling family of Swat, a friend to us and a dedicated supporter of archaeology and historical heritage of Swat (Jan. 11, 1960-May 30, 2022).*