



KERKENES FINAL REPORTS 2

# Excavations *at the* Palatial Complex

Geoffrey D. Summers

*with contributions by* Susanne Berndt, Ahmet Çinici, Yılmaz Selim Erdal,  
Evangelia Pişkin, Noël Siver, and Françoise Summers  
*and Turkish summary by* Güzin Eren

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ORIENTAL INSTITUTE  
THE UNIVERSITY OF CHICAGO

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*by*

GEOFFREY D. SUMMERS

*with contributions by*

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NOËL SIVER, AND FRANÇOISE SUMMERS

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Dedicated to the memory of  
David Stronach



*David Stronach, standing second from right, at Kerkenes with the 1999 team (photo 99slvf1306)*



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AD	<i>anno Domini</i> , “in the year of the Lord”
avg.	average
BC	before Christ
cat.	catalog
cm	centimeter(s)
D	depth
Dia	diameter
Dist	distance
et al.	<i>et alii</i> , and others
etc.	<i>et cetera</i> , and so forth
fig(s).	figure(s)
H	height
ha	hectare(s)
km	kilometer(s)
L	length
m	meter(s)
max.	maximum
min.	minimum
mm	millimeter(s)
no(s).	number(s)
pl(s).	plate(s)
p(p).	page(s)
Sect	section
Th	thickness
W	width
wt.	weight



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## PREFACE

GEOFFREY D. SUMMERS

This volume is the second monograph devoted to excavation at the Iron Age capital on the Kerkenes Dağ in central Turkey. The enormous, strongly defended city was founded in or soon after the late seventh century BC and destroyed by fire little more than half a century later. It seems unnecessary here to repeat what was written in the preface of *Excavations at the Cappadocia Gate*,<sup>i</sup> apart from the forceful reiteration of the extensive collaboration and teamwork of colleagues and students that have been essential to the culmination of this project. A word or two of special thanks must, however, be given to three people without whom it would not have been possible to put the present volume together: Isabelle Ruben, who, alongside other duties, assiduously ensured that all the excavation field notes, plans, and section drawings were complete, numbered, listed, and archived; Noël Siver, conservator, registrar, copyeditor, proofreader, and endless fund of sound advice; and Françoise, who did just about everything, from organizing the dig house to building relations with the village and at the same time raising our two daughters on the dig while pouring oil on stormy waters.

Regarding the production of this volume, I am indebted to the Oriental Institute, the University of Chicago, for agreeing to publish the Kerkenes monographs through their publication house, Oriental Institute Publications (OIP). Budgetary and staff shortages at OIP have resulted in a longer delay than was anticipated between submission of the manuscript and the printing of this volume. Those concerns are, however, more than offset by the quality of the final production and by the most enlightened policy of making OIP monographs available for download online without charge. For excavation directors, this online availability resolves the onerous difficulties of making publications such as this one readily available to all project participants, colleagues and students at universities, museums, and other institutions in Turkey and elsewhere that possess

inadequate library facilities. Generous funding from the Shelby White and Leon Levy Program for Archaeological Publications made possible not only the preparation of this volume but also the online publication of the remote sensing at the site up to 2011, together with a database in which the finds are arranged by materials rather than, as here, by context.

It is a pleasure to record here my indebtedness to the directors and participants—past and present and far too many to name—of archaeological research elsewhere in Turkey, notably at the closely related sites of Boğazköy, Büklükale, Çadır Höyük, Gordion, Kaman-Kalehöyük, Sardis, and Uşaklı, with whom we have been in close communication. It is at these sites in particular that both old and new evidence of the Iron Age which may help in the placement of Kerkenes in a wider archaeological setting is most likely to be forthcoming. Fruitful discussion at the sites themselves, as well as between seasons, has been inextricably intertwined with the development of understanding and interpretation of all aspects of Kerkenes research. Hosting and being hosted by other expeditions in the field are some of the most fruitful as well as most enjoyable aspects of archaeological fieldwork. If ideas stemming from such interaction have found their way into my own thinking and are reproduced here without due accreditation, I can do no more than offer my apologies.

Early in the conceptualization of this volume it was expected that Crawford H. Greenewalt would write an introduction in which he would comment on possible links between Kerkenes and Sardis. “Greenie” followed closely the results of research at Kerkenes from the very start of our work in 1993 and supported the project with the utmost keenness. His untimely death meant that he did not see either one of the two volumes of final reports in print. We are grateful to Nicholas D. Cahill, current director of the Sardis excavations, for stepping in to provide an introduction. It is no less saddening that David Stronach, to whom this volume is

<sup>i</sup> Summers 2021.

dedicated, did not live to see its publication. It was at David's instigation, not to say insistence, that together we undertook to begin large-scale clearance and excavation at the Cappadocia Gate and the Palatial Complex in 1999. This successful collaboration continued for five years, up to 2003. The decision to begin at the Palatial Complex was an obvious one because of the monumentality of the visible stone glacis. When clearance began, it was fully expected that a monumental entrance with a broad central stairway between the two visible bastions would be speedily revealed. It came, therefore, as a surprise to find that the stone glacis was continuous, echoing, as David put it, the rhythmic harmony that was also being revealed at the front of the Cappadocia Gate. In later seasons, it was even more of a surprise to discover that there was indeed a monumental entrance, embellished with unparalleled sculpture, Paleo-Phrygian inscription, architectural stone elements that look to the Phrygian Highlands, and hints that there were once precious metals. The inscriptions were fully published, with laudable rapidity, by the late Claude Brixhe. Soon thereafter a monograph on the sculpture, largely written by Catherine Draycott, was published by OIP in 2008 (OIP 135).<sup>ii</sup> Geophysical survey with a fluxgate magnetometer had revealed some details of other structures within the Palatial Complex. One of them, which we came to call the Ashlar Building, stood out as having been intensely burned. Excavation of the southern half of this building over a total of two seasons was directed by David Stronach, who also drafted much of the interim report that appeared in *Anatolia Antiqua* 11.<sup>iii</sup>

Some words must be said regarding excavation strategies at the Monumental Entrance and its current condition. The initial plan was to excavate only the northern, less well-preserved half and leave the southern half untouched for future exploration. The totally unexpected discovery of sculpture and inscription forced abandonment of the program in a situation where security between seasons was more or less nonexistent. Further difficulties resulted from the Iron Age architecture itself as a result of voids left in walling when beams burned away, as well as from the heat of the fire that had destroyed the fabric of the granite and sandstone blocks. While it had been possible to obtain special permission

from the authorities at Ankara to preserve the Ashlar Building with a covering of geotextile and backfilling with earth, no such permission would have been granted for the Monumental Entrance. It is doubtless the case that, had sufficient funding been available, a shelter could have been built over the Monumental Entrance, and also that, with a team of experts in architectural restoration working alongside archaeologists during the excavation, more of the architecture could have been preserved in situ. But the realities were that no such funding was available and that permission for such an undertaking was unlikely to be granted. Having started the work, therefore, the only option was to be bold enough to complete the excavation to the very best of our ability in order to recover all the fragments of inscription, sculpture, and architectural embellishment. On a more positive note, everything that was done was meticulously recorded through photography, measured drawing, and written records. The stone paving that can be seen by visitors today is in a stable condition, as is the stone glacis. Thus it would be possible to produce virtual reconstructions of the architecture and, should it be desirable in the future, make faithful modern reconstructions of what was initially uncovered. That said, only the lowest portions of the Monumental Entrance had survived the looting and destruction that ended the life of the city and the subsequent looting and stone robbing. In this volume we felt it incumbent upon us to make some initial attempts at virtual reconstructions, but there are far too many variables for certainty regarding any of these reconstructions.

Today research at Kerkenes continues under the direction of Scott Branting. Geophysical prospection and other methods of remote sensing are constantly providing more revelations of the city's layout, while a program of excavation at the northern end of the city is revealing architecture of scale and fragments of opulent objects. The current volume, as with all archaeological research, raises more questions than it answers. These questions relate not only to Kerkenes itself but also to placing the unexpected circumstance of a new capital city of the first half of the sixth century BC—one built on a central Anatolian mountain—in a wider geopolitical and cultural setting.

<sup>ii</sup> Draycott and Summers 2008.

<sup>iii</sup> Stronach and Summers 2003.

## ACKNOWLEDGMENTS

FRANÇOISE SUMMERS and GEOFFREY D. SUMMERS

Research and publication at Kerkenes spans twenty years, from 1993 to 2012, and has involved a huge number of people. In this volume devoted to the Palatial Complex, it is not possible to mention by name each and every person who has been involved in one or another of the project's many activities; nevertheless, all contributions and support have been appreciated. Three people deserve particular mention. Scott A. Branting, a member of the team since 1994, wrote his doctoral dissertation on Kerkenes and has now taken over as the excavation director. Musa Özcan was the director of the Yozgat Museum when we began in 1993; it was under his authority that test trenches were excavated in 1996 and 1998, and larger-scale work at the front of the Palatial Complex glaciis began in 1999. Finally, David Stronach entered into a five-year period of collaboration, beginning in 1999, that made it possible to construct the facilities necessary for obtaining a full excavation permit.

### Publication

First and foremost, we would like to thank the authors of each of the chapters contained in this volume. Ben Claasz Coockson has been responsible for the majority of the final drawings, while Noël Siver has assiduously read the manuscript, much of it more than once. Thomas Urban, Charissa Johnson, and Steven Townshend at the Oriental Institute oversaw the entire production with great care and attention. Emily Smith, for her assistance and formatting. Connie Tappy, for her assistance in copy editing. And to Andrew Baumann, for sending the manuscript to press. Responsibility for faults and shortcomings remains with the authors.

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### Yozgat Museum

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## Şahmuratlı Village

The excavation house, field laboratory, and depot are located in the village of Şahmuratlı, which nestles at the eastern foot of the Kerkenes Dağ. Villagers tend vineyards and orchards on the southeastern-facing slopes of the mountain, while their flocks and herds are grazed within the walls of the ancient city. Wheat, chickpeas, and lentils are the chief crops grown on the level fields, in addition to which many families have small gardens. We have always received the traditional hospitality for which Anatolia is justly famed, and in some cases this hospitality has extended to deeper levels of friendship. We would like to thank the Headmen, Turan Baştürk, Ali Erciyes, and particularly Osman Muratdağı, together with the inhabitants of the village, from among whom come the excavation workmen and house staff. A special word of thanks is due to Mehmet Erciyes, who, in addition to performing his duties as site guard, assiduously maintained the excavation house, garden, and facilities. With great sorrow we learned that Mehmet passed away as preparation of this volume was in its final stages.

## Postfieldwork

Based in office space provided by METU, the Kerkenes Project collaborated with the Faculty of Architecture, the Faculty of Engineering Research, and the Faculty of Geological Engineering. Between seasons, the project received funding for research

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## The Team

A very large number of people are involved in a project such as this one. The team includes students and others who help with the office work, accounts, archiving of records and correspondence, running of the excavation house and kitchen, and many other arduous and often thankless tasks. Some have been involved over several field seasons as well as in Ankara between seasons. Additionally, there have been members of the field team who were engaged in other areas of research, including the Remote Sensing Survey and excavation at other locations within the city, while work at the Palatial Complex was in progress. In the list that follows, only those individuals whose contributions are directly related to this report are acknowledged by name. A full list of participants, including students from Turkey and elsewhere who participated both during and between seasons each year, can be found on the project website. We trust that no one's name has been omitted and offer our sincerest apologies for any unintentional omissions. Names are in alphabetical order according to surname.

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## INTRODUCTION

NICK CAHILL

The foundation of the ancient city now known as Kerkenes Dağ, probably ancient Pteria, in the seventh or early sixth century BC must have been one of the most important events in central Anatolia during that critical period. A new city, the largest Iron Age settlement in Anatolia, was established on a previously unoccupied site, thereby profoundly shifting the political and cultural balance of the region. It was built rapidly, apparently fully occupied, and then suddenly and violently destroyed, all within a very short period of time. This sequence preserves for us, as Geoffrey Summers has put it, a “utopian” city reflecting the cultural ideals of a specific time, place, and people, rather than the palimpsest of changes and adaptations that characterizes settlements with longer and more complicated histories—settlements such as Gordion, Sardis, or, farther afield, Boğazköy and Babylon. Moreover, the shallow burial of Kerkenes Dağ makes the site ideal for the intense surface and subsurface surveys that have occupied so much of the archaeological investigation of the project—techniques that are less successful at longer-lived, historically and stratigraphically more complex sites. Kerkenes Dağ is thus unique in the archaeology of Iron Age Anatolia, indeed in the archaeology of the Near East in the Iron Age, in offering a more complete picture of its urban layout than any contemporary site. From this uniqueness, the team is able to draw broad conclusions based on a complete picture of the ancient city to a degree rare in world archaeology.

The cultural ties of this ideal city have been well explored. The work of the Kerkenes team, particularly at the Palatial Complex, has shown the city to be at least largely Phrygian in origin. The links in written language, architectural, sculptural, and ceramic traditions, as well as cult and ritual, all seem to look to Phrygia in the west. Future research could test some of the hypotheses proposed to explain these cultural links—for example, the hypothesis of large-scale migration, as favored by Summers, or some other mechanism—by looking at the lives of the ordinary people who inhabited the blocks constituting the bulk of the urban area, whose cultural backgrounds might not be as directly reflected in the public monuments excavated at the Cappadocia Gate and the Palatial Complex.

Fortunately, such testing is one of the projects of current and ongoing archaeological research at the site.

The elite quarter of the site, the Palatial Complex, was recognized early in the researchers’ exploration, and its excavation was one of the early and critical goals of the project. As in the publication of the Cappadocia Gate, the current volume lays out the difficulties involved in that excavation: masonry shattered and vitrified by the intense conflagration of the final destruction; the difficulties of recognizing tiny chips of statuary and inscriptions and the immense efforts in finding joins among the masses of splintered rock; the dangers posed by seemingly well-preserved but sometimes perilously unstable monumental architecture; the foreseeable and inevitable heartbreak as structures painstakingly exposed for scientific examination were then damaged by that very exposure. Archaeologists all wish, of course, that we could see more of these buildings face to face rather than through the lens of geophysics, with the details of their construction, their finds, stratigraphy, and other aspects only known through excavation. But we are also well aware of the limitations imposed by time, budget, and nature, and we are gratified to see the buildings safely preserved for the future, with their broad outlines and many specifics presented in the current volume. The team’s decision to explore the site largely through nondestructive remote sensing was one of the many choices that proved to be farsighted, and the team undertook all the necessary measures to backfill and protect the excavated structures. Uncontrolled excavation without the meticulous recording and keen insights of Summers and his team would have been catastrophic.

The complex was designed to inspire awe. The Monumental Entrance replaced an early, apparently defensive structure, thus documenting changes in the internal urban organization within the short life of the city. This removal of a defensive work in favor of a less obviously defensive but more monumental and impressive entrance to this sequestered quarter is argued to be a sign of the stability of the regime. As with the entrance to the Citadel at Gordion, the entrance to the Palatial Complex was a locus of the display of identity, of cult and divine protection, of control, and presumably of many other activities attested in the literary record of contemporary cultures but unfortunately

lacking for Anatolia. Two 10 m wide wooden façades equipped with double doors, probably embellished with the iron bands and spectacular pair of bronze ibexes found in situ, created a monumental entrance to the Complex flanked by aniconic and representational sculptures in a dazzling display of authority. Within, the monumental Audience Hall, Ashlar Building, and other structures identified through topographic and geophysical survey must have housed a diversity of functions that can only be speculated on. The Complex is broadly reminiscent of the citadel at Gordion with its monumental entrance, Audience Hall-like megarons, and small cell-like buildings for storage and production. With the imminent publication of the contemporaneous Middle Phrygian levels at Gordion, we will soon have a wealth of new information about the organization of Palatial Complexes in Anatolia, which are relatively little understood compared with the palaces of contemporary and earlier Near Eastern cultures.

Together with the rest of the city, the Palatial Complex was engulfed in flames, the result of a deliberate destruction, with one casualty of battle discovered so far in the wreckage of the Cappadocia Gate and perhaps more to be found. The parallels to the Persian destruction level at Sardis, more closely and securely dated through imported pottery, are very striking. At both sites the cities were extensively looted before the destruction; the few stray gold and other precious artifacts found through excavation give a sense of the riches that were taken by the victors. The range of types and sizes of arrowheads from the destruction levels at the two sites are almost identical. After the conquest, enormous efforts were taken at both sites to pull down the fortifications, thereby rendering the cities indefensible, before setting the fires that engulfed the remaining buildings throughout the city. Such complete and utter destruction through time-consuming and potentially dangerous demolition of the monumental fortifications delivered a powerful message, undoubtedly reinforced through other acts of public violence that leave less obvious traces in the archaeological record.

After burning, both fortified sites then lay virtually fallow for centuries. In both cases, the existence of a powerfully fortified city with potentially insurgent inhabitants may have been seen as too risky, and rather than restore and reoccupy the defeated seat of power, it was more expedient or strategic to neutralize any possibility of future threat by destroying the physical settlement and dispersing the population. The

subsequent histories of the two cities diverge, however. The impregnable acropolis of Sardis became a satrapal capital, but its lower city lay in ruins like Kerkenes Dağ, while the small remaining population lived outside the ancient walls of the Lydian city. Some centuries later this Lydian population, independently of the Persian commanders, greeted Alexander the Great when he approached Sardis. Kerkenes Dağ, however, never again achieved urban status. Much of the citadel at Gordion was likewise left uninhabited during the Achaemenid period, but became a small but significant settlement in the Hellenistic and Roman eras. The divergence of these settlements' trajectories after their destruction is another hint of the remarkable circumstances of the foundation of Kerkenes Dağ, as emphasized by Summers; it was a city established by powerful fiat, and without such a mandate it did not regrow after the Achaemenid period.

The contrasts between the remarkable preservation and our rich understanding of the Palatial Complex at Kerkenes Dağ and the corresponding features at Sardis and Gordion are therefore striking. The palatial complex at Sardis on Field 49 and ByzFort has been the subject of recent excavation and research, but research is greatly hampered by the deep and thorough looting from the Achaemenid and Hellenistic eras until the nineteenth century: extracting stone to reuse in later buildings and hunting for the gold and silver that must have been hoarded here. Only tiny stretches of the Lydian palace walls and Persian destruction level in situ, and scattered and reused blocks in later levels, survive the systematic clearance and retrieval of blocks for reuse; much was incorporated into the walls of monumental Hellenistic buildings, but reconstructing the original structures will be a great challenge. The Middle Phrygian level at Gordion likewise was deeply plundered for stone and valuables, thereby leaving few standing remains; and those remains were then removed in earlier excavations.

The careful, thoughtful exploration of the Palatial Complex, and its full and detailed presentation in the present volume, place this remarkable monument in its urban, regional, geographic, political, ecological, and historical contexts—all characteristics of the Summers' work at Kerkenes Dağ from the very outset. It was a privilege to visit the site with Geoff and Françoise Summers and with the late Crawford H. Greenewalt jr. from the start of excavations and to watch the survey, excavations, and ideas develop over time. This report gives a sense of all they have accomplished.

## BIBLIOGRAPHICAL NOTES ON KERKENES PROJECT PUBLICATIONS

### Website

The Kerkenes website is currently hosted on the METU server at [www.kerkenes.metu.edu.tr](http://www.kerkenes.metu.edu.tr). The home page offers three options: the original custom-built page, a second page for downloadable PDFs, and a third page devoted to the Kerkenes Eco-Center.

### The Annual *Kerkenes News*

In 1997, a glossy brochure summarized the first five years of research at Kerkenes in English and Turkish. The first *Kerkenes News—Haberler* appeared in 1998; since then it has appeared annually in the same format. *Kerkenes News* 15 is the final issue of this newsletter. Published by METU Press and distributed free of charge, *Kerkenes News* has been an important means of disseminating results to a broad public. Important discoveries have usually been reported here first. All issues can be downloaded from the website.

### Uluslararası Kazı, Araştırma ve Arkeometri Sympozyumu (International Excavation, Survey and Archaeometry Symposium)

Reports on the results of each season have been presented at this annual symposium held in Turkey. Until 1998, when the *Kerkenes News* was inaugurated, publication of the symposium in the year after it was held became the vehicle for the first announcement of discoveries. Reports, in Turkish, have appeared in most years:

*Kazı Sonuçları Toplantısı* 19, 22–26, 28–29, 31 (two reports), 32, 33;  
*Araştırma Sonuçları Toplantısı* 12–16, 19.

These reports can be downloaded at

<http://www.kulturvarliklari.gov.tr/TR,44760/kazi-sonuclari-toplantilari.html>;  
<http://www.kulturvarliklari.gov.tr/TR,44761/arastirma-sonuclari-toplantilari.html>.

### Research Reports

The British Institute of Archaeology at Ankara (BIAA), recently renamed the British Institute at Ankara has published short annual reports:

*Research Reports* 1994;  
*Anatolian Archaeology* 1995–2011;  
*Turkey Heritage* 2012.

### Kerkenes Final Reports Monograph Series

The present volume is the second in a series of final reports published by the Oriental Institute of the University of Chicago.

### Kerkenes Special Studies Monograph Series

Supplementary special studies on aspects of Kerkenes in the Oriental Institute Publications (OIP) series: one volume, *Sculpture and Inscriptions from the Monumental Entrance to the Palatial Complex at Kerkenes Dağ, Turkey*, by Catherine Draycott, Geoffrey D. Summers, and Claude Brixhe, was published in 2008.



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## CHAPTER 1

# BACKGROUND: REMOTE SENSING, EXCAVATION STRATEGIES, METHODS, AND NOTATION

FRANÇOISE SUMMERS and GEOFFREY D. SUMMERS

The Iron Age capital on the Kerkenes Dağ, very probably to be identified with ancient Pteria, was a new foundation almost certainly established no earlier than the second half of the seventh century BC. It is located close to the northern edge of the undulating Cappadocian Plain in the center of the Republic of Turkey (pl. 1a–b). The strong, albeit circumstantial evidence points to its being destroyed during the conflict between Croesus king of Lydia and Cyrus the Great of Persia shortly before the fall of Sardis in about 547 BC. The reader is referred to the first volume in this series, *Excavations at the Cappadocia Gate*, for a more detailed background. Investigations at the Palatial Complex did not produce further evidence pertaining to the date of the foundation of the city because, in large part, excavations rarely penetrated below the burned surfaces of the destruction. Where earlier layers were investigated, no tightly datable finds or diagnostic pottery was found in the terrace fills and leveling material.

## THE LOCATION OF THE PALATIAL COMPLEX

Situated on a low granitic batholith that dominates the surrounding countryside, the city is protected by a 7 km long circuit of strong stone defenses pierced by just seven gates (pls. 2–3). These defenses follow for the most part the natural topographic divide that forms the crest of the mountain and thus make the best defensive use of the natural slopes; the chief exception is on the eastern side, where a weaker line

was followed in order to enclose water sources located at the base of the acropolis within the line of the city walls. The circa 250 ha of enclosed urban space was almost entirely built over, as geophysical survey has demonstrated. Several morphologically discrete components of the urban landscape can be identified. First, there is the acropolis or kale (castle), known as Keykavus Kale.<sup>1</sup> This rocky tor dominates the city and the wider region, but it is waterless and offered little level ground suitable for the erection of substantial buildings. A Byzantine-period castle obscures all but meager traces of earlier structures. The city below, much of which lies in its shadow until noon, is essentially divided into two parts: a lower town filled with urban blocks and provided with reservoirs collecting water from underground seepage, and a high ridge extending from the base of the kale to the western defenses and occupying most of the southern third of the city. It was here on this windy ridge that many of the public buildings, including the Palatial Complex, were situated. This division between upper and lower portions of the city is marked by steep slopes and considerable differences in elevation, but not by any man-made defenses. Three city gates, the East Gate, the Cappadocia Gate, and the Göz Baba Gate, gave direct access to this ridge (pl. 3). Significantly, these three gates appear to have been stronger than the four gates providing access to the lower portion of the city. The focal point of the southern ridge was perhaps the junction where the road entering through the Cappadocia Gate met the prominent street that ran the entire length of the ridge from the East Gate to the Cappadocia Gate

<sup>1</sup> Bittel 1960/61; Summers and Summers 2013; Summers 2001; Summers, Summers, and Ahmet 1995.

(pl. 4a). At this crossroads a major street led northward, past what were most probably royal stables, to traverse at a gentle gradient the slopes below the kale and eventually to reach the lower part of the city.<sup>2</sup> Approaching from the Cappadocia Gate, on the other side of the east–west street, is the large open field with associated stable-like buildings on terraces to the right (pl. 4b). Above and farther to the right are the foundations of other buildings that, from their size, would seem to have been public. Immediately to the left of the Cappadocia Gate was a very large level area with, at its center, a granite knoll on which some kind of public building was constructed above a shallow artificial pool. This big compound was bounded by a long stone wall stretching some 350 m westward from the city gate to terminate at a large raised building linking the boundary wall to the city defenses. Geophysics has revealed a few ancillary buildings within this area.<sup>3</sup> On the northern side of the east–west street and to the west of the field, within a walled enclosure, is the stone-lined Leech Pond. From here the street leading to the Palatial Complex is broad, opening out into a substantial open area in front of the stone glacis that protected the fortified Structure A. The main street continues westward along the northern side of the long compound wall that enclosed the Palatial Complex, some 280 m in length. To the north of this street are found more or less regular urban blocks not dissimilar to those seen in the lower area of the city (pls. 8a–9a). One of these blocks contains a large columned hall (E 1027 m, N 785 m),<sup>4</sup> one of several that have been identified in different quarters of the city, that was very possibly a temple.<sup>5</sup> To the south of the Palatial Complex the land falls gently away and appears to be devoid of buildings and features apart from a two-roomed building and associated smaller structures to the west of the E 1040 m line and north of the N 700 m line. From the way in which the boundary wall of the Palatial Complex curves up to the north, these structures would seem to fall early in the sequence of construction. Finally, while on the subject

of urban morphology, attention should be drawn to the so-called Kiremitlik that is located at the southern end of the city (pls. 3–4b).<sup>6</sup> Although this location is in fact the most elevated part of the city, the topography of the Kerkenes Dağ itself is such that views are not as expansive as those from the kale. Here the remains of a fortified Byzantine village obscure earlier, Iron Age buildings.<sup>7</sup>

The Palatial Complex, then, was positioned on the southern side of the high southern ridge and immediately west of a sharp rise in the elevation of the ground. It is likely that its construction entailed the reduction of outcropping granite and the filling of hollows, and that this modulation of the terrain was done in several phases. The location is exposed to strong and often bitterly cold winds blowing from all directions, and in winter snow would drift against its walls. Despite this elevated and prominent position within the city, it did not offer extensive views of either the urban landscape or the surrounding territory. It would not have been possible to survey the urban landscape over the compound walls or to see much beyond the high city defenses. By the same token, it would not have been possible to look in from the outside other than to catch glimpses of the Audience Hall from the court in front of the Monumental Entrance to the Palatial Complex (hereafter Monumental Entrance) when the doors in the Monumental Entrance were open.<sup>8</sup> Pitched and double-pitched roofs of thatch did not provide elevated positions from which to view surroundings, and the complex was not overlooked, as the acropolis peak was too distant a vantage point to permit close observation.<sup>9</sup>

Since the beginning of the current research at Kerkenes, it has been thought that this new foundation exhibited a considerable degree of centralized planning. The process of laying out the city included not only determination of the line to be taken by the city walls and the position within the circuit of each of the seven city gates, but also the division of urban space, the network of streets, and the main components of the system of water management (pls. 2–4).

<sup>2</sup> Streets and transportation are being studied by Scott Branting (Branting 2007; 2011).

<sup>3</sup> Summers 2000; Summers and Summers 2008.

<sup>4</sup> For coordinate references, see pls. 3 and 8.

<sup>5</sup> Summers 2007.

<sup>6</sup> The Kiremitlik is a local name meaning “place with tiles” that refers to the prolific sherds of Byzantine-period pottery scattered over its surface.

<sup>7</sup> Summers, Summers, and Ahmet 1995.

<sup>8</sup> Osborne and Summers 2014.

<sup>9</sup> This same lack of visibility into and out of royal quarters is probably paralleled at the Gordion citadel (Voigt 2013).

Not everything, of course, was built at once, but the urban framework appears to have been established from the start, and that framework included land set aside for public buildings.

## STRATEGIES AND PROGRESS OF RESEARCH AT THE PALATIAL COMPLEX

An overview of the development of the research design at Kerkenes since 1993 has been set out elsewhere and need not be repeated here.<sup>10</sup> Employment of aerial imagery, close-contour topographic mapping, and large-area geophysical survey (pls. 5–9a), innovative in the 1990s, have now become standard practice on archaeological sites where such methods provide worthwhile results. The Palatial Complex has been mapped through a combination of aerial photography with a helium-filled blimp, close-contour simulations using Trimble Geographical Positioning Survey (GPS) equipment, geophysical survey employing fluxgate gradiometers and a resistivity meter, both made by Geoscan, and careful and repeated observation on the ground.<sup>11</sup> The first test excavation within the Palatial Complex was conducted in 1996, at TT17, to ascertain the nature of subsurface remains that were giving highly polarized magnetic readings. In addition to demonstrating that there had been a strong fire, this trench revealed that floors and pavements were close to the modern surface, while wall tops were often preserved to ground level. When larger-scale excavations were contemplated in 1999, the entrance to what had already been termed a Palatial Complex was selected, together with the Cappadocia Gate.

### The Name “Palatial Complex”

The large compound or urban block that forms the subject of this report was termed the Palatial Complex early on in the program of research and exploration at Kerkenes. There were several reasons for thinking that this urban block and the structures within it were palatial. These included the

dominating location in the center of the high southern ridge that extends from the foot of the acropolis, called Keykavus Kale, to the western line of the city defenses and the South or Göz Baba Gate, and the size of the walled urban block, without recognizable entrances except at the east end where there was a glaxis of monumental proportions. Additionally, there appeared to be a gradation from larger structures at the eastern end to smaller ones to the west, which could perhaps be interpreted as representing progression from public to more secluded or private quarters. Subsequent research has provided much additional evidence for the public nature of buildings at the eastern end of this compound, including sculpture and inscriptions.<sup>12</sup> Negative reasoning also played a part, in that no other candidate for a royal palace within the city presented itself. The existence of royalty at Kerkenes, although not proven, can safely be assumed. The term “complex” perhaps requires justification, but alternatives such as “compound” did not seem to fit the scale and grandeur. By “complex” is meant the group of functionally interrelated structures that are physically defined by an enclosing wall. Early on in the survey it could be seen that there were separate but related buildings within the block and that some of them attained very considerable proportions.

As to who, in addition to the royal family, might have resided in the complex, as well as who might have had access to the elite, we can do no more than guess. Similarities between this Palatial Complex and the earlier Phrygian citadel at Gordion are not obvious, perhaps because much of the southern ridge at Kerkenes would have to be considered in a detailed comparison. We can be sure that access was restricted and that restrictions increased with penetration. There would have been guards, watchmen, gatekeepers, retainers, and servants, the latter presumably including slaves, some of whom are likely to have resided within the precinct walls.<sup>13</sup>

### Remote Sensing

Several noninvasive remote-sensing methods were employed at the Palatial Complex and its environs between 1993 and 2009. Developments in equipment

<sup>10</sup> Summers and Summers 2010.

<sup>11</sup> Summers and Summers 1998; 2008; 2010; 2013; Baturayoğlu et al. 2002; Branting and Summers 2002; Summers 2009.

<sup>12</sup> Draycott, Summers, and Brixhe 2008; Brixhe and Summers 2006.

<sup>13</sup> For gatekeepers in an Assyrian palace, see Radner 2010; for the citadel at Gordion see Voigt 2013. Slaves at Gordion are discussed by DeVries 1980, but Burke 2005 is more cautious.

and software were significant over that period, as has the quality of satellite imagery in the public domain provided by Google Earth and NASA. Methods employed in this study have included satellite imagery, high-altitude aerial photography for mapping, photography from a manned hot-air balloon and with a tethered blimp, total station survey of visible features, differential GPS close-contour survey, geophysical survey with both a fluxgate gradiometer and a resistivity meter, and verification on the ground. While the development of survey strategies and methods need not be repeated in detail here, it is apposite to summarize how the images reproduced in this volume were obtained.<sup>14</sup> Flying in the Cloud 9 hot-air balloon in 1993 provided a unique opportunity to gain an overview of the city and its setting that, at the time, was not possible to obtain by other means. This same flight also presented an opportunity to take oblique photographs. In 1993 and 1994, nearly vertical photographs were taken by suspending a camera beneath a helium-filled blimp. These photographs, both black-and-white negatives and color slides, could be rectified for mapping. Global positioning using Trimble equipment permitted the creation of three-dimensional simulations of the surface topography that were more detailed than the contours drawn on maps derived from high-altitude stereophotographs. Geomagnetic survey with a Geoscan FM36 fluxgate gradiometer was at four readings per meter with 1 m traverse intervals, while a Geoscan RM15 resistivity meter was used at two readings per meter with 0.5 m traverse intervals. Processing of geophysical data was done with Geoplot, with final images produced in Surfer software.

## EXPECTATIONS OF EXCAVATION AT THE PALATIAL COMPLEX

By 1998 ideas about the dynamics of this Iron Age city and, more importantly, about the place of the city in the wider Eastern Mediterranean and ancient Near Eastern context of the first millennium BC were generating interest. There was a developing need to test some of the issues being raised by means of

excavation conducted on a larger scale than had hitherto been contemplated. Collaboration with David Stronach brought sufficient funds to provide the infrastructure necessary at the time to obtain an excavation permit from the Turkish Ministry of Culture. Two places were selected for excavation. Logistics of transportation together with the official requirement that all areas at which work was conducted could be adequately inspected by the *temsilci* (Ministry of Culture representative) meant that trenches had to be within easy walking distance of one another. Development of the site for the purpose of tourism was a factor that was high on the agenda of local officials, including the director of the provincial museum at Yozgat, Musa Özcan, under whose auspices earlier test excavations had been conducted in 1996 and 1998 and who in 1999 was granted permission from Ankara to oversee clearance of visible structures together with further test excavations. The two areas selected were a city gate, our Cappadocia Gate, and the Monumental Entrance to the Palatial Complex. At the latter, it could be seen that there was a very substantial stone-faced glacis around two buttresses and that one function of this glacis was related to significant topographical change whereby the level of the land rose sharply from east to west. A number of factors thus combined to make this area an obvious place at which to commence intrusive investigations: There was significant preserved glacis that would have considerable visual impact for visitors to the site, and the clearance of fallen stone would be relatively fast and straightforward, thereby providing an impressive result in reasonable time. Furthermore, excavation of TT17, as well as geophysical survey and observations on the ground, held out the prospect of finding preserved remains and associated cultural material.

It was anticipated at the start of work (wrongly, as it turned out) that removal of the fallen stone would reveal a monumental ramp or stairway between the two buttresses. Thus, at the end of the 1999 season, by which time the glacis had been traced to the middle of the central niche, we were perplexed. The impressive preserved height of the glacis at the Palatial Complex, together with discoveries at the Cappadocia Gate, far surpassed anything that we had anticipated.

<sup>14</sup> Branting and Summers 2002; Summers and Summers 2008; 2010.

## STRATEGIES AND PROGRESS OF THE EXCAVATIONS

### 1996 Test Excavations

By 1996 there had grown an urgent need to understand better the results coming from the geomagnetic survey, pioneered at Kerkenes and elsewhere by Lewis Somers of Geoscan, in order to develop strategies and secure funding for further research. This need, together with growing questions about the length of occupation and the urban nature of the site, were addressed by first cleaning some of the fourteen test trenches excavated by Erich F. Schmidt in 1928,<sup>15</sup> which were given the label STT, and then opening a number of new test trenches (TTs). This work was done in full collaboration with Musa Özcan, then the director of the Yozgat Museum. One of the test trenches, TT17, was located in the Palatial Complex, where an unusually level area had been selected for a trial geomagnetic survey, which produced a very strong linear anomaly.

### 1999 and 2000 Clearance and Excavation

In 1999, in collaboration with Musa Özcan of the Yozgat Museum and David Stronach from the University of California at Berkeley, a large-scale program of clearance and excavation at the Palatial Complex and the Cappadocia Gate was initiated. The following year a full excavation permit was granted to one of the authors, Geoffrey Summers, by the General Directorate of Museums and Cultural Assets at Ankara. This permit was renewed annually through 2011. These developments explain the cumbersome use of different terms for excavation: clearance trench = CT, test trench = TT, and trench = TR. Once the full excavation permit had been granted only TR was used at the Palatial Complex (pl. 3, appendix 3).

### Excavations

Excavation strategy was straightforward. The priority was to clear the huge amount of tumbled stone from in front of the glacis and the tower-like Structure A that it supported (pls. 11a–12). This task was accomplished in 1999 and 2000. The area behind the fortified Structure A was also investigated in 2000.

This activity included the two-roomed Structure C, as well as part of a different kind of building labeled Structure D. As it became known that the western limit of the glacis had been cut through, and that the preserved stone walling that formed the northern limit of the Palatial Complex had been constructed against the ragged cut end of the glacis, clearance trenches CT19, CT15, CT13, and CT24 were laid out, in that order, and dug down in such a way as to provide a continuous section from the excavated portion of Structure D, northward along the central axis of Structure C, over the enclosure wall, and finally across the street on the northern side of the complex. Generally at Kerkenes, excavation has been carried down only as far as burned surfaces or stone pavements. Floors and surfaces have been left intact and, where fragile, covered with geotextile and earth. In the area behind Structure A, however, and occasionally elsewhere, digging was continued below surfaces equated with the destruction. External surfaces did not always bear clear indications of having been burned. A major reason for the ephemeral nature of these surfaces that have not been heavily burned is bioturbation, that is, activity by burrowing animals and plant growth. In these cases the opportunity was grasped to examine foundations and fills, while at the same time checking to ensure that there were no traces of earlier occupation. Within the Audience Hall, in addition to this bioturbation, was disturbance caused by Byzantine-period treasure seeking and perhaps stone robbing. Excavation of these later intrusions made it a simple matter to gain some understanding of the substantial amount of artificial leveling associated with the construction of the building.

When it became understood that there was no entrance in the center of Structure A, attention was shifted to Structure B, with the expectation that the visible wall tops would be associated with access to the structures behind the glacis and towers. This hunch turned out to be only partly correct because, as it was soon established, the inclined stone pavement giving access to the southern side of Structure A had been blocked off and built over by the terrace walls of Structure B. The western limit of the Structure B walls was not established for two reasons. First, the pavement rises up from east to west to such an extent that the preserved top of the outermost terrace wall was, where it reached the

<sup>15</sup> Schmidt 1929.

North Platform, at the same elevation as the stone paving. Second, there was and still is a large wild pear tree and a mass of fallen stone rubble in front of the North Platform that it seemed unnecessary to remove.<sup>16</sup> Trench TR01 was laid out to trace the extent of the stone paving and to examine the unpaved street that runs parallel to the boundary wall on the southeastern side. The irregular shape of the southern side of TR01 more or less indicates where the stone paving was exposed on the modern ground surface. Trenches TR11, TR14, TR20, and TR21 were laid out in order to obtain a section through the center of the space between the two platforms. TR15, TR16, and TR17 exposed the southern side of the court and, in TR15, allowed investigation of later disturbance on the top of the South Platform as well as a yet more recent rectangular shepherd's construction.

In a very few instances, such as a small sondage within the Ashlar Building, a careful operation was conducted to examine foundations and related structural details. Where the outlines of buildings could be established before excavation—through a combination of geophysical survey and verification on the surface—the approach has been to excavate only one half of each room, where possible in two stages and in such a way as to obtain a section along the short axis as well as the long one. This approach was successfully achieved at both Structure C and the Ashlar Building, as well as in the anteroom of the Audience Hall. In the latter building, however, less than one quarter of the main room has so far been excavated. With regard to Structures D and E, there are insufficient indications of the plan to say for certain what proportion of the rooms have been investigated.

This same principle of excavating only one half of a structure, and leaving the other half for posterity, was initially applied to the Monumental Entrance, where it was envisaged, once the basic plan was understood, that only the northern half of the court would be exposed. But the unexpected discovery of inscribed and sculpted fragments made it incumbent on us to excavate the entire court. To complicate the progress of excavation of the court, together with investigation of the platforms on both sides,

it was only when excavation was well advanced that it became clear there had been very considerable Byzantine-period disturbance and this activity had resulted in mixing of the Iron Age debris. This result accounts for the fact that very few of the sculpted and inscribed fragments were found where they had come to rest in the destruction debris but rather were randomly distributed throughout the disturbed fill of the court. Additionally, this later disturbance in large part explains the incompleteness of the sculpted and inscribed pieces, though there is reason to think that some fragments may have been burned beyond recognition. Finally, there has also been disturbance to the tops of the platforms. As a result, while some of the most important fragments of the inscription and the statue were found in undisturbed burned debris directly on the pavement, it is impossible to assess how many of the other displaced pieces fell into the court before or during the destruction, to be subsequently mixed as the collapsed material was dug over, and how many fragments were thrown down from the South Platform, and possibly from the North Platform, in the course of this later activity.

## NOTATION

### Numbering of Trenches

Clearance trenches (CTs), test trenches (TTs), and trenches (TRs) are numbered sequentially across the entire site. Appendix 3 provides a table of trenches. At the Palatial Complex the clearance trenches were all excavated in the years 1999 and 2000; test trenches in 1996, 1999, and 2000; and trenches in 2000 and from 2002 through 2005.

Excavations within the Palatial Complex occurred as follows.

Glacis: CT01–CT10 (in front of the glacis)

Structures A, B, C, and D, and adjacent areas:

CT13–CT27, CT30, TR01

Structure C: CT15, CT18N

Structure E: TT17

Audience Hall: TT22, TR02

Ashlar Building: TR05

Monumental Entrance: TR14–TR21

<sup>16</sup> It is highly likely, as described later in this report, that a tumulus was constructed on this platform, probably in Hellenistic times, and that it was robbed in a yet later period.

## Excavation Units, Recording, and Finds Numbering

Within each trench a set of running numbers is used for units of excavation (U). Finds have identification numbers (IDs) according to material, for example, pottery, metal, etc. Thus 00CT15U05pot01 would be year 2000, clearance trench 15, unit 05, pottery 01. Finds of particular importance were given inventory numbers with the designation K for Kerkenes (following the designation originally given by Erich Schmidt and the authorities in Ankara in 1928). A decision to assign a K number was based on assessment as to whether the particular object has potential for display in a museum or is of sufficient significance to warrant description and discussion over and above a simple catalog entry. A single object made up and restored from several fragments perhaps coming from different contexts was given a single K number even when multiple ID numbers had been given to its constituent pieces. These K numbers are a single series preceded by the year of registration. Thus K06.123 would be inventoried object 123 and the year of registration 2006. Many objects were not assigned K numbers until conservation was completed. In some cases this might have occurred several years after the object's initial recovery. An object such as a pottery vessel restored from joining fragments, perhaps recovered in different seasons from different trenches, might have several ID numbers but only one K number. In only one instance has a single object been assigned multiple K numbers—K06.216, K06.219, K06.221, and perhaps K06.222—an architectural block with engaged bolsters and a bolster end that was assembled over several seasons.

Individual built structures were identified by an uppercase letter, for example, "Structure A." Two buildings have been named, the Audience Hall and the Ashlar Building, as has the Monumental Entrance. Rooms within each structure were numbered, though none of the excavated structures appeared to comprise more than two rooms.<sup>17</sup> Walls of each structure were numbered in a discrete sequence.<sup>18</sup>

At the end of each season, the representative (*temsilci*) of the General Directorate was obliged to select such objects that he or she deemed to be of

sufficient importance to be taken to the Yozgat Museum and entered into the museum register (*defter*). When the museum staff registered these objects, they were given museum registration numbers. These numbers are given in the catalog.

On at least two occasions representatives have made their own lists of objects (*eserler*) and study material (*etütlük*) that stayed in the excavation depot between excavation seasons. In many cases different numbers were given to joining fragments of one object that was awaiting further conservation; in one instance if not more, such a number was given to a fragment of charcoal that had been put aside for species identification. These sets of numbers have been ignored.

## Illustration

Photographs can be identified by their code: the first two numbers indicate the year the photograph was taken; *sl* stands for slide film that in the early years was subdivided into *slhb* (hot-air balloon), *slbf* (blimp film), and *slvf* (view film); *bw* is black and white, divided into large format, *bn* (big negative), and 35mm. Later photography was largely and then entirely digital, as designated by *dp* followed by two letters that indicate the camera used, followed by the download number. Photographs of the site and excavations were often taken by several people without any record made of who actually pushed the shutter release. Photographers of finds, on the other hand, were normally recorded.

The glacis was recorded by means of stereophotography, from which drawings were made. These drawings were the basis from which the drawn elevation was done. In 1999, 2000, and 2002, wall faces and stone paving were drawn by hand in the field. By 2003 affordable digital cameras were becoming commonplace and were used to record walls and stone pavements with reference points from which rectified photographs, drawings, and digital images were made.<sup>19</sup> Plans, elevations, and sections were originally drawn at a scale of 1:20. Finds were normally drawn actual size, small objects at 2:1. Large stone idols and architectural blocks are illustrated using digital methods and reproduced at the most

<sup>17</sup> The only structures at Kerkenes that are known to comprise more than two rooms are the rows of cells. None of them have been excavated within the Palatial Complex.

<sup>18</sup> These wall numbers have been assigned in the final phase of analysis, only after the identification of individual buildings. The running sequence of wall numbers given by David Stronach during the course of excavation has not been retained in every instance.

<sup>19</sup> Baturayoglu 2002.



appropriate scales.<sup>20</sup> In the catalogs the illustrator who made the final ink drawing is credited. This person was often not the same person who made the original pencil drawings. But where possible, ink drawings were made from pencil ones with the object available for checking and often with the aid of photographs.

## Excavation Units and the Recovery of Carved Stone

Ideally excavation units are equivalent to layers or deposits. The extent to which this is so in practice depends on the nature of the deposits being excavated, as well as on the skills of the workers and trench supervisors. Units of excavation can always be amalgamated later on, but if several different deposits are assigned a single number it is impossible to separate the material at a later date. For this reason, where the stratigraphy might be unclear or contexts uncertain, trench supervisors were encouraged to designate more unit numbers rather than fewer. In most cases there is an acceptable correlation between excavated units and the archaeological strata recorded on plans and sections. This situation is not surprising in a single-period site such as Kerkenes, where there was a massive destruction and, in the areas excavated so far, no complex Iron Age stratigraphy. But as noted above, the fill of the court at the Monumental Entrance had been greatly disturbed by Byzantine robbing of stone and searching for loot. In addition to this haphazard sorting of the collapsed material in antiquity, there was an Early Byzantine burial. In practice this means that, apart from the few fragments that were recovered from undisturbed destruction deposits, the Iron Age finds from TR01, TR11, and TR14–TR17 are effectively from one and the same disturbed deposit. So, plotting out in three dimensions (x, y, and z coordinates) the position of each sculpted and architectural fragment offers no useful clues as to where they were originally positioned. Reference to the volume devoted to the sculpture and inscriptions reveals the variety of trenches and units from which fragments of the statue, the inscribed block, and the bolster slab were recovered.<sup>21</sup> It should be noted that very many of the fragments from the large stone idols and other architectural fragments were identified

when enormous numbers of sandstone fragments were washed and sorted, few being recognized during excavation. Because the sandstone was so soft and friable, especially when damp, excavators were strongly encouraged to place all fragments directly into crates, and wrap them if necessary, without attempting to rub off dirt. Only a very small percentage of these fragments came from carved pieces, the vast majority belonging to large building blocks. When the first fragment of an inscription in Paleo-Phrygian was recognized in 2003, there was an immediate change in excavation procedure. From that moment onward all sandstone fragments were separated from the ubiquitous granite. These sandstone fragments were carefully examined by the side of the trench, with all diagnostic or interesting pieces sent down to the depot. Other pieces were placed in sacks and stacked in a pile surrounded by a dry stone wall adjacent to the main stone dump. In subsequent years, once it became clear that there were large idols in addition to more easily recognizable sculpture, all sandstone was taken to the depot for examination and selection. At the end of the 2003 season, geotextile was laid over the stone pavement of the excavated portion of the court. This area was covered with a backfill of excavated soil and smaller stones to protect the paving over the winter. At the start of the 2004 season this backfill was carefully removed in a manner that made it possible to reexamine most of what had been removed before recovery of the first fragment of inscription. No additional sculpted or inscribed fragments were found. We are reasonably confident, therefore, that significant fragments of sculpture and inscription were not lost in the course of excavation. For the same reasons, we are satisfied that fragments of bands and curls from the large idols were also recognized during excavation. It must be accepted that many core fragments or faced pieces with no other diagnostic features were not recognized.

## Stone Fragment Processing

The study of sculpted and inscribed fragments has been published in a separate volume, *Kerkenes Special Studies 1*. It is not necessary to repeat the information presented there. Pertinent data concerning contexts are provided in the detailed account of the

<sup>20</sup> Drawing methods and conventions generally follow those given in Claasz Coockson 2006.

<sup>21</sup> Draycott, Summers, and Brixhe 2008.

Monumental Entrance excavation that comprises chapter 7 of this volume. It behooves us, however, to give some account of the way in which burned debris, architectural blocks, and two-sided semi-iconic idols have been processed, as well as of what has and what has not been presented here.

Sculpted and carved stone can be divided into small-scale relief sculpture and inscription, sculpture in the round that is perhaps two-thirds life-sized, and miscellaneous fragments. The majority of pieces carved in relief came from a single block (K03.168), to which may be added a few fragments that cannot be placed.<sup>22</sup> Sculpture in the round comprises a draped figure (K04.182), and a fragment of a beast, probably a lion (K04.183). The statue and reliefs might have been associated with a stepped base (K03.169) and a slab with small bolsters (K03.167).<sup>23</sup> Yet other fragments include the small sculpted talons of a bird of prey gripping a bone. These pieces were sufficiently distinctive to be easily recognized, though finding joins and learning that there was only a single statue of a draped figure consumed a large amount of time. Differentially burned fragments recovered from primary destruction deposits on the court pavement were sufficiently numerous for it to be certain that these pieces had been smashed and thrown down into the court before or during the fire. Where they originally stood is more problematic.

In addition to the slab with small, engaged bolsters carved three-quarters in the round at the corners and bolster ends between (K03.167), there are fragments of other bolsters in a range of sizes. The largest, ones which were recovered from the court and the rear of the Monumental Entrance, almost certainly broke off of stone capitals that were placed on top of the four freestanding wooden pillars on stone bases, two of which were close to the front of the court, with a second pair at the rear behind the innermost of the two façades. All these large bolster fragments were recovered from disturbed debris, with no other pieces of the capitals from which they are thought to have come being recognized. Several medium-sized bolsters are represented. Some of these fragments have been reassembled to make a large block with three-quarters round engaged bolsters interspersed with bolster ends (K06.216, etc.). It is reasonable to assume that all the bolster

fragments were similarly arranged, but there is no indication as to where these blocks were placed.

Finally, there are the fragments of double-sided semi-iconic idols. Of them, fragments of one were recovered where it had fallen from the northeastern corner of the South Platform. It was not until 2006, the year after the last season of excavation of the Monumental Entrance, that we understood both that they were idol blocks and that they were double-sided. These difficulties were compounded by alterations to surface color and texture as a result of differential burning. We were faced with an unknown number of three-dimensional jigsaw puzzles, none of which were complete, where neither color nor surface texture could be relied on—only shape and such clues as inclusions and bands in the stone. By the start of the 2010 season it was decided that a line needed to be drawn under the tedious, frustrating and time-consuming business of join finding, and that effort had to be redirected to restoration of the most complete idol and the recording of the others. Doubtless more joins could be made, but returns were diminishing. It appeared unlikely that new joins, satisfying though they might be to make, would add significantly to what was already known.

A number of other architectural blocks with carved features or swallow-tailed cuttings for wooden clamps have been included in the catalog. Not all the blocks with clamp cuttings were recorded in detail, with, as of 2017, only a selection of the best preserved specimens being housed in the storage units under the balcony of the stone workshop in the excavation depot compound. In addition, also now in storage under the stone workshop there are a number of large formless masses of fused and distorted burned debris from the front façade. The most impressive of these pieces are included in the catalog.

## CHRONOLOGY

With regard to absolute dating of the foundation of this Iron Age capital, excavations at the Palatial Complex have not provided useful evidence. Pottery from the Cappadocia Gate is not inconsistent with the later seventh century BC, a date that has been suggested on the basis of what little can be deduced

<sup>22</sup> Draycott, Summers, and Brixhe 2008, pls. 28–29.

<sup>23</sup> Draycott, Summers, and Brixhe 2008, pl. 66.

about the historical background. Nothing has been found at the Palatial Complex that need be dated earlier than circa 640 BC. The destruction of the city was surely associated with the conflict between Cyrus the Great of Persia and King Croesus of Lydia that occurred in or about 547 BC. Most of the excavated finds were recovered from that destruction, with some pottery and a few objects coming from older fills. The sculpture, inscription, and architectural blocks from the Monumental Entrance seem to have been in pristine condition when they were destroyed, thus suggesting that they were quite new at the time of the fire.

Charred timbers from Structure D, sent to Peter Kuniholm at the Cornell Tree-Ring Laboratory,<sup>24</sup> turned out to be oriental beech (*Fagus orientalis*), a species unsuitable for dendrochronology. One large piece of partially charred Black or Austrian Pine (*Pinus nigra* var. *austriaca*) was found to have a minimum of 197 annual growth rings.<sup>25</sup> Promising though this finding is, it seems that the preserved piece was the central portion of a much larger timber, perhaps a freestanding column, with very many missing rings.

## THE PALATIAL COMPLEX AT THE START OF CLEARANCE

The main outlines of the complex were understood as early as 1993, when the wall enclosing the great compound was traced on the ground at the same time that the visible parts of the glacis were first documented. Balloon photography (pls. 4b, 12) and geomagnetic survey (pl. 7b) were supplemented by observation on the ground and, in 1996, the excavation of TT17. It could be seen that damage had been done to Iron Age structures by the construction of tumuli, often on the prominent corners of Iron Age buildings (pl. 6a–b). Making these tumuli had involved robbing stone with which to build the stone cists, as well as to use for the large capping stones. These tumuli are probably of Hellenistic date.<sup>26</sup> Material for the construction of the tumuli mounds was scraped up from the immediate area, not least from the remains of adjacent walling. In 1996 excavation of TT15 at the northern end of the

city confirmed that there were at Kerkenes large halls with double-pitched roofs supported by timber columns. This evidence suggested that the Audience Hall, as we have called it, was indeed a large building rather than an open court. It is now known that, as well as at the tumuli, there has been extensive stone robbing and looting at the Monumental Entrance, the glacis of Structure A, the Ashlar Building, and the Audience Hall. Plates 6b–7b show the extent to which the Monumental Entrance has been disturbed. It is not surprising, therefore, that interpretations of the plan made before the results of the resistivity survey of the complex, combined with what had been revealed by excavation, bear little resemblance to the latest interpretations. Even now much of the plan is not fully understood. As related above, when clearance of the glacis was commenced it was expected that a monumental entrance would be uncovered between the two towers (pls. 11a–12). Nothing was understood of the platforms flanking the Monumental Entrance to the north and south. Indeed, an attempt at investigating what is now known to be the northwestern corner of the North Platform, in CT30, was quickly abandoned when the topmost preserved stones were found resting on burned rubble. It was not appreciated that this rubble was filling voids where horizontal beams between courses of large, faced blocks had burned out. Behind Structure A the outlines of Structure C were visible on the surface, as was part of Structure D. Similarly, the plan of the Audience Hall could be made out on the ground and was accurately revealed by geomagnetic survey (pl. 7b). The Ashlar Building was likewise visible, though its length was underestimated.

The planned strategy was to excavate the entire northern half of the Audience Hall together with an equivalent portion of the area behind it. This work would have made it possible to obtain a continuous section from the street in front of the Monumental Entrance to the back of the discrete area behind the Audience Hall. As it turned out, dramatic and unexpected discoveries at the Cappadocia Gate meant that some energies and resources were absorbed at that location. While this unfinished program would have resolved some questions, not least concerning the existence or otherwise of a central hearth in the Audience Hall, it is doubtful that such a section

<sup>24</sup> The Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology, Cornell University.

<sup>25</sup> <http://dendro.cornell.edu/reports/report2002.pdf>. Identification from Peter Kuniholm, personal communication.

<sup>26</sup> Summers and Summers 2008.

would have supplied useful information or that much would have been recovered by way of finds.

## SUMMARY OF PHASES AT THE PALATIAL COMPLEX

Plate 13<sup>27</sup> presents a simplified attempt at interpreting the development of the Palatial Complex from the foundation to the destruction of the city. A brief summary of the phases is given here as a prelude to the detailed descriptions of each structure or area provided in the following chapters. It should be stressed that the reconstruction of Structure A is problematic and that the sequence of construction of Structures B to E is unclear. It is, however, beyond reasonable doubt that Structure A was the earliest in the sequence. It is also possible to demonstrate that the Monumental Entrance was built after the Audience Hall and, in all probability, was the latest major construction in the sequence.

### Phase 1: Structure A

The earliest phase of construction would seem to be Structure A. It comprised the preserved portion of a massive defensive building supported by a stone glacis, of which the central recess between the two corner towers was found preserved to its full original height of some 4.5 m. The quantity of fallen stone removed from in front of the glacis, all of which was unfaced granite, suggests that the original height of the eastern end of Structure A was no less than that of the glacis, thus approaching a total of 10 m or more. Several lines of evidence can be used to support the idea that this edifice was the earliest construction in the sequence of building in this urban sector, very possibly belonging to the earliest phase in the foundation of the city. First, clearance of the front and northern side of the glacis showed that the basal course of face stones rested directly on virgin soil (although this evidence cannot be taken as conclusive, since earlier deposits could have been cleared away to ensure a firm foundation). Second, the glacis had clearly been cut away where the eastern end of the northern enclosure wall of the Palatial Complex was butted against its ragged edge. Though this is not demonstrable, it is certainly possible that

the glacis was cut through at the point where it began to turn to the south. On the southern side the glacis was again cut through, this time to allow for the insertion of Structure B, apparently a massive stepped terrace, which was shown by excavation to have been built over the original paved ramp leading up and into Structure A. Third, Structure A appears to have been designed and built for defensive purposes, which implies that it predated completion of the city's defenses. The central recess in the glacis echoes the rhythmic design of the southeastern façade of the southeastern city gate, called by us the Cappadocia Gate.<sup>28</sup> It thus seems not implausible to suggest that Structure A was built as a strong central point when the city was first founded and that at some later time, once the defensive circuit was complete, much of the original structure could be discarded, retaining only the impressive eastern façade. It should be pointed out that the underlying topography appears to be such that, whatever its precise form, the eastern side of Structure A is related to a rise in the bedrock, with the result that, however it is to be reconstructed, the rear of the monument could not have been as impressive and intimidating as the eastern front. An additional observation that might support an early date for Structure A is that, unlike the towers at the Cappadocia Gate, no use was made of sandstone embellishment.

It is assumed that the earliest phase of the stone paving, the northeastern edge of which is demarcated by a row of large edge stones that, as was demonstrated in CT20, continues to rise beneath the later Structure B, was part of the original paved entrance to Structure A and its associated buildings. The size of the pavers along the edge would support an association, while the angle of the approach is reminiscent of the angled entrance passage of the Cappadocia Gate. In any event, this area of the stone paving is the first in the sequence of paving, and it predates the cutting of the southeastern corner of the glacis.

### Phase 2: Structures behind the Fortified Structure A

In this phase Structure A was drastically modified in one or more stages, and the space between Structure A and the West Urban Block was filled with

<sup>27</sup> After Summers and Summers 2008, fig. 27.

<sup>28</sup> Summers and Summers 2009.

substantial buildings. The northern side of Structure A was cut away and the new boundary wall of the Palatial Complex built against its ragged edge. The southern side of Structure A was likewise cut away and its entrance blocked by the terraces of Structure B. This second phase should probably be divided into several subphases, but no evidence has yet been recovered that permits reconstruction of the order in which the various elements—the Audience Hall, the Ashlar Building, and Structures B, C, and D, together with phases of stone paving—were constructed.

### The Audience Hall and Ashlar Building

The Audience Hall was built and stone paving extended, as demonstrated by the alignment of setting stones in the paving. The complex sequence of construction is not fully understood, for example, the temporal relationship between the construction of the Audience Hall and the Ashlar Building that are placed together here on the basis of their alignment but which cannot yet be demonstrated by stratigraphy. The general trend is, however, clear: the northern wall of the block was extended eastward to butt up against the cut edge of the stone glacis. The Ashlar Building is placed earlier in the sequence than the Monumental Entrance because there is no evidence for the use of clamps—although there is admittedly no evidence for clamp cuttings in granite apart from one instance where a block was mended—and also because the multilayered floor of the inner room points to more prolonged use.

### Structures B, C, D, and E

This placement of Structures B, C, D, and E in the second phase is not completely secure. Structure B was certainly built on top of the Phase 1 paving and cut through the secondary extension of the pavement, and it is undoubtedly associated with the cutting through of the glacis. While no stratigraphic relations have been established between Structure B and the North Platform of the Monumental Entrance, it is hard to imagine that Structure B could have been later. The plan also makes clear that Structure D was not built until after the terraces of Structure B had been built and that one purpose of

these terraces might have been to support Structure D. No stratigraphic relationship between Structure C and Structure D was established, but it was evident that the level of the ground around Structure C and against the northern wall of Structure D was raised sometime between the construction of these two buildings and the destructive fire. Thus, while the pristine nature of the sandstone elements in the masonry of the Monumental Entrance (see below) points to its construction shortly before the destruction, Structures B, C, and D would seem to be earlier. The precise position of Structure E in this sequence is unknown.

### Extension of the Paving

In another subphase, the stone paving was also extended to the northeast of the large Phase 1 pavers. This extension is composed of smaller stones than elsewhere and neither covers the street that formed its southeastern limit nor reaches up to the glacis.

### Phase 3: The Monumental Entrance

In a final phase, the Monumental Entrance leading into what would become, if it was not already, a complex of palatial proportions and ostentation was constructed. The orientation is not the same as that of the Audience Hall and associated buildings and pavements. Whether the east-west alignment of the entrance was simply pragmatic or had some particular significance has not been determined.

### Destruction

The whole complex was burned by the same calamitous fire that destroyed the entire city. Idols and statuary were smashed immediately before or, more probably, during the fire. While the absence of finds in the Ashlar Building and the paucity of finds elsewhere in the areas excavated point to things of value being taken prior to the torching of the site, the gold horn found in the court of the Monumental Entrance demonstrates that looting was not total. There is some evidence that the wooden doors had been taken down prior to the torching of the entrance. No weapons were found in association with the destruction of the Palatial Complex or, for that matter, with the Cappadocia Gate or other areas that have been investigated.

## Tumulus Burials

Tumulus burials with stone cist graves in the upper part of the stone rubble mound were scattered over much of the southern portion of the ruined city. One seems to have been built on the North Platform of the Monumental Entrance, another on the south-eastern corner of the Audience Hall. They are probably Hellenistic in date.<sup>29</sup>

## A Byzantine Burial

A lone burial, dated by a coin of Justinian (K04.170), was found in the court of the Monumental Entrance. This burial probably, but not certainly, predates the stone robbing and looting.

## Robbing and Looting

Signs of stone robbing and the looting of treasure were found everywhere. This activity may not have begun until after the Byzantine-period burial, but the only notable find was a bicolored glass whorl-like object (K03.146). It is likely, but not demonstrable, that stone robbing was associated with the construction of the Byzantine castle on the acropolis. Looting might have taken place on different occasions in late antiquity as well as more recently.

## Recent Activities

More recent use of the site appears to have been restricted to the building of animal pens and the construction of shelters by shepherds. One such shelter was built in an earlier looter's pit on top of the South Platform of the Monumental Entrance (pl. 12).

## ORGANIZATION OF THIS REPORT

Because what is reported on in this volume belongs almost entirely to several building phases of a single complex that probably spans less than a century, presentation of the evidence has not been problematic. Furthermore, the number of finds, especially pottery, is rather limited. After much discussion, it has been decided that in describing the finds emphasis should be placed on context. As a result, the finds are grouped according to the locations from which they were recovered, and thus their presentation follows the same order and designations as those that describe the structures. The major reason for choosing to arrange the material in this way is that it permits all the architectural finds, comprising stone, metal, and burned debris, to be presented together for each structure or set of structures. Additionally, this arrangement makes obvious the very small number of finds within excavated buildings. While this arrangement will entail anyone who needs no more than an overview of, for instance, the pottery, to make reference to several different parts of the report, an emphasis on material found in clear contexts is more valuable than a set of typologies with concordances that would require some effort on the part of a reader who wanted to study finds according to where they were found. In any case, the quantity of pottery and other finds is so small that it is no great task to extract all the information.

The finds are grouped together after the series of chapters that report on the structures, so the illustrations of finds are in sequence, not interspersed with drawings and photographs of buildings and excavation. There are two exceptions to this arrangement. The first of these, the chapter devoted to the marks on pottery, discusses one particular category of finds, with each piece cross-referenced with its catalog entry in the finds chapter and, inevitably, a certain amount of descriptive repetition. The second exception is the chapter on the animal bones, which considers broad questions and discusses specific contexts.

<sup>29</sup> Similar tumuli, dated by fibulae, are found at Boğazköy (Müller-Karpe 2006). Many of these tombs had been robbed sometime before Schmidt excavated one in 1928 (see Schmidt 1929).



## CHAPTER 2

## THE FORTIFIED STRUCTURE A

GEOFFREY D. SUMMERS

The most prominent built structure within the limits of the Iron Age city is the fortification labeled Structure A. Much of it was destroyed in later developments of the Palatial Complex. The preserved portion is made up of a symmetric eastern façade comprising two L-shaped corner towers that project forward to make a shallow central recess. These towers and the connecting wall were supported by a stone glacis, the greater part of which is preserved along the entire eastern side with, additionally, an intact stretch on the northern side (pl. 14a). This singular edifice was recognized as being of outstanding importance very early in the first season of exploration in 1993. Three factors underlay its prominence. First, the massive wall with tower-like constructions at both ends was strongly reminiscent of what could be seen of the city walls. In particular, the stone glacis that curved around the rectangular towers and across the niche was very reminiscent of the twin towers on the eastern side of what we had called the Cappadocia Gate. Second, a huge quantity of fallen building stone, composed entirely of unfaced granite, completely filled the central recess and all but obscured the projecting tower-like corners, thereby indicating the monumentality of the building that, unusually within the city, was constructed entirely of stone (pls. 11a–12). A third factor was the centrality of the location on the high southern ridge. Thus when, in 1999, research design at Kerkenes was broadened to embrace a program of clearance and excavation, this monumental structure was selected as an obvious place to begin investigations.

## LOCATION

The Palatial Complex is located on the middle portion of the high southern ridge, thereby occupying a more or less central position between the foot of the acropolis and the line of the western defenses. In the final phase of monumental building, Structure A had come to form approximately the northernmost half of the length of the eastern end of the entire complex (pls. 9b, 13). The initial construction was, however, smaller, more discrete, and self-contained. As set out in detail below, the original plan of this fortified monument has remained somewhat elusive. Geophysical survey methods were not capable of penetrating the stone rubble fills or distinguishing between infills and bedrock. Changes in elevation and the general topography indicate that Structure A in some way incorporated and made good use of prominent rock outcrops. Reconstruction of the topography as it was before modulation of the terrain is not, however, a straightforward matter, as is demonstrated by the depth to which the earliest surfaces in CT13 and the floors of Structure C were buried, as described in the next chapter. A spring situated just below the foot of the fortification today provides a trickle of fresh water through most of the summer, while a little water seeps out from the base of the glacis until the onset of summer. It is this subsurface seepage that maintains the Sülüklü Göl (Leech Pond), which at a slightly lower elevation, was constructed some meters farther to the east.

While it might be imagined that the top of Structure A would have afforded views over much of the southern zone of the city, and perhaps beyond the city defenses, this turns out not to be the case. For the purpose of viewshed analysis, the observer height for Structure A was set to 14 m above the



glacis base on the assumption that the total height of the glacis, wall, and parapet would have attained a total of more than 8 m, perhaps reaching as much as 12 m (pls. 16–17a). Analysis shows that observers on the tower tops would have had clear views to the east enabling them plainly to see approaches by people who had entered the city through the Cappadocia Gate or had ascended the high ground from the lower portion of the city to join the main street running westward from the East Gate. In other directions very little could be seen apart from the steep and probably unimportant slopes of the Kiremitlik. Nor did observation from the tower tops offer comprehensive views over the surrounding territory. Calculations for viewshed analysis, made by Yasemin Özarıslan, were based on two digital elevation models (DEMs) using ArcGIS 10. Within the city defenses a 1 m resolution DEM was used.<sup>30</sup> Calculations outside the city defenses were based on the ASTER Global DEM<sup>31</sup> with a resolution of about 30 m. Parameters for the viewsheds were as follows: azimuth (bearing) at 360 degrees, vertical scan range at plus or minus 90 degrees, and a maximum search radius of about 50 km. The resulting viewshed layers were superimposed on the high-resolution panchromatic satellite image obtained from QuickBird (pl. 2), as well as the hillshade map generated from the ASTER Global DEM, to contextualize the visible part of the terrain both within and outside the city. This estimate does not seem unreasonable given the heights of the towers at the front of the Cappadocia Gate, as well as the preserved 11 m tall stone gate leading into the Early Citadel at the Phrygian capital at Gordion.<sup>32</sup> Lowering the estimated observer elevation by as much as 4 m made a negligible difference to the viewsheds. Whatever the original plan of Structure A, if there were towers at the western end that mirrored those to the east, as suggested in the tentative reconstruction on plate 14b, there would not have been a significant increase in the extent of what it might have been possible to view from the towers' tops.

<sup>30</sup> Branting and Summers 2002.

<sup>31</sup> ASTER (Advanced Spaceborne Thermal Emission and Reflection Radiometer) is an imaging instrument flying on Terra, a satellite launched in December 1999 as part of NASA's Earth Observing System (EOS). ASTER is a cooperative effort between NASA, Japan's Ministry of Economy, Trade, and Industry (METI), and Japan's Earth Remote Sensing Data Analysis Center (ERSDAC).

<sup>32</sup> Voigt 2013.

## CHRONOLOGY

There were no finds of any description that can be stratigraphically associated with the construction of Structure A. Such stratigraphy as there is indicates that the wall and glacis were built directly on bedrock and undisturbed subsoil. It is highly probable that an outcrop of barren granite was reduced and modified, while also serving as a source of building stone, but confirmation lies buried in the structure's core. What meager evidence is available suggests that Structure A did not replace an earlier building but, rather, was built on a virgin site. Furthermore, there is no direct evidence that points to when Structure A was erected during the development of the newly founded city. It is tempting to think that this imposing structure, the preserved portion of which has all the characteristics of a strong defense, was associated with the founding of the city and predated the completion of its 7 km long city walls. Attractive though this scenario is, it remains little more than a hypothesis.

Turning now to subsequent developments, it is certain that the stretch of wall and glacis which forms the northern side was cut through when the boundary wall of the Palatial Complex was built. At the south the entire side, including the entranceway, was removed, its stone-paved approach being buried beneath stone fill when Structure B was built, as was revealed in CT20. While the chronological relationship between these two adaptations at north and south has not been established, there is no good reason to doubt that they were part of a single grand scheme, one which involved reducing the defensive characteristics of Structure A to the impressive eastern façade. There is nothing to indicate the reason for this drastic change. Buildings erected behind Structure A are described in the following chapter, but it should be noted here that stratigraphic relationships between Structures A, B, C, and D do not satisfactorily establish the sequence of construction, though it seems obvious that Structure A was built first. In short, it is not known whether Structure C was built before modifications were made and part of the glacis cut away on one or both sides. If the reconstructed plan (pl. 14b) of this portion of

the Palatial Complex is correct, the southern side of Structure D would have stood over the entrance. In this case Structure D, and probably Structure C, would have been erected only after the Structure B terraces had been built. The massive square structure with corner towers at Karabaş has approximately the same overall dimensions as Structure A.<sup>33</sup> But in all other ways, including the absence of a glacis, the Karabaş building is different.

## STRATEGY AND METHODS

Work began in 1999 with the removal of fallen stone from in front of the glacis along a stretch that began at the middle of the central recess and extended along the front of the southern tower to include the junction with Structure B (pl. 14a). Clearance trenches in front of the glacis were CT01–CT10, CT14, and CT27 (pl. 10, appendix 3). It was immediately established that the glacis extended across the southern half of the recess and thus that there was no entrance in this position. It was also seen that at the middle of the recess the stone facing of the glacis was preserved to within one course of its original height. The mass of collapsed stone that had buried the glacis face was very loose, thereby making it impossible to cut a vertical section through fallen stone. In CT03 and CT04, assigned to the southern corner and the southern edge up to the terrace wall of Structure B, the burned surface was exposed, while CT06 exposed more of the Structure B wall face. A small sounding, CT05, was dug through the burned surface at the southern corner, where it was found that clean, stiff, reddish-brown clay with inclusions of granite covered the base of the glacis and also ran up against the Structure B wall. At the time of excavation it was thought that this layer was a deliberately laid surface, but subsequent excavations at the Cappadocia Gate demonstrated that similar deposits were in fact denuded mud plaster that had washed off the faces of the stone walls. In the following 2000 season, the entire surviving portion of glacis was exposed down to the burned surface that ran against it or, where this surface was not preserved, to the base of the face stones (pls. 17b–21).

With the exception of sparse, abraded, and non-diagnostic pottery sherds, there were no finds within the collapse. At the foot of the glacis, associated with traces of burning on the buried ground surface below the collapsed stone, were bones and tusks from wild animals that are reported on in chapter 10, together with nondiagnostic Iron Age pottery sherds. The only other find was a stone horse bridle strap guide (K99.082). As supervised groups of workmen cleared away the stone, clearance trench numbers were allotted to record the approximate distribution of any material that might be recovered. Once the stone had been moved back from the base of the glacis, a mechanical digger and tractor were employed to make a level dump of stone to the southeast, in an area where it was known from geophysical survey and verification on the ground, that there were no significant Iron Age structures. It was the intention to reuse much of this stone in restoring the glacis and the lower courses of Structure A. On the top of the northern portion of Structure A, a small amount of stone fill and disturbed stone was removed to define the rear wall, as well as to investigate the methods used in its construction. At the northern end of the wall connecting the two towers, a robber pit had been dug into the rubble core. This depression can be seen on the GPS simulation and balloon photograph (pls. 7a, 12). The opportunity provided by this intrusion was utilized to examine the inner faces of both the eastern and western walls in CT17 and CT21 (pl. 10). The ragged hole was then filled with stone rubble to protect the walling and enhance its overall appearance. The western face of the western wall of Structure A was examined in CT16, CT18, and CT23, while the western part of the northern tower was investigated in CT13 and CT16. Cleaning of the glacis fill where it was disturbed at the southeastern corner of the southern tower was designated CT25.

In the course of the 2000 season, the glacis was recorded by means of photogrammetry, from which an accurate drawing was made (pl. 21). At the same time, a very large number of photographs were taken with a small digital camera as an experiment in what was at that time the rather novel idea of making rectified images with affordable equipment and software that could run on a desktop computer.

<sup>33</sup> Summers et al. 1996, pp. 226–33.

Because the glacis is inclined in addition to having curved outer and inner corners, accurate recording was quite challenging.<sup>34</sup>

## DESCRIPTION OF THE FORTIFIED STRUCTURE A

The preserved portion of the monumental Structure A comprises the base of two projecting corner towers and a connecting wall supported by a stone glacis, a continuous portion of which extends along part of the northern side (pl. 14a). It is built entirely of granite with, presumably, some timber elements. This structure forms the eastern end of an edifice that displays characteristics of defensive architecture. Part of a good stone pavement belonging to a ramped entrance on the southern side was found beneath and to the south of the Structure B terrace walls in CT20.

The width of the structure at the base of the glacis is about 44 m, while the northern tower measures some 11 m across, with the central recess perhaps being a little wider. It is probably not coincidence that the northern side of the northern tower is preserved for a distance of about 11 m. The line followed by the base of the glacis on the northern side is not incompatible with the suggestion that it was cut through at the point where it was about to curve around to the south. While this hint of a turn could be no more than a wobble in the line of the glacis, it may well be correct to reconstruct the northern side as mimicking the eastern one (pl. 14b). The entrance was placed on the southern side, as demonstrated by the stone pavement. If the upper end of this inclined approach was central, there could have been symmetry to the entire plan, but there is no indication, either in the geophysical imagery or from observation on the ground, as to the position of the western limit of Structure A. It is, however, possible that the topography of the western end was less elevated and, consequently, that any wall and glacis on the western side would have been less imposing than that on the eastern side. For this reason, additional glacis have not been reconstructed. These differences in level are shown on the drawn profiles (pl. 15a–b). The plan of the northern tower was fully revealed, but the southern end of the southern

tower was found to be badly disturbed. The northern tower is L-shaped, its eastern arm being 5 m wide; the wall behind the central recess and northern side are about half that width. The western side of both towers, together with the stretch of wall that connects them, is delimited by poorly constructed walling that approaches 1 m in width, but only the outer, western face of this retaining wall is continuous. Along the northern side there is simply a face to the rubble fill of the core. If there were originally horizontal timber beams in the face of this wall, the construction would have been of a better standard than its present appearance suggests.

These corner towers were not square, solid towers like those at the Cappadocia Gate, though their dimensions bear comparison. There were presumably stairs, of which no trace was found. A great quantity of fallen stone smothered the glacis, indicating that the towers were impressively tall—thus perhaps more than doubling the elevation of the glacis. In this case the front might have attained a height of no less than 12 m. There was presumably a parapet, but there was no cut stone or mudbrick debris that could have indicated the presence of anything more elaborate than a simple granite wall. Judicious removal of displaced stones revealed that there were floating stretches of stone facing within the rubble core. No coherent pattern could be made of these ghost walls, as a result of which it was concluded that they represented temporary stages in the construction of the walls and the rubble fill, perhaps to assist with such tasks as the unloading of cartloads of stone.

## MATERIALS AND OBSERVATIONS ON METHODS OF CONSTRUCTION

The only materials used in the construction were local granite and, presumably, horizontal wooden beams in the wall faces. Of the latter no trace has survived. While there are obvious similarities between Structure A and the two towers and glacis on the southeastern side of the Cappadocia Gate, in terms of both the plan and the workmanship, there are also considerable differences. Although it is highly likely that most of the building stone was

<sup>34</sup> The software used included Aerial and PhotoModeler. A description and evaluation of methods can be found at <http://www.kerkenes.metu.edu.tr/kerk1/08gis/gispilot/pilot01/results-gate.html>.

obtained by reducing and leveling a rock outcrop at the core of the structure, this case cannot be demonstrated. It was observed, however, that the walls of the northern tower were not founded on bedrock but began within the rubble core behind the glacis, at an elevation of perhaps as much as 2 m above the ground surface in front of the glacis.<sup>35</sup> The bottom-most stone at both the northern and southern corners of the northern tower was of large rectangular blocks, square in section, carefully set upright on the loose rubble (pl. 22b). These blocks were not faced, but had cleaved along natural joints in the bedrock from which they were obtained and were doubtless trimmed. It would seem that the lower stones of the glacis face were propped in position, one or two courses at a time, while the space between them and the outcropping bedrock behind was filled with stone. The basal row of face stones did not have small stones inserted beneath the leading edge to prop them at the desired angle of pitch, unlike the bottommost glacis stones at the Cappadocia Gate, nor was there any foundation trench. Only once the stone rubble platform had obtained a certain size and elevation did the building of the vertical walls commence. The first stage in this erection of walls would have been the positioning of the large upright cornerstones—this is the reverse of what is seen at the Cappadocia Gate, where the walls were erected first and the glacis added to them. Immediately behind the front wall of Structure A is a loose stone fill indistinguishable from that behind the glacis. Along the inner, western side, this rubble fill is retained by a rather poor wall. When the top of the rubble fill was investigated, some rather crude, wall-like stone faces were documented. These ghost walls do not, as it turns out, represent foundations of now-vanished superstructure; rather, they appear to have been related to the construction of the platform. Perhaps they were made to help with positioning and unloading cartloads of stone. As to stone working, while some face stones may have been trimmed roughly to shape by knocking off pieces from their edges, none of the stones were cut or faced. Generally at Kerkenes the granite cleaves along joints in the bedrock in such a way that face stones and regular blocks for corners could be levered away without undue effort. Voids in the glacis face were chinked. No stones have clamp cuttings of any kind.

Turning now to other materials, there is the question of how much timber was incorporated into the structure. There are three reasons for thinking that horizontal timbers were incorporated into the vertical wall faces at regular intervals. First, that is what was done at both the Cappadocia Gate and the Monumental Entrance. Second, the tall vertical wall faces built of unmortared and uncut stone would have been given greater stability by horizontal beams. Third, the burned debris associated with the collapsed stone is consistent with the incorporation of combustible material in the walling. Furthermore, the preservation of the vertical wall to a height of one course above the original top of the glacis in part of the central recess is reminiscent of the situation in the recess at the front of the Cappadocia Gate, where there was a row of beams in this position—a fact that accounts for the collapse of the wall to a roughly consistent level. At Structure A, however, Byzantine-period and perhaps later robbing has removed the upper courses of the glacis and the wall face behind in all but the very center of the recess. It is not known whether there were horizontal beams in the face of the wall behind the glacis. With regard to other possible building materials, there was some indication of mud plaster that had washed off to what was thought at the time of excavation to have been a clean laid surface (pl. 22a). Mud-plaster rendering would have required maintenance, particularly on the inclined stone face of the glacis, but it would have presented a smooth face without the foot- and handholds that are now immediately apparent in the exposed masonry. No trace of fallen mudbrick superstructure or any hint of roofing material was found. There was not a single fragment of sandstone in or beneath the collapse.

## Detailed Observations

As noted above, the exterior wall face of Structure A was only clearly observed along the front and on the northern side of the northern tower. Here it was founded not on bedrock but on a level fill of stone rubble. The large pillar-like stones, square in plan, that were set up on end to demarcate the northern and southern corners of the northern tower were found to have been stood on end directly on this loose rubble leveling. The front face of the stone

<sup>35</sup> This was not the case at the Cappadocia Gate, where, in both the entrance passage and by the East Tower, it was possible to observe the base of the walling behind the glacis.

rubble core comprised stones laid in uncoursed fashion. None of them were larger than what one man could handle with ease. As to the supporting glacis, which was inclined at an angle of about 45 degrees, it was faced with stones of a somewhat greater size than those chosen for the wall face—occasionally a little larger but never bigger than what a couple of men could have maneuvered into position. Generally, stones in the upper portion of the glacis face measured about 20 × 30 cm, while those toward the base averaged about 50 × 80 cm. The upper edges of a few stones in the glacis face had been pushed slightly outward by pressure from above and behind, but none of them had completely given way. The rubble core itself was very loose, comprising stones mostly of medium size that could be easily held with one or two hands. The acuteness of the angles formed by the tower sides and the face of the recess necessitated bonding of the face stones rather than laying them in a continuous face (pl. 22a).

The retaining wall on the inner, western side was a relatively modest affair in comparison to the grandeur of the overall architectural scheme. This face was exposed in CT16 and, toward the southern end, CT23. The uncoursed outer face was composed of medium-sized stones, the larger of which were in excess of 40 cm, as was the more ephemeral inner face. In CT17, where a robber pit provided an opportunity to examine the eastern face of this western wall, a row of three stones suggests that here the wall may have been as wide as 1.3 m. Farther south, in the limited exposure offered by CT23, the inner wall seemed to be a little more than 1 m in width but poorly constructed. It is likely that here a horizontal beam would have been incorporated into the wall face not far above the preserved wall top.

The entrance on the southern side was approached by an inclined stone pavement. Part of this pavement can be observed to the south of Structure B where, though it was incorporated into the later paving of the Monumental Entrance, the large stones forming its northeastern edge remained in place throughout subsequent alterations and additions. A short stretch of this pavement edge was revealed in a sounding (CT20) made between the terrace walls of Structure B. Both the direction and the incline of this well-laid pavement are a reflection of the rising ground level to where the entrance was located.

Questions concerning the reconstruction of the preserved portion of Structure A can now be addressed. First, it can be safely asserted that the narrow towers were solid structures. The amount of fallen stone that was cleared away from the front of the glacis is sufficient for confidence in reconstructing the vertical walling to no less an elevation than the supporting glacis, that is, 4 m, and possibly approaching twice that height. Thus the height of the glacis, wall, and parapet would have attained a total of more than 8 m, perhaps reaching as much as 12 m. The inner, western side was built of much smaller stones and must, like the tall walling at the Cappadocia Gate, have had rows of wooden beams inserted in the wall face at regular intervals to provide stability. There are no indications as to how access to the top of the towers was provided.

At the preserved northwestern corner the glacis was cut away (pl. 20b). It is possible that the cut was made at this precise point because here the glacis turned 90 degrees to the south so as to form a recess on this northern side of Structure A like that on the east. It is not easy to explain why both the glacis and, presumably, the vertical wall behind it were cut away. The western section of CT13 (pl. 38b) offers no suggestions. One possibility is that the corner of the glacis had slipped or collapsed.<sup>36</sup>

At the southeastern corner the situation is more complicated. Further work here might very well resolve a number of difficulties. It seems certain that glacis face stones are not preserved where the glacis was cut away to allow for the building of the easternmost wall of Structure B (pl. 23). The eastern walls of the other two Structure B terraces petered out in a mass of loose stone rubble at their eastern extremities. It is likely that the lower stones of the glacis face are preserved at a greater depth, but excavating into loose stone fill seemed unwise.

## THE FORM AND PURPOSE OF STRUCTURE A

Comparison of Structure A with the two towers and recess—and their supporting external glacis—that comprise the southeastern portion of the Cappadocia Gate leaves no room for doubt that the original purpose was very largely defensive. Structure A seems not, however, to have been an entrance into

<sup>36</sup> The eastern corner of the East Tower at the Cappadocia Gate was found to have collapsed in this manner before the destruction.

a grand complex to the west; rather, it appears to have been a fortified castellum-like structure that was perhaps more or less square in plan (pl. 14a–b). In this case the enclosed area would not have been very great, about 30 × 30 m or 900 sq. m. A square plan would also reinforce the conclusion that, as documented in the next chapter, the building of Structure E took place in a later phase. Regardless of the original form and extent, all that survived of later modifications was the eastern façade together with a part of the northern side. On the southern side the inclined stone pavement, composed of larger pavers than those seen in later phases of the Palatial Complex, was laid out at an angle to the entrance into Structure A as reconstructed. Angled approaches to entrances are seen in the court of the Cappadocia Gate, as well as (in a later phase of construction) in the pavement leading to the Audience Hall (see below). Because of the local topography, it might be expected that the demolished portions of Structure A did not stand as tall at the eastern end. If there were towers at the northwestern and southwestern corners to match those at the northeast and southeast, no trace of them could be found on the surface, nor can any outline of them be recognized on geophysical imagery. Elongating any reconstruction so that the western side lay farther to the west than suggested on plates 13 and 14b does not help resolve any of the outstanding issues and seems less likely than postulating that the North Platform of the Monumental Entrance was partially built over the southwestern corner of Structure A. As to why the greater portion of Structure A might have been demolished, we can but guess.

Now to summarize comparisons with the Cappadocia Gate that have already been alluded to, it will be observed that the towers of Structure A are L-shaped, in contrast to the solid square towers at the city gate. Also, as noted above, the vertical walling was not founded on bedrock but within the rubble core behind the glacis. The glacis and the vertical walls, therefore, were built as one single operation. At the Cappadocia Gate, however, the walls were built first, with the glacis constructed against them. It is tempting to think that the entrance into Structure A would have been of the same form as both the rear section of the Cappadocia Gate and the Monumental Entrance, that is, double-leaf doors housed in a substantial wooden façade. If the preserved area of large stones is indicative of the width of the paved approach, then the width, almost 10 m,

is comparable to both the Cappadocia Gate and the later Monumental Entrance. It is not impossible that there were two such sets of doors, although such an arrangement would not have left much space behind the inner set of doors.

On the reconstruction, the southern tower has been drawn to match the northern one. A timber-framed façade in which a pair of large doors were hung can thus be postulated as butted against the western end of this tower. If the pavement was indeed of the width indicated by extant large stones in TR01, the entrance would have been about 10 m wide. In this case, the western end of the façade would have been situated very close to the northeastern corner of the North Platform of the later Monumental Entrance. This proximity is unlikely to have been mere coincidence. If the suggested sequence of development is correct, Structure B would have been built some time before the Monumental Entrance.

As suggested earlier, it might not be incorrect to think that the original purpose of this monumental defensive building was connected with the foundation and establishment of the city at a time when its defenses were under construction. As the city became established and began to develop rapidly, Structure A was modified, in at least two stages, to become a part of an impressive entrance to the Palatial Complex. It has already been seen, however, that the towers did not afford extensive views over the city and offered none at all over territory that lay beyond its defensive circuit. More general overviews of both the urban area and the surrounding territory would have been attained from the heights of the acropolis.

It is now pertinent to ask what the purpose of Structure A might have been, and what buildings might have stood behind the preserved fortification before the first major modification. As mentioned in the discussion on chronology earlier in this chapter and set out in much greater detail in the following chapter, Structure D and, very probably, Structure C seem to have been built after the glacis was cut away on both sides to be replaced by the Structure B terraces. If that was indeed the case, we have no evidence of what, if anything, originally stood behind Structure A. As just noted, the possibility that its principal purpose was surveillance can be confidently excluded. The main purpose was undoubtedly defensive; but what could it have defended? If there was a major building, it would have been situated in

the southern, unexcavated portion of the enclosed area. But no such building appears on the geophysical imagery, so unless current interpretation of the geophysics is wildly wrong, any such edifice would have been demolished—perhaps an unlikely scenario. One possibility is that the defenses protected a spring. It has already been mentioned that water seeps out at the base of the glacis, and today the Sülük Göl (Leech Pond) is fed by water seeping into an artificial channel. It is highly likely that the water table was considerably higher in the Iron Age, before extensive deforestation and modern extraction of regional groundwater for irrigation and urban usage, than it is today. There is no source of water on this high southern ridge other than that which feeds the Sülük Göl. It might be plausibly suggested, therefore, that the primary reason for constructing a defense at this location was to protect a highly important source of water and that high towers were constructed both to maximize the defense's visual impact as a symbol of strength and provide a vantage point from which access could be controlled. In view of the cultic installations that were to be set up in the Monumental Entrance, described in chapter 7, the possibility that the towers had an additional function not so dissimilar to that of the later platforms cannot be entirely dismissed, though no evidence exists to substantiate this possibility.

## DESTRUCTION AND DISTURBANCE

The tall eastern side of Structure A fell during the fire, as indicated by the modest amount of charcoal and indications of burning that lay directly on the burned clay surface beneath the fallen stone at the foot of the glacis. Along the base of the glacis, adhering to some of the face stones and above the burned surface, were patches of black and dark-brown hardpan that forms naturally where groundwater seeps through. At a later time, the upper face stones of the glacis in front of the two towers, which were presumably visible, were thrown down, but not those in the middle of the central recess that was filled with collapsed stone to a level just higher than the glacis top. Just when and why the glacis was partially

destroyed in this way is unclear, but it is entirely possible that a first phase of stone robbing was associated with the construction of stone cist graves in the upper portions of the tumuli that are clearly seen on the GPS image of this area of the city (pl. 6a). On the basis of parallels with similar burial mounds at Boğazköy, these tumuli are thought to have been made in the Hellenistic period, but there is no independent dating at Kerkenes. Further destruction may well have been associated with treasure seeking in Byzantine and more recent times. Such lust for gold is surely the explanation for the large hole dug into the rubble core of the northern tower and a similar deep hole dug into rubble terrace fill north of Structure E that can be seen on the GPS simulation. A few small, abraded, red-ware sherds and some late sigillata attest Byzantine activity.

## PRESERVATION MEASURES

Geotextile was laid in front of the glacis and covered with a few centimeters of clean sandy earth. At various times between 2003 and 2011 gaps between the glacis face stones were chinked. During the course of excavation, the large pillar-like stone at the southeastern corner of the northern tower was set back into its original position, and a few courses of stone were built up to make the line of the wall face visible. It would be a simple matter to rebuild the top of the surviving portion of the glacis and to raise the vertical walling by a meter or so above the glacis top. Such reconstruction would have the added advantage of removing part of the stone heap that was made to the southeast of the Palatial Complex in the course of clearance and excavation. Such work would give this impressive monument greater visual impact and, at the same time, provide some measure of protection by deterring visitors and grazing animals from clambering up the monument. Any restoration program would, however, have to consider the probability that wall and perhaps glacis faces were rendered in mud plaster. Thus the preserved glacis would have looked very different from the way it does now. Adding mud-plaster rendering to any restoration would have both aesthetic and practical implications.

## CHAPTER 3

## STRUCTURES B, D, C, AND E; THE NORTHERN WALL OF THE COMPLEX AND THE TRENCH ACROSS THE STREET

GEOFFREY D. SUMMERS

Five structures, A–E, that lay behind the fortified Structure A were partially investigated by excavation in the eastern portion of the Palatial Complex (pls. 10, 14a). Description begins with the terraces, called Structure B, the building of which signals a very major alteration to the fortified building, much of which was seemingly demolished. The cutting of the glacis and the building of the Palatial Complex boundary wall on the northern side will then be dealt with, together with concomitant raising of the ground level in the open area behind Structure A. Structures D and C will then be described, both being erected within the space protected by Structure A and apparently constructed when or soon after adaptations were made. The last of the buildings described is Structure E. A final section of this chapter will deal with the section cut across the street that runs along the northern side of the complex. Because the excavation strategy was to halt digging at the burned surface of the final destruction wherever this could be certainly identified, and only occasionally to dig deeper in very confined operations to resolve a particular problem, the sequence in which these structures were erected has remained elusive. Furthermore, where levels below the burned surfaces were examined, the confined spaces together with the nature of the deposits combined to make it extremely difficult to demonstrate the sequence of construction with any certainty. Thus, while it would appear that Structure D was built after the terraces of Structure B, the only evidence that can be adduced to support the placing of Structure C later in the sequence is the slightly different alignment, which might be accounted for

by the restricted spaces in which the builders had to work. It is supposed that all these buildings were erected before the building of the Monumental Entrance, but even that supposition cannot be demonstrated by unambiguous stratigraphy. The strongest argument in support of the general sequence set out here is that the pristine condition of the architectural embellishment, including bolsters and double-sided semi-iconic idols, as well as of the large masonry blocks at the Monumental Entrance, indicates that it had not been long completed when disaster struck.

### METHODS AND STRATEGIES

Excavations covered in this chapter were conducted in the year 2000, when all trenches were designated clearance trenches, or CTs. These trenches were designed to address several basic issues:

1. to establish the plan of the Structure A north tower (CT13, CT16, and CT17);
2. to examine the truncation of the stone glacis and north tower of Structure A (CT13);
3. to excavate the two-roomed Structure C and ascertain its relationship to Structure A, as well as to determine its purpose (CT15 and CT18);
4. to examine Structure D and its relationships (CT18, CT19, and CT23);
5. to investigate Structure B (CT20 and TR01);
6. and to excavate a trench across the street that ran parallel to the northern urban block wall of the Palatial Complex and examine its surface (CT24).



Strategies included the attainment of a continuous section from the southern limit of the excavated area to the boundary wall of the urban block on the northern side of the street (pl. 10). This aim was only partially achieved, because time constraints did not permit completion of excavation in Structure C. The southern limit of the excavated area was fixed at a point where further exploration to the south would have involved removal of considerable amounts of stone rubble. At the end of the 2000 season there was every possibility of returning the following year to complete excavation of the eastern half of Structure C, as well as to investigate Structure D further. On reflection between seasons, however, it was felt that little would be gained by returning to these trenches when, during the 2001 season, work at other locations seemed more imperative for reaching our long-term goal. Before the start of excavation, the plan of Structure C could be seen on the surface, as well as being reasonably clear on the geomagnetic image. It was thus a straightforward matter to lay out trenches designed to empty the eastern half of each of the two rooms. This work was to be done in two stages in order to have sections across the center of each room on both axes. Because no doorways were found in the excavated half and it appeared from surface indications that there was no opening in the western half of the south wall, a sondage (CT22) was dug against the outside face of the western half of the northern wall. In keeping with the general practice at Kerkenes, excavation was halted at the burned surfaces equated with the destruction of the city. This policy was generally followed, but because of the unexpected disparity between the elevation of the burned floors in Structure C and that of the external burned surface, the makeup levels beneath this surface were examined in CT13 and CT16. These soundings permitted exposure of parts of wall faces down to, or slightly below, the original external surfaces, in addition to establishing the nature of the fill material used to raise the level of the ground. The amount of stone in these levels made it impossible to cut neat vertical sections. All exposed portions of wall faces were drawn, with most of them being reproduced here because they convey the character of the masonry.

The timber construction that rested on the stone walls of Structure D was unlike any encountered elsewhere at Kerkenes. Because of the very

restricted space within trench CT19, and also to avoid destruction of the charred beams found within the fill, only a small sondage at the northeastern corner of the room was excavated down to the level of the floor. Attempts to trace wall tops between Structures D and B, including the inner corner of Structure A, proved futile in the confusion of loose rubble.

Excavation supervisors found it convenient to divide these trenches into north (N) and south (S), though there was no duplication of unit numbers (U) within any one trench. In the two-roomed building termed Structure C, the northeastern corner of the northern room and the southeastern corner of the southern room were excavated down to the burned floors. The northern room was assigned CT15, the southern room CT18. After the transverse sections across these two rooms were recorded, the upper few centimeters of fill were removed over the remainder of the eastern half of the building to articulate the tops of the eastern and central walls fully. The original intention of excavating the entire half of the building down to the floors could not be achieved in the available time. The outside face of the northern wall was examined in CT13 and CT22, the eastern face of the eastern wall in CT16 and CT18, and the northern face of the southern wall in CT18. In Structure C some of the lower fill was sieved by hand to retrieve small objects, but the amount of stone in the fill and the damp, claggy nature of the basal fill were not conducive to this method. Large samples of the bottommost room fills were taken to the excavation house for hand floatation, using buckets and fine sieves, as well as wet sieving. A similar procedure was followed with other promising deposits.<sup>37</sup> Only the northeastern corner of Structure D was exposed, in CT18 and CT19. Trenches were laid out in such a manner as to provide a continuous north-south section aligned across the eastern end of the Palatial Complex, from where it was extended across the street to the north and terminated against the enclosure wall of the urban block on the opposite side. Plans, sections, and wall faces were drawn in the field at a scale of 1:20.

At the end of the 2000 season, trenches were backfilled with soil and small stones, while the exposed wall tops on the eastern side of Structure C were raised in stone to a height of about 80 cm above the modern surface. At the same time, a large

<sup>37</sup> Smith and Branting 2014.

stepped support of stone was built against the leaning outer face of the northern boundary wall. In a later season this stepped support was covered with a ramp of soil.

## CHRONOLOGY AND CONSTRUCTION SEQUENCE

The substantial program of modification to the southern side of Structure A seems to have been made before the building of the Monumental Entrance. This reconstruction of the building sequence is not absolutely certain, if only because it cannot be demonstrated by stratigraphy. But the relatively modest size and style of building, together with the general plan of this eastern end of the Palatial Complex, leaves little room for uncertainty. Additionally, the unweathered condition of the elaborate architectural detail in the Monumental Entrance demonstrates beyond reasonable doubt that it is to be dated not many years before the final destruction.

With regard to the sequence in which the different elements of this second phase of construction were built, there is once again little stratigraphic evidence that can be brought to bear other than the indisputable fact that terraces of Structure B replaced the southern side of Structure A. While the reason for this remodeling of public structures remains unexplained, it undoubtedly marks a change in the purpose of Structure A. It seems fairly clear that the Structure B terraces were constructed before the large, apparently two-roomed Structure D was built because, if the suggested reconstruction of D is correct (pl. 9b), its southern side would have been supported by the terraces. Remodeling of the northern side of Structure A, where the glacia was cut away and a new boundary wall of the Palatial Complex was built parallel with the street, must also have predated the erection of Structure C. Finally, while the evidence for the position of Structure E in the sequence of development is unclear, reference to the plans reveals that it would probably have been built over the western portion of Structure A and, therefore, surely postdates the major alterations that were made to it (pl. 14b). In this interpretation the relatively simple structures that are the subject of the present chapter were built before the Audience Hall and the Ashlar Building. This reconstruction is based on the idea that the major modifications to Structure A, especially the cutting of the

glacia on the southern side, predated the building of the Audience Hall. It is of course perfectly possible that these activities were components of a single scheme, with no significant lapses in time between the erection of one building and another. The importance of this issue lies in attempting to unravel architectural conceptions, that is, in attempting to understand what was planned as an integrated whole and what was built piecemeal.

With regard to the absolute date, no specific evidence was recovered. Neither the pottery nor any of the few objects that were found can be more closely dated than the broad period of the late seventh to mid-sixth century that applies generally to the site. Samples of charred beams recovered from Structure D were sent to Peter Kuniholm at the Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology, Cornell University, who made the identification. Oriental beech (*Fagus orientalis*) cannot be used for tree-ring dating because its growth is affected by local stream flows rather than regional climate. Today this species grows in the hills to the north of Kerkenes.

## STRUCTURE B AND RELATED ADAPTATIONS

### Strategy

Structure B comprises three stepped terraces that replaced the demolished southern side of Structure A, while at the same time blocking its original entrance and covering the greater part of the stone-paved surface of the inclined approach (pls. 24–27). Terrace 1, the topmost at the northwest, comprised walls 1 and 2; Terrace 2, in the middle, walls 3 and 4; and Terrace 3, the bottommost and the first to be built, walls 5 and 6. Structure B was investigated in CT20 during the 2000 season. The southern side of this trench was laid out parallel to the southern wall of Terrace 3 to expose a 1 m wide strip of the stone paving, terminating at the west where the inclined pavement had risen to the same elevation as the extant wall top. The northeastern trench corner was 4.5 m to the north, at a point where preservation of the eastern wall of this same terrace deteriorated. At the northwest, the northern limit of the trench was laid out parallel to the visible southern wall of Terrace 1. Only as much of the rubble fills of the terraces was removed as was necessary to confirm that

these structures were terraces rather than buildings, as well as to define the wall faces. The single exception was a sondage, 0.5 m in width, outside and parallel to the eastern wall of Terrace 2, that was placed to confirm that Structure B had indeed been built over the stone pavement leading to Structure A.

At the end of the excavation, the space between Terraces 2 and 3 was refilled with stone to preserve the walls of Terrace 2. In the same operation, the face of Terrace 3 was raised, with a large fallen block restored at the corner. This work was done to restrict the movement of animals over these terraces, as well as to retain unexcavated fills above.

## Description of the Structure B Terraces

For reasons that are completely obscure, the southern face of the Structure A glacis was removed. Structure B, which comprises three stepped terraces, one above the other, was built over the inclined stone-paved entrance to Structure A and, it is thought, supported the southern side of the new Structure D. The lowest and most substantial of the three terraces was then built up against the cut glacis edge, from which it ran southward for a distance of 10 m before turning eastward. The two bonded walls had well-built outer faces containing large stones, some of which had trimmed faces. Voids between the face stones were chinked (pls. 25b, 26a). There would almost certainly have been large horizontal wooden beams along the wall faces immediately above the preserved masonry. The 0.9 m tall corner was constructed of two particularly impressive stones, the upper one of which had fallen and lay at the foot of the wall. The southern stretch of wall ran westward until it became level with the rising ground surface, which it achieved before reaching the North Platform of the Monumental Entrance. The western portion of this wall was constructed directly on top of the large and well-worn pavers of the inclined road leading to Structure A. To judge by the amount of fallen stone, the original height of the corner of this terrace might not have exceeded the elevation to which it has been reconstructed, that is, no more than 1 m (pl. 25b). The ragged edge of the southern extension to this pavement seemed to have been laid up against the walls of Terrace 3 rather than cut by it. Preserved to a height of 1.2 m, the northern end of the eastern wall, well beyond the confines of the trench, appeared to have been built

against the cut fill of the Structure A glacis (pl. 27a). Both walls were approximately 1.2 m in width, their inner faces, or edges, being rather ragged affairs composed of smallish stones. Terrace fill was composed of stones and clayey soil.

Terrace 2 was an altogether less substantial construction. The walls were founded directly on the earlier stone pavement or dug into the subsoil where paving was absent. The walls were narrow, measuring about 0.7 m, but somewhat thicker at the corner. Four courses of stone were preserved at the well-built corner that stood to a height of 1 m. Most of the wall base was constructed of large face stones. Elsewhere, medium- and small-sized stones were used for poorly constructed wall faces; their use may indicate that these walls were stabilizing walls entirely buried within the terrace fills. The southern face was slightly battered.

The walls of Terrace 1, founded directly on terrace fill, were composed of medium-sized and smaller face stones supplemented by a very large flat-topped cornerstone that had been carefully leveled by the insertion of small stones beneath (pl. 27b). Walls were less than 1 m wide.

## STRUCTURE D

### Description of Structure D

As argued above, Structure D was possibly built before Structure C. It is located circa 2.5 m to the south of Structure C. Neither its western nor southern limits have been located, though the northern wall can be traced on the surface for approximately 15 m in a westerly direction. Only a narrow 0.5 m gap, excavated as CT23, lies between the eastern wall and Structure A. The northern face of the northern wall formed the southern limit of CT18. Reference to the plans (pls. 9b, 10, 14a) will show that the position of the southern wall, as tentatively reconstructed from the resistivity image and observation on the ground, is very close to the supposed course of the Structure A southern wall and the earlier entrance. This positioning is the strongest evidence that the Structure B terraces were built before or at the same time as Structure D and that these modifications were made when the Structure A glacis was cut through. If it is correct to assume that Structure D was yet another two-roomed building, as is most likely the case, then the excavated portion would have been in the northeastern corner of the eastern room, and this

room would have been more or less square, perhaps measuring about 5 × 5 m. The westward extension of the northern wall beyond the line of the western wall (pl. 9b), which can be traced on the surface with reasonable confidence, indicates an anteroom on the western end of the building.

Both walls of this building, each one some 1.25 m in width, were of unusual construction (pls. 28–31). With regard to the outer face of the northern wall, Wall 1, the lower portion of the wall was built in the standard manner with uncoursed, medium-sized stones varying from circa 30 × 25 cm to 20 × 10 cm. This standard construction was capped by a leveling course of flat stones that were smaller than average, measuring 10–20 × ca. 10 cm. At this point, the stonework of the wall stepped back 12 cm. Throughout most of the exposed length of the wall, the remaining upper two courses were each stepped back in a way that resulted in a curious stepped profile (pl. 29a). Toward the eastern end, however, larger stones in the upper part of the preserved walling were found leaning outward (pl. 31a). The inner face of this same wall, and also that of the eastern wall, Wall 2, also had two steps (pls. 28a–b, 29a, 30a), with those in the eastern wall being considerably broader. Burned gravel found adhering to the interior wall face was most probably packing around circular beams. No rendering was found on any of the wall faces.

As to the interior fill of the building, the topsoil gave way to large amounts of fallen stone. This rubble fill rested on a layer of brownish clay intermixed with fragments of burned mudbrick, which rested, in turn, on an ash layer mixed with charcoal. In all, parts of nine large beams were found either on or not far above the burned clay floor (pl. 31b). As noted above, the wood has been identified as oriental beech (*Fagus orientalis*). No small objects were found in Structure D.

No other excavated building at Kerkenes was constructed in this way. Wide wall footings indicate a building of some substance, while timbers in the room fill and the stepped profiles of the almost fully preserved stone walling indicate that the superstructure was largely constructed of horizontal wooden logs. The fragments of burned mudbrick and stone in the fill do not amount to very much. Because of the potential for obtaining good dendrochronological samples, it was decided that in the

2000 season only a very small area of the interior would be excavated to floor level, the intention being to return to this building in the following year, when time would permit a larger exposure. Between seasons it was established that the timbers were not suitable for tree-ring analysis, thereby negating the principal interest in continuation of work in Structure D. Phrygian funerary buildings constructed entirely of wood are best known at Gordion and, a little later, at Tatarlı.<sup>38</sup> Structure D, however, is the first evidence that such techniques were used for buildings above ground in the middle Iron Age. No clue was found as to its function.

## THE TWO-ROOMED BUILDING, STRUCTURE C

### Description of Structure C

Structure C is a stone-built structure comprising two rooms, the long axis of which is oriented approximately north–south. It is located behind and not quite parallel to Structure A (pl. 10). The open space between Structures C and A is about 5 m wide at the northern end, narrowing to around 3.2 m at the south. The general plan of the building could be made out on the surface before excavation commenced. But the wall tops are leaning in such a way that they do not precisely reflect the more regular plan at floor level (pls. 32–35).

Table 1. Dimensions of Structure C

	Width (m)	Length (m)	Area (sq. m)
<i>Overall</i>	ca. 10.8	ca. 6.2	67
<i>Southern Room</i>	ca. 3.2	ca. 4.7	15
<i>Northern Room</i>	ca. 5.5	ca. 4.7	25.8

The total length of this single-story building was approximately 10.8 m and the width 6.2 m, making an area of 67 sq. m (table 1). The walls were found to be standing to a height of about 1 m above the floors. The shorter east–west walls were all about 0.7 m in width, while the long eastern wall was, at 0.8 m, a little wider. Masonry was uncoursed, and all corners were bonded. The largest stones in the outer, eastern face of the eastern wall measured no

<sup>38</sup> Kohler 1995; Young 1981; Summerer and von Kienlin 2010.

more than 30 or 40 cm. Although no rendering was found on any of the wall faces, the drawings of the wall faces (pl. 33) show the large gaps between the visible edges of the stones that must originally have been filled with mud mortar. Entrance to the building would have been on the unexcavated western side. If there was a doorway connecting the two rooms, it was not located in the center of the internal wall. The smaller, southern room measured circa 3.2 m in length and 4.7 m in width, while the northern room was a little more than 2 m longer. A roof span in excess of 6 m would have required a double-pitched roof, the weight of which appears to have been supported entirely by the stone walls. Among the stone debris and earth filling the two rooms there was a considerable amount of charcoal, all presumably from the roof, but no mudbrick. Thus the roof covering would very probably have been of thatch. In the sounding dug between Structures C and A at the southern end of CT16, it was seen that the eastern wall of the two-roomed building was founded on rubble leveling, above which was a laid clay surface (pls. 35b, 36a).

### The Northern Room of Structure C

Beneath a very thin layer of topsoil, most of the deposit consisted of a mass of tumbled stones of the same size as the stones in the surviving northern and eastern walls, the upper parts of which presumably collapsed both inward and outward when their associated timber frames were consumed by fire (pl. 33c–d). The lowest fallen stones, encountered at a depth of circa 0.6 m below the surface, rested directly on a discontinuous ashy deposit that, in places, measured up to 10 cm in depth. The floor itself consisted of a hard-packed clay surface, no longer very even, and burned in places. No attempt was made to penetrate beneath the floor.

The exposed, unplastered walls were composed of rough field stones of local granite; the majority of the face stones measured as much as 30–40 cm in length, with rather smaller stones making up the fill between the inner and outer faces (pl. 33a–b). While the short northern wall of the room was 0.7 m in width, the longer eastern wall appears to have been at least 0.8 m wide. The latter wall sagged inward toward the middle of the room. No fixed interior features of any kind were encountered in the excavated area.

### The Southern Room of Structure C

Below the topsoil in this smaller of the two rooms was a dense mass of fallen stones with earth between them (pl. 34a, d). The latter deposit proved to be 35 cm deep. At a depth of circa 85 cm below the present ground surface were found two complete pottery vessels with their lids (K00.118–121), broken and crushed (pl. 36b). These objects were partly embedded in a layer of ash and charcoal, 2–4 cm thick, which lay directly on the hard-packed, sometimes burned clay floor that sloped down some 10 cm toward the center of the room. It was noted that both the pithos and the large conical bowl rested on burned debris with much charcoal rather than directly on the floor, thus suggesting that they were set on a bench or wooden stand.

The unplastered walls stood more or less vertically for their preserved height of about 1 m. The faces of the northern and southern walls included the customary medium-sized granite field stones and a number of smaller chinking stones. While the long eastern wall maintained a consistent width of 0.8 m, the southern wall was 0.7 m in width. External wall faces were similar to the internal ones, constructed of uncoursed angular field stones of inconsistent size and without any trace of horizontal timbers in the preserved portion (pl. 36a). No interior features were found. In a small probe made near the eastern end of the southern wall, the hardened surface of the floor was found to rest on a compact gravel and clay fill that presumably rested, like the adjacent walls, on a lower rubble fill.

### Material on the Floors of Structure C

Two pottery vessels were recovered from the floor of the northern room: a complete side-spouted juglet (K00.086) and the greater part of a funnel (K00.088). Additionally, the flat base of a jar bearing an incised mark (K00.091) was found pressed into the floor. Yet more complete pottery was found smashed on the floor of the smaller, southern room; a juglet (K00.087), a large drop-handled conical bowl (K00.120), and a pithos (K00.121), together with their heavy pottery lids (K00.118 and K00.119). Also recovered from the fill just above the floor of the southern room were a group of small antler inlay fragments (K00.097) and an astragalus (K00.098). A needle fragment (K00.103) found on the floor was the only copper alloy object. On the floor of the northern room

were a number of Cornelian cherry stones and a single stone from a wild cherry.<sup>39</sup>

## THE PALATIAL COMPLEX BOUNDARY WALL AT NORTH

In CT13 the eastern end of the stone wall that formed the northern boundary of the Palatial Complex was built up against the curved and somewhat ragged edge of the Structure A glacis at the point where it had been cut away. Why this might have been so is discussed in chapter 2. As shown on the plan, the western edge of the Structure A northern tower appears to coincide with this cut in the glacis, but it was not possible to determine whether this built face belonged to the original scheme or had been constructed when the glacis was partially demolished.

The wall itself, approximately 1.6 m thick, was apparently built entirely of stone without timber elements. It leaned markedly outward by as much as 30 cm from top to bottom. While it was not possible to determine whether this outward movement had begun before the destruction, it was found that the burned surface on the street side ran up to the wall base, making it clear that none of the wall had fallen prior to the fire (pl. 38b).

## EXTERNAL SPACES ASSOCIATED WITH STRUCTURES C AND D

External spaces were excavated in, from south to north, CT23, CT18, CT16, CT13, and, to the west, CT22. In the restricted space between the inner side of Structure A and the eastern wall of Structure C were two surfaces separated by a thick deposit of fill composed of dark earth and rubbish. While no evidence was found that the earlier surface was paved, it is possible that there were earlier surfaces than the hard-packed clayey surface where excavation was halted in CT18. In CT13 this burned upper surface did have patches where flat stones had been laid at a depth of 0.8 m from the modern surface. This pavement was approximately 1 m in width, with the pavers decreasing in size away from the

enclosure wall. Immediately below this paving was a semicircular arrangement of flat stones against the urban block wall with a radius of approximately 1 m (pl. 37a–b). A little farther to the west, in CT22, excavation was halted at this paving, which was more consistent in character. A sounding below this burned and partially paved surface in CT13 revealed a deep level comprising, from the bottom up, gray and brown sandy silt with stones; dense brown silty clay with pebbles, charcoal fragments, and bone fragments; brown sandy clay with pebbles, animal bone, and pottery sherds; dark-gray sandy silt with pebbles and fragments of charcoal; and packed yellow clay and fine sand with animal bone and sherds. This level was capped by a yellowish, hard-packed clay surface encountered beneath a 4 cm thick layer of burned debris.

Over most of CT16, excavation removed large quantities of fallen stone above a layer of burned debris resting on a burned clay floor. A strip no more than 1 m wide was taken down through this floor between Structure C and Structure A. The strip was located at the southern end of CT16, which is more or less at the center of Structure C and opposite CT17, which itself is in the core of Structure A. Here a laid clay surface was found immediately above the stone rubble fill on which Structure C had been founded. Above this surface a fill had been dumped between the two buildings so as to raise the level of the external surface.

The 0.5 m wide gap between the eastern end of Structure D and the western wall of Structure A was crammed with sherds and some animal bone. Many of the sherds were from four identical red-ware jugs with cutaway spouts, each bearing an incised mark on the shoulder (see chapter 9). One of these jugs was fully restored (K00.123). Other sherds were found to belong to a tripod-footed bowl (K00.094).

## Summary

In summary, the external surfaces associated with the construction of Structures A, C, and D were only glimpsed in CT18 and a restricted sounding in CT13. There was no indication of stone paving. Above these surfaces was a single accumulation that raised the ground level by some 0.8 m. At the south this layer contained much rubbish, while at the north it was composed of tip lines of cleaner material. At the

<sup>39</sup> Smith and Branting 2014.

northern end there were patches of stone paving and burned floor, with similar burned floor being revealed between Structures C and D.

## STRUCTURE E

Part of the exceptional building that is labeled Structure E was revealed in 1996. Trench TT17 was positioned to examine an area that had been selected for survey with a fluxgate gradiometer because heavily burned debris was apparent on the surface. The purpose of this trial excavation was first to help with interpretation of geophysical imagery and second to provide some indication of the archaeological deposits in this portion of the city that would assist in the development of long-term research design. At the end of the 1996 season, all test trenches were backfilled to preserve structural remains as well as to prevent cattle from falling into them.

The trench initially measured 5 × 5 m but was extended 2 m to the southwest and marginally in other directions (pls. 39–42). A broad east–west wall bisected the trench. On the southern side was an open area, delimited by a wall at the eastern end that was built on an outcrop of bedrock. The northern part comprises two areas; the western area was a room with a burned clay floor, while the eastern one was an internal stone-paved court with a drain running along its eastern side. These areas were separated by a wall that bonded with the east–west wall and, at its northern end, incorporated the threshold of a doorway that allowed communication between them. The eastern end of the paved area was defined by a double wall, the easternmost one of which bonded with the long east–west wall, while the western one abutted it. These two walls stood flush against one another.

Above the burned clay floor of both rooms were found many fragments of burned clay with reed impressions. Their distribution adjacent to walls suggests that they fell from a balcony or loft. As elsewhere at Kerkenes, the double-pitched roofing of Structure E would have comprised timber beams covered with thatch. The double wall along the eastern side of the pavement indicates that this area too was roofed, there being no other obvious explanation for the two walls. It is not possible to determine

the direction of the axis of the roof(s) from the plan that has been exposed up to this point. An unusually high number of burned mudbricks were recovered, thus indicating that the infill of the timber-framed superstructure was largely or completely of mudbrick. This situation contrasts with, for example, the Audience Hall and the Ashlar Building, where few mudbricks were recovered.

## Detailed Description

In the southeastern corner of the trench is an outcrop of bedrock, the top of which lies about 40 cm below the ground surface. To the west of this outcrop were layers of fill some 70 cm deep. This fill contained some stones, as well as fragments of burned mudbrick, attesting to activity at the site before this area was leveled.<sup>40</sup> A foundation trench for the southern wall was dug through this fill, as seen in the section drawing on plate 40c—a fact that demonstrates that Structure E was not erected in the first phase of building. The southern wall and the central and eastern walls were bonded and built in a similar manner. The base of the outer face of the southern wall was formed by a course of large boulders that rested on natural subsoil in the base of the foundation trench (pl. 40a). The wall itself is preserved to a height of 1.2 m from the base of its foundations and measures 1.1 m in width. Its outer face is composed of flat, untrimmed stones, while the inner, northern face was built of large rounded field stones. The core was filled with small stones and earth. The northern face had collapsed. The north–south wall faces on both sides of the paved area consisted of intensely burned stones, with voids attesting to the positions of upright wooden posts in the corners and also at 0.45 m intervals along the walls. These timber ghosts are 20 cm across; an absence of burned mud packing perhaps indicates that the posts were squared. Yet another post apparently stood against the wall in the room with the burned floor.

It is usual at Kerkenes for stone foundations to run the entire length of a wall, with door thresholds built into the foundations tops at the appropriate places. Here, however, the foundations beneath the stone threshold were of superior build to those of the walls on both sides, right down to the base of the wall, with the result that the threshold was found to

<sup>40</sup> Elsewhere at Kerkenes fragments of burned mudbrick and mud have been found in fills, and even in walling, but these fragments do not indicate a destruction.

be at an elevation some 0.2 m above the preserved wall tops. In both rooms, in addition to the fragments of burned clay with reed impressions found adjacent to the walls, there were a number of burned mudbricks. It is possible that some of these bricks had been collected and piled up sometime after the fire rather than simply lying where they had fallen, but a fused mass found above the pavement seemed to have collapsed from the corner of the wall above (pl. 42b). The bricks, none of which were complete, measure some 26 cm across and more than 30 cm wide. At a thickness of merely 9 cm, they are somewhat thin.

Turning now to the pavement, this feature was carefully laid with large, flat, uncut stone pavers that sloped toward the center of the room along the north-south axis; as a result, the center of the room was some 0.3 m lower than the sides. At the southern end, however, the pavers were flat. It is odd that the pavers were inclined away from the V-shaped stone drain that ran the length of the eastern wall. It would thus seem that this drain was connected with some kind of activity that took place within the room and that liquid of some kind was directed into it. Inside the door the pavement was heavily worn, thus attesting to heavy traffic.

There were no in situ finds on any of the surfaces. The only objects uncovered consisted of a copper alloy nail (K96.039) and a large iron bracket with nails still in place (K96.045) that was probably connected with a door. This latter piece, however, was a stray find recovered from a fill layer to the south of the building.

## Interpretation

Structure E was clearly an unusual and important building. The width of its walls, the room with a stone pavement and drain that was designed and carefully constructed for some special purpose, and the abundance of large mudbricks are all features that have not been observed in other excavated buildings at Kerkenes. The structure's precise function, however, remains mysterious. Whether or not burned mudbricks were gathered up sometime after the fire, there is no evidence that the ashes were raked through in order to recover anything of worth that had been left in the building when it burned. As elsewhere, it would seem that the rooms had been emptied before the fire.

## THE TRENCH CUT ACROSS THE STREET AT NORTH

The street was examined in a narrow trench comprising the northern part of CT13 and the entire length of the 1.5 m wide CT25 (pl. 38b). As could be seen before the start of excavation, the street was highly eroded as a result of post-destruction water runoff and pastoral activities. A burned surface of fine, yellow, sandy clay sediments was preserved to the south of the street in CT13 where it rose some 1.3 m from the foot of the glacis to the base of the Palatial Complex boundary wall. Here it was found to be 0.85 m lower than the preserved top of the enclosure wall. This layer was found to vary between 1 and 6 cm in thickness.

The northern side of the street was bounded by the stone footings of an urban block measuring 0.85 m in width. The exposed southern face of this wall stood 0.64 m above its foundation and was composed of uncoursed stones measuring up to 0.6 × 0.7 m. If the amount of fallen stone on the southern side of this wall is any guide, the stone footings of the wall would have stood at a height considerably in excess of 1 m. Set against this wall and running parallel to it was a stone-paved sidewalk circa 1.8 m in width made of angular stones that were no more than 26 × 20 cm in size and showed little sign of wear. Immediately above these stones was a thin layer of burned debris. As to the central portion of the street, no surface could be traced above the eroded subsoil. On the southern side, at the base of the Palatial Complex boundary wall and the cut edge of the glacis, lay a patch of flat stones, hardly deserving of the term pavement, which in its limited exposure was some 1.33 m wide. Immediately to the north of this paving, excavation was continued down a little way below the thin layer of ash and charcoal that presumably represents the final destruction of the city (rather than being a later accumulation). Beneath this layer was one of very hard, yellow, sandy clay that is either natural subsoil or clean fill. In the middle of the street this clay was more stony and browner, thus suggesting that it may have been a leveling material laid to improve the surface. As the section drawing (pl. 38b) shows, the surface in the middle of the street is at a considerably lower elevation than the base of the Structure A glacis. Whether the street was initially so much below the glacis base or it eroded away as a result of urban traffic is not easy to judge. It does, however, seem that the process of erosion ended once stone from the destroyed buildings tumbled onto the surface.





## CHAPTER 4

## THE AUDIENCE HALL

GEOFFREY D. SUMMERS

What has been termed the Audience Hall is the largest known building not only inside the boundary walls of the Palatial Complex but also within the entire city on the Kerkenes Dağ. It fits firmly into a genre of buildings comprising large halls with anterooms, each with broad central doorways and two rows of wooden columns supporting double-pitched roofs that have been recognized in several urban sectors.<sup>41</sup> A number of buildings of similar dimensions and proportions have been excavated on the Old Citadel at the Phrygian capital of Gordion, where, not least because they are provided with large, circular, central hearths, they have been called “megarons.” Perhaps overcautiously, in the absence of evidence for either central hearths or open porches, the term megaron has not been employed at Kerkenes, with the notable exception of two buildings with open front porches revealed close to the center of the lower area of the city.<sup>42</sup>

Test excavations in 1996 had revealed, in TT15, the presence of large columned halls at Kerkenes.<sup>43</sup> In 2000, however, it had not yet been understood that the architectural tradition at Kerkenes was of freestanding buildings, each one covered with a pitched roof, with the result that the reconstruction of the plans suggested a minimum of three rows, as would have been required to support heavy mud roofs. But regardless of the number of columns, it was possible to make out the plan of the Audience Hall on the ground because the collapse of the low stone footings had left slight linear humps that

indicated the position of the walls beneath. These rises in the surface contours (pls. 5b, 6b, 7a) were not entirely obliterated by construction of a not-insubstantial tumulus over the junction of the cross wall with the long southern wall of this building, very probably sometime in the Hellenistic period, that had involved the making of the burial mound from stones gathered from the decayed walls. Additional needs were quite large, flattish, stones for the construction of the cist in the top of the tumulus together with somewhat larger stones with which to cover it; these granite slabs were possibly acquired from the face of the glacis protecting Structure A at the eastern end of the complex.

Geomagnetic survey (pl. 7b) of the Palatial Complex, the only remote-sensing imagery available in 2000, appeared to show a tripartite structure comprising a central nave with slightly narrower aisles. Although none of the wall faces of this Audience Hall were visible on the surface, it was possible to place the trenches in such a way as to dissect the front portion of the structure (pls. 43–45).

The name we have given to this building, Audience Hall, was coined by David Stronach, as indeed was the name given to the adjacent structure to the north, the Ashlar Building, which forms the subject of the following chapter. Justification for this nomenclature seems barely necessary, considering both the great size and the specific location of this exceptional building. Kerkenes surely had powerful rulers, presumably kings, and powerful rulers granted audiences.

<sup>41</sup> Summers 2007.

<sup>42</sup> Summers, Summers, and Branting 2004.

<sup>43</sup> Summers 1997; Summers and Summers 1998. For a preliminary account of renewed work on the hall in the northern sector of the city that was first examined in TT15, see *Kerkenes News* 2014–2015, pp. 6–10; [anthropology.cos.ucf.edu/Kerkenes](http://anthropology.cos.ucf.edu/Kerkenes).

## LOCATION

The Audience Hall is located at the western end of the eastern half of the Palatial Complex (pls. 9b–10). It is oriented east-northeast to west-southwest, with the front at the eastern end. This alignment is in conformity with most other built elements of the complex. It seems safe to assume that this alignment reflects the direction of jointing in the underlying granite, as do the boundary walls of the entire complex. Construction of the Monumental Entrance, on a slightly more easterly alignment, was undoubtedly the last major project in the sequence of construction.

## CHRONOLOGY

Examination of the plans seems to indicate that the Audience Hall, the Ashlar Building to the north, and other related structures were erected in a middle phase of development. In support of this interpretation, it can be observed on the geophysical image (pl. 9a) that the back wall of the Audience Hall more or less coincides with the eastern wall of the large, trapezoidal, urban block to the west and that the long central axis of the Audience Hall is midway between the two sides of the block. On account of the topography, however, the easterly extension of the southern boundary wall of the urban block swings sharply to the north. As a result, the southeastern corner of the Audience Hall is quite close, circa 3 m, to this southern limit, while the northeastern corner is some 15 m from the enclosure wall at the north. Thus the front of the building was to the south of the tall and imposing Structure A, not concealed behind it. The stone-paved street leading up to the doorway of the Audience Hall was laid before the Monumental Entrance was built, proving that the former was erected first.

## STRATEGY AND METHODS

A combination of geomagnetic survey undertaken in 1999 and observation on the ground led to the identification of the Audience Hall. Excavation was conducted in the northeastern quadrant over the course of two seasons (pls. 43–45): TT22 in 2000 and TR02 in 2002. A small extension was made to

the northern side of TT22 to investigate an anomaly on the geophysical image as well as to examine the external face of the northern wall. Initially the aim was to excavate the northeastern quadrant down to the burned floors or surfaces. In the longer term it was intended to reveal the entire northern half of the building. The first aim was thwarted by the difficulties of defining either one of the doorways or, indeed, the wall faces. Excavation of the entire northern half was not pursued once it was discovered that the strong signals on the geomagnetic image represented a series of robber pits where the sandstone column bases had been displaced and that much of the burned floor had been heavily damaged by animal burrows and plant roots. So poor was the state of preservation that it was decided to discontinue work (pls. 46–48). Unexpected discoveries at both the Monumental Entrance and the Cappadocia Gate precluded any return to the Audience Hall. It would nevertheless have been useful to establish whether or not there was a central hearth, as well as to look at the central part of the rear end of the hall, where some kind of installation might be expected.

Excavation was halted at burned floors and surfaces where these features were preserved. In places where burrowing animals and plant roots had all but destroyed these surfaces, digging was stopped at or just into the makeup levels beneath. But some confusion was caused by the unexpected revelation that looters had dug deeply beneath sandstone column bases. With hindsight it is obvious that the stubs of at least some of the burned and broken column bases were visible to the looters. We ourselves recovered a few small scraps of gold sheet from the burned floor, fragments that would have been more than enough to encourage frenzied digging sometime in the distant past. The result was the excavation of one such ragged-edged pit that had been dug into artificial fill beneath the floor. From here sufficient fragments of one sandstone base (02TR02U11arc01, pls. 117a–c) were recovered to establish its size and shape.

At the season's end, exposed surfaces were covered with geotextile before the trench was back-filled with soil to protect such scraps of the floors as were preserved. Excavated stone was used to rebuild those sections of walling that had been uncovered; to a height of about 0.8 m above the ground surface.

## DESCRIPTION OF THE AUDIENCE HALL

### The Architecture

The building comprises a large rectangular hall and an anteroom, each one with a broad central doorway at its eastern end (pl. 43). The overall length of the building is approximately 33 m and the width about 22 m, with the whole covering a total area of some 726 sq. m. The width of the external walls is 1.1 m, whereas the internal wall is almost twice as wide at 2 m. The length of the anteroom is 6.5 m, while the hall, at 22 m, approaches four times that measurement. In consequence, the floor area of the hall, 435.6 sq. m, is very nearly three times larger than that of the anteroom (table 2).

The double-pitched roof was supported by wooden columns standing on simple sandstone bases, two in the front room and two rows of six in the hall (table 3). Because of later disturbance, no column base was found in situ. But the position of the robber pit makes it likely that columns were spaced so that the central span was about 8 m in width with the aisles on both sides somewhat narrower at roughly 6 m. The space between the columns in each row as well as between the columns and the walls of the front room was approximately 3.8 m.

The building was timber framed. In the anteroom there were upright posts of surprisingly small diameter set into the internal wall faces. The ghosts of these posts can be seen in the illustrations in plates 45–47. These posts do not seem to have been placed at regular intervals to support rafters, although the preservation of the wall faces is too poor for this to be certain. It is possible that similar, perhaps more substantial posts were set into external wall faces. By contrast, in the large hall there seem to have been horizontal beams laid against the base of the northern wall. These beams perhaps carried timber posts supporting rafters. As will be seen in the following chapter, there is strong evidence, in the form of burned clay with impressions of reeds, for a loft above the front room of the Ashlar Building, and similar evidence was recovered from a two-roomed building excavated in TT16 during the 1996 campaign.<sup>44</sup> In the Audience Hall, however, there was no debris on the floors to indicate the existence of a

Table 2. Dimensions of the Audience Hall

<i>Component</i>	<i>Size (m)</i>	<i>Area (sq. m)</i>
<i>Overall</i>	ca. 33 × 22	ca. 726
<i>Hall</i>	ca. 22 × 19.8	ca. 435.6
<i>Anteroom</i>	ca. 6.5 × 19.8	ca. 128.7
<i>External walls</i>	ca. 1.1	
<i>Internal wall</i>	ca. 2 (width)	
<i>Doorways</i>	ca. 3 (width)	
<i>Walls and Doorway</i>		ca. 200

Table 3. Column base spacing

<i>Column Bases</i>	<i>Spacing (m)</i>	<i>Number</i>
<i>Center to center</i>	ca. 3.8	
<i>Central span</i>	ca. 8	
<i>Aisle spans</i>	ca. 6	
<i>Hall</i>		2 rows of 6 = 12
<i>Anteroom</i>		1 each side = 2

loft floored with clay and reeds, but a construction entirely of wood could be postulated. The substantial width of the internal wall between the hall and the anteroom can be taken to indicate that it supported beams and rafters above the anteroom. It is also possible that there were internal wooden balconies along the sides and rear end of the main room and that the slightly more intense fire-hardening of the floors toward the edges of the building is a reflection of their having burned completely away. In this respect, it is worth noting that substantial evidence for balconies was found in the largest of the megarons, Megaron 3, in the Old Citadel at Gordion, which is also thought to have been an Audience Hall.<sup>45</sup> If there were openings in the pediment at the front, and perhaps high, shuttered windows in the sides of the building, as suggested in chapter 6, it is not at all impossible that there were narrow, elevated walkways along the sides of the building.

### The Anteroom

In the outer room, a 4 m wide portion of the floor was exposed on the northern side, together with a

<sup>44</sup> In 1996 this evidence was incorrectly interpreted as suggesting that the anteroom was provided with a flat roof, while the main room was open to the sky.

<sup>45</sup> Young 1962a, pp. 9–10; 1962b, pp. 160–63.

narrower strip against the eastern wall that was extended southward as far as the approximated center of the front doorway. Here at the door, it was found that deposits were very shallow and the line of the wall was hard to define (pl. 44). The northern wall was composed of granite, the wall faces being constructed of large, uncoursed stones with a wide core composed of stone rubble. Vertical wooden posts were set into the wall face. The wall was very ruinous as a result of stone slipping into voids left by the timber posts; nevertheless, areas of burned mud plaster still adhered in places. The broader internal wall was of a different construction; it included horizontal timbers that had burned away, thereby causing the southern wall face to tilt at an angle of about 85 degrees. One or two courses of flat-faced and flat-topped stones were seen above a course of smaller stones. These flat stones signal the position of horizontal beams. Here, too, were patches of burned mud plaster preserved. The elevation of the wall face shows the burned floor with, at left, the top of the wider footing where the floor had been disturbed (pl. 46a). A small portion of what appeared to be a poorly preserved leveling course of mudbrick was seen within the core of the wall. In a small sounding against the eastern side of the internal wall, it was seen that the foundations were between 10 and 15 cm wider than the wall. The 1.5 m wide foundations of the front wall of the building likewise projected on both sides of the poorly preserved superstructure, that was doubtless built in a fashion similar to the internal wall. All wall faces were covered with a single rendering of 5 cm thick mud plaster which, on the outside of the front wall, continued over the top of the offset foundation.

The plans and wall face elevation drawings (pls. 45, 46a–b) show the ghosts of a pair of rounded vertical timbers, with an additional slot to each side, that were preserved in the burned mud-plaster packing. Burning had been intense in this corner of the room. Each of the two poorly preserved central doorways was very close to the modern ground surface, as a result of which it was not possible to define either one of them with precision. An undulating floor, composed of a single layer of clay as much as 7 cm thick, was greatly disturbed by animal burrows. While mostly gray, toward the center of the room where it was more hardened by fire there were hues of red and gray. Immediately inside the central doorway, a well-preserved area of tan-colored floor appeared to have run up against a threshold. Where

the floor was destroyed, a yellow clay fill mixed with some large stones was observed below a subfloor, parts of which had been burned to a dark shade. The fill of the room comprised collapsed and burned debris that included, particularly near the walls, a concentration of burned mudbrick fragments. The only finds were small scraps of copper alloy sheet with perforations and small fragments of gold sheet.

Outside the central doorway, at the front of the building, a very small area of inclined stone pavement was uncovered. It represents the upper end of the pavement revealed in the Monumental Entrance. Geophysical imagery makes it evident that granite paving was laid over the entire area of the court in front of the Audience Hall. As to the pavement itself, by the entrance to the hall rather small and poorly laid pavers averaging 20 × 50 cm in size contained large gaps filled by soil. These stones decreased in size toward the eastern limit of the trench.

## The Hall

The major difference between the large hall and the anteroom relates to the northern sidewall. In the hall evidence was found for horizontal sleeper beams laid against the inside face of the wall. The clay floor was found to lap up against a mud-plaster facing that had been applied to the front of these beams. The beams themselves, which measured no more than 35 to 60 cm in width, were sunk to a depth of between 15 and 7 cm below the burned floor surface. Presumably, vertical posts were placed on these beams at regular intervals, these posts being in front of the mud-plastered wall face rather than set into it. As to the broad internal wall, the better-preserved northern portion of the western face displayed the same characteristics as the eastern face in the anteroom, with the burned marks of horizontal timber fallen from above clearly visible on the adjacent floor. Mud plaster adhering to this same wall retained traces of horizontal grooves, perhaps finger marks or reed impressions.

The compact clay floor, burned hard in the final destruction, was well preserved close to the walls, becoming broken and uneven toward the interior of the room. Glimpses were gained of a leveling fill consisting of medium-sized stones. On top of the floor was a 10 to 15 cm thick layer of dark burned material that contained animal bone, pottery sherds and mudbrick. A small, complete juglet (K00.85) was found in this deposit. Other finds were restricted to

scraps of metal, a copper alloy appliqué, and iron nails. The room fill consisted of soil with some stones and large pieces of burned mudbrick as shown in the section drawing (pl. 46c).

The robber pit in the area where the sandstone column base had been dug out and smashed was very difficult to define with precision. This difficulty was partly because the pit, which had been dug through rocky fill, was itself very irregular and also because of the way in which the pit's side had eroded after being left open. The sandstone base itself, cataloged elsewhere in this volume (pls. 117a–c), had very rough surfaces with deep toolmarks. How much of this base was visible above the floor of the building is not known, but the unsmoothed surfaces might indicate that very little was intended to be visible. It is certain that the base itself was not intended to be seen; it was either very largely buried or covered with mud plaster. In the latter case, the rough toolmarks would have facilitated adhesion of rendering.

### Notes on the Order and Methods of Construction

Construction of the Audience Hall entailed building firm foundations and making the interior level. Foundations broader than both the front and interior walls were observed, while the northern wall was not exposed below the level of the burned surfaces. Above the foundations of the northern wall was a stone socle perhaps 80 cm wide. If the Ashlar Building, described in the following chapter, can be taken as a guide, the timber frame of the superstructure would have been built on top with substantial horizontal beams positioned along each face of the wall. The fill of the rooms suggests that this wooden frame was at least partially infilled with mudbrick. The wide interior wall was of different construction, where lines of horizontal beams were incorporated into the wall faces from just above floor level. The front wall was constructed in the same way.

With regard to the doorways, such evidence as there was points to their being substantial timber frames with timber thresholds. On the plans, both doorways are shown as having been 3 m wide, but because the footings ran beneath the thresholds, with preservation being very poor, this dimension is not exact. Although no sockets to accommodate door posts were found, the width does indicate that there were double-leaved doors in each case. A single burned and highly abraded sandstone block,

embellished with one medium-sized, double-ended bolster carved three-quarters in the round (K06.220, pl. 211g), was discovered lying on the stone pavement below the front of the Audience Hall. It is possible that this block had tumbled from the front façade of the Audience Hall. The small number of iron nails in the debris, most of which were perhaps associated with doors, bears testimony to skills in carpentry and techniques of timber construction. No other architectural iron was recovered—a striking absence in view of the iron door bands, clamps, and brackets found in both the Monumental Entrance and the Cappadocia Gate.

### Observations on the Processes of Destruction, Decay, and Disturbance

At the Audience Hall the catastrophic fire did not attain the intensity that is evident at the Ashlar Building and the Monumental Entrance, where temperatures were sufficiently high to vitrify mud and stone. Explanations for this difference include the possibility that the roof covering burned quickly away, with sufficient burning thatch and rafters falling onto the floor to bake large patches lightly, while the main beams in the roof and walling, together with the wooden columns, smoldered but neither fell nor burned away altogether. Fragments of the one excavated sandstone column base were reddened by fire, but there was no indication of the vitrification that would have occurred had the entire wooden column burned in situ. Because there was no obvious impact of intense heat on adjacent stones, timber thresholds—as well as the lower portions of the door jambs—seem to have decayed rather than burned.

There are no signs that debris was sorted through once the ashes had cooled. Indications from the Ashlar Building and elsewhere seem to suggest that anything of value had been removed before the city was put to the torch. That no more than a few scraps of gold sheet and copper alloy and a single juglet (K00.85) were found in the Audience Hall is consistent with the hypothesis that the building had been emptied before it was burned.

It has already been noted that a tumulus was constructed on top of the southeastern corner of the main room in a process that entailed gathering stone and debris. This tumulus had itself been robbed, the capstones of the cist constructed in the top part of the mound having been thrown aside before Erich Schmidt described the scene in 1928, but

not robbed so far back into the past that the cists are no longer visible. Excavation revealed that linear features seen on the geomagnetic imagery were caused by later disturbance by treasure seekers who had dug beneath the sandstone column bases in the hall. Similar evidence was found in the Monumental Entrance, where one of the column bases in the rear was tipped into the looters' pit. At the Audience Hall this activity is undated, but elsewhere it is associated with scraps of Byzantine material.

In the northeastern corner of the hall, a very rough, carelessly made curved feature seems to have been constructed abutting the central wall. Comprising no more than two courses of field stones with some fragments of burned mudbrick and, apparently, some mud mortar, it can have been no more than a rude feature built by a shepherd. It is undated.

## FEATURES TO THE NORTH OF THE AUDIENCE HALL

In a small extension to the northern side of TT22, measuring 3 × 3.5 m, a narrow stone wall, perpendicular to the Audience Hall, was found to have been built against its northern face (pls. 44, 48b). Composed of medium-sized granite stones, this 0.65 m wide wall was preserved to a maximum height of 0.43 m. At the southern end, further courses of stone raised the height another 70 cm, perhaps above horizontal beams. On the eastern side of this wall was the burned floor of a room made of fine clay with the inclusion of very small stones. Room fill comprised dark-brown soil with many pieces of burned mudbrick and roofing fragments of burned clay in which reed impressions were preserved. One mudbrick, possibly complete, measured 30 × 20 cm. There were no finds in this room. On the western side, the ragged edge of an external stone pavement ran up steeply to the wall. It was here that a 30 cm thick layer of brown clayey soil with some rocks, together with refuse containing animal bones including the jaw of a dolphin, had been dumped.

## CHAPTER 5

## THE ASHLAR BUILDING

GEOFFREY D. SUMMERS

Description of the unique building that is the subject of this chapter brings together the results of excavation in the consecutive seasons of 2002 and 2003, thereby expanding and completing the preliminary report published in 2003.<sup>46</sup> At the same time, the results of the 2007 resistivity survey are taken into account in combination with other methods of remote sensing employed for investigations at the Palatial Complex in earlier years, as well as building plans revealed by excavation as described in chapter 1.<sup>47</sup>

## LOCATION

The Ashlar Building is located to the north of the Audience Hall, to which it is precisely parallel (pl. 9b). It appears on geophysical survey imagery to open onto a more or less square court. Stone paving of a rather inferior kind was revealed immediately in front of the entrance to the Ashlar Building. In addition, similar stone paving was exposed in a small extension to TR05 made across the southern wall of the building in the front room. Access to the court, and thus to the Ashlar Building itself, seems principally to have been from the northwestern corner of the large, inclined, stone-paved court in front of the Audience Hall. Excavation of the Audience Hall, however, revealed the southern portion of a wall perpendicular to the northern side of the anteroom. This wall raises the possibility that access to and views of the Ashlar Building could have been more restricted than is suggested by the reconstruction, which is principally based on remote sensing.

<sup>46</sup> Stronach and Summers 2003.

<sup>47</sup> First published in Summers and Summers 2008.

On the reconstructed plan a similar, slightly smaller building is shown opening onto the northern side of the court (pl. 9). It is not implausible that these two structures bore some kind of functional relationship. In this respect it is pertinent to note the not dissimilar juxtaposition of the Audience Hall and the two-roomed building that appears to open onto the northern side of the large court in front of it.

## CHRONOLOGY

No closely datable artifacts were recovered from the Ashlar Building. We face two crucial questions. First, when was the Ashlar Building constructed in relation to the construction of the Audience Hall? Second, over what duration of time was the Ashlar Building standing prior to the catastrophic fire? Neither one of these questions can be answered definitively. While the central axis of the Ashlar Building is parallel to that of the Audience Hall, suggesting the primacy of the latter, it can be observed more generally that the orientation of all the structures within this section of the Palatial Complex is the same. Furthermore, along the northern side of the complex it can be seen that the orientation of the street and boundary wall diverges slightly from that of the buildings within. Microtopographic survey, together with observation on the ground, makes it certain that the orientation of the buildings under consideration is, in no small measure, related to the jointing and outcropping of the underlying geology.



In chapter one it was argued that construction in this sector of the Palatial Complex was not initiated until a second phase that also witnessed modification and partial demolition of Structure A.<sup>48</sup> This reconstruction of sequential stages in the development of the Palatial Complex proposes that the area between the rear of the Audience Hall and the eastern limit of buildings associated with the original Structure A, particularly Structure E, was devoid of buildings in the initial scheme. What restricted evidence is available from excavation, which amounts to little more than rubble infill exposed in an old robbers' pit together with glimpses of bedrock outcrops, points toward the correctness of this reconstruction. The erection of buildings within this space would have required a great deal of infilling—very probably a task that was carried out hand in hand with the reduction of substantial granite outcrops. If this interpretation has validity (pl. 9b), it is possible to imagine that the Ashlar Building and Audience Hall, the court in front of each, as well as the two two-roomed buildings perpendicular to those courts, were all part and parcel of a single comprehensive design. In this case the precise order of construction, which is probably not recoverable, is of less significance than the observation that the complete scheme, not only the Audience Hall, predated the erection of the Monumental Entrance.<sup>49</sup>

Admittedly, the evidence for this reconstruction of building sequences is not as strong as might be liked. Whatever its veracity, it undoubtedly oversimplifies the complexities of planning and construction. One piece of supporting evidence obtained from excavation is that the mud-plaster floor of the inner room in the Ashlar Building suffered repeated subsidence that necessitated repairs and numerous replasterings. There is no basis on which to estimate the frequency of the replastering, but the number of mud-plaster layers by itself demonstrates that the building had been in use for some not inconsiderable period of time prior to the destruction.

## STRATEGY AND METHODS

Topographic and geomagnetic survey undertaken in the area of the Palatial Complex before 2002 had revealed the existence of a distinctive and heavily burned building that stood parallel to what has been termed the Audience Hall (pls. 7–9). Electrical resistance survey of the Palatial Complex was not undertaken until after excavation of the Ashlar Building. The southern half of this building was excavated over the course of two consecutive seasons, in 2002 and 2003. In 2002 the strategy was to excavate first the southeastern quadrant, with the option of proceeding to the southwestern or northeastern quadrants in such a way as to obtain sections both along and perpendicular to the central axis of the building. Excavation commenced with the southeastern quadrant, not least because of the ease with which the trench could be extended southward to link up with TR02 in the Audience Hall, should that become desirable. As it became clear that there were in fact two rooms to the building, the trench, TR05, was extended so as to expose the entire southern half of the front room, together with a large portion of the inner room. At the same time, a small part of the external paving in front of the building was exposed. In addition, a small extension was made on the southern side of the trench to ascertain the thickness of the wall, examine the character of the outer face of the wall, and confirm that the exterior surface on this side was paved with stone (pls. 49–51). In the inner room, a small sondage made below the floor revealed important information about the nature of the foundations (pls. 51, 62b), but otherwise the general strategy of halting excavation on reaching the burned floors and surfaces was adhered to. The results were published the following year.<sup>50</sup> In the 2003 campaign, backfill from the previous season was removed from the excavated eastern part of the inner room before the southwestern portion was emptied (pls. 49–51). In this larger portion of the inner room, excavation proceeded from the central area of the room back to the fragile, often severely cracked, granite wall faces. The tops of the ashlar were not uncovered for fear that these stones would disintegrate on exposure, with the result that along the greater length of the southern wall, as well as some

<sup>48</sup> Summers and Summers 2008.

<sup>49</sup> Evidence that the construction of the Audience Hall predated the building of the Monumental Entrance is set out elsewhere in this volume; see also chapter 12, Concluding Remarks.

<sup>50</sup> Stronach and Summers 2003.

portion of the western wall, fallen debris were left slightly overhanging the front of the ashlar. Indeed, as the photographs document, some slithers of face stones that were cracked as a result of conflagration were found to have slipped slightly out of position.

At the end of each season, because of the very fragile condition of both the ashlar walling and the sandstone surround in the front room, together with the friable, burned, mud-plaster floor in the inner room, walls and surfaces were covered with geotextile before the trench was backfilled with soil.

## DESCRIPTION OF THE ASHLAR BUILDING

The Ashlar Building comprises two rooms, each one with a wide central doorway on the eastern side. The overall length of the building is approximately 18 m. The width, which can be precisely calculated because the center points of the threshold stones are known, is 8.8 m (pls. 49–51).

Table 4. Dimensions of the Ashlar Building

	<i>Length (m)</i>	<i>Width (m)</i>	<i>Area (sq. m)</i>
<i>Overall</i>	18	8.8	158.4
<i>Front Room Floor</i>	4.9	6.8	33.32
<i>Inner Room Floor</i>	9.8	6.8	66.44

The width of the southern and eastern walls is 1 m, whereas the internal wall is somewhat broader at 1.3 m. All walls were provided with slightly wider stone footings. Both rooms are 6.8 m wide. The front room, which is the smaller of the two, measures 4.9 m in length, while the inner room is twice that length, at 9.8 m. Consequently, the floor area of the inner room is almost exactly twice as large as the area of the front room (table 4). The central doorway in the eastern wall is 3 m in width, while that connecting the two rooms is 1 m narrower.

Structurally, the building comprised a very substantial timber frame that was bedded on the level top of a single row of pseudo-ashlar masonry.<sup>51</sup> The roof, which attained a span of some 9 m, was presumably double-pitched and covered with thatch, while the smaller, outer room was provided with an

upper-level balcony or loft floored with reeds and mud supported by beams. The walls were preserved to a height of about 0.9 m, except where the ashlar had been robbed at the eastern end of the building. The rooms themselves were filled with burned debris fallen from the upper walling and, in the case of the front room, the floor of the loft. There were no internal features. All indications are that the building was stripped of its contents before the fire.

### The Front Room

The outer room was provided with a handsome surround of soft yellowish-brown sandstone pavers (pls. 49, 54b, 55a–b). The surface of these stones was evenly smoothed but did not exhibit notable indications of wear. The absence of an unsmoothed ridge at the base of the ashlar, such as is seen in the inner room, can be taken to show that the laying of the pavers was an integral part of the architectural scheme from the beginning and not a later addition. That the pavers were trimmed and smoothed in position is indicated by the nearly ubiquitous presence of an inner raised margin of low but variable height that always stands next to the ashlar walling, since the removal of this feature might have damaged the wall behind. In addition, the earthen flooring material beneath the clay plaster surface contains many flakes and chips of sandstone that were surely detritus from the mason's work. Each of the pavers, with the exception of the threshold in the front entrance, has a rough offset or flange on its inner edge bearing coarse toolmarks (pl. 63a). In a very few instances, an attempt appears to have been made to trim this flange away, thus possibly indicating that it owes its existence to expediency rather than to any functional design. The quality of the workmanship is perhaps best exemplified by the carving of the large stone in front of the threshold of the inner doorway. The paver itself is wider than the threshold, the original southern edge of which is indicated by a slight reduction in the height of the paver (pls. 61b, 63a). Faults in the sandstone could be repaired by the careful insertion of tightly fitting plugs. This sandstone surround is 0.6 m deep, the width of the pavers along the southern side being between 0.4 and 0.45 m. At the southeastern corner of the room a large L-shaped paver, 1.6 m long, extended along the eastern wall from the corner of the threshold stone, ending some 0.20 m short of

<sup>51</sup> See Wright 2000 for terminology of masonry techniques.

the southern wall. The space was filled by a smaller sandstone piece (pl. 54a). A somewhat smaller L-shaped paver fit snugly in the southwestern corner (pl. 55b). The sandstone threshold in the front doorway was about 0.4 m narrower than the eastern wall. Slightly inclined paving, composed of untrimmed granite stones of moderate size with large gaps between pavers, ran up against the threshold (pl. 55a). Unlike the sandstone surround, the inner edge of this threshold stone did not possess an untrimmed offset. At the central doorway on the western side of the front room, the sandstone surround was, as noted above, in front of the threshold. Of the threshold itself there was no trace. The difference between these two doorways and the placement of the thresholds might be explained by the circumstance that the front entrance had at least one course of granite forming the jambs on both sides of the threshold and very possibly granite ashlar continuing up to support a heavy timber lintel. A jamb comprising several courses of granite blocks that would have attained a height in excess of 2 m could be hinted at by the careful placement of a large, roughly trimmed limestone block in the foundations that is partially overlapped by the sandstone threshold (pls. 55a, 62a). With regard to the central doorway connecting the two rooms, it is possible to reconstruct this feature as a substantial timber-framed doorway with a raised wooden threshold. Particularly heavy damage to ashlar 8 in the inner room (pl. 57a) is perhaps a strong indication that a stout timber door frame had burned away.<sup>52</sup> It was suggested in the previous chapter that both the external and internal doorways in the Audience Hall were similarly constructed, the outer one with stone jambs and the inner one entirely of wood. Within the surround was a single, lightly burned, mud-plaster floor. It is likely that this plaster floor was intended to run over the protruding, roughly chiseled flange on the inner margins of the smoothed pavers. Moreover, since this single layer of plaster does not seem to have been renewed at any time, in marked contrast to the multilayered mud-plaster flooring in the inner room, it was clearly intended to take some kind of floor covering, although no trace of one remained.

The burned debris that lay directly on the floor and surround contained many fragments of baked mud in which the impressions of reeds were preserved. A little debris of this kind was also found in the inner room, where it was concentrated at the eastern end. It is postulated that this debris formed a reed and mud floor to a balcony or loft above the front room. In this regard, it is recalled that in 1996 similar evidence was noted in the anteroom of the large two-roomed building excavated in TT16. Further support for this suggestion may be found in a number of sixth-century rock-cut architectural façades in the Phrygian Highlands, notably the Areyastis Monument and the Unfinished Monument at Midas City, that have detailed representations of shuttered openings to both sides of the king post in the pediment that surely indicate the presence of a loft or balcony.<sup>53</sup> It is plausible to reconstruct the front of the Ashlar Building in a not dissimilar fashion, though no metal fittings like those depicted on the Areyastis and Unfinished Monuments were found to clinch this hypothesis. No indications of access, presumably by means of wooden stairs or a ladder, were observed within the excavated half of the Ashlar Building.

## The Inner Room

The larger, inner room, apart from an undulating, multi-layered floor of mud plaster, was found to be entirely devoid of features (pls. 49–51, 56b, 57a). The floor was evidently prone to uneven but continual subsidence. Attempts had been made to counter this uneven sinkage by frequent patching and replastering. These efforts, however, were clearly not sufficient to attain a stable and level surface, it being evident that much of the subsidence had occurred before the fire, at a time when the room was in use. It is notable that although parts of the floor in the inner room had subsided, neither any of the exposed walls nor the floor of the front room seem to have been unstable. Heavy burning of the floor, some patches of which were burned black, some gray, and the next orange, purple, red, and white, attests to rafters and thatch from the double-pitched roof falling directly onto it in the course of the fierce fire. Differential alteration to the color of ashlar facing

<sup>52</sup> In this case it is not necessary to assume that granite blocks forming the jamb and a stone threshold had been robbed out, contra Stronach and Summers 2003.

<sup>53</sup> Berndt-Ersöz 2006; Haspels 1971; Sivas 1999.

in the northwestern corner of the room perhaps indicates that something stood against the base of the wall (pls. 53a, 56b, 59b, 60a–b). The black line of burning rises from floor level at the eastern corner of ashlar 21 in the southern wall. This same black line turns the corner a little below the top of the ashlars, from where it runs gently down to floor level near the bottom right corner of ashlar 31. A group of bone astragali were found above the floor.

## CONSTRUCTION MATERIALS

### Granite

The structural stone is local granite. Burning wooden beams generated sufficient heat to fracture the stone and, on occasion, vitrify it. Fine working with single-pointed tools and hammers would have been time consuming, but pseudo-ashlar blocks with smooth faces and drafted edges could be produced when required. Granite field stones and much fist-sized granite rubble was used for the core between granite blocks and for the infilling of the wood-framed superstructure. Only rarely was the largest dimension of these stones greater than 20 cm. Similar stones, with naturally flat upper surfaces, were used for external paving.

### Limestone

Soft white limestone from Eocene beds was selected because it could be easily carved to any size or shape that was desired. These properties explain its occasional use at the top of wall foundations where it was important to have a base that permitted the accurate setting of granite ashlars (pl. 54a). In more than one instance, such limestone was used as a filler in the ashlar facing as well as to make small rectangular plugs at the corners of ashlar blocks (pls. 57a, 60a).<sup>54</sup> Contrast in color between the silvery gray of the freshly trimmed granite and the white of the limestone seems odd to our eyes, but the difference was perhaps muted by dim light inside the building.

This soft stone is not found on the Kerkenes Dağ itself but, like the sandstone that was likewise quarried from Eocene-period beds, was brought up to the site from somewhere in the surrounding countryside. The irregular fragments that were employed in the walling of the Ashlar Building were presumably

left over from some other architectural scheme and were used here simply for convenience.

### Sandstone

Sandstone is known to have been used for the paved surround in the front room as well as for the thresholds to both doorways. This soft and friable material would not have withstood heavy wear. This type of stone, locally called “Yozgat Taş,” was used on top of the front towers at the Cappadocia Gate as well as in the Monumental Entrance. The consistency of color and texture of the sandstone selected for making these pavers, where they had not been altered by fire, is visually very similar. This consistency indicates that all the stone was from a single consignment brought to the site for the particular purpose of making this surround.

### Mudbrick and Mud Plaster

Sun-dried mudbrick was sparsely used. Individual bricks were rectangular, measuring approximately 30 × 15 cm (pl. 63b). Three largely complete bricks were found directly on the floor and surround at the western end of the front room. Sizeable pieces of others were noted in the debris filling the inner room, these items being particularly numerous at the western end. It is unknown how these bricks were used. It is possible that they tumbled from the loft above the front room and also that they might have been packed around the timber frames of postulated openings in a pediment at the western end of the building. In addition to the rectangular bricks, the debris filling the inner room also contained a few burned fragments of semicircular mudbricks that are 20 cm wide with a radius of 15 cm, their length being unknown. These bricks were made from gritty clay to which vegetal temper was added.

Mud plaster was found on the interior walls, covering the timber frame and stone infilling, but not the base course of ashlars. Wall plaster was generally about 4 cm in thickness but could be much thicker where, presumably, rubble wall faces were uneven. There was no indication that more than a single rendering of mud plaster had been applied to the interior walls. As to the exterior wall faces, they too were surely coated with mud plaster above the tops of the ashlars, though no plaster was preserved

<sup>54</sup> In the original report, Stronach and Summers 2003, this limestone was erroneously termed “chalk.”

in position within the small extension to the trench that was made across the southern wall of the front room.

A fine clay plaster was used for a single flooring within the sandstone surround of the outer room. The inner room had multiple mud-plaster floors composed of the very sandy granitic clay that is typical of the Kerkenes Dağ. The lowest layer of this plaster was coarser than the others and had clear impressions of straw or chaff in it.

## Timber

All the timber seems either to have been reduced entirely to ash in the conflagration that engulfed the building or, if the postulated wooden threshold and jambs of the central doorway really existed, had rotted away. Black stains on the top of the granite ashlar seem, however, to indicate the positions of substantial beams and perhaps uprights of the timber frame. It would seem, from the treatment of the ashlar tops (described below) and the few pieces of mud wall plaster still adhering to the remains of the walling, that the beams were squared. The double-pitched roof would also have been supported by wooden beams and rafters, some of which were of considerable size, as would the loft and the frames of openings in the walling.

Of the wooden doors themselves no trace remained. The absence of iron nails, door bands, and other fittings, such as were found at the Monumental Entrance and more sparsely at the Cappadocia Gate, could suggest that doors and perhaps shutters had been taken down, possibly to be stripped of metal, before the building was torched.

## Reeds

Pieces of baked mud preserved impressions of reeds sometimes more than 1 cm in diameter. All the reeds appear to have been laid neatly and tightly in the same direction. No evidence for weaving, matting, or bound bundles was recovered. This mud with reed impressions was largely confined to the burned fill of the front room, its having fallen from the upper floor or loft. The pitched roof was presumably thatched.

## Iron

The only iron recovered from the building consisted of a number of distinctive nails with flat, triangular

heads (ch. 8; pls. 113d–e, 114a, 119). This distinctive type of nail is uncommon elsewhere at Kerkenes. These items do not seem large enough to have been employed to fasten structural beams, and it would seem that the timber frame, roof, and openings were made without iron elements. This situation contrasts with that at the Monumental Entrance, where extensive use was made of architectural ironwork.

## OBSERVATIONS ON THE ORDER AND METHODS OF CONSTRUCTION

### The Foundations

In the inner room it could be seen that the edge foundations were some 0.12 m beyond the line of the tightly fitted pseudo-ashlar blocks that rested directly on them. A similar construction can be envisaged beneath the sandstone surround in the outer room as well as beneath the granite pavement laid against the outside walls. A small sounding was made against the wider foundations of the southern wall of the inner room, measuring 0.7 × 0.8 m and no more than 0.5 m deep (pl. 62b). The top of a dry stone foundation composed of medium-sized granite field stones with many cavities extended some 0.12 m beyond the line of the ashlar. No attempt was made to reach the bottom of the foundation wall within the sounding. Directly to the north of the foundation wall and continuing northward for a distance of some 0.45 m was a further loose stone packing of presumably equal depth against which a mass of dark earth had been placed. It would thus appear that the dry stone foundations were built up before material was brought in to level the interior of the room. Indeed, the undulating surface of much of the floor of the inner room may be explained by subsidence within the packed-earth deposit beneath the floor.

The line of foundation stones at the southern side of the eastern wall looks very similar to the uppermost foundation stones of the southern wall. Soft limestone blocks were sometimes used immediately below the ashlar. This construction technique is particularly apparent on the inner side of the doorway at the eastern end of the outer room. Here a large block of soft and easily worked limestone was carved in such a way as to support both the southern edge of the huge sandstone threshold and the

eastern or inner edge of the adjacent first paving stone, as well as the (robbed) ashlar (pls. 54a, 62a). Similar use of soft limestone was recorded beneath some ashlar in the western face of the central wall.

## The Ashlars

A single row of granite pseudo-ashlars runs along the base of the outer and inner faces of each of the walls that were investigated and undoubtedly, therefore, of the entire building (pls. 51–53, 55b, 61a). Where preserved, these ashlar were about 0.4 m in height. Stone robbing had removed blocks from the southeastern corner of the building. Trimming and positioning the tightly fitted granite blocks followed construction of the foundations. Combined with this phase of construction would have been the associated task of filling the core of the walling with smaller, rough stones. In the southern wall it is noticeable, for example, that small pieces of soft limestone, subsequently turned gray as a result of the burning, were often included. It is highly probable that the final smoothing of the ashlar, as well as the drafting of the slightly beveled margins, was done in situ, as is demonstrated by the slight, unsmoothed lip along the bottom edge of each stone in the inner room (but not in the outer room where sandstone pavers were laid tight against the ashlar face). It is also clear, however, that the ashlar had been cut to something approaching their final size before installation, because in the southwestern corner of the front room there is a gap between ashlar 5 in the western wall and the corner (pl. 55b). Additionally, between ashlar 9 and 10 in the western face of the central wall, in the inner room, a narrow, approximately 8 cm block of limestone had been cut and fitted so as to fill a gap in the ashlar face (pl. 57a). A larger, 20 cm wide gap in the ashlar masonry occurs in the end wall of the building between blocks 30 and 31 (pl. 60a). When small stones and soil were removed from the front of this gap, fragments of two burned mudbricks were found, as though they had tumbled into the void. No trace was found of a limestone plug; while there was no sign of burning on the sides of the ashlar, the presence of vertical timbers is plausible and compatible with the situation at the doorway in the central wall, where it seems that timber jambs and a threshold left no direct trace.

Ashlar 21 and 24 in the southern wall each had a tightly fitting rectangular limestone plug in the top right corner (pl. 59a–b). That in block 21 was 17 cm long, 4 cm high, and 5 cm deep; that in block 24 was slightly larger, at 16 × 6 × 8 cm.

## The Superstructure

Dense black traces of burning that occur on the tops of many of the exposed ashlar in the southern wall are an indication that the ashlar supported a load-bearing frame of squared timbers (see, for example, on pl. 56b). Two other indications that long beams were laid directly on the ashlar come from the way in which the upper surface of the stones was treated. On the one hand, the tops of the ashlar are tilted inward from both the inside and the outside of the southern wall, and on the other hand, any tendency for the beams to shift too far inward was apparently constrained by a roughly cut ridge set close to the inner edge of the top of each ashlar. The frame itself was infilled with dry-stone walling. It was also observed that the timber frame was set back from the front edge of the ashlar a sufficient distance, perhaps in excess of 2 cm, for the mud-plaster coating of the upper walling to finish flush with the ashlar faces.

## Masonry Techniques and Stoneworking

The method of building with faced granite blocks does not constitute true ashlar masonry; rather, it falls into a category of small-block masonry that has been termed “splay jointed bastard ashlar.”<sup>55</sup> In short, only the front faces of the blocks are squared and finished, the inner, hidden faces being splayed and uneven. It is likely that the undersides of these granite blocks were also cut level, as is very probably indicated by the flat top of the limestone block that has already been described. Be that as it may, these observations support the contention that the masonry of the Ashlar Building was finished and fitted in situ rather than being fully prepared at the quarry. The fact that the stones were obtained from a nearby outcrop, not transported any great distance, has no bearing on the essential differences

<sup>55</sup> This type of masonry and its significance is discussed by Wright 2000 (p. 75). For a similar distinction and discussion see Shiloh 1997, especially pp. 78–81.

between true ashlar and the pseudo-ashlar of the Ashlar Building at Kerkenes.

The worked surfaces of the ashlar blocks clearly attest raking single-pointed chisel strokes. No interest was shown in drafted margins.<sup>56</sup> Instead, the masons at Kerkenes were interested in a uniform level surface on the principal worked face of each block. Metal clamps are unattested; neither is there any hint of the presence of advanced anathyrosis joints. Instead, the joints are “oblique.” One sophisticated feature is the presence of shallow beveled edges. These are not ubiquitous, and they are sometimes made with fairly coarse chisel marks and sometimes with very fine chisel marks.

It is of special interest that the raking single-pointed chisel marks on the ashlar blocks can be compared to the very similar chisel marks that occur on sandstone column bases and blocks from other locations. In the case of the sandstone pavers, the intended visible surfaces are now devoid of chisel marks (at least to the naked eye). On the other hand, the sides and borders that were meant to be hidden usually show a variety of unsmoothed broad to thin chisel marks.

## Inscribed Marks

In total, six ashlar blocks have lines of intentionally cut marks or signs of uncertain significance (pls. 64–66). All exposed marks are on the interior faces of the building. While neither one of the two stones exposed in the outer face of the southern wall carry similar signs, the possibility that ashlar blocks in the exterior facing bore similar markings cannot be discounted. It is perhaps less likely that the inner, hidden faces of these cut stones bear similar marks, because only the finished outside faces, and perhaps also the upper surfaces of the stones in front of the ridge, were sufficiently smoothed for inscription. The marks were apparently made with a chisel, the vertical strokes resulting from single blows while the larger sign at the left of each of the two longer lines was made by four such blows.

It is unclear whether these signs were intended to be lozenges,  $\diamond$ , or more cursive circular signs, O, though the latter is perhaps more probable. There is no indication as to the particular script that is represented by these marks, except that they would seem not to be hieroglyphic. Ashlar 2 and 4,<sup>57</sup> in the southern wall of the outer room, possess very similar markings. Ashlar 2 carries a row that reads “O I I I I I I I,” while ashlar 4 carries the longest row, “O I I I I I I I I,” that is, a circle or lozenge followed by seven and nine strokes, respectively.

On close examination, the marks turn out not to be as carefully cut as they appear from superficial observation, particularly with respect to the way they verge downward from a horizontal plane. It seems evident that the marks on ashlar 2 and 4 were cut after the final trimming of the faces, but other shallower marks might indeed be all that remained of more deeply chiseled marks that were largely removed when the blocks were smoothed. In the inner room, four more ashlar blocks (nos. 10, 12, 14 and 19), were found to possess shorter, simpler, and slightly less prominent marks consisting, in each case, of either vertical or diagonal strokes. Block 14 bears a row of seven diagonal strokes, while each one of the other three stones carries three marks.<sup>58</sup>

Further, the evidence outlined above suggests that the ashlar blocks were finished in situ, a circumstance that rules out the possibility of “quarry marks.” There is, however, one parallel that bears perhaps more than superficial resemblance and that, although somewhat earlier in date than the Kerkenes examples, might now be seen against an Anatolian backdrop. These are found at the temple at ‘Ain Dara in North Syria, where it was apparently intended that they should be hidden from view. In this instance, the even longer rows of marks, comprising signs of some kind followed by rows of vertical strokes, were clearly hidden from view.<sup>59</sup>

Elsewhere such signs cut into faced stonework are usually termed “mason’s marks,” but there are no other close parallels, and most such “mason’s marks,” whatever their real purpose, are very much shorter, often restricted to single signs.<sup>60</sup>

<sup>56</sup> This lack of interest stands in possible contrast to Lydo-Ionian practice, where regular drafted margins with fine-pecked central panels are already present by at least the middle of the sixth century BC (e.g., Ratté 2011, pp. 24–26).

<sup>57</sup> The ashlar blocks are numbered from left to right beginning with the easternmost surviving stone.

<sup>58</sup> Stronach and Summers 2003 report only the three marks on the portion of ashlar 14 that was exposed in 2002.

<sup>59</sup> Zimansky 2002.

<sup>60</sup> For “mason’s marks” in later Iron Age Anatolia and Iran see, conveniently, Boardman 2000, pp. 117–19 with fig. 3.38; for the Levant see Shiloh 1978, p. 63 and fig. 85.

## External Surfaces

Where they have been exposed, the external surfaces prove to have been stone paved, as is very commonly the case at Kerkenes. Outside the front (eastern) end of the building, stone paving of no special quality was found to rise to the sandstone threshold (pls. 54a, 62a). On the southern side of the building, as revealed in the small extension to the trench, paving of equally mundane quality sloped steeply away from the wall face (pl. 56b). On this southern side it can be assumed that the paving covers a wider wall footing. The presence of pavement in these two areas, together with that in front of the Audience Hall, makes it likely that all external areas within this sector of the Palatial Complex were paved. Rather uniform gray areas seen on the geomagnetic imagery could very well be indications of the presence of such stone-paved surfaces.

## OBSERVATIONS ON THE PROCESSES OF DESTRUCTION AND DECAY

When the fire raged through the city at the time of its destruction, the conflagration was no less intense in the Ashlar Building than elsewhere. Pieces of vitrified granite are indicative of temperatures of around 700 degrees Celsius, no greater than that which also vitrified parts of the mud roof. The walls would have disintegrated very quickly because the

timber frame burned to ash, as can be adduced from the complete absence of any traces that might indicate slow decay within the burned debris filling the rooms such as might be expected if the roofless building had stood open to the elements for any length of time. That these walls were of no more than average height may be calculated from the mass of the dense rubble in the main fill.<sup>61</sup> The width of the walls may perhaps be partially explained by the weight of the roof that was supported by massive beams. The central wall is a substantial 1.3 m thick, whereas the side walls are close to 1 m wide with wider foundations. The ultimate collapse of the upper walls was in fact relatively complete; at the present time little more than 0.5 m of dry-stone walling is still visible above the top of the single ashlar course.

The sandstone pavement in the front room was clearly blackened by the fire. Parts of its surface may have also been damaged by the fire or by subsequent exposure to damp and severe changes in temperature before the entire collapse of the building. Doubtless, further damage was done in places where granite ashlar were robbed out of the wall face. If it is correct to reconstruct additional courses of ashlar on both sides of the front doorway, where they would have supported a timber lintel, it is very possible that they were exposed and that their exposure presumably led to their removal. It is perhaps significant that the robbers concentrated on the eastern end of the building but did not find it worth their while to rob the entire building.

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<sup>61</sup> There is no good reason to suppose that the original height of the walls was exceptional.





## CHAPTER 6

# VISUAL RECONSTRUCTIONS OF THE AUDIENCE HALL AND THE ASHLAR BUILDING

AHMET ÇİNİCİ and GEOFFREY D. SUMMERS

This chapter presents three-dimensional (3D) computer models of the Ashlar Building and the Audience Hall. Such attempts at visual reconstructions serve two purposes. The first one is to provide visualization of how both individual buildings and groups of structures may have appeared; the second is to aid understanding of excavated remains as well as remote-sensing imagery. Architects and archaeologists work together in considering such crucial issues as the heights of building elevations, lighting, aeration, and smoke ventilation. All these issues are related to the purpose of buildings as well as to the ways in which they could have functioned. Ideally these reconstructions of architectural elements of the Palatial Complex at Kerkenes would have included both Structure A and the buildings behind it, described in chapters 2 and 3, as well as the Monumental Entrance, which is the subject of the following chapter. While it has been possible to make some limited progress in this respect,<sup>62</sup> the large number of major uncertainties, particularly in regard to the Monumental Entrance, precludes any viable attempt at reconstruction as has, for instance, been recently offered for the Early Phrygian Citadel at Gordion.<sup>63</sup> While this reconstruction of Gordion raises many questions, it undoubtedly provides an extremely useful model that reflects scales of built structures in ways that are much more meaningful to the average person than the plans alone. The aim

was to produce a simple 3D model rather than a virtual reality simulation.

The reconstructions of the Ashlar Building and Audience Hall at Kerkenes offered here (pls. 67–69) are based on the excavated evidence set out in the two previous chapters. That evidence is, however, limited. In situ remains comprised wall foundations and stubs, doorways, and floors. The burned fill of the anteroom in the Ashlar Building suggested the existence of a loft. In the Audience Hall, remains of destroyed column bases made of stone that supported wooden columns were found, and there were traces of posts along the sides. In both buildings negative evidence, that is, the absence of burned beams and mud, indicates beyond doubt that roofs were double pitched and covered with combustible material, presumably reed thatch. In order to visualize how the buildings may have appeared, it has been necessary to make comparisons. At least one of the earlier, ninth-century megarons at the Phrygian capital at Gordion, Megaron 3, was very probably provided with internal balconies.<sup>64</sup> Thus it was necessary to consider the possibility that the Audience Hall, and indeed other large halls at Kerkenes, had similar features. Gordion also provided evidence for akroteria, a single example being made of poros stone, while graffiti on the walls of Megaron 2 depict both double-pitched roofs and akroteria.<sup>65</sup> Closer in date and perhaps more informative are the rock-cut

<sup>62</sup> Osborne and Summers 2014.

<sup>63</sup> Rose 2017, fig. 6 on p. 141. This reconstruction includes embellished megaron façades based on the later rock-cut architectural façades in the Phrygian Highlands with roof pitches that are possibly too low for thatch (see below). Additionally, this Gordion model shows the gate towers with flat roofs without explanation of how they might have been spanned.

<sup>64</sup> Young 1962, pp. 9–10.

<sup>65</sup> Roller 2009.

architectural façades from the Phrygian Highlands. These features provide representations of buildings that with all due caution can be used in the consideration of such issues as height and roof pitch.<sup>66</sup>

## MAKING THE MODEL

The model was made using the CAD program, Vectorworks version 12.5, because of its simplicity and alacrity in the generation of 3D models. Hidden line view was selected, with minimal rendering and the use of color restricted to distinguishing different materials. Perspective projection was employed to obtain realistic views. Once the viewing angles were decided on, the final reconstruction was transferred into Photoshop for visual enhancement.

Archaeological evidence relating to the Audience Hall and the Ashlar Building has been discussed in detail in chapters 4 and 5. Current archaeological data permit a reconstruction of plans of both buildings with a high degree of accuracy. But reconstruction of the superstructures (façades, roofs, doors, and windows) as well as the structural system requires reasoned conjecture. The compilation of rock-cut monuments in the Phrygian Highlands done by Susanne Berndt provides the basis for analysis.<sup>67</sup> Nineteen of these rock-cut façades (table 5) share a common visual language: a frontally depicted façade supporting a double-pitched roof, generally shown with a king post in the pediment, and a centrally located doorway. Variations in eaves, shutters in pediments, akroteria, and roof slopes are summarized in table 5.

### Roof Slope

Roof pitches of the rock-cut façades in highland Phrygia cluster around 25 and 40 degrees (table 5). It is generally thought that the lower range of these pitches indicates roofs covered with terracotta tiles rather than thatch. But the roofs of the Audience Hall and the Ashlar Building,<sup>68</sup> and probably of all buildings at Kerkenes, were of thatch. Reed thatch

requires a sufficiently steep slope for water to run off, as well as for preventing excessive accumulation of snow. The roofs of these buildings have therefore been reconstructed with a slope of 40 degrees. Independent support for reconstructing a 40-degree slope is provided by recognition of three double-pitched stone roof blocks, as well as a complete akroterion, all carved in poros, that were discovered in predestruction levels at Gordion.<sup>69</sup> At a pitch of 40 degrees, the height of the Audience Hall roof would have been around 10 m, while that of the smaller Ashlar Building is calculated to have been around 4 m.

### Eaves

As shown on the reconstructions here, thatched roofs would have required overhanging eaves to lessen the impact of water's running down wall faces. Phrygian tiled roofs, as depicted on rock-cut façades, ended flush with the walls. Such an arrangement necessitated gutters, spouted tiles to project water away from walls, and architectural revetment tiles to protect the upper portion of wall faces.<sup>70</sup>

### Akroteria

Akroteria are common elements on rock-cut monuments, with roughly 70 percent having one of four forms: volute, wing shaped, floral, and crossed rafters, the latter also subdivided into curved or straight (see table 5). Here it has been assumed that these two exceptional buildings were provided with akroteria, though it is possible that this form of architectural embellishment was reserved for cultic buildings. It is thought that the stone akroterion from Gordion mentioned above may have been from Megaron 2, which, embellished with a pebble mosaic, is likely to have been a temple.<sup>71</sup> While it might be surprising to imagine a stone akroterion at the apex of a timber frame, corroborating evidence that akroteria need not be of wood is provided by a terracotta example in the Burdur Museum, the preserved portion of which measures 60 cm.<sup>72</sup> It has not,

<sup>66</sup> Berndt-Ersöz 2006 fully describes and discusses the architecture of these façades.

<sup>67</sup> Berndt-Ersöz 2006.

<sup>68</sup> See chapters 4 and 5.

<sup>69</sup> Sams 1994, 212–13, pl. 20.3.1, fig. 20.2, and pl. 20.3.4.

<sup>70</sup> Glendinning 2007.

<sup>71</sup> Berndt 2015.

<sup>72</sup> Sivas and Sivas 2007, "Catalogue," p. 242 top.

however, been possible to recognize among the very many fragments of carved stone from the Palatial Complex at Kerkenes a single piece that bears any relationship to an akroterion. The reconstructions given here, therefore, show akroteria as simple extensions of the rafters, although, if they did adorn either or both buildings, they would very probably have been separate carved wooden elements that protected the joint between the rafters, ridge beam, and king post.

## Shutters in Pediments, Lofts, and Balconies

Although only some 15 percent of the rock-cut monuments in the Highlands are depicted with shutters in the pediment (table 5), it seems reasonable to assume on grounds of size and obvious importance that both the Audience Hall and the Ashlar Building were provided with such openings. Evidence, in the form of burned debris, for a loft over the outer room of the Ashlar Building has been discussed in chapter 5. While excavation did not recover shutter fittings, such as hinges and bolts like those depicted on rock-cut monuments, the areas in front of these two buildings were barely investigated. At the Ashlar Building, it is certain that there were no balconies in the main room because, if there had been, the supports and other burned remains would have been found. With regard to the Audience Hall, however, the situation is less satisfactory because of the poor preservation as well as post-destruction disturbance. If it is correct to reconstruct openings for light and ventilation high up in the walls, it is likely that there were internal balconies or raised walkways that provided access, but such need not have been very grand.

## Façade Proportions

As can be seen on table 5, the proportion of height to width on the rock-cut façades in the Phrygian Highlands is quite uniform, with height being about one and one-and-a-half times the width in all but one façade. The Ashlar Building has been reconstructed with a wall height of 5.5 m, which equals

a height-to-width proportion of around 1:1.5. With regard to the Audience Hall, however, its immense width of 22 m excludes any possibility that its height could have approached such proportions. For the digital model, therefore, the wall height of the Audience Hall is estimated to have been 8 m, which is equal to the span of the central nave. This might be a conservative estimate because, as reconstructed, the apex of the 40-degree double-pitched roof would have been some 2 m higher than the walls. It is not impossible that the walls of the Audience Hall stood to a height of 10 m or more and that the wide central entrance, with double-leaved doors, was 6 or even 8 m tall. On the other hand, one highly significant constraint on the height was the size of the wooden columns that supported the roof structure.

## Roof Structure

Similar roof construction to that employed for the earliest Greek temples, the beam-and-post construction,<sup>73</sup> seems to provide a reasonable option and has been used for the 3D models. This system is based on massive timber beams (crossbeams) spanning between vertical supports (i.e., walls and columns), with vertical timber posts to support the ridge beam and the purlins on which the rafters rested.<sup>74</sup> Timber posts resting on the crossbeam of the Greek temples and the king post of Phrygian rock-cut façades are very similar. In the reconstructions, the roof timbers are all depicted squared, as are the columns discussed below. Rock-cut façades in the Highlands clearly show side-posts, rafters, and king posts as squared timbers. The carpentry skills of Phrygian master builders, including elaborate roofing systems of squared timbers, are well documented in tumuli at Gordion.<sup>75</sup>

## Columns and Column Capitals of the Audience Hall

The stone base of one column, apparently smashed by looters seeking treasure, shows that the columns in the Audience hall stood on roughly cylindrical sandstone bases that were crudely finished and very largely buried below floor level. The visible tops of

<sup>73</sup> See Hodge 1960, pp. 35–44, for a detailed analysis of the beam-and-post technique as well as the truss, the other of the two common roofing techniques, which is traditionally believed to develop later than the beam-and-post.

<sup>74</sup> See Wright 2005, fig. 33, for a description and an illustration of beam-and-post technique or, in Wright's terms, "Bearer Beam system."

<sup>75</sup> Liebhart 2012.

these bases above floor level might very well have been covered with mud plaster. No fragments of carved stone that might have derived from stone capitals to wooden columns, such as those postulated to have capped freestanding timber columns in the Monumental Entrance that are described in the following chapter, were found in the Audience Hall. Not very much later in time, the rock-cut tombs of Naqsh-e Rostam, the necropolis of Persepolis, have quite characteristic bracket capitals that cantilever off the column shaft. These rock-cut tombs imitate wooden buildings. It is suggested that the columns in the Audience Hall could have carried similar capitals made of wood. If there were bracket capitals of this type, it is likely that the columns themselves would have been square in section to facilitate joining the two elements. On the other hand, evidence from the large columned hall at the northern end of Kerkenes, partially excavated in 1996,<sup>76</sup> that of the pair of stone column bases excavated in the center of the city, and the stone bases to freestanding columns in the Monumental Entrance described below were all circular in section.<sup>77</sup>

### Heat and Light

Shuttered openings in the pediments and artificial lighting, such as torches hung on columns and walls, could have provided some light. If these buildings were in use during the winter months when daylight hours are short, there would have to have been some source of light as well as heat. In the 3D models presented, the placing of openings high in the walls of the Audience Hall is entirely conjectural. Likewise, with respect to the Ashlar Building, the absence of any openings apart perhaps from the shutters in the pediment is minimal. In fact, we have no evidence as to whether either one of these buildings was brightly illuminated by natural light or was dim and shadowy.

## CONCLUDING REMARKS

The 3D reconstructions presented here are intended to provide a useful visualization of two major, partially excavated components of the Palatial Complex at Kerkenes. One outcome is a graphic representation of building forms, scales, and space. There are, on the other hand, issues on which this exercise has not been able to shed significant light, perhaps the most important of which is the function of either building. A second problem is that there is no evidence as to how the furnished interiors might have looked. The reconstructions presented here assume low levels of light and depict dull, plain walls. Here cultural factors, such as the amount of light that might have been deemed desirable, treatment of internal wall surfaces (painting, hangings), as well as furniture and furnishings, are of greater importance than structural or other architectural factors. The obvious grandeur of the Monumental Entrance described in the next chapter might entice us to imagine that the two buildings reconstructed here were also sumptuous, as might befit the rulers of Pteria; but in making reconstructions, it is necessary to draw a line between what might be reasonably conjectured and flights of fancy.

<sup>76</sup> Summers and Summers 1998.

<sup>77</sup> Summers, Summers, and Branting 2004; chapter 7 below.

Table 5. Architectural elements, dimensions, and proportions of rock-cut façades in the Phrygian Highlands  
 A = wall height, cm; B = pediment height, cm; C = akroterion height, cm; D = width, cm

Façade	Reference (Berndt-Ersöz 2006)	A	B	C	D	King post	Eaves	Shutters	Akroterion	Roof slope (degrees)	Ratio A:B:C (rounded)	Ratio A:B (rounded)	Ratio B:C (rounded)	Ratio A:C (rounded)	Ratio A:D (rounded)
Façade 5 at Fındık	p. 327, fig. 16	52	33	10	68	yes	no	no	Cross rafters, curved	45	5:3:1	1.5:1	3:1	5:1	1:1.5
Façade 9 at Kes Kaya	p. 329, fig. 20	77	47	28	94	yes	no	no	Cross rafters, curved	49	2.5:1.5:1	1.5:1	1.5:1	2.5:1	1:1
Façade 10 at Kes Kaya	p. 328, fig. 19	92	45	18	120	yes	no	no	Cross rafters, curved	40	5:2.5:1	2:1	2.5:1	5:1	1:1.5
Façade 13 at Döğer Asar Kaya	p. 331, fig. 24	142	53	N/A	114	no	yes	no	None	54	2.5:1:N/A	2.5:1	N/A	N/A	1:1
Façade 15 at Küçük Kapı Kaya	p. 332, fig. 26	172	59	15	138	yes	no	no	Cross rafters, straight	37	11:4:1	3:1	4:1	11:1	1:1
Façade 16 Arslan Kaya	p. 333, fig. 27	456	182	68	664	yes	no	no	Wing shaped	26	7:2.5:1	2.5:1	2.5:1	7:1	1:1.5
Façade 19 at Demirli Köy	p. 331, fig. 25	84	23	N/A	78	no	yes	no	None	39	4:1:N/A	4:1	N/A	N/A	1:1
Façade 24 Mal Taş	p. 338, fig. 33	670	300	N/A	934	yes	yes	no	None	20/22	2:1:N/A	2:1	N/A	N/A	1:1.5
Façade 25 Kumca Boğaz Kapı Kaya	p. 335, fig. 29	144	42	N/A	158	yes	yes	no	None	28	3.5:1:N/A	3.5:1	N/A	N/A	1:1
Façade 28 Bahçyış	p. 341, fig. 37	342	189	N/A	343	yes	yes	no	None	31	2:1:N/A	2:1	N/A	N/A	1:1
Façade 29 at Kümbet Asar Kale	p. 336, fig. 31	147	48	32	120	yes	no	no	Floral	42	5:1.5:1	3:1	1.5:1	5:1	1:1
Façade 30 Midas Monument	p. 349, fig. 50	1226	325	117	1640	yes	no	no	Volute	18	10:3:1	3.5:1	3:1	10:1	1:1.5
Façade 31 Hyacinth Monument	p. 353, fig. 54	240	85	50	327	yes	no	yes	Floral	30	5:1.5:1	3:1	1.5:1	5:1	1:1.5
Façade 32 at Midas City	p. 337, fig. 32	93	42	41	94	yes	yes	no	Wing shaped	37	2:1:1	2:1	1:1	2.5:1	1:1
Façade 34 Unfinished Monument	p. 355, fig. 34	N/A	312	102	984	yes	yes	yes	Volute	23	N/A:3:1	N/A	3:1	N/A	N/A



## CHAPTER 7

## THE MONUMENTAL ENTRANCE

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A brief overview of the Monumental Entrance was presented in the volume devoted to the sculpture and inscriptions found in the destruction debris, most of these sandstone fragments having been displaced in the course of later stone robbing and looting.<sup>78</sup> The present chapter provides more comprehensive documentation and discussion while not altering significantly the general conclusions given in that earlier account. Nor in most particulars do the results of architectural and stratigraphic investigations differ from interim notices to be found in the *Kerkenes News*, the *Kazı Sonuçları Toplantısı*, and reports currently available on the Kerkenes website. Important, however, are new developments in our understanding of the form, arrangement, and location of architectural and sculptural elements stemming from joins made only in 2017.<sup>79</sup>

## LOCATION AND COMPONENTS

The Monumental Entrance is situated to the east of the Audience Hall, to which it provided access, and southwest of the preserved portion of Structure A. As can be readily seen on the plan (pl. 10), the line of the front, eastern side of the two massive platforms that flanked the paved entrance is set back some 20 m to the west of the line contiguous with the front of the Structure A towers. In the same way that Structure A provided for the sharp increase in the elevation between the ground surface at the foot

of the glacia and the more elevated land behind, so the massive platforms that flank the Monumental Entrance provided a solution to changes in topography that presumably included substantial outcrops of bedrock (pl. 71). To the east of the entrance, and at 45 degrees to it, lies the long northeastern boundary wall of the large triangular compound that extends all the way back to the southern line of the topographic divide followed by the city defenses.<sup>80</sup> This wall can be clearly seen in plates 5a and 6a. Adjacent and parallel to this boundary wall runs the street that approaches the Monumental Entrance and Structure A from the east. This same street forms a southern branch of the main thoroughfare that linked the East and Cappadocia Gates with the Göz Baba Gate, located in the southwest sector of the city. The main branch of this street followed a course that took it along the northern boundary of the Palatial Complex. As befits streets designed for animal traffic, and in contrast to the various phases of inclined granite paving that gave access first to Structure A and then to the Monumental Entrance and Audience Hall, these streets were unpaved apart from patches of narrow sidewalk. Questions of visibility in the approach to the entrance have been addressed elsewhere.<sup>81</sup>

The approach along the street leading from the east came up to the imposing towers of Structure A. Deviating to the left brought into sight the large, granite-paved, inclined Gate Court, the upper half of which is flanked by the North and South Platforms.

<sup>78</sup> Draycott et al. 2008, pp. 1–6 with pls. 3–11.

<sup>79</sup> I am grateful to the current director of excavation, Scott A. Branting, for facilitating completion of the documentation of these stone elements, as well as to team members Ben Claasz Cookson, Joseph Lehner, and Noël Siver for undertaking the work.

<sup>80</sup> Summers 2000, Area A on fig. 6 and p. 65. Although clearly a public area, it is no longer thought to have had a military function.

<sup>81</sup> Osborne and Summers 2014.



The northern side of this court was delimited by Structure B and the North Platform, with granite paving that extended in front of Structure B petering out before reaching the base of the Structure A glacis. While the extent of the stone paving to the south, in front of the South Platform, was not revealed, the street to the southeast was unpaved, apart from a narrow sidewalk along the southeastern edge. The two massive platforms, almost 11 m apart, are situated more or less midway between the southeast edge of the pavement and the Audience Hall. General views of the Monumental Entrance are found on plates 74 and 75. In one sense these platforms may be thought of as terraces that project forward to provide a visually impressive architectural solution to topographic differences in elevation. Two timber-framed façades ran across the entrance between the platforms. The foremost is situated at the top of the steepest portion of the inclined pavement in the Gate Court, which coincides with the middle of the platforms; the second is flush with their rear edge. Each of these façades housed large, double-leaved, wooden doors. The 2 m width of the façades would have provided ample space for elevated walkways above the doors that linked the platforms. Visible masonry faces of the platforms were built of large blocks of cut and faced stone with large, squared, horizontal timbers between courses of silvery-gray granite, yellowish sandstone, and soft white limestone, respectively (pls. 73, 77a, 78a).<sup>82</sup> Hidden sections of wall face between the façades were of inferior uncoursed masonry. At the point where the front façade joined the northern wall of the South Platform there were vertical timbers embedded in the uncoursed wall face (pls. 73, 83a). But the front edge of this timber-framed façade was forward of the first post, butted against the end of the ashlar-like blocks. Significant for any architectural reconstruction is the observation that the rear façade projected west of the western limit of the North Platform by a similar distance, as can be seen on the plans. The level area between the two façades was provided with a central stone pavement on the north side of which was a small square room, perhaps mirrored on the unexcavated southern side (pls. 75, 78b, 79a). On the plans the platforms are reconstructed as being of equal size with corners at right angles.

But as the position of the large stones associated with the northwestern corner of the North Platform show, such regularity is not to be expected. Both Structure A and the towers of the Cappadocia Gate demonstrate that the foundations of massive architecture were not laid out with precision. The orientation of the two platforms is slightly at variance with the axes of other components of the eastern end of the Palatial Complex, most notably with that of the Audience Hall, together with the setting lines preserved in the inclined pavement that led up to it. Similar discrepancies between alignments of pavements and monumental architecture were noted at the Cappadocia Gate. Whether the platforms were orientated to face eastward for some particular purpose, such as a desire to face the rising sun, or this orientation was simply an expediency that avoided unwarranted expenditure of labor on cutting away bedrock and terrace filling is unknown. The last component of the Monumental Entrance is the area of inclined pavement between the platforms and the Audience Hall (pls. 75, 79b). Although only a small portion of this paving was uncovered, its broad expanse can be reconstructed on the basis of the resistivity image. Various monuments were set up within the inclined stone-paved court in front of the first façade and a smaller number behind the inner façade. Other monuments included large, two-sided, semi-iconic sandstone idols, which seem to have stood above rows of projecting bolsters on the inner front corners of the two platforms, and statuary and inscription that was very possibly placed on the inner (west) side of the South Platform (pls. 95, 96).

In general, the Monumental Entrance has many parallels with the Cappadocia Gate. In both cases the primary function was to control access, in addition to which there were large public courts available for public activities and performances, both ritual and secular. On the other hand, while defense was the first priority in the design of the city gate, the Monumental Entrance visually demonstrated the strength, legitimacy, and wealth of the ruling elite, all reinforced by the prominence of large cultic idols.<sup>83</sup> At the Cappadocia Gate the central paved area between the two façades was unroofed, thereby permitting missiles to be rained down from the surrounding battlements on any enemy that had

<sup>82</sup> The soft sandstones, microconglomerates, and limestones all derive from local, Eocene beds of wackestone, as described later in this chapter.

<sup>83</sup> Osborne and Summers 2014.

breached the doors in the first façade. This architectural feature was repeated at the Monumental Entrance even though there, in other respects, defensive concerns were of less obvious importance.

## CHRONOLOGY

It may be useful here, at the expense of repetition, to restate what is understood of the sequence of construction at the eastern end of the Palatial Complex. The first phase was the construction of Structure A, with its two connected towers supported by a stone glacis. Such evidence as there is points toward the erection of this monument, bearing all the characteristics of defense, on previously unoccupied ground early in the foundation process of the city. This edifice was, as described in preceding pages, altered by the cutting through of the glacis on both the northern and southern sides and, at the south, the construction of stepped terraces labeled Structure B. These terraces were built over the stone-paved street that sloped upward to an entrance into Structure A and the buildings behind it. It is highly probable, but not certainly proven, that Structure B was made prior to the construction of the Monumental Entrance, it being likely that this remodeling was in some way connected with the building of the Audience Hall and the stone pavement that ran up to it. In a third phase of development the two platforms and associated features of the Monumental Entrance were built. At the other end of the time spectrum, the entire city came to an abrupt end when it was looted and many of its monuments smashed before or at the same time as it was put to the torch. General views of the destruction may be found on plate 82. Here, as in other parts of the Palatial Complex and indeed elsewhere within the city, tumuli comprising stone cist graves in the top of mounds of rubble were constructed on the Iron Age ruins.<sup>84</sup> At the Monumental Entrance there was evidence of further activity in yet later times when searches were made for treasure. Among this disturbance was a single inhumation grave of Byzantine date (see chapter 11). Finally, at some yet more recent date, rough stone walls of a square structure, perhaps no more than a simple pen for animals, were built in the base of the robber pit on top of the South Platform.

To recap, such evidence as can be adduced for dating suggests that the city was founded in the second half of the seventh century BC, with Structure A perhaps belonging to a very early stage. Adaptations to this first scheme, including the building of the Structure B terraces and the Audience Hall, are unlikely to have commenced before completion of the 7 km long city defenses. Because there is little sign of weathering on the masonry, carved architectural elements, and stone idols, it is probable that construction of the Monumental Entrance—a remodeling that marks the final phase of development—was not undertaken many years before the destruction of the city. The date of the destruction has been connected with the conflict between King Croesus of Lydia and Cyrus the Great of Persia that is traditionally dated to 547/546 BC. Following the destruction there is no indication of any building activity within or adjacent to the Palatial Complex until the construction of tumuli in the late Iron Age or Hellenistic period.

## STRATEGY AND METHODS

In 1999 it was a surprise to learn that there was no ramped or stepped entrance to the eastern end of the Palatial Complex between the two stone towers of Structure A. Instead, it was discovered, the towers were connected to one another by a substantial stone wall with the whole of the tall, eastern front supported by a continuous stone glacis. In the following season, at the same time as the northern half of the glacis was being uncovered, a small clearance trench, CT30, was opened to expose a group of large stones visible on the surface some way behind the southern tower of Structure A. These granite blocks, which had been partially exposed by treasure hunters in the not too distant past, looked to be in situ (pls. 10, 90). It was thus disappointing to find that the visible stones rested on a layer of very loose and highly burned small stones and other debris. Because of this circumstance CT30 was abandoned. In 2001 it became apparent that these stones were in fact part of the northwestern corner of the North Platform and that the burned debris found beneath the granite blocks was in actual fact the filling of large voids where wooden beams between masonry courses had burned away during the general

<sup>84</sup> Summers and Summers 2008.

destruction. To return to the year 2000, as soon as the excavation permit was issued, while clearance of the glaciis was being completed, the first trench, TR01, was laid out so as to examine the outer faces of the lowest terrace of Structure B and to follow the southern terrace wall eastward in the expectation of discovering an entranceway of some kind. As the aerial photographs and GPS imagery show (pls. 5–7), no sense could be made of the visible rubble because, as only became clear much later in the process of excavation, there was much disturbance caused by tumulus construction and later looting. Additionally, attempts to trace subsurface features by survey with a fluxgate gradiometer were totally unsuccessful because this method cannot work when there is a deep overburden of loose stone. As a result of all these factors the presence of the Monumental Entrance was unsuspected. In TR01 inclined stone paving was revealed immediately below the surface, in response to which the trench was extended in stages so as to trace the extent of the pavement. Additionally, a narrow extension was made across the street to the southeast as far as the boundary wall of the great triangular compound that occupies a huge area to the southeast (pl. 10). The purpose of this extension was to permit examination of the street surface as well as to provide evidence pertinent to the question of the original height of the boundary wall (pl. 91a). In front of the Entrance on the northern side a 1 m wide extension of TR01, in which the south face of Structure B had been revealed, was continued westward to trace the top of the large cut stones. These stones turned out to be the uppermost preserved face stones of the North Platform. The very loose stone fill above the pavement was found to increase in depth as work proceeded westward, while the unstable sides of the narrow trench had to be battered to prevent them from collapsing. As a result, for reasons of safety, it was not possible to uncover the pavement up to the east face of the North Platform or to reveal its southeastern corner within the narrow confines of the trench. This situation is shown in the photograph of TR01 (pl. 25d) and section through the Monumental Entrance (pl. 71b).

By the end of the 2000 season it was understood that the entrance comprised a wide passage flanked by platforms (termed “towers” in early reports), that the inclined stone paving led toward what had in that same season been identified as the Audience Hall, and that the architectural scheme was monumental in scale. The program of excavation designed

for subsequent seasons was to excavate the northern half of this impressive entrance. There were two reasons for this approach. The first reason was to provide an east to west section through the entire long axis of the entrance and all the way up to the doorway in the front façade of the Audience Hall. The second consideration was to leave the southern half of the entrance unexcavated for a future generation. This strategy of excavating one half of a structure while leaving the other half untouched has been generally adopted at Kerkenes from the start of test excavations in 1996. As it happened, the goal of excavating a section all the way to the front of the Audience Hall was never fully realized, partly for want of time, but also because it became clear that the upper, western end of such excavation would fail to provide any useful information since stone paving, where it was preserved, lay immediately below the vegetation, with some pavers partially visible on the surface. The intention of leaving the southern half of the entrance unexcavated had to be abandoned following the 2003 campaign when fragments of small-scale relief sculpture, Paleo-Phrygian inscription, and carved architectural stone were recovered. There were two reasons for deciding that the entire portion of the Monumental Entrance lying to the east of the front façade, here called the Gate Court, should be fully excavated. The first reason was that, had the area been left as it was, curiosity and the ubiquitous belief that gold was to be found would have inevitably led to destruction of the archaeological levels as well, doubtless, as loss of the sculpted and inscribed fragments. The second reason was that the fill of the court was very loose and contained many very large stone blocks (pl. 89). Vertical trench edges would soon crumble and, more seriously, were hazardous. Of course, recovery of more inscription and sculpture made total excavation very attractive, but this possibly had to be set against the inevitable loss of the fine masonry that, as described below, rapidly disintegrated once it was uncovered. Therefore, in 2004 and 2005, the final season of excavation at the Palatial Complex, TR15–TR19 were laid out to embrace the southern side of the entrance with TR15 extended southward in order to investigate the top of the South Platform. In these same two campaigns TR14, TR20, and TR21 were positioned so as to examine the inner side of the entrance and the large paved space between the Monumental Entrance and the Audience Hall (pl. 10).

Numerous unforeseen difficulties arose during the process of excavation. Had there been any inkling as to what lay beneath the ground at the start of work, second thoughts about embarking on excavation at this location might have halted or at least delayed it. Be that as it may, work was begun, and, once started, there was no alternative but to bring it to a full and satisfactory conclusion. Furthermore, if discovery of smashed sculpture, inscription, and architectural embellishment, all cut from soft sandstone, had been anticipated, a system would have been devised to lay out and sort all sandstone fragments in the large level area southeast of the trenches. Whether such a procedure would have resulted in significantly greater reconstruction of large stone idols and the few big blocks with carving that are only represented by fragments may be doubted. It would, however, have made the tasks of sorting and join finding both easier and more efficient. We are as confident as we can be that preserved fragments of inscription, relief sculpture, and statuary within the excavation area were all recovered.

Excavation was complicated by additional factors. First and most importantly, it was not realized until close to the end of the 2003 season that most of the loose stone fill in the entrance had been highly disturbed by looters. Added to this circumstance was the complication that where plunderers had dug into the top of the rubble core of the South Platform the upcast had been thrown down into the Gate Court. The North Platform, probably used as the base for later tumuli as well as being subjected to robbing, was not investigated because one result of these later activities was that stone had been heaped up to form a pile that rose to an elevation well above the original level of the North Platform top. The general result of robbing and disturbance at the Monumental Entrance, the processes of which are described later in this chapter, was that very few of the carved and sculpted stone pieces were found where they had fallen in the course of the destruction and fire (pls. 91b, 92a). For the present purpose it suffices to note that unit numbers were assigned in the field to what appeared to be differences in the fill or simply to provide control over the removal of sandstone pieces to ease the tedious business of sorting and join finding. Therefore the unit numbers (appendix 4), and thus the units of excavation themselves, bear little or no relation to the actual stratigraphy. Essentially, there are two stratigraphic units above the court pavement: *in situ* material that fell

during or immediately after the fire, and the deep loose stone fill that was churned up by later looting activities (pl. 72).

At the close of the 2003 season TR11 was back-filled to preserve both the section along the axis of the entrance and such of the masonry of the North Platform as remained in place. The processes of backfilling at the end of one season, then of removing the backfill at the start of the following campaign, provided two welcome opportunities to make a diligent search for sandstone fragments that might have been overlooked before the existence of carved and inscribed fragments had become known. No more than a single fragment of a bolster end or curl from an idol was recovered during this exercise. Following the discovery of the first piece of inscription in 2003 all sandstone fragments were set aside and carefully examined. This procedure was continued in 2004. Every sandstone fragment with a feature or possible feature was taken to the excavation depot. Featureless fragments were placed in sacks and then stacked in a discrete area, bounded by a new dry-stone wall, located next to the main stone dump to the southeast of the excavation area, where they are to this day. This approach was adopted because the vast majority of sandstone fragments belonged to large building blocks that had shattered during the fire. These shattered blocks had often been further fragmented by stone robbing and looting. In the final (2005) season, more of the collapse material close to the South Platform was found to be undisturbed than had been the case elsewhere. Here very many small sandstone fragments, mostly flakes that had split off from the faces of large masonry blocks during the fire, lay in a black "greasy" deposit of ash and charcoal immediately above the pavement. These stone fragments required careful washing before carved features could be recognized. In response to this situation all sandstone was put into crates and ferried by Land Rover to the excavation depot, where it was washed and examined. Wear and tear on the vehicle notwithstanding, it was more practical to take dozens of heavy crates per day to the excavation base than it would have been to take water and personnel to the excavation area because of the difficulty of towing by tractor even a modest tanker full of water up from where the track passes through the city defenses. In 2011 the possibility of loading into tractors all the sandstone that had been put into sacks and stored on site was contemplated so that, given that a good understanding

of the sculpted fragments and architectural blocks had been gained, it could be examined one last time at the excavation depot. In the end, resources were insufficient for this task, while broad opinion among team members working with the material agreed that potential gains were unlikely to be of sufficient significance to justify the time and effort involved. The situation at the end of 2012 was that, in addition to the sandstone left on the site, architectural blocks with carved features and recognizable idol fragments were either stored in the purpose-built excavation workshop or had been taken to the Yozgat Museum. As to other burned remains, large blocks of fire-altered material are stored in the workshop, while samples of different burned building materials, including mudbricks, mud with reed and timber impressions, and other samples are stored in the excavation depot. The most enlightening examples of this burned debris are cataloged in chapter 8 of this volume.

Enormous effort was put into sorting sandstone fragments and join finding. Byzantine disturbance had mixed most of the fill so that it was only during the final, 2005, season of excavation at the Monumental Entrance that a large portion of a single idol block, Idol Block 2, was found smashed where it had fallen (pl. 82). It was not, however, until 2006 that the two-sided form of these idols was understood. Thereafter the team was faced with a jigsaw puzzle comprising an unknown number of large double-sided idols, each one more than 1 m in height. No one idol is fully complete, but it has proved possible to reconstruct them on paper and in a single case to make a restoration for museum display. On the other hand, some of them, particularly those that appear to have stood on the North Platform, are represented by no more than a handful of recognizable fragments. Heat and fire had altered not only stone color but also texture. It is due entirely to the remarkable skills and perseverance of conservator Noël Siver that such a large number of joins have been made. While there are doubtless more fragments that could be fitted together, a decision had to be made about where to draw the line under the tedious job of finding more joins in order to shift the focus of work toward restoring the best preserved of the idols for display at the Yozgat Museum. By 2010 it was agreed, somewhat reluctantly, that the finding of further joins was consuming more time and energy than could be justified by dwindling results. In 2017, however, new joins revealed that Idol Block

1 is in fact an L-shaped block with arms of equal length and idol faces carved on all four sides. Pieces of smashed idol found at the base of the South Platform probably lay where they had fallen from the northeastern corner of the South Platform, while the very fragmented small portions recovered from the shallow deposits next to the North Platform might also be from an undisturbed context. More idols very possibly lie buried in front of the platforms. Excavation here, however, would require devising some method of preserving and restoring the impressive masonry at the front of the platforms to be worked out in advance. Any method is likely to be extremely difficult and very expensive.

The dry-stone masonry of the platforms was found to be in very poor condition as a result of both the fire and the fact that the timber beams had entirely burned away, thereby leaving large voids between courses. Granite face stones appeared to be complete and uncracked when first uncovered, but as they dried on exposure to the air hairline cracks appeared, and it was not many hours before they began to fall apart. This phenomenon of the stone's breaking up as it dries seems to happen because when the horizontal beams burned away the heat altered and cracked the granite. All but the lowest course of these stones in the north face of the South Platform had tilted slightly forward as a result of voids that were created as the wood burned away. In 2002 the granite masonry of the southeastern corner of the North Platform could be seen to be well preserved. Because of its evident instability this corner was not exposed. It was to fall, nevertheless, bringing with it a considerable amount of the loose stone collapse and fill that had been left against the platform's front. Fortunately the fall hurt no one, but this dramatic incident was a timely reminder of the instability of the walling as well as of dangers inherent in uncovering it. Thereafter the safety of everyone involved in the excavation took complete precedence over recording. Sections, particularly the section through the very loose stone fill along the central axis of the entrance, were battened. These sections were then recorded by digital photography, with a number of points marked for image rectification. Rectified photographs were then printed out at a scale of 1:20. These printouts were taken back to the excavation, where they were annotated with acetate overlays used to make drawings of the stratigraphy. This method removed the necessity of having team members close to the dangerous trench

edges measuring and drawing in the more traditional manner. As soon as recording was completed, the slant of the batten was increased to reduce the risk of sudden collapse. Removal of the rubble fill from the court meant that face stones had, wherever possible, to be propped up in position with timber so they could be recorded in as much detail as was compatible with safety. In this respect the wall of the South Platform was more problematic than the central section of the North Platform, which was only preserved to a height of about 1 m above the pavement. One result was that the entire northern face of the South Platform was never completely exposed at one and the same time. Thus drawings of the wall faces were made at different times and under varying circumstances.

Following early, backbreaking attempts to draw large areas of inclined stone paving at a scale of 1:20 with the aid of planning frames, a method was developed of using digital photographs that could be rectified using Aerial software and GIS so the stones could be digitized on a computer screen. Printouts could, at least in theory, be taken into the field and checked on the ground. In practice, however, such verification was only undertaken if there was a particular issue to check or a problem to solve. Photographs were taken with small digital cameras from a simple stepladder, each frame covering a little more than 1 × 1 m in such a way that the 1 sq. m to be digitized was in the center of each overlapping frame with a sufficient margin on every side to minimize the effects of lens distortion and camera tilt. Attempts at laying out and marking a 1 m grid on the pavements were soon abandoned in favor of marks made at convenient points in more or less 1 m squares, with each of the four corners being marked in indelible ink. Points were surveyed with a total station. Today similar methods have become ubiquitous, but in the first five years of the twenty-first century, recording in this way (rather than by photogrammetry) with readily available and relatively inexpensive equipment and software was in its infancy.

## EXCAVATED COMPONENTS

The main excavated components of the Monumental Entrance are each described in turn, together with their structural relationships with other components. These detailed descriptions are followed

by an overview and summary of the development of the entrance. Then comes an assessment of the Monumental Entrance as it seems to have been immediately before its destruction. Next is an account of the destruction and fire. This discussion includes evidence concerning how much had been purposefully damaged before the Monumental Entrance was burned, together with observations on the fire. Later activity, including tumulus construction, the evidence for looting, and the activities of shepherds, close this chapter.

## The North and South Platforms

The two platforms that flank the entrance were, in as far as details have been revealed by excavation, very similar to one another. Because of later disturbance their outlines were not revealed by balloon photography, while the massive stonework did not lend itself to the methods of geophysical survey available. As the preceding account of methods and strategies sets out, the existence of this Monumental Entrance was not anticipated prior to the commencement of excavation. The true nature of the platforms was only gradually revealed as work progressed. What little remained of the masonry face of the southern side of the North Platform was uncovered in its entirety (pls. 71, 84). None of the face of uncoursed walling to the west of the front façade was found to be standing. The blocks in the front portion were very poorly preserved. As to the South Platform, only the portion to the east of the foremost façade was examined (pls. 70, 73, 76b, 77a). Each platform measures approximately 13 × 16 m, thereby covering about 200 sq. m. The width of the paved court between them is approximately 11 m. They are aligned a little to the south of east. The difference in the elevation of the pavement between the front and back of the platforms is a little less than 2 m (pl. 73). This difference surely reflects outcropping bedrock within the core of each platform. Some bedrock was probably reduced and hollows filled so as to create an even slope when the Audience Hall was constructed and the initial phase of paving laid. At the southeastern corner of the North Platform (pls. 71, 77b, 81b, 84) and the opposite corner of the South Platform (pls. 73, 83b) the masonry at the front perhaps approached 3 m in height, while at the back it may have stood no more than 1 m, or two courses of facing blocks. The southern side of the South Platform, which has not

been exposed, would have been taller because here the ground drops further away. At the northern side of the North Platform indications are that an estimate of 1 m might not be far from wrong, while toward the northwestern corner the ground again fell away, with the result that several courses of large face stones might have been required at the corner. Nowhere has the base of the facing stones been revealed because to do so would have involved lifting part of the stone pavement. Nevertheless, there is every reason to think that the large face stones were founded on bedrock and very compact subsoil.

The masonry faces of the platforms are in effect terrace walls. Those parts that were visible were built of level courses of faced masonry interspersed with large, about 35 × 35 cm, squared timber beams. Although the ground sloped down from west to east, the masonry courses were horizontal. At the western end the bottommost course visible above the pavement was of granite. On top of the granite were wooden beams that separated the silver-gray stone from a course of yellowish sandstone (Yozgat Taş). This was followed in turn by another row of beams below a course of soft white limestone. The top of the granite was level along the entire length of the inner sides of the platforms and, from the glimpse gained during clearance, this was also the case along the front. Because of the incline there were two courses of granite, with beams between them. At the northeastern corner of the South Platform there would have been two courses in addition to which, as indicated by the beam at the base of the exposed corner stone where it is level with the pavement (pl. 73), there is a third course that was not exposed. If the lie of the ground is an indication, the number of courses would have been increased along the front to as many as four at the southeastern corner. It is not inconceivable that along the southern side of the South Platform, where the ground drops away, a supporting glacis is concealed beneath the steep bank. With regard to the North Platform, there seem to have been three courses of granite blocks at the southeastern corner. It is thought that the single course of yellowish sandstone followed by a course of white stone was placed along the platform sides as far as the front façade and was carried around the fronts of both platforms. It is not, however, certain that there was a strict distinction between the

sandstone and the limestone, because none of the limestone blocks were found in position. An added complication is that, while the sandstone is generally yellowish in color, some pieces were distinctly greenish. The color of much of the stone had been altered to a greater or lesser extent by the fire, but both yellowish and greenish rock are common in the local beds of Eocene stone, as is the distinctive, fossiliferous, white limestone. However, the very white appearance of the walling seen in many of the photographs is the result of carbonates that have been deposited on the surfaces over the last twenty-five hundred years. The squared wooden beams were apparently flush with the wall face.<sup>85</sup>

Each course of masonry is of approximately the same height, the precise dimension of each course being maintained along its length. Where possible, blocks had rectangular faces with inner faces flush with one another—in a style much closer to a true ashlar style than is seen at the Ashlar Building or indeed anywhere else at Kerkenes where masonry has been observed. Where suitable blocks were not available, especially with regard to the granite courses, additional stones, too large to be termed “plugs,” could be shaped to fit on top of a stone, the upper surface of which was smoothed to receive it, or trimmed into a triangular shape to compensate for a sloping block end (pls. 73, 92b–c, 93). The granite was faced by pecking and hammering, and perhaps smoothed by rubbing. There were no drafted edges and no indications that iron chisels were used. The very much softer sandstone was easier to shape, trimming being done with a variety of single-pointed and bladed tools. Smaller rectangular blocks could be shaped to fit a space in a course where the large block had a corner trimmed away to receive it. Wall faces were vertical. There was no trace of rendering.

The high-quality masonry was surely intended to be seen. Just beyond the front of the foremost façade, the high-quality, ashlar-like wall faces gave way to uncoursed granite construction of angular medium-sized stones, the two styles being separated by a substantial timber upright that had burned away (pls. 73, 83a). Horizontal timbers continued to be embedded in the wall faces but were less substantial and not necessarily squared. Between the two façades the walling would have been hidden from

<sup>85</sup> At the Cappadocia Gate rounded beams were set back from the wall face and wedged in position with small stones and the entire wall face rendered with mud plaster.

view behind the small room on the northern side and its presumed counterpart on the south.

The Monumental Entrance has provided the only evidence at Kerkenes up until now for the use of swallow-tailed clamps to hold facing stones in position. Clamps were of wood, a single charred example being found in position (pl. 219a). In a singular case, a row of small neat clamps had been employed to mend a granite block that had obviously cracked or broken while being maneuvered into position (pl. 216). The effort it must have taken to cut the clamp holes, the skill required to make the cuttings without further damaging the block, and the fact that the masons bothered to use clamps at all indicate the care that went into the construction as well as the quality of the workmanship. Clamps and their use are discussed more fully in chapter 8.

Large, semi-iconic, double-sided, sandstone idols seem to have been set up along the front edges of the platforms as well as along the front portions of the sides to the east of the freestanding columns. These two-sided idols may very possibly have resembled battlements, but, as described in chapter 8, the projecting curl of Idol Block 2 demonstrates that they could not have stood shoulder to shoulder. While other arrangements are of course possible, one block with raised curved bands (04TR16U08arc02, etc.) probably fell from the northeastern corner of the South Platform. Two sandstone pieces that might or might not have been elements of a single monument, namely, an inscribed block with small-scale relief sculpture depicting genies beneath a winged disk (K03.168) and a small-scale bolster slab (K03.167) are likely to have been thrown down or fallen from the South Platform, but it is not entirely impossible that they stood elsewhere in the entrance.<sup>86</sup> If they were indeed set up on the South Platform they would seem to have been located to the west of the freestanding column or to have been thrown down from a point roughly equidistant between the first façade and the platform front. A three-quarters life-sized statue of a draped figure (K04.182) may have stood on the idol block at the corner of the platform. Two heavily burned fragments forming the extant top left-hand side of the head of the statue were found in the black burned debris immediately

above the pavement close to the northeast corner of the South Platform in TR17. These two fragments had come to rest before or, more probably, during the fire, thus proving that the statue came to be broken before or prior to the conflagration and that at the time of the destruction it was standing somewhere within the Monumental Entrance. There is no reason to suspect that either the statue or the idols were standing anywhere other than in their original positions.<sup>87</sup> Wherever they were erected, regardless of the precise arrangement, these pieces showed no signs of weathering, an observation that might indicate they were protected by some kind of shelter. Black deposits on the pavement, in which inscription fragments were recovered where they had come to rest during the fire, included charred reeds or thatch, and there were many fragments of burned mud containing the ghosts of bundles of reeds and impressions of flat timber elements. Most of or all of this debris is thought, however, to have come from the front façade rather than from structures on top of the platforms. Had this material come from the platforms, the deposit would have been thicker close to the platform walls than in the center of the entrance, which was not the case. Black burned marks visible on the pavement when it was first uncovered demonstrated that the front façade had fallen forward as it burned to ashes.

### Location and Arrangement of the Idol Blocks and Medium-Sized Bolsters

The large number of joining and nonjoining fragments that were recognized as belonging to large, two-faced, sandstone idols made it impossible to understand either how many there had been or how they were arranged. However, during the 2017 campaign at Kerkenes, Ben Claasz Coockson noticed an important new join in what had already been identified as a corner block. This discovery has clarified several outstanding issues, including the total number of idol faces and thus of idol blocks. At the same time, it has brought into focus their original arrangement on the South Platform and, by analogy, on the North Platform. In a secondary development precipitated by the first, it has become apparent that

<sup>86</sup> Draycott et al. 2008.

<sup>87</sup> In some earlier reports, before the discoveries of 2005, the idea was mooted that the statue could at some later time have been brought from elsewhere in this area of the city and smashed during the robbing and looting of the Monumental Entrance. The discovery of these two burned fragments in situ in the destruction debris dispelled any such notion.



sandstone blocks with medium-sized engaged bolsters interspersed with bolster ends in relief were located beneath the idol blocks, the total length of the idol blocks being approximately the same length as the estimated total length of the bolster blocks (pls. 95–96). They could in fact have been precisely the same, but the reconstruction shows our best estimate. These satisfying advances necessitated completely rewriting this part of the volume and making adjustments to other parts of the text. New drawings and photographs have been made. While not all the difficulties in understanding the original aspect of the Monumental Entrance have been resolved, considerable progress has been achieved, and a tentative reconstruction of its southern side has been made. At the present time the fragments of idol blocks are dispersed between the Yozgat Museum, where the restored Idol Block 2 is currently on display, and the excavation finds depot at Kerkenes. In the light of the new understanding, it is highly probable that more could be done with regard to finding joins as well as assigning nonjoining fragments to particular idol faces should it be possible to bring all the pieces together in a large working space. Satisfying though this exercise might be, it would be both logistically and bureaucratically difficult. Furthermore, it is doubtful that sufficient new insights into either the number of idol faces or their original arrangement on the South Platform would be forthcoming to justify the necessary time, effort, and expertise to do so.

All the fragments of idol blocks recovered from the southern side of the Gate Court were recorded as coming from TR16 and TR17b, the majority from the latter, as shown in table 7 (chapter 8). It seems now to be certain that an L-shaped block (Idol Block 1) stood on the edge of the northeastern corner of the South Platform. Furthermore, it is apparent that the idol blocks were placed directly on top of bolster slabs. The greater degree of fire damage seen on the bolsters than on the idol faces strongly suggests that there were wooden beams on the topmost course of sandstone blocks in the South Platform wall and beneath the bolster blocks exactly like the other beams that were employed between the lower courses of masonry. This arrangement is shown on the reconstruction drawing (pl. 96). There are no traces of clamp or dowel cuttings in the idol blocks,

the weight of each piece being sufficient to anchor it in place.

The major problem with this reconstruction is that while much of the front (eastern) arm of the corner block is extant, there is much less that can be ascribed to the arm on the side of the Gate Court. This paucity can be explained only by a combination of factors, particularly the way in which the block fell and broke as well as post-destruction disturbance. In this case the corner block would have broken in such a way that the arm on the court side was on top of, or down from, the pile of fallen masonry shown in plate 82. There do seem, however, to be sufficient floating fragments of band, face, and curls to support the arrangement suggested here, with no obvious alternatives. Reference to table 7 also shows that a few small pieces were found in TR11, in the northern part of the Gate Court, thus demonstrating that there was an arrangement of idol blocks on the North Platform similar to that on the South Platform.

With regard to the South Platform, the portions of the idol that were recovered by excavation stood, as already shown, on the northeastern corner and on the edge of the northern wall overlooking the Gate Court. It is highly likely that they extended along the front of the platform and that excavation would reveal more examples in the bank of fallen masonry. Whether they continued along the entire length of the platform front is unknown. At the Cappadocia Gate it was discovered that sandstone blocks had been used to embellish the corners of the pair of towers flanking the front of the entrance. At the Monumental Entrance idols might have been set up only on corners.

The idol blocks taper toward the top. The front sides, that is, the sides facing out from the South Platform, both forward and to the side overlooking the Gate Court, are vertical, while the inner sides are slanted. This difference between the two sides of each of the idol blocks was undoubtedly deliberate and must therefore have had some conceptual purpose. One possible explanation concerns how the idol faces were viewed. It is worth remembering that the statue of a draped figure which was also set up on the South Platform is sculpted in such a way that it appears to look slightly downward, presumably to meet the gaze of viewers from the Gate Court.<sup>88</sup> The vertical idol faces would have been viewed from similar vantages but could not have been carved to look down. The inner

<sup>88</sup> Draycott et al. 2008, pls. 12, 14, 74.

faces of these same idols were, however, viewed from the platform top. The slant given to these inner faces would have resulted in their looking slightly upward, toward a person looking directly at them from a distance of a few paces away.

With regard to the corner block, the small engaged bracket at the inner corner is somewhat enigmatic. It might be partially explained by a desire to maximize the area of the top of the block, perhaps in relation to possible weakness caused by the cutting of the dowel hole. The first thought is that this hole was intended for a wooden post to which, for instance, an awning might be attached on special occasions. However, the inner engaged bracket, which had the effect of increasing the surface area of the top of the block, raises another, intriguing possibility. The shallow circular area trimmed (not worn) down around the square cutting suggests the possibility that something stood on the corner—held in position by a square wooden dowel. There is a similar square dowel hole in the base of the statue of a draped figure. This configuration would imply that the overhanging inside corner, the square hole, and the shallow circular depression were all part of an original design to house some kind of image.<sup>89</sup> If that were the case, it would be unique in that among the many representations of these types of idols carved into rock in the Phrygian Highlands, none show them supporting any other kind of image.

## The Façades

Two façades were built between the platforms, one in the center of the Entrance and one at the rear. They appear to have been very similar to one another and may therefore be described together. They were approximately 10.5 m in length and 2 m in depth. Five large paving stones in front of the threshold of the front façade demonstrated that the doors were 4 m wide (pls. 70, 77b), each leaf of the double doors being, at 2 m, the same width as the façade itself. In the rear façade the doors were located at the inner side. Here an aniconic granite stele was set up against the vertical northern architrave, thus indicating that these doors were identical to those at

the front. The front edge of the foremost façade was in the center of the platforms on both sides, while the inner edge of the rear façade was slightly in advance of the rear end of the platforms. The distance between these two façades was 4 m, equal to their combined width.

It is reasonable to assume that these façades contained elevated walkways above the doors that permitted movement between the platforms, as the similar façades at the Cappadocia Gate must surely have done. If the evidence of contemporaneous rock-cut architectural façades in the Phrygian Highlands is pertinent, these monumental façades at Kerkenes would have been as tall as they were wide, that is, some 10 m, which is probably too tall.<sup>90</sup> Although there is no evidence for doing so, it is tempting to posit pediments on these façades, in which case they would have resembled the rock-cut façades. In the Highlands pediments over the larger and more elaborate façades have a low pitch because they represent buildings that carried heavy terracotta tile roofs.<sup>91</sup> At Kerkenes, however, double-pitched roofs were thatched and, therefore, would have been steeper. The apex of any pediment might possibly have been provided with an akroterion.<sup>92</sup> The combination of multicolored masonry, sculpted orthostats, and akroteria at Gordion is the strongest evidence that can be brought to bear in support of reconstructing pediments at the Monumental Entrance at Kerkenes.

The façades were built of substantial timbers infilled with mud. The base of the façades was composed of loose stone rubble, exactly like the Cappadocia Gate façades, which was presumably designed to keep the wooden thresholds dry. Also as at the Cappadocia Gate, no door sockets could be identified even though the position of the pavers in front of the first threshold indicated the precise position of the doors. As the elevation of the northern side of the South Platform shows (pls. 73, 83a), the front façade was tied into the stone platform. Other than that, however, nothing was recovered that indicated how the frame was constructed. Burned clay with the ghosts of burned reeds, sometimes in bundles,

<sup>89</sup> Draycott et al. 2008, pl. 13. The statue is now thought to have stood on this corner of the South Platform.

<sup>90</sup> Berndt-Ersöz 2006; Berndt 2002; Sivas 1999. Haspels 1971 has a higher dating which may be disregarded for reasons clearly set out by Berndt-Ersöz and, earlier, Akurgal 1958 and 1968.

<sup>91</sup> Summers 2006c; see also Summerer 2005 and Glendinning 2007.

<sup>92</sup> For a stone akroterion thought to have been associated with a ninth-century gate structure known as the Polychrome House on the Old Citadel at Gordion see Sams 1989.

could have come from an elevated walkway on the first façade, being either flooring or roof. It is reasonably certain that the entire space between the two façades was not roofed, although the small room, as described below, was probably covered with thatch. Very large chunks of burned and fused infill, comprising clay and fist-sized stones, were found associated with the front façade (pl. 81a). The largest piece is shown in the section drawing (pl. 72b, hatched toward the right-hand end of the drawing). The best examples are included in the catalog of burned debris (pls. 165–170). It was not, however, possible to gain any idea of how the façade was constructed beyond the obvious fact that the frame was made of large beams. Scorch marks on the pavement were noted during excavation (pl. 74b), but no structural pattern could be recognized.

There was, on the other hand, abundant evidence for the use of iron, almost all of which was recovered in excellent condition. Drawings, photographs, and descriptions are provided in the catalog, but here it is apposite to consider how these elements were used. First we can consider the bands that were found replete with large dome-headed nails. The complete and well-preserved examples were discovered in exceptionally loose and highly burned stone rubble adjacent to and parallel with the face of the South Platform. These two bands were found where they had been at the time of the fire when they were affixed to the wooden components that had burned entirely to ash. Extracting these bands was very precarious because of the dangerous condition of the wall face. Fragments of very similar bands were recovered from the rear of the monument. These additional pieces, also apparently belonging to two bands, were much more fragmentary and corroded because they came to be buried in clayey soil close to the surface. These additional pieces confirm that these iron bands were associated with the façades. Similar but smaller bands were also found in association with doors at the Cappadocia Gate. It may plausibly be assumed that each band was part of a wooden door, as discussed in conjunction with their detailed descriptions in the catalog. If this was indeed the case, the most likely explanation for the position in which the two complete bands were found is that the doors had been taken down and stacked against the platform wall before the fire. This piece of evidence is particularly important in that it adds considerable weight to the hypothesis that there had been looting of the Palatial

Complex before it was put to the torch. It can easily be imagined that the wooden doors and other parts of the façade would have been embellished and that the doors were taken down in order to remove valuable metal. One hint of possible embellishment of this façade is the pair of ibex cut out from copper alloy sheet (pls. 128–131), the rear halves of which were found directly on the pavement just to the east of the North Platform. These were probably adorsed animals, flanking perhaps a sacred tree, which very possibly adorned the pediment. One large iron bracket found with its dome-headed nails in place must surely have come from the façade. While the precise purpose of this singular piece is unclear, its size, together with the size of the nails, indicates that it was structural. The majority of the swallow-tailed iron clamps, all of the same size, were found on the court pavement or in the disturbed rubble above, with a few more fragmentary examples coming from the rear of the entrance. Their precise purpose is unknown. The presence of the nails demonstrates that they were still embedded in the timber at the time of the fire. They must therefore have been used to strengthen timber joints in the façade. Such use of iron in wooden architecture has not been recorded elsewhere in Phrygian architecture.

## The Space Between the Façades

The space between the façades was 4 m deep, which is equal to the combined width of the two façades, and about 10.5 m wide (pls. 70, 75). Thus the total area was some 42 sq. m. Only the northern half was excavated. The central area was paved, the pavement being slightly wider than the threshold in the front façade, while most of the northern portion was taken up by a room measuring 2.8 m east–west and 3 m in the other direction. There was a very narrow gap between this room and the rear façade and, at 0.8 m, a larger gap between it and the front façade. The room was entered from the central passage, the doorway being toward the eastern end, as indicated by the position of the stone step. Narrow walls, only 0.4 m or the width of a mudbrick, had stone footings that rose a few centimeters above the pavement. Walls were built of mudbrick, probably filling a timber frame, but the burning here was not particularly intense, and little was preserved above the wall footings. The floor was of earth, burned hard and covered by a thin coating of gray ash from, presumably, a thatch roof. There were no internal

features and no finds. It seems reasonable to reconstruct a similar room on the southern side. There was nothing other than the narrowness of the walls to indicate the height to which this room stood. The remainder of the space was open to the sky. Nothing was recovered from the pavement, which lay buried quite close to the modern ground surface.

## The Pavements

Following this general comment on the stone pavements each of the paved areas is described in turn. The pavement in the Gate Court was laid in several phases and subphases and was doubtless subject to repair. While some of the phasing is reasonably obvious, some is not. As ever with these types of pavement, it is not always a simple matter to distinguish between phases that represent alterations or extensions separated by time and divisions that represent the progress of work within a single scheme. Repairs further complicate disentanglement of discrete phases. One yet further difficulty is the relative chronology of discernible phases of paving that are not contiguous; how, for instance, does the pavement at the eastern end that was added to the first street leading up into Structure A relate in time to paving elsewhere? Because of these complications, it has not been possible to present a series of plans that demonstrate each of the recognized phases in sequence.

### The Paved Street to Structure A

The earliest of the pavements was the gently inclined street that led into Structure A, the northeastern edge of which was edged with a row of particularly large pavers, with stones having a straight edge selected or being roughly trimmed (pl. 70). The largest of these stones is in excess of 1.5 m in length. Structure B was built over this pavement, as was proven when a part of the edge was revealed in the bottom of the sondage excavated in the lowest terrace. Here the pavement could be seen to continue in a northwesterly direction beneath the terrace fill, as described in chapter 2. This paving seems to have begun from the edge of the street that ran next to the enclosure wall of the compound to the southeast, two stones of the large edge stones at the bottom of the gradient having been displaced. If all the large paving stones to the southwest of this line were part of the original pavement, the original width would have been no less than 7 m. One unanswerable

question is whether this pavement was simply the surface of a paved road or was an inclined paved court in front of the entrance to Structure A that could have been used for purposes not dissimilar to those of the later court in front of the Monumental Entrance.

### The Eastern Paved Area

To the northeast of the first pavement a paved area abutted the large edging stones of the earlier phase. These stones petered out toward the street to the southeast while extending for a distance of no more than about 3 m north of the corner of Structure B. In the spring as well as after heavy summer rain this area is wet as a result of subsurface seepage. Structure B appeared to have been cut through this pavement, but it may simply have been that stones were not fitted tightly against the wall faces since the pavement stones themselves were small and angular, their surfaces not much worn.

### The Paved Street Leading to the Audience Hall

In the area between Structure B and the row of large pavers between the fronts of the two platforms lies a stretch of paving defined by two lines of setting stones that appears to have led directly to the front doorway of the Audience Hall (pls. 70, 71, 74a). This linear pavement tapers, being about 3 m wide at its lower end, increasing by some 0.8 m as it rises as far as the large stones that traversed it when the platforms were built. The axis of this stretch of paved street matches the alignment of the Audience Hall. This orientation is the central piece of evidence that can be brought to bear in support of the argument that the Audience Hall was built after the construction of Structure B had blocked the original inclined paving running up to Structure A. Between the platforms all this earlier paved approach was replaced.

The pavement itself comprises smallish stones of approximately the same size. It is likely that, even before the Monumental Entrance was built, the Audience Hall would not have been readily visible from an approach along the street from the east until Structure A and the corner of Structure B had been passed. The stone paving increased in width as it rose up the slope to the Audience Hall (pls. 70–71a). This perspective device would have emphasized the visual impact of the Audience Hall's imposing façade. One can only speculate as to what might have been placed to both sides.

### The Pavement in Front of the Entrance

Following the building of the Monumental Entrance the pavement leading to the Audience Hall, just described, was extended to both sides in a very similar style, with the result that only the lines of setting stones differentiate the two phases (pls. 70, 74). How far this pavement stretched to the south is unknown, but where its edge was approached in TR01 and TR19 it appeared to be poorly preserved close to the street. At its western limit this paving was laid against the line of large pavers running between the fronts of the two platforms (pl. 77a). At its south-western corner, however, it appeared to merge with the paving between the platforms. It was not possible to decide whether the stones here had been laid contiguously or there had been an extensive repair.

### The Pavement between the Platforms

The pavement between the platforms included a row of unusually large stones along its front, eastern edge with the exception of the area adjacent to the northeastern corner of the South Platform just mentioned. At the upper, western end, five large pavers, badly cracked by the heat of the destructive fire, were selected for installation against the massive wooden threshold of the front façade (pls. 74b, 77b). Generally the pavers in this Gate Court were more varied in size and less carefully laid than elsewhere. No attempt was made to fit snugly the pavers against the wall faces of the platforms or around the preserved plinth.

### The Pavement between the Façades

Flat and level paving was laid between the two façades, interrupted by two raised stone steps in front of the doorway into the chamber on the northern side (pl. 79b). There was no selection of large stones to butt against thresholds in the façades. Stones between the room and the front façade are hardly deserving of the term paving. The southern limit appears ragged on the plan only because of the impossibility of cutting a straight and vertical edge to the trench through the very loose stone rubble fill.

### The Pavement between the Monumental Entrance and the Audience Hall

Paving between the Monumental Entrance and Audience Hall was not well preserved (pls. 75, 79b). A patch had been destroyed around the northern column base when looters dug beneath it, and a large area within TR20 was missing. It is, however,

certain that the pavement extended right up to the front of the Audience Hall. While it is not known how expansive the paving was to north and south, it generally seems at Kerkenes that external surfaces within urban blocks were paved. Results of the geophysical survey at the Palatial Complex give no reason to think that it was otherwise here. Set into the pavement was a neatly constructed stone drain that was slightly curved in plan (pls. 75, 79b, 86b). The position of this feature makes clear that its purpose was to deflect water running down the slope from the west away from the threshold of the rear façade. It may be doubted, however, that this drain would have been sufficient to keep away water during the torrential storms that are a common feature of Central Anatolia. The exposed section of this drain debouched to the north with considerable efficiency, as a trial with a bucket of water demonstrated. Where the water then went is unclear.

## INDIVIDUAL ARCHITECTURAL ELEMENTS IN THE MONUMENTAL ENTRANCE

### Freestanding Columns

Three sandstone column bases were uncovered, two of them set back a little from the front of the platforms and adjacent to them (pls. 74b, 76, 77, 85, 86a) and the third, presumably one of a pair, in a similar position at the back of the Entrance. This last one had been tipped up by later looters digging beneath it (pls. 79b, 87). All three of these bases had a shallow circular recess in which to fit the base of a large timber column. Dimensions are given in table 10.

The columns themselves were freestanding, possibly but not necessarily tied back to the platforms in some way. One piece of Austrian pine (*Pinus nigra austriaca*), partially carbonized but with a core of preserved wood and recovered from in front of the North Platform, was very possibly part of the northeastern column. It was found to have 197 annual growth rings but to be missing very many more. Fragments of large bolsters (pls. 207–209b) are thought to have broken off from the sides of stone capitals to these columns, but no other fragments of these capitals were recognized among the disturbed debris. Not one of these bolster pieces was found where it had fallen, all of them having been displaced by later robbing. It is assumed that the

bolsters were on the sides of the capitals, rather than the back and front, so that the concentric circles on their ends would have been seen. Although black pine trunks taper considerably from top to bottom, given a diameter at the base of no less than 80 cm there is no impediment to reconstructing the original height as perhaps attaining as much as 8 m. If the columns were indeed that tall, the capitals would have been at a greater elevation than the tops of the platforms.

## Plinths

Two rectangular sandstone plinths were installed at the top of the inclined court paving, close to but not flush against the front façade on both sides of the double doors. The southern plinth was found in position (pls. 73, 76, 83a). When first uncovered it was little damaged other than some traces of burning. It was made from a single block of pale yellowish-brown sandstone that included beds with large inclusions. All four faces and the top of the block were smoothed to the extent that no toolmarks were visible. Once uncovered the stone disintegrated rapidly as it dried out. The top measures 210 × 70 cm. The height of the smoothed front, 32 cm, is taller than the back on account of the incline of the pavement. How much of the base is below the pavement top is unknown. The plinth was trimmed and finished in situ once the pavement had been laid up to it (pl. 73). The second plinth on the north had been dug out and presumably broken by treasure seekers, no vestige of the stone itself being recognized (pl. 84a).

The location of two plinths indicates that they functioned as bases on which things were placed. However, no clues as to what might have been set up could be discerned on the top surface of the preserved plinth, nor were any traces found in the careful removal of the very loose debris around it. None of the carved or sculpted pieces recovered from within the court are likely to have been placed on them, because no fragments were recovered from the apparently undisturbed debris adjacent to the preserved plinth or in the general vicinity of the missing north plinth. Therefore, whatever stood on these bases was either removed prior to the fire or,

less likely given that there were no indications on the plinth top, entirely burned away.

## The Aniconic Stele

Set in the pavement and against the northern doorpost of the rear façade, facing the Audience Hall, was an aniconic granite stele (pl. 88). Immediately in front of this stele, set into the pavement, was a neatly made square “libation hole” at the base of which was granite stone made smooth by pecking. The stele itself was found lying on its face where it had fallen forward. The stone was not removed, but it was lifted to permit examination of the face, which was found to be devoid of any embellishment. Although the stele is formless it had evidently been shaped, with the result that the bottom had a crude and irregular tenon, while the top was very roughly rounded and the faces were flat.

Positioned against the doorpost, this stele was intended to be seen on leaving the Audience Hall by way of the Monumental Entrance but would have been barely noticed on entry. On the plan a second stele has been reconstructed against the southern doorpost, a conjecture based on the symmetry of column bases and plinth. At the Cappadocia Gate, however, a not dissimilar aniconic stele erected in a broadly equivalent position did not have a twin.<sup>93</sup>

## THE STREET AND THE BOUNDARY WALL TO THE SOUTHEAST

Like streets in general at Kerkenes, the surface of the street to the southeast of the paved area was, where investigated in a narrow extension to TR01, unsurfaced. But a narrow strip of not very good stone paving had been laid along the southeastern edge adjacent to the boundary wall (pl. 91a) that runs for a very considerable distance southwestward from the Cappadocia Gate until it turns at the point where the ground drops away close to the South Platform (pl. 9).<sup>94</sup> As to the boundary wall, little more than 0.3 m of uncoursed masonry was preserved. The small amount of fallen stone above the street indicates that the stone footings of this wall did not attain an elevation of more than 0.5 m. While it

<sup>93</sup> Osborne and Summers 2014.

<sup>94</sup> Summers 2000 provides more details.

might be correct to surmise that rammed earth or mudbrick would have sufficiently raised the top of this wall to prevent pedestrians from looking into the enclosure behind it, no evidence had survived the vicissitudes of post-destruction erosion. The original height to which this boundary wall stood has implications for visual analysis of this public zone.<sup>95</sup>

## STONE AND STONEMWORKING TECHNIQUES AT THE MONUMENTAL ENTRANCE

### Granite

The Kerkenes Dağ is composed of granite that, with a few rare exceptions, was the stone used for building the Iron Age city.<sup>96</sup> This granite is naturally jointed in such a way that in some places it can be split off from outcrops in slabs, a property of the stone that was employed to great advantage in construction of the Structure A glacis as well as the glacis that encompasses the city's 7 km of defenses. In other places the jointing permits the levering away of the rectangular blocks that were selected for construction of the lower courses of the North and South Platforms at the Monumental Entrance. This stone is hard and fine-grained, containing small but visible crystals of feldspar. When freshly cut it is silvery gray in color. It would seem that the stone used for the wall faces of the platforms was carefully selected and quarried from a single source, because it does not display the wide variety of textures and crystal inclusions that can be observed in the city defenses or in Structure A. Perhaps by the time the Monumental Entrance was being constructed it had become necessary to go beyond the city walls to quarry the quantity of good stone that was required. The selected stone is prone to cracking, a tendency that was significantly increased by the intense heat of the fire which destroyed the city. As a result the tightly fitted and finely faced blocks that appeared to be in pristine condition when first uncovered cracked apart before our eyes as the moisture in hairline cracks dried out.

<sup>95</sup> Osborne and Summers 2014.

<sup>96</sup> Erler and Göncüoğlu 1996.

<sup>97</sup> Ercüment 2002.

The granite in the terrace walls of the platforms was laid in a pseudo-ashlar fashion in which vertical joints were tight at the front but tended to be splayed behind the face (pl. 93). The wall was coursed, as necessitated by the placement of large squared beams horizontally between courses. Individual stones were not, however, all of the required height. Where stones were insufficiently tall for part of or all their length, other stones were precisely cut to fill the requisite space. These smaller stones were not necessarily as deep or broad as the main stone, the top of which was accurately trimmed to form a bed. Plugs, sometimes wedge-shaped, could also be inserted into vertical joints.

The granite was trimmed by means of pecking, as can be glimpsed in raking light. It is not known whether this pecking was done with a pointed tool and mallet or, as the Hittites would have done earlier, with a hammer. If hammers were used, they were made of iron rather than stone, for no fragments of stone tools were recovered.

### Wackestone

A very different type of stone to the Kerkenes granite was used for the upper courses of the platform walling, plinths, column bases, three-quarters bolsters, double-sided semi-iconic idols, statuary in the round, small-scale relief sculpture and inscription, and other special architectural or sculptural embellishments at the Monumental Entrance. Geologically this stone, called wackestone, was laid down in shallow fresh water during the Eocene era over large areas of northern Central Anatolia.<sup>97</sup> A yellow, sandy variety, known as Yozgat Taş, was used to build the Çapanoğlu Mosque, the clock tower, and other public buildings in the provincial capital city of Yozgat in the late nineteenth and early twentieth centuries and was also used in villages in the Yozgat and Sorgun districts until around the middle of the last century. Quarries have not been located in the vicinity of Kerkenes, but inquiries made in villages revealed that deposits were often quite shallow and, once sufficient stone had been extracted, the land reverted to agricultural fields. This wackestone varies greatly in composition and color and also in its properties as building material. The builders and sculptors at

Kerkenes selected stone according to aesthetics of color, with texture apparently being of less concern. The stone ranges from fine sandstone to mudstone. It can contain beds of fine and coarse gravel, water-laid volcanic ash, and fossiliferous limestone. Markedly different beds are often found in a single architectural block, though the color of each block is generally more consistent. Generally this stone is softer when wet, to the point where some pieces dissolve in water, but sets harder as it dries on exposure to air. Two basic varieties of this wackestone were recognized by the builders at Kerkenes, a yellowish or sometimes greenish sandstone and a very soft, white or whitish, fossiliferous limestone.

This type of stone was shaped with single-pointed and bladed tools (pl. 94), which seem to have included adzes and picks together with chisels and mallets. There is no evidence whatsoever for toothed chisels or for saws. The general impression is that the stoneworker's kit at Kerkenes was that of a carpenter rather than a mason, but in the absence of the tools themselves it is difficult to be sure. Visible surfaces of walling blocks, idols, bolsters, and the like were usually finished with a fine single point. The quality and fineness of the finish reflect both the texture of the stone and the assiduousness of the individual craftsman. Sculpture and special pieces, such as the slab with small engaged bolsters or the inscribed block, could be smoothed by rubbing.

Reference to the catalogs of architectural stone and sculptural pieces will reveal that the marks of several tools together with a range of finishes can sometimes be observed on a single piece. A small selection of additional images is presented here (pl. 94).

## DESTRUCTION AND FIRE

The entire city was destroyed by fire. While historical background to this event need not be discussed again here, it is essential to reiterate that the conflagration engulfed the entire city and appears to have been started deliberately. Analysis of the geomagnetic map of the city makes it possible to suggest the loci where the fires were lit.<sup>98</sup> Following its destruction the city was abandoned. According to the imagery attained from geophysics, there is no

place within the walls that was not deserted apart, perhaps, from the acropolis. In some locations, including the Palatial Complex and especially its Monumental Entrance, the fire attained temperatures sufficient to melt granite and sandstone, perhaps in excess of 1000 degrees Celsius in localized hotspots. It is not difficult to imagine that, with the wind blowing and the wooden façades ablaze, the Entrance would have acted like a furnace. Anyone who has stood on elevated ground in Central Anatolia when stubble is burned off the fields at the end of summer will immediately comprehend that a fire of the intensity and proportions that destroyed the city would have created a column of smoke visible over most of if not all the territory ruled from this capital. The ruins would have smoldered for days.

From the limited investigations that have been conducted at the Palatial Complex it would seem that almost everything of value had been removed before the fire. Odd scraps of gold sheet and the like probably indicate that looting was done rapidly, some of it perhaps only once the fires had been lit, though there seems no obvious way of demonstrating exactly what took place beyond such circumstantial evidence as the remains of two human victims who perished while attempting to flee through the Cappadocia Gate, or a gold and electrum ornament that was perhaps dropped there in the panic to flee.<sup>99</sup> There was no evidence at the Cappadocia Gate, or indeed anywhere else that has been examined, that the burning was associated with a battle and capture. While excavation in the future, at another city gate for example, might change this conclusion, the current working hypothesis is that there was a period of time between the capture or surrender of the city and its destruction.

Of central importance for reaching an understanding of the circumstances of the destruction is the question of when and how the statuary, the inscribed block with small-scale relief carving, and the semi-iconic stone idols were broken. At the Cappadocia Gate there was very strong evidence that both the life-sized statue of a goddess and the semi-iconic idol that stood on the stepped monument were broken only when the gate structure collapsed and wall faces tumbled in the course of the fire and subsequent decay. At the Monumental Entrance many fragments of Idol Block 2 were recovered from

<sup>98</sup> Not yet published, preliminary results of this analysis are in the Kerkenes archive.

<sup>99</sup> Summers 2021.



undisturbed collapse, which seems to suggest that the idol had fallen from close to the corner of the South Platform during the fire rather than having been thrown down onto the pavement before it. There is no reason to suppose that this idol fell from anywhere other than where it had always stood. Differential burning of other sculpted, inscribed, and carved pieces, as well as of the bolsters, likewise indicates, but less certainly proves, that they were in situ when the fire began. Thus it would seem that whoever the perpetrators of the destruction actually were, they did not desecrate cultic icons or, if they were not cultic, the statue and inscription, before the onset of the fire. On the other hand, if it is correct that the wooden doors in the front façade at the Monumental Entrance, had been taken down and stacked against the side of the South Platform, as the position of the iron bands might be taken to indicate, and also that the two copper alloy sheet cutouts of the rear half of a pair of ibex found directly on the sloping pavement a little to the east of the corner of the North Platform had been torn down from the doors or from the pediment above, then there was some period when the stripping of valuable metals and other items was engaged in before the destruction. The archaeological evidence does not permit us to decide whether this interval between looting and destruction was a matter of hours, days, or weeks. The salient point is that the cultic installations do not appear to have been deliberately smashed, either here at the Monumental Entrance or at the Cappadocia Gate.

## THE ASPECT OF THE MONUMENTAL ENTRANCE FOLLOWING THE FIRE

Mention has been made in passing about later tumulus construction as well as the extent of yet more recent stone robbing and looting. These issues will be discussed below after considering the aspect of the ruined structures following the fire. In some parts of the city, where the intensity of the fire was less and walling incorporated smaller amounts of timber, it is likely that some buildings stood as empty shells. If the wind was strong and the fire moved quickly, it is possible that thatch burned away but charred roof beams remained in place. The structures will be considered in the same order as they were described in previous chapters.

At Structure A the front face of the wall and much of the core behind it would have collapsed as the horizontal timbers burned away. The tumbled stone would have come to a steep angle of rest and, in the central recess, probably have covered most of the glacis, as indeed it was found to have done when we began clearance. The more poorly built rear face of the wall would also have collapsed, with stone rubble filling the spaces around the ruined buildings.

Structures C and D would have collapsed in a similar way as the timber framing burned. It is not possible to estimate how much walling of Structure C remained standing above the collapse to decay more slowly in ensuing decades, leaving stubs with faces sometimes discernible in the confusion of rubble.

The timber frame of the Ashlar Building burned away, causing the wall faces to collapse. Subsequent decay and erosion caused clay and mudbrick, hardened to differing extents by the vicissitudes of the fire, slowly to break down and wash away. Centuries later partially visible ashlar at the front of the building tempted stone robbers who, despite the quality of the faced stones, were not disposed to take more than could be pulled out with minimal effort.

With regard to the Audience Hall, the mud-plaster floor was barely hardened by the burning thatch. The absence of more fire-hardened patches can be taken to indicate that neither the timber frame nor the roof beams and rafters fell in the course of the fire. It can be imagined that the skeletal remains of charred timber uprights and roof beams would have taken years if not decades to collapse and eventually rot away. Once that had happened, the stubs of the stone footings, preserved almost to their full extent, would have been visible, as too, it is postulated, were the protruding tops of sandstone column bases and possibly elements of door frames, if they were built of stone.

Finally, the Monumental Entrance can now be considered. At the Entrance, unlike at the rest of the Palatial Complex, the aspect of the remains at the start of investigation gave no hint as to what lay beneath. This was the result of later activities as described below. The aim here is to try to reconstruct how the Entrance may have appeared in the decades and centuries following the destruction and prior to the commencement of tumulus building, stone robbing, and looting. The ruined platforms would have projected eastward from the higher ground behind them, their upper wall faces having collapsed during the fire in such a way that they resembled little

more than flat-topped rectilinear heaps of stone rubble. The paving in the central corridor between these platforms would have been covered by the ash and debris from the façades and the rooms between them to a depth of only a few centimeters along the central axis. Between the Entrance and the Audience Hall the stone paving was barely buried if at all. Architectural elements, such as stone capitals from the freestanding wooden columns, the missing plinth, fallen and broken idols, and so forth, very probably protruded from the rubble and debris. As burned mudbrick and clay that coated reeds broke down on exposure to the elements, so vegetation would have slowly encroached. Thus in later times, perhaps not before the Byzantine period, there were clear indications of where to look for items of value.

## TUMULUS CONSTRUCTION

Perhaps some three or four centuries elapsed between the destruction and the building of tumuli, comprising stone-built cists in the upper portion of piles of stone, on the ruins of the burned city. There is no reason to think that there was any direct historical or cultural link between the sixth-century inhabitants of the city and the occupants of these Hellenistic-period, perhaps Galatian burials. It is, however, possible that there was a connection between the dead and the occupiers of what was then the ancient acropolis and settlement on the Kiremitlik at the southwestern extremity of the city, because the majority of these burial mounds lie to one or the other side of the old Iron Age street that would have linked the two places with the Göz Baba Gate (pls. 4a–b, 6).

At the Audience Hall one tumulus was constructed over the junction of the southern wall and the wide cross wall. The making of this mound had involved using stones from both walls in such a way that the core of the burial mound comprised the junction of the raised stone footings. The stone chamber of this mound and many others had been robbed before 1928, when Erich F. Schmidt described their desecration.<sup>100</sup> A second, perhaps larger tumulus was probably constructed on the northwestern corner of Structure B, while two or more might have been located on the North Platform (pl. 12). The building of these tumuli would have incorporated

fallen stone from the western side of Structure A and elsewhere in the vicinity.

## STONE ROBBING AND LOOTING

Evidence of ancient looting is commonly seen. Its extent must indicate that there were at least scraps of value to be found, as indeed the bits of gold sheet and a gold horn from the Monumental Entrance show that there were. One may doubt that the spoils amounted to very much, since, with the exception of fill of the Gate Court, most of the efforts expended by the looters consisted of delving beneath column bases or digging into rubble fills.

At Structure A the upper face stones of the glacis in front of the two towers were pulled down and several pits dug into the core. The largest of these pits was taken advantage of to examine the fill of the core in CT17 (pl. 9). It is not impossible that these towers were mistaken for burial mounds.

The robbing of cut stone from the Ashlar Building, and perhaps also from the front doorway of the Ashlar Building, was described in previous chapters. There too some account was given of the pits dug beneath the column bases of the Audience Hall, presumably in the search for gold. The column bases themselves seem not to have been carted away but cast to one side, where they too slowly disintegrated on exposure to the elements. The depth of the pits, much in excess of the stone bases, bears further witness to the motivation behind the digging out of the stones. Mention has also been made of the displacement of the northwestern column base at the Monumental Entrance, caused by treasure seekers digging beneath it, and the destruction of the northern plinth in the northwestern corner of the Gate Court. A large pit was dug into the top of the South Platform, while at the North Platform there were indications of burrowing down around the large stones uncovered in CT30. As stated on several occasions in the preceding pages, in the Gate Court much of the fill had been dug over. This fill included the destruction debris, collapsed stone from the platforms, and what was cast down in the process of looting activities on the platform tops, especially upcast from the large pit on the South Platform. This looting does not appear to have been in any way systematic, and the very loose nature of the fallen stones as well as the huge size of some of the

<sup>100</sup> Summers and Summers 2008 contains a fuller account of these tumuli. For a photograph of the stone chamber see fig. 23.

blocks doubtless encouraged the kind of scabbling that was involved. Neither the date nor the duration of these activities has been ascertained.

## A SHEPHERD'S FOLD ON THE SOUTH PLATFORM

The final activity at the Palatial Complex to be described was the construction of a square structure

in the base of the robber pit on the top of the South Platform. The date of this construction was not established, nor were any associated features recorded. Its outlines can be seen in the balloon photograph on plate 12. It was partially investigated and removed in TR15. The absence of a smooth surface, hearth, or other features indicates that this structure was a pen or fold, probably built for lambs, in the not very distant past.

## CHAPTER 8

# THE FINDS

GEOFFREY D. SUMMERS and NOËL SIVER

### METAL OBJECTS FROM THE IRON AGE

#### Gold

No analysis has yet been conducted on any of the gold discovered at Kerkenes, with the exception of a blackened melted lump found in the Monumental Entrance. It is to be expected that before the middle of the sixth century most gold would in fact be the naturally occurring alloy called electrum. But, visual observation of color reveals that elements of an exquisite gold and gold alloy ornament found by the Cappadocia Gate are composed of different alloys.<sup>101</sup> While the source or sources of the Kerkenes gold are unknown, the style of both the ivory and the gold ornament just mentioned point to Lydia and Ionia, thus suggesting the Pactolus as a likely source.

Two small scraps of gold sheet found in the Audience Hall (K00.095 and K02.125, pl. 111a–b) attest to the presence of embellished objects, including, perhaps, furniture and furnishings as well as smaller items. Embellishment of the ivory furniture inlay discovered at the northern end of the city in 1996 also included gold foil.<sup>102</sup> Its presence doubtless explains why, in later times, treasure seekers expended not inconsiderable effort in digging beneath the two rows of stone column bases.

Scraps of gold recovered from destruction fills at the Monumental Entrance tell us little other than the fact that sheet gold was not uncommon. A gold-headed tack (K02.145, pl. 124a) found between paving stones could conceivably have been used to affix

one of the copper alloy cutouts of ibex (K02.132, K02.133, pls. 128–131), but this use can be no more than a suggestion. Of much greater significance is the horn made of sheet gold around a wooden core (K05.215, pl. 125). This piece was found in the primary burned destruction layer adjacent to the southern sandstone column base in the front section of the Monumental Entrance. It attests the existence of composite imagery set up in the entrance itself or, perhaps more probably, on the South Platform, where there were also inscribed stone and sculptures as well as the large semi-iconic stone idols. Its presence, like that of gold-sheet fragments in the Audience Hall, explains the very extensive treasure seeking that took place in later, probably Byzantine times. Yet further tantalizing evidence for the presence of precious things is the large lump of melted gold or gold alloy (05TR15U14met03, pl. 126a). Both of these finds, the horn and the melted lump, have implications for the extent to which the site was looted and its monuments smashed before the fire.

#### Silver

A scrap of silver sheet was found at the Ashlar Building (K02.127, pl. 117d). Other finds, all from the Monumental Entrance, amount to three small nails or tacks and an embossed sheet metal roundel with registers of concentric circles and, at the flat top, a small bolster (K03.162, K04.174, K05.211, and K04.175, pl. 126b–e). Holes around the perimeter indicate a backing of textile or leather onto which it was sewn.

<sup>101</sup> Summers 2017.

<sup>102</sup> Dusingberre 2002.

## Copper Alloy

The metals from Kerkenes are unusually well-preserved, as a result of which most of the copper alloy objects and scraps required very little cleaning. Elemental analysis of copper alloys from Kerkenes is being done by Joseph Lehner. Until those studies are complete, the term “copper alloy” is used without further refinement.

As to the types of objects recovered, weapons are represented by only a single socketed arrowhead, tools and utensils by what seems to be a scoop. There were no vessels of any kind. Personal ornaments are restricted to hairgrips, which can also be made of iron, and what might be part of a belt fitting. Additionally, there is a single sheet appliqué, of which the preserved portion is divided into two square panels, the upper with an embossed lowering bull, the lower containing a lion. The most spectacular finds, recovered from the Monumental Entrance, were the lower parts of two half or three-quarters life-sized cutouts of opposed ibex. The only close parallel for these two pieces is a cut-out of a lion from Eski Smyrna now on display at the Izmir Museum. This could perhaps be taken as another indication, in addition to gold work and ivory carving, that artistic and artisanal links had developed between Kerkenes (Pteria) and Ionia by the middle of the sixth century. The only other object of particular note is a bronze fitting from something like a box or item of furniture recovered from the Audience Hall. Other pieces include needle fragments, small nails, a variety of scraps, and fragments of sheet.

## Lead

The only lead recovered was in the form of melted lumps in the Monumental Entrance. These pieces were very possibly architectural, having melted in the fire. Lead clamps are known, for instance, in carpentry in Tumulus MM at Gordion and, presumably, could also be used for clamping composite sculpture. The small amount indicates that its use was very restricted. There is no indication that lead was used for swallow-tailed masonry clamps.

## Iron Objects

In stark contrast to the huge amount of architectural iron, there is very little by way of iron objects. Of note are iron hairgrips of the same

double-looped form as their more common copper alloy cousins. A stray iron point, probably an arrowhead, found in topsoil by the Ashlar Building is the sole weapon.

## Architectural Iron

Perhaps the most remarkable of all the metal finds is the architectural iron. Where this metal was recovered from heavily burned contexts, notably the destruction debris in the court of the Monumental Entrance and the Ashlar Building, preservation was exceptional. Iron door bands found in the court were still flexible when excavated. Similar pieces from the rear of the gate, where soil cover was very shallow and there was little burning preserved above the stone paving, were fragmentary and highly corroded.

In the Ashlar Building, and occasionally elsewhere, fairly large nails with distinctive flattened triangular heads were found. It is not known exactly what they were used for, nor is it known whether the heads were intended to be seen and perhaps used, or were hammered right into the wood. That no such nails were recovered from the Monumental Entrance or the Cappadocia Gate is surely significant. A number of short points were also recovered from the Ashlar Building, there being no indication of their precise purpose.

From the Monumental Entrance, in addition to the door bands were two square-ended iron brackets and a number of swallow-tailed braces, often with nails in place. While similar door bands were found at the Cappadocia Gate, associated with a door to a flanking chamber rather than the main doors, neither brackets nor swallow-tailed braces have yet been found anywhere else at Kerkenes. It is assumed that the two door bands came from one of the pair of wooden doors in the front façade, an interpretation that is compatible with their length. The position in which they were found, in undisturbed burned debris adjacent and parallel to the base of the South Platform wall, suggests that at least one of these doors had been taken down and leaned against the platform wall before the fire. If this is the case, it would be the sole example of prefire demolition and could very possibly be explained by a desire to remove other metal attached to the fronts of the doors. The two square-ended brackets, one a little larger than the other, were found in the burned debris, having apparently

fallen from the front façade. While their exact purpose is unknown, the large nails show that they were associated with substantial timbers. Equally difficult to place are the swallow-tailed braces. Those braces that were in primary context, that is, in the burned debris above the pavement, would have fallen from the front façade. They were clearly used to join or strengthen joints in woodwork, their form being the same as that of the clamp cuttings in some of the stone masonry also found at the Monumental Entrance. They have been called “braces” rather than “clamps” to distinguish them from the wooden clamps employed in masonry. Distribution of these braces is not compatible with their being used as strakes on the backs of doors, particularly if the doors were in any case stacked against the South Platform. They must, then, like the larger brackets, have been used on the timber frame of the façade. No such brackets and braces were found associated with the rear façade, probably because the burned debris on the inclined pavement between the Monumental Entrance and the Audience Hall were not covered, with the result that they rapidly eroded.

In general, the large amount of architectural iron, all of it wrought, together with the sophistication of the smithing techniques that were used to join segments of the door bands as well as for the large dome-headed nails and other elements, demonstrates, for the first time, the advancements in ironworking technologies that had been achieved in Anatolia by the beginning of the sixth century BC. Furthermore, it heralds significant developments in architectural and building methods and materials that are unexpected. It is noteworthy that this sudden use of iron elements in monumental wooden architecture is seen for the first time at the Monumental Entrance, where it can be dated to the last decades of the first half of the sixth century. No such evidence for extensive employment of ironwork is known from Gordion or, close in date to this Kerkenes evidence, in the rock-cut architectural façades in the Phrygian Highlands. Study of these techniques and materials, including iron smelting and possible alloying, hot and cold working, and welding, is being done by Joseph Lehner. The possibility that there are local sources of high-quality iron ore is also under investigation.

## SCULPTED, INSCRIBED, AND ARCHITECTURAL STONE OF THE IRON AGE

### Sculpture and Inscription

Two sculptural pieces from the Monumental Entrance, a block with small-scale relief sculpture and a smaller than life-sized draped figure carved in the round, together with associated carved sandstone elements, have been previously published. Here it is not necessary to do more than summarize and update the published studies. A rectangular block had one recessed face, on which were carved two inscriptions in Paleo-Phrygian, and small-scale relief sculpture depicting a pair of genies, perhaps griffin-headed, beneath a winged sun disc with vegetal elements. This block seems to have been associated with a stepped sandstone base and a slab with small engaged bolsters on each one of its four sides. Since the definitive publication, this bolster slab has been fully restored for museum display, as a result of which it has been possible to include new photographs and drawings here (pls. 198–199). The enigmatic statue of a draped figure, about two-thirds life-sized, appears to be looking down, thus suggesting that it was placed in an elevated position. All the pieces were recovered from destruction debris, much of it disturbed by later robbing activities, in the Monumental Entrance. In the original publication it was suggested that these four pieces—stepped base, inscribed and sculpted block, bolster slab, and statue—were elements of a single composite monument. Indeed, we went so far as to suggest that the statue may have been a representation of one of the three individuals named in the inscription: Uwa and Masa son of Urgis. However, as set out in chapter 7, new joins of Idol Block 1 (pls. 171–176) as well as documentation of the find spots of individual fragments of the statue strongly indicate that the statue in fact stood on top of Idol Block 1 at the northeastern corner of the South Platform, as reconstructed on plates 95 and 96. The position of the carved base and associated elements is most likely to have been in the center of the northern, inner side of the South Platform, presumably positioned in a way that would have permitted the relief sculpture and inscription to be admired from the court. While many of the statue fragments show signs of damage from the fire, with some being further eroded as a result of later disturbance, there is no indication of

wear or erosion on any of the fragments that can be ascribed to a time prior to the fire. This state of preservation suggests, first, that the sculpture and the inscribed block were fairly new at the time of the destruction—an observation that in fact applies to the entire Monumental Entrance—and, second, that there may have been some kind of protective cover which would have sheltered the soft and friable stone from rain and snow.

Additional fragments of small-scale relief sculpture may have come from different pieces. The feet of a small bird of prey, perhaps an attribute of the goddess Matar, and part of a life-sized mane of a lion or perhaps a sphinx, attest to the existence of yet more sculpture associated with the Palatial Complex.

Relatively soft and friable wackestone, that is, beds of sandstone, siltstone, mudstone, and limestone from Eocene deposits commonly outcropping in the land around the granite batholith of the Kerkenes Dağ, was selected for all the stone sculpture so far discovered. It might very well be that these soft stones were selected because they were relatively easy to cut and to smooth with woodworking tools. Though the Kerkenes granites do not lend themselves well to sculpture, there were hard limestones, and even marble, readily available in the near vicinity had they been preferred. The main disadvantage of these soft stones is that they do not weather well and could not have been placed in positions where they were constantly exposed to the harsh climate of the northern plateau. Similar stone was selected for the statue and plinth in the Cappadocia Gate as well as for the Boğazkale statue. During cleaning and mending, the surfaces of all these pieces were carefully examined for traces of paint. Because the stones are quite porous, it could be expected that any paint would have left preserved traces, not least in the grooves representing pleated material or curls of hair. No hint of any kind of paint or color could be found, thereby making it reasonably certain that none of the sculpture was painted.

These finds were unexpected at Kerkenes. The definitive publication was done before excavations at the Cappadocia Gate revealed even more sculpture.<sup>103</sup> There, a life-sized statue of a draped female figure adorned with three preserved fibulae

of Phrygian type was set up on a large block bearing two sphinxes carved in deep relief. This discovery reinforces the Phrygian nature of sculpture in the round at Kerkenes, as had already been clearly demonstrated by Catherine Draycott's reconstruction of the statue from the Monumental Entrance.<sup>104</sup> Furthermore, the clearly female gender of the Cappadocia Gate piece increases the probability that the statue from the Entrance represents a male. The well-known statue of a goddess, usually thought to be Matar depicted with two musicians, found at Boğazköy resembles the Cappadocia Gate piece in terms of both its find spot, the gate into the Südburg, and its sculptural style. It is now possible to think of a Phrygian sculptural school developing in the eastern part of the Central Anatolian Plateau between the late seventh century and the Persian invasion. There is nothing comparable from the Ankara–Gordion region, while the several examples of Phrygian statuary from the Phrygian Highlands, roughly comparable in date to the Kerkenes pieces, seem to belong to a different sculptural tradition. However, despite the clearly Phrygian characteristics of the sculpted human figures, both the style and the iconography of the small-scale relief sculpture on the inscribed block appear to be so like Neo-Hittite examples, particularly from Sakçegözü, that had it not been for the language of the inscription it would not have been recognized as a Phrygian piece.<sup>105</sup>

## Architectural Stone

### Granite

The main building stone was local granite. The face stone of the bastard ashlar walling at the Ashlar Building had drafted edges, indicating the employment of iron chisels, and was carefully faced. The front portion of the top surface was leveled and smoothed to accommodate squared wooden beams.<sup>106</sup> In spite of the quality of the stoneworking, where there was a narrow vertical gap in a wall face, a soft white limestone was cut to fit. The lower courses of facing blocks of the North and South Platforms to both sides of the court at the Monumental Entrance were likewise faced, and their tops

<sup>103</sup> Summers 2021.

<sup>104</sup> Draycott et al. 2000, pl. 74.

<sup>105</sup> See Draycott in Draycott et al. 2008, pl. 81a, with discussion *passim*.

<sup>106</sup> There were no holes in the top surfaces for dowels, as would have been found in Hittite and sometimes Neo-Hittite building.

trimmed to accommodate another stone or a beam, but drafted margins are absent. In a single instance, a row of small mending clamp cuttings were cut into the top of a granite block during construction (pl. 216).

### Wackestone

Local Eocene beds of microconglomerate, sandstone, mudstone, siltstone, and limestone were used for building blocks as well as for sculpture and idols. Bedding is such that there are often considerable differences in texture, composition, and color within the same block. It is evident, however, that color selection for large blocks was a deliberate architectural device. This stone was brought to the site from quarries located somewhere in the surrounding area.

At the Ashlar Building, a pale-brown or tan sandstone was used to make a surround in the front room. Otherwise, at the Monumental Entrance platforms, brownish and greenish sandstones, and microconglomerates were used for a course above the granite, with soft, white, fossiliferous limestone being selected for the uppermost course. There were large, squared, wooden beams between masonry courses, and wooden swallow-tailed clamps were commonly used in these sedimentary stones.

## THE IRON AGE POTTERY

No Late Bronze Age pottery has been recognized anywhere within the site at Kerkenes. This absence is slightly surprising in view of the proposed identification of the granite tor with the Imperial Hittite Mount Daha, abode of the Weather God of Zippalanda. More importantly, there is a complete absence of animal silhouette-style painted pottery of Alişar IV type. None of the pottery that has been found until now need be earlier than the proposed dates for occupation of the city, that is, between the late seventh century and the mid-sixth century. This dating is generally compatible with the published sequence of Iron Age pottery from Boğazköy as well

as with results from Kaman Kalehöyük and Gordion. It is, however, to be noted that none of these sequences is securely or precisely dated, while only material from Boğazköy is fully published.<sup>107</sup>

Most of the Iron Age pottery cataloged here comprises whole or nearly complete vessels that were recovered from secure contexts in the destruction level. This corpus therefore provides an assemblage of pottery vessels that were in use at Kerkenes at the time when it was destroyed, in or about 547 BC. The material is grouped according to where it was found, rather than being set out in a typological series, in order to emphasize its relationship to context. The total number of vessels is, however, very small, with most types being represented by a single example.

Pottery was found in situ, that is, where it was being used at the time of the destruction, in only one building, Structure C. The broken and discarded pottery from behind Structure A, from which it has been possible to restore two complete vessels, is likewise from an excellent context. No domestic structures have been excavated. The Ashlar Building was devoid of objects and pottery, while the Audience Hall produced but one juglet. Thus the corpus is small, the range of shapes reflecting the public nature of the Palatial Complex. Generally at Kerkenes, the granitic soils are not kind to pottery. Finishes, such as slip and burnish, are rarely preserved on sherds collected from the surface and generally fugitive on pieces recovered from fills or above streets. Therefore, no general study of the Iron Age pottery at Kerkenes has yet been made. Doubtless, future excavations of domestic buildings will provide evidence of a quality and quantity not yet available.<sup>108</sup> Nevertheless, the pottery juglets, bowls, and jars from the Palatial Complex would not be out of place elsewhere across the site. Whether similar graffiti, scratched onto pots after firing, will be found throughout the site or were more restricted to particular locations it is not possible to say. Obvious imports are few, the only clear candidates being the fragments of faceted, burnished, black-slipped ware.<sup>109</sup>

<sup>107</sup> An overview is provided in Genz 2007a. For Boğazköy see Genz 2004; 2006a; 2006b; 2007b. For discussion of pottery from Gordion and Kaman Kalehöyük I am indebted to Mary M. Voigt, Masako and Sachihiko Omura, and Kimiyoshi Matsumura.

<sup>108</sup> For comments on pottery from excavations at Kerkenes 1996 see Summers and Summers 1999, pp. 133–34, 150–51 figs. 17–20.

<sup>109</sup> Kealhofer et al. 2010 suggests that much of the Iron Age pottery at Kerkenes was “non local.”



## FINDS FROM IN FRONT OF THE FORTIFIED STRUCTURE

### Objects from in Front of the Glacis

#### Copper Alloy Tube

*Site Inventory Number:* K00.104  
*Plate:* 97a  
*Identification Number:* 00CT27U02meto1  
*Photograph:* 05dpnk1013  
*Dimensions:* L (extant): 96 mm; D: 6 mm  
*Description:* Tube, probably incomplete.

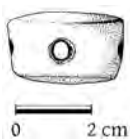


#### Stone Harness Attachment

*Site Inventory Number:* K99.082  
*Plate:* 97b  
*Identification Number:* 99CT06U01stno1  
*Photograph:* 08dpkc1154  
*Yozgat Museum Registration Number:* 1392  
*Dimensions:* Dia (top): 30 mm; Dia (underside): 27 mm; H: 17 mm; Dia (perforations): 2.5 mm  
*Context:* Found in the thin layer of burned debris.

*Description:* Polished stone bridle strap guide, round with slight taper and domed top, perforated.

*Discussion:* Harness attachments that hold leather reins in position on a horse's head, made of stone and other materials, are known from Persepolis, while similar attachments are depicted on the reliefs of the Apadana. Similar objects, often made of bronze in the shape of a bird's head or boar's tusk, are often said to be Scythian.<sup>110</sup> There is, however, no reason to think

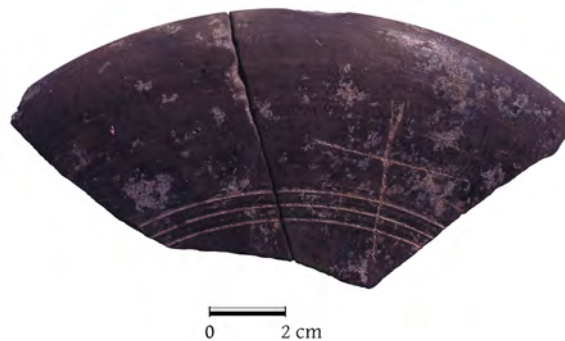


that, like socketed bronze arrowheads, objects of this type were not widely used by the middle of the sixth century.

#### Pottery

*Site Inventory Number:* –  
*Plate:* 98a  
*Identification Number:* 00CT27U02poto1  
*Photograph:* 01slvf1413

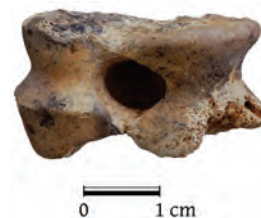
*Description:* Rim of a shallow bowl, dark gray, perhaps from secondary firing, slipped and polished, with three incised concentric rings on the exterior. Two joining sherds. The mark comprises a cross with the top of the vertical line divided into two prongs. Incised on the exterior of the body after firing. Pot mark and graffiti catalog number 7.



#### Astragalus

*Site Inventory Number:* –  
*Identification Number:* 99CT05U00bono1  
*Plate:* 98b  
*Photograph:* 05dpnk1314  
*Dimensions:* L (medial, greatest): 30.1 mm; Breadth (distal): 17.5 mm

*Description:* Astragalus, or knucklebone, from a subadult *Sus domesticus* (domestic pig); left side with a hole bored on one side. The edge of this hole is beveled. Some areas of loss on the surface. Found at the base of the Structure A glacis, southern end.



<sup>110</sup> Littauer and Crowell 1979, pp. 150–52; Muscarella 1988, p. 383, nos. 503–5 with references. For Scythian and Caucasian examples in the British Museum see Curtis and Kruszyński 2002, pp. 71–86; available at: <https://www.britishmuseum.org/pdf/5%20scythian%20integ-opt-sec.pdf>.

## FINDS FROM BEHIND THE FORTIFIED STRUCTURE

### Copper Alloy Object from Structure C

#### Needle Fragment

*Site Inventory Number:* K00.103

*Plate:* 98c

*Identification Number:* 00CT18U17met02

*Photograph:* 05dpnk1012

*Dimensions:* L (extant): 30 mm

*Description:* Needle, broken at the base of the eye. Found on the floor of the southern room.



### Metal Objects from Fills

#### Copper Alloy Hairgrip

*Site Inventory Number:* K00.101

*Plate:* 98d

*Identification Number:* 00CT18U17met01

*Photograph:* 05dpnk1008

*Dimensions:* L (extant): 43 mm

*Description:* Hairgrip, incomplete.



#### Iron Pointed Object

*Site Inventory Number:* K00.106

*Plate:* 98e

*Identification Number:* 00CT16U02met01

*Photograph:* 05dpnk0723

*Dimensions:* L (extant): 117 mm

*Description:* Pointed object, rectangular in section, probably incomplete. Found in the lower part of the rubble collapse.



#### Iron Bar

*Site Inventory Number:* K00.107

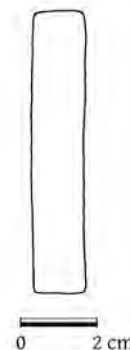
*Plate:* 99a

*Identification Number:* 00CT18U14met01

*Photograph:* 05dpnk0724

*Dimensions:* L: 75 mm; W: 14 mm; D: 7 mm

*Description:* Iron bar, rectangular in section, complete.



### Ivory from the Predestruction Fill Site

#### Decorated Ivory Fragment

*Site Inventory Number:* K00.096

*Plate:* 99b

*Identification Number:* 00CT18U17bon01

*Photographs:* 05dpnk1318, 00slvf1216

*Dimensions:* L: 31 mm; W (extant): 18 mm; Th: 4 mm

*Description:* Ivory fragment with a matching two-sided floral design, probably a lotus bud. On one side the design is incised; on the other it was originally rendered in cloisonné. Ancient breaks mark the two long sides.



*Discussion:* The piece is reminiscent of the lotus capitals on handles, so many of which were found by Loftus in the Burned Palace at Nimrud. They are of various sizes and styles, but this fragment seems to fit within them.<sup>111</sup> This object is the only one found so far at Kerkenes that appears to have Levantine or Assyrian connections.

*Conservation:* Burial soil was removed from the surface of the object by mechanical means. Remaining dirt was further removed by the use of swabs dampened with ethanol. The surface was consolidated with a 3% solution of Paraloid B-72 acrylic resin in ethanol, and small detached fragments of champlévé were reattached with a 15% solution of Paraloid B-72.

<sup>111</sup> I am grateful to Georgina Herrmann for discussion. Barnett 1975, pls. 79–81.

## Bone and Antler Objects from Structure C

### Antler Fragments

Site Inventory Number: K00.097

Plate: 100a

Identification Numbers: 00CT18U04bon01,  
00CT18U03, 00CT18U05

Photograph: 17dpkc0108

Dimensions: L (drop-shaped pieces): ca. 19 mm;  
L (square pieces): 10 × 10 mm; L (rectangular pieces):  
11 × 6 mm; Th: ca. 2 mm

Description: Fragments of deer antler inlay.<sup>112</sup> Nine drop-shaped pieces, two of which were found intact, display some variation in size and proportions. Three square pieces, two intact, have curved marks incised on one surface. All pieces show signs of burning. Found on or immediately above the floor of the southern room in a patchy burned area.



Discussion: Inlays probably from a wooden object that burned in situ in the room. The drop-shaped pieces are presumably petals, while the square fragments might have been part of a border.

### Astragalus

Site Inventory Number: K00.098

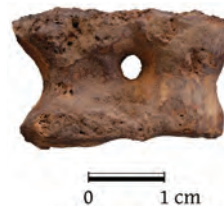
Plate: 100b

Identification Number: 00CT18U03bon01

Photograph: 05dpmk1319

Dimensions: L (lateral, greatest): 27 mm; L (medial, greatest): 27.5 mm; Breadth (distal): 15.8 mm

Description: Astragalus, or knucklebone, from *Ovis aries* or *Capra hircus* (sheep or goat);<sup>113</sup> left side with perforation bored through it. Heavily burned on one side. Found in the burning above the floor of the southern room.



## Iron Age Pottery from Structure A

The group of pottery found crammed in the space between Structures A and D had been discarded prior to the destruction but after the last of the major modifications made to the layout of these buildings and the raised external surfaces. It may thus be dated to a time not much earlier than the destruction itself. The four sherds from fill layers are undated but are not out of place in the first half of the sixth century. There is no earlier pottery; as mentioned above, the complete lack of residual sherds of Alişar IV-style painted pottery in the layers of fill that were used to raise the elevation of external surfaces is notable.

## Iron Age Pottery from between Structures A and D

In the spaces between Structure D and the rear wall of Structure A were sherds from several very similar red-ware jugs with cutaway spouts and a tripod bowl. It was possible to restore one of the jugs as well as the bowl. Only a small portion of the deposit was excavated. These vessels were probably complete, or largely so, when they were discarded. Also illustrated are sherds of black-slipped and burnished diamond-faceted ware.

### Tripod Bowl

Site Inventory Number: K00.094

Plate: 100d

Identification Number: 00CT23U02pot01

Photograph: 05dpmk1111

Yozgat Museum Registration Number: 1573

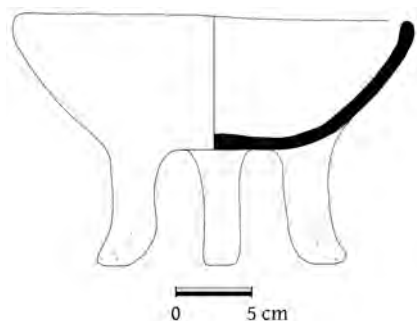
Dimensions: H: 15.8–16.5 cm; D: 27 cm

Description: Tripod bowl, about 40% assembled from 16 sherds, all but one of which could be joined. Handmade, gray to reddish-brown fabric with much

<sup>112</sup> Identification of antler was made by H. Christian Küchelmann in June 2017.

<sup>113</sup> Identifications of species of this and the following astragalus were made by H. Christian Küchelmann and Franciscus J. Koolstra, May 30, 2017.

medium-sized grit temper. Uneven interior surface, gray and smoothed; exterior pale reddish brown, gray toward rim, perhaps due to secondary burning; smoothed; shaving marks on legs.



*Conservation:* Sherd edges were consolidated with 3% Paraloid B-72 acrylic resin in acetone:ethanol. Mended using HMG cellulose nitrate adhesive. Gap-filled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

#### Jug with Pot Mark

*Site Inventory Number:* K00.123

*Plate:* 101a

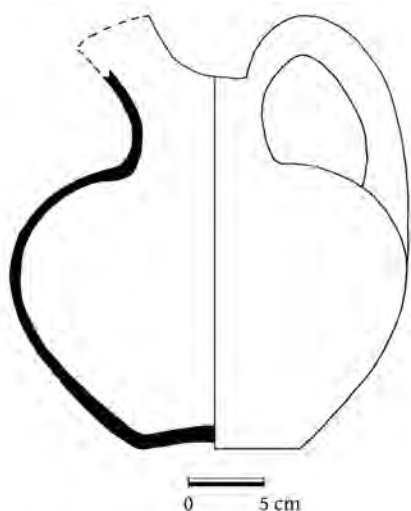
*Identification Number:* 00CT23U02pot02

*Photograph:* 05dpmk1118

*Yozgat Museum Registration Number:* 1574

*Dimensions:* H (to top of handle): 28.5 cm; Dia (base): 10.5 cm

*Description:* Jug with high, round-to-faceted handle and upright trough spout. Wheel-made, orange-red with white grits, traces of dark red slip and burnish outside. A mark, a reversed N, was incised on the shoulder beneath the handle after firing (pot mark cat. no. 1).



*Conservation:* Mended using HMG cellulose nitrate adhesive. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

#### Jug Neck with Pot Mark on Shoulder

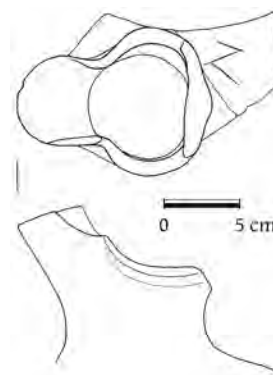
*Site Inventory Number:* –

*Plate:* 101b

*Identification Number:* 00CT23U02pot05

*Photograph:* 00slvf1019

*Description:* Neck and part of the shoulder of a large one-handed jug with cut-away spout and handle scar on rim. Very similar to K00.123. Orange fabric with pale core that is gray in the handle, with sparse grits and burned-out inclusions, not highly fired. Exterior bears patches of rust-colored glossy paint that once covered the entire surface. A mark, N, was incised on the shoulder beneath the handle after firing (pot mark cat. no. 2).



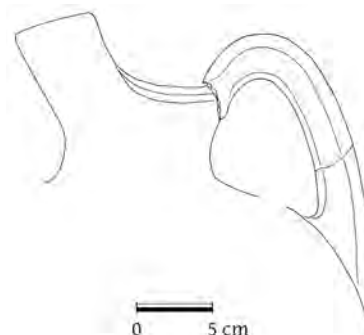
#### Jug

*Site Inventory Number:* –

*Plate:* 102a

*Identification Number:* 00CT23U02pot06

*Description:* Large one-handed jug with cutaway spout and faceted vertical bar handle between rim and shoulder. Handmade with scrape marks on the shoulder to the right of the handle and mark. Orange fabric with pale core that is gray in the handle, with sparse grits and burned-out inclusions, not highly fired. Exterior bears patches of rust-colored glossy paint that once covered the entire surface. Very similar to K00.123. Pot mark 3, in the shape of a V and above three vertical lines, was incised after firing on the shoulder immediately on the right side of the handle.



## Krater

Site Inventory Number: —

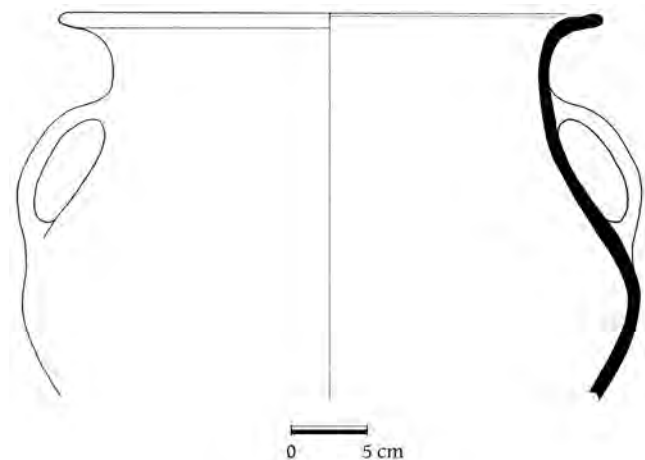
Plate: 102b

Identification Number: 00CT23U02pot03

Photograph: 01slvf1707

Dimensions: D: 35 cm

*Description:* Krater with rounded base and two vertical strap handles, only one of which is extant, attached to the center of the neck and upper shoulder; flared rim with internal ledge; handmade. Complete rim to shoulder profile in eleven joining sherds. Orange fabric with sparse grits and burned-out inclusions, not highly fired. Interior orange; smoothed neck, below which the body wall is very uneven, with irregular striations from wiping, perhaps with straw, on the lower portion. Exterior pale yellowish-brown, well-smoothed. Pot mark 5 was incised on the handle after firing.



## Faceted Sherds

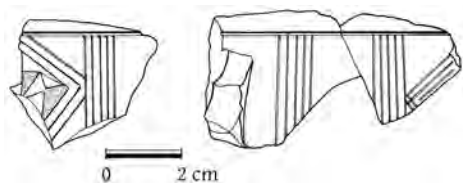
Site Inventory Numbers: —

Plate: 102c-d

Identification Numbers: 00CT23U02pot07,  
00CTT23U02pot08

Photographs: 17dpkc0103, 17dpkc0105

*Description:* Sherds from a small closed vessel with faceted decoration, fine, black-slipped, and burnished. A band of panels containing raised faceted lozenges divided by groups of four vertical incised lines and narrow blank spaces runs around the belly of the vessel. For a brief discussion of this ware see K00.093.

Iron Age Diagnostic Pottery Sherds  
from behind the Glacis

## Pattern Painted Sherd

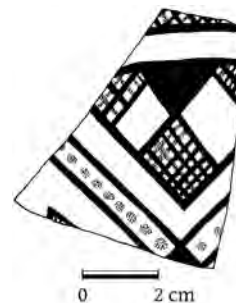
Site Inventory Number: K00.089

Plate: 103a

Identification Number: 00CT16U17pot01

Photograph: 05dprnk1105

*Description:* Sherd from shoulder of large jar. Fabric is hard, pale reddish, with sparse grits; there is pitting on the interior. Patterning is matte paint ranging from very dark reddish brown to a lighter shade, with thin and reddish-brown dots, all on a hard, thin, white ground. Highly polished. Found in rubble makeup.



*Discussion:* A typical sherd with polychrome painted geometric patterning on a white ground given a high finish. Painted pottery of this kind forms only a small fraction of the assemblage at Kerkenes, but it is found throughout the surrounding region. The tradition appears to continue down in time, and it perhaps becomes more common in later decades.<sup>114</sup> This piece was recovered from a secure predestruction context.

## Spout with Sieve

Site Inventory Number: K00.090

Plate: 103b

Identification Number: 00TR16U14pot01

Photograph: 05dprnk1107

*Description:* Trough spout with a sieve; the top of the strainer is shielded by a horizontal ledge. Fine, dark-gray, slipped, and burnished, with perhaps a trace of incision below spout.



*Discussion:* This fragment would be at home in Middle Phrygian contexts west of the Kızılırmak as well as in the territory of Kerkenes. Vessels with sieved spouts were made for a long time at Gordion and were also found in some of the Phrygian tumuli at Ankara. The fine, dark-gray, burnished slip is typical of fine vessels at Kerkenes as represented by otherwise undiagnostic sherds.

<sup>114</sup> Discussed in Genz 2006b.

## Sherd with Pot Mark

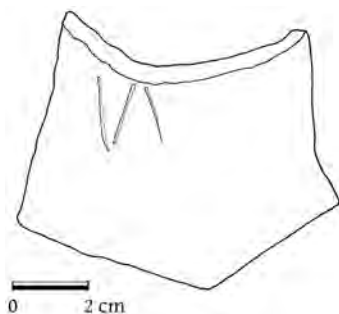
*Site Inventory Number:* K00.092

*Plate:* 103c

*Identification Number:* 00CT15U03pot02

*Photograph:* 05dpnk1103

*Description:* Shoulder sherd, probably from a jug. Handmade; pale reddish brown fabric with sparse grits and traces of vegetal temper, exterior smoothed. Traces of brown paint. Incised mark, very possibly under or just to the right of the handle as seen in more fully preserved examples. Pot mark catalog number 9, incised after firing.



## Faceted Sherd

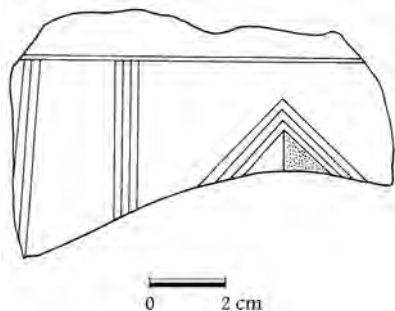
*Site Inventory Number:* K00.093

*Plate:* 103d

*Identification Number:* 00CT18U17pot01

*Photograph:* 05dpnk1102

*Description:* Sherd of diamond-faceted ware from a closed wheel-made vessel; fine gray fabric, exterior black-slipped and polished. Patterning comprises a band of wide and narrow panels framed by a single incised line at the top and sets of four parallel vertical lines. The preserved portion of a wide panel contains the upper portion of a raised lozenge framed by four incised lines.



*Discussion:* Fragments of faceted ware were also recovered from between Structures A and D, cataloged

above, as well as at the Cappadocia Gate. Pottery of this type is found at Gordion and, in more limited quantities, at Boğazköy and Kaman Kalehöyük.<sup>115</sup> The center of manufacture has not been identified.

## IRON AGE POTTERY FROM STRUCTURE C

A number of complete or restorable pottery vessels were excavated in portions of the northern and southern rooms of Structure C. Because only parts of each room were emptied the assemblage is not complete. From these same levels were several carbonized pits of Cornelian cherries that might have been associated with whatever the large vessels were being used for.<sup>116</sup> It is to be remembered that these vessels were on the floors, or in the rooms, at the time of the fire and that they relate to activities that took place in this building in its final phase. Whether the two large vessels, a conical bowl with drop handles, and a pithos, both with lids, were placed in the southern room before the level of the exterior surfaces was raised is unlikely, but not impossible.

### Pottery from the Northern Room of Structure C

#### Juglet

*Site Inventory Number:* K00.086

*Plate:* 104a

*Identification Number:* 00CT15U03pot01

*Photograph:* 05dpnk1101

*Yozgat Museum Registration Number:* 1578

*Dimensions:* H: 13.6 cm; Dia (base): 5.8 cm

*Description:* Side-spouted juglet with flat base and high strap handle. Handmade; soft, well levigated fabric without visible temper. The mottled surface is buff through pale brown to pale reddish-brown with a large black area opposite the spout. Large areas retain a high burnish, but the surface is almost entirely covered with brown sediment that is harder than the fabric. Mended, complete. Found on



<sup>115</sup> See Summers 2021; Matsumura 2008.

<sup>116</sup> Smith and Branting 2014.

the floor of the northern room, close to the pottery funnel K00.88.

*Conservation:* After drying, brushing of the loose soil on surface and sherd edges. Consolidation with 3% Paraloid B-72 acrylic resin in acetone:ethanol. Sherds joined using HMG cellulose nitrate adhesive. Further mechanical cleaning carried out to reduce accretion on surface. Gapfilled using Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

#### Funnel

*Site Inventory Number:* K00.088

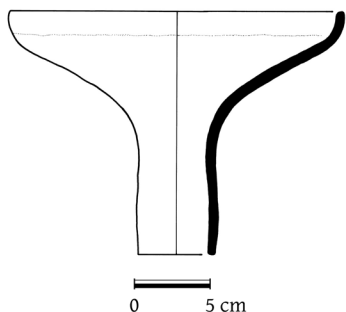
*Plate:* 104b

*Identification Number:* 00CT15U05pot01

*Photograph:* 05dpmk1114

*Dimensions:* H: 16 cm; Dia (rim): 22 cm

*Description:* Funnel, probably handmade; soft fabric without visible temper, but some fine grit inclusions. The surface is buff through greenish gray; vertical smoothing marks can be seen on the spout, horizontal ones on the exterior of the main body; finished with a high brownish-red burnish. Reddish-brown paint on the interior and exterior of the rim, perhaps dipped. Pot mark 8, in the form of an X, was lightly incised on the interior of the body after firing. Found on the floor of the northern room, close to pottery juglet K00.086.



#### Sherd with Pot Mark

*Site Inventory Number:* K00.091

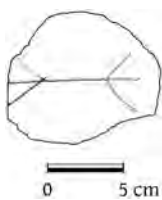
*Plate:* 105a

*Identification Number:* 00CT15U05pot02

*Photograph:* 05dpmk1104

*Dimensions:* L (extant): 10.2 cm

*Description:* Base of closed vessel, probably a jar. Gray fabric with sparse grits, exterior burnished. There is a shallow mark, pot mark catalog number 10, incised on the underside before the vessel was fired. Found pressed into the floor of the northern room.



## Pottery from the Southern Room of Structure C

### Juglet

*Site Inventory Number:* K00.087

*Plate:* 105b

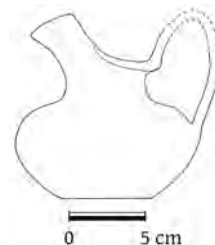
*Identification Number:* 00CT18U04pot01

*Photograph:* 05dpmk1109

*Yozgat Museum Registration Number:* 1575

*Dimensions:* H: 11.9 cm; Dia (base): 5.7 cm

*Description:* Juglet, spouted with flat base and high strap handle. Handmade; soft, well levigated fabric without visible temper. The mottled surface is buff through pale brown to gray. Large areas retain a high burnish, but the surface is almost entirely covered with brown sediment that is harder than the fabric. Mended, complete. Found on the floor of the southern room near the collection of larger pottery vessels.



*Conservation:* Sherd edges were cleaned and coated with 3% solution of Paraloid B-72 acrylic resin in acetone:ethanol. Mended using HMG cellulose nitrate adhesive. Gapfilled using Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

### Large Lid with Faceted Bar Handle

*Site Inventory Number:* K00.118

*Plate:* 106

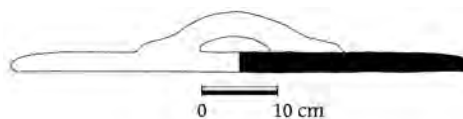
*Identification Number:* 00CT18U04pot02

*Photograph:* 05dpmk1215

*Yozgat Museum Registration Number:* 1518

*Dimensions:* D: 58.8 cm; Th (avg.): 2.5 cm

*Description:* Heavy, flat, circular lid with a lightly faceted bar handle. Handmade coil construction; low fired. Gray to buff, with much medium-sized granitic grit; underside with traces of coils visible, especially toward the edge, smoothed; top very smooth pale yellowish brown, blackened by fire. Mended from 90 sherds plus 20 fragments laminated off the underside. Found with other vessels on the floor of the southern room.



*Conservation:* Sherds were cleaned using tap water and a very soft artist's paintbrush. The joining edges were consolidated by brushing on two coats of a 7.5% solution of Paraloid B-72 acrylic resin in acetone:ethanol 24 hours apart. Mended using a 50% solution of Paraloid B-72 in acetone:ethanol (95:5) applied with a brush. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

#### Large Lid with Ridged Bar Handle

*Site Inventory Number:* K00.119

*Plate:* 107

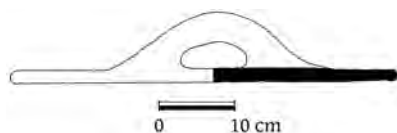
*Identification Number:* 00CT18U04pot03

*Photograph:* 05dpnk1216

*Yozgat Museum Registration Number:* 1569

*Dimensions:* D: 50 cm; Th: 1.4–1.8 cm

*Description:* Thin, flat, circular lid with ridged bar handle. Handmade coil construction; low fired. Reddish buff, with much medium-sized granitic grit; underside with traces of coils visible, especially toward the edge, smoothed; top smoothed, pale yellow to reddish brown, blackened by fire. Found with other vessels on the floor of the southern room.



*Conservation:* The sherds were cleaned using tap water and a very soft artist's paintbrush. The joining edges were consolidated by brushing on two coats of a 7.5% solution of Paraloid B-72 acrylic resin in acetone:ethanol 24 hours apart. Mended using a 50% solution of Paraloid B-72 in acetone: ethanol (95:5) applied with a brush. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

#### Large Bowl

*Site Inventory Number:* K00.120

*Plate:* 108

*Identification Number:* 00CT18U04pot04

*Photographs:* 05dpnk1213, 05dpnk1214

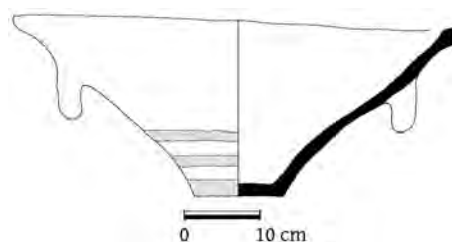
*Yozgat Museum Registration Number:* 1567

*Dimensions:* D: 59 cm; H: 22–23 cm

*Description:* Large deep bowl with drop handles. Handmade, built up from base in slabs or coils.

Reddish buff, with much medium-sized granitic grit; interior variable in color from pale gray through buff to reddish brown, smoothed; exterior surface smoothed, spalled; thick white "paint" on base in two bands above base and around handles. Found with other vessels on the floor of the southern room.

*Conservation:* The sherds were washed with tap water and a stencil brush and hog's bristle brushes. Most of the sediment on the surfaces of the sherds was removed. The joining edges of the sherds were consolidated by brushing on two coats of a 7.5% solution of Paraloid B-72 acrylic resin in acetone:ethanol 24 hours apart. The bowl was mended using a 50% solution of Paraloid B-72 in acetone:ethanol (95:5) applied with a brush.



#### Pithos

*Site Inventory Number:* K00.121

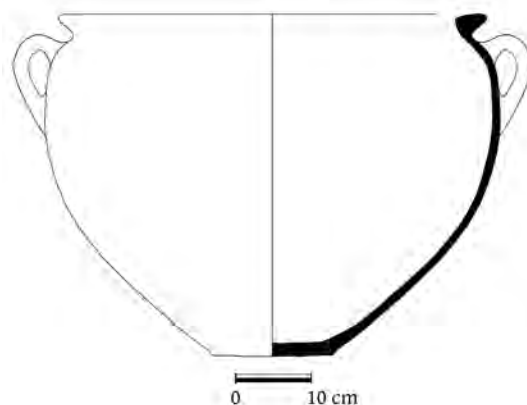
*Plate:* 109

*Identification Number:* 00CT18U04pot05

*Photograph:* 01slvf2108

*Dimensions:* D: 59 cm; H: 44.5 cm

*Description:* Pithos with flat base, two opposed vertical strap handles, and triangular rim. Handmade, built up from base, not very highly fired. Medium-sized and fine granitic grit; interior variable in color from buff to red; exterior red to buff, patches of burnishing survive, and horizontal burnishing stroke marks can be seen on part of the belly. Part of the rim was broken away, and there are other indications of damage before destruction. Mended from 353 joining sherds, incomplete but there is a complete profile. Found with other vessels on the floor of the southern room.





*Conservation:* The sherds were cleaned using tap water and a soft brush. The pithos was mended using a 50% solution of Paraloid B-72 acrylic resin in acetone:ethanol (95:5) applied with a brush. Partially gapfilled using Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

## FINDS FROM STRUCTURE E

### Metal Objects

#### Copper Alloy Nail

*Site Inventory Number:* K96.039

*Plate:* 110a

*Identification Number:* 96TT17U05met01

*Photograph:* 05dpnk1005

*Dimensions:* L: 19 mm; Dia (head): 6 mm

*Description:* Small copper alloy nail with domed head.



#### Iron Post Bracket

*Site Inventory Number:* K96.045

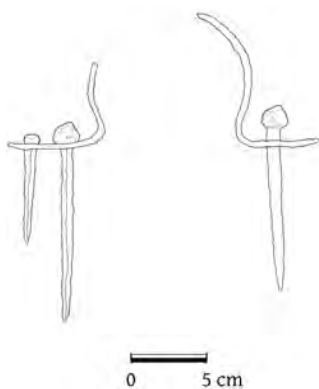
*Plate:* 110b

*Identification Number:* 96TT17U03met01

*Photograph:* 97slvf0721A

*Dimensions:* W (estimated): 21 cm; Dia: 11 cm; Th (of band): 4 mm; L (nails): 13, 12.5, and 7 cm

*Description:* Flanged bracket to hold post in place. Made from an iron band forged to fit around more than half of a round post, presumably for a door. Flanges on both sides have holes punched through to accommodate nails. Fixed in place by a dome-headed nail on each side with a second, smaller, flat-headed nail on one side.



*Conservation:* Mechanically cleaned. Rinsed in acetone for 30 minutes. A protective layer consisting of a 10% solution of Paraloid B-72 acrylic resin in acetone was applied.

## FINDS FROM THE AUDIENCE HALL

### Gold

#### Gold Sheet Fragments

*Site Inventory Number:* K00.095

*Plate:* 111a

*Identification Number:* 00TT22U08met01

*Photograph:* 05dpnk0516

*Dimensions:* 14 × 13 mm

*Description:* Nearly square fragment of gold sheet. Found on the floor of the Audience Hall.



*Site Inventory Number:* K02.125

*Plate:* 111b

*Identification Number:* 02TRO2U09met01

*Photograph:* 05dpnk0513

*Dimensions:* 19 × 15.5 mm (max.)

*Description:* Fragment of gold sheet with two grooves and an attachment hole. There is a small tear. Found on the floor of the Audience Hall.



### Copper Alloy Objects

#### Attachment

*Site Inventory Number:* K02.128

*Plate:* 111c

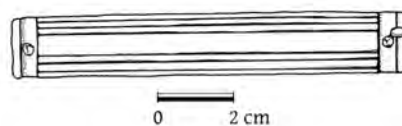
*Identification Number:* 02TRO2U10met10

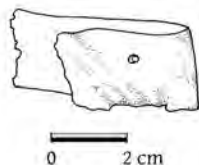
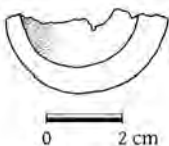
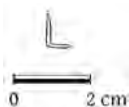
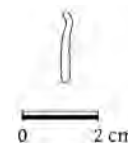
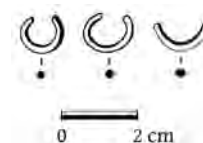
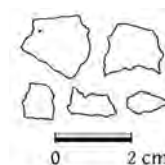
*Photograph:* 05dpnk0914

*Yozgat Museum Registration Number:* 1566

*Dimensions:* L: 104 mm; W: 16 mm; Th: 3 mm

*Description:* Attachment or inlay, copper alloy, perhaps from furniture; condition excellent, complete. Plain, the recessed ends are perforated with a headless nail or rivet preserved in place. A longitudinal plain central band is flanked by three grooves at top and bottom. Found on the floor of the main hall.



**Pierced Band Fragment***Site Inventory Number:* —*Plate:* 111d*Identification Number:* 02TRO2U10met11*Photograph:* 02dpjv4521*Dimensions:* L (extant): ca. 80 mm; W: 20 mm; Dia (perforations): 2 mm; L (rivet, extant): 10 mm*Description:* Copper alloy band of sheet metal with two holes punched from the outer surface; broken at both ends. Also a rivet fragment.**Domed Fragment***Site Inventory Number:* —*Plate:* 112a*Identification Number:* 02TRO2U03met01*Photograph:* 02dpjv4521*Dimensions:* Dia: 44 mm; Th: variable*Description:* Hemispherical domed copper alloy object, hole at top; less than half preserved. Preliminary analysis at METU in 2003 using a Scanning Electron Microscope (SEM Jeol JSM 6400) Tracor-Northern EDX: 87–88% copper, 12–13% tin.**Tube Fragment***Site Inventory Number:* —*Plates:* 112b–c*Identification Numbers:* 02TRO2U10met01,  
02TRO2U10met02*Photographs:* 05dpnko922, 05dpnko921*Dimensions:* L (larger fragment): 35 mm; D: 3 mm*Description:* Tube fragments made from sheet metal with seam along one side. Found on the floor of the hall with met03 and met04.**Rod Fragment***Site Inventory Number:* —*Plate:* 112d*Identification Number:* 02TRO2U10met03*Photograph:* 18dpkc0120*Dimensions:* L: 9 mm*Description:* Copper alloy L-shaped rod, rectangular in section. Found on the floor of the hall with met01, met02, and met04.**Shank Fragment***Site Inventory Number:* —*Plate:* 112e*Identification Number:* 02TRO2U10met05*Photograph:* 18dpkc0119*Dimensions:* L: 19 mm; Dia: 3 mm*Description:* Copper alloy shank fragment, round in section. Found on the floor of the hall with met06.**Three Lunate Rings***Site Inventory Number:* —*Plate:* 112f*Identification Numbers:* 02TRO2U10met06,  
02TRO2U10met08,  
02TRO2U10met09*Photograph:* 02dpjv2822*Dimensions:* Dia: 13 mm, 15 mm, and 17 mm*Description:* Three copper alloy lunate rings, round in section. Found together on the floor of the hall.**Sheet Fragment***Site Inventory Number:* —*Plate:* 112g*Identification Number:* 02TRO2U14met05*Photograph:* 18dpkc0110*Dimensions:* Largest fragment (max.): 16 × 15 mm*Description:* Copper alloy sheet fragments, five in total, nonjoining. Found in doorway fill with iron nails (02TRO2U14met01).**Scraps of Sheet Not Illustrated***Site Inventory Number:* —*Identification Number:* 02TRO2U04met01*Dimensions:* Largest fragment (max.): 45 × 36 mm*Description:* Sheet metal fragments, nonjoining, some with perforations parallel to the edge for sewing.*Site Inventory Number:* —*Identification Number:* 02TRO2U10met04*Dimensions:* L: 14 mm; W: 9 mm*Description:* Sheet metal fragment with part of a single perforation. Disintegrated. Found on the floor of the hall with met01–met03.

## Iron Objects

### Pierced Plate

*Site Inventory Number:* K00.108

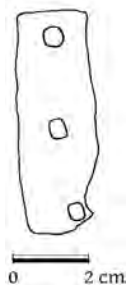
*Plate:* 113a

*Identification Number:* 00TT22U22met01

*Photograph:* 05dpnk0803

*Dimensions:* L: 65 mm; W: 20 mm; Th: 3 mm; L (nails, extant): 6 mm

*Description:* Flat iron plate pierced by three short, rectangular-headed nails equally spaced and hammered to one side; possibly incomplete.



### Fragment

*Site Inventory Number:* K00.112

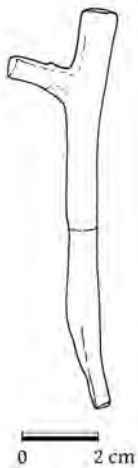
*Plate:* 113b

*Identification Number:* 00TT22U01met02

*Photograph:* 05dpnk0722

*Dimensions:* L (extant): 105 mm

*Description:* Part of an unidentified iron object, both square and round in section.



### Ring

*Site Inventory Number:* —

*Plate:* 113c

*Identification Number:* 02TRO2U12met01

*Photograph:* 05dpnk0715

*Dimensions:* Dia: 21 mm

*Description:* Split ring, iron. From robbing pit, date uncertain.



## Architectural Iron

### Triangular-Headed Nails

*Site Inventory Number:* K00.110

*Plate:* 113d

*Identification Number:* 00TT22U12met01

*Photograph:* 05dpnk0801

*Dimensions:* L (extant): 67 mm; W (head): 15 mm; Sect (shank): 4 × 4 mm

*Description:* Triangular-headed iron nail, head flat, shank square in section, tip missing.



*Site Inventory Number:* K00.111

*Plate:* 113e

*Identification Number:* 00TT22U01met01

*Photograph:* 05dpnk0805

*Dimensions:* L (extant): 70 mm; W (head): 17 mm; Sect (shank): 5 × 5 mm

*Description:* Triangular-headed iron nail, head flat and visibly blunted, shank square in section, tip missing.



*Site Inventory Number:* K00.116

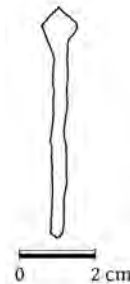
*Plate:* 114a

*Identification Number:* 00TT22U06met01

*Photograph:* 05dpnk0804

*Dimensions:* L (extant): 60 mm; W (head): 9 mm; Sect (shank): 4 × 4 mm

*Description:* Triangular-headed iron nail with flat head that comes to a sharp point at the top; square shank, tip missing. Found in the collapse.



## Flat-Headed Nail

Site Inventory Number: K02.138

Plate: 114b

Identification Number: 02TRO2U10met07

Photograph: 05dpnk0704

Dimensions: L (extant): 51 mm; W (head): 14 × 14 mm;  
Dia (shank): 4 mm

Description: Iron nail with square, flat head, and round shank; bent; incomplete.



## Nails

Site Inventory Number: K02.139

Plate: 114c

Identification Number: 02TRO2U10met12

Photograph: 05dpnk0702

Dimensions: L: 90 mm; Sect (shank): 4 × 2 mm

Description: Iron nail made with very slight head, shank rectangular in section, complete. Found on the floor.



Site Inventory Number: K00.109

Plate: 114d

Identification Number: 00TT22U07met01

Photograph: 05dpnk0802

Dimensions: L (extant): 66 mm

Description: Part of iron nail, tip missing and perhaps also the head.



## Group of Iron Nails Found Together

These nails, as well as the copper alloy sheet fragment (02TR02U14met05), were found together in the fill of the doorway between the Hall and Anteroom.

Site Inventory Number: K02.140

Plate: 114e

Identification Number: 02TRO2U14met01

Photograph: 05dpnk0703

Dimensions: L: 76 mm; Sect (shank) 4 × 4 mm

Description: Nail, iron, with very small head, shank square in section, complete.



Site Inventory Number: —

Plate: 115a

Identification Number: 02TRO2U14met02

Photograph: 05dpnk0712

Dimensions: L: 80 mm; Sect (shank): 4 × 4 mm; L (fragment): 16 mm

Description: Blunt-headed iron nail, complete, and separate shank fragment, square in section.



Site Inventory Number: —

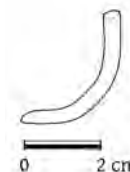
Plate: 115b

Identification Number: 02TRO2U14met03

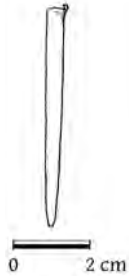
Photograph: 05dpnk0708

Dimensions: L: 49 mm; Sect (shank): 5 × 5 mm

Description: Iron shank fragment with tip, square in section, bent.



*Site Inventory Number:* —  
*Plate:* 115c  
*Identification Number:* O2TRO2U14met04  
*Photograph:* 05dpnk0709  
*Dimensions:* L: 59 mm; Sect (shank): 5 × 5 mm  
*Description:* Blunt-headed iron nail, square in section, complete.



*Site Inventory Number:* —  
*Plate:* 115d  
*Identification Number:* O2TRO2U14met06  
*Photograph:* 05dpnk0717  
*Dimensions:* L (extant): 20 mm  
*Description:* Small iron nail with asymmetric head, square shank, tip missing.



*Site Inventory Number:* —  
*Plate:* 115e  
*Identification Number:* O2TRO2U14met07  
*Photograph:* 05dpnk0718  
*Dimensions:* L (extant): 43 mm  
*Description:* Medium-sized iron nail with asymmetric domed head, square shank, complete.



#### Iron Nail Fragments Not Illustrated

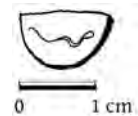
*Site Inventory Number:* —  
*Identification Number:* O2TRO2U02met01  
*Dimensions:* L (extant): 60 mm  
*Description:* Iron shank fragment.

*Site Inventory Number:* —  
*Identification Number:* O2TRO2U16met07  
*Dimensions:* L (extant): 20 mm  
*Description:* Curved iron fragment, square in section.

*Site Inventory Number:* —  
*Identification Number:* O2TRO2U14met08  
*Dimensions:* L (extant): 17 mm  
*Description:* Iron shank fragment.

## Ivory Inlay

*Semicircular Ivory Inlay*  
*Site Inventory Number:* —  
*Plate:* 115f  
*Identification Number:* O2TRO2U01bon01  
*Photograph:* 05dpnk1315  
*Dimensions:* L: 12 mm; W: 8 mm; Th: 3 mm  
*Description:* Semicircular ivory inlay fragment. Toolmarks visible on the back. Found in the topsoil.



## Iron Age Pottery

### Juglet

*Site Inventory Number:* K00.085  
*Plate:* 116  
*Identification Number:* O0TT22U06pot01  
*Photograph:* 05dpnk1108  
*Dimensions:* H: 13 cm

*Description:* Juglet with raised spout, flat base, and slightly faceted handle that is almost round in section. Handmade; soft fabric, well levigated, no visible temper. The surface is very pale gray with a large area of the spout and a patch at the back of the neck black. Burnished to a good polish.



Almost complete, mended; covered with brown sediment that is harder than the fabric. Found on its side in a black burned layer.

*Conservation:* After drying, brushing of the loose soil on surface and sherd edges. Consolidation with 3% Paraloid B-72 acrylic resin in acetone:ethanol. Mended using HMG cellulose nitrate adhesive. Further mechanical cleaning to reduce accretion. Gap-filling with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

## Sherds Not Illustrated

*Site Inventory Number:* —

*Identification Number:* 02TR01U02pot01

*Description:* Rim-neck-shoulder portion of a juglet with cutaway spout.

*Site Inventory Number:* —

*Identification Number:* 02TR02U04pot01

*Dimensions:* Dia: 18 cm

*Description:* Rim sherd from a carinated bowl.

## Architectural Stone

### Column Base

*Plates:* 117a–c

*Identification Number:* 02TR02U11arc01

*Photographs:* 02slvf1617, 02slvf1618, 03dpjv1517

*Dimensions:* Dia (top and bottom): ca. 100 cm; H: ca. 150 cm

*Description:* Many fragments that make up a profile of the only excavated column base, not mended. The shape is round with a slightly concave profile. Sandy wackestone, brownish with parts burned gray and red. The upper part of the shaft and an area approximately 2 cm wide around the circumference of the top are finished with a fine, single-pointed tool, the marks of the shaft being mostly horizontal but also criss-crossed in patches. The remainder of the top and shaft has coarse toolmarks, while the underside of the base is roughly finished with highly prominent marks.



*Discussion:* Only the upper, more finely finished portion of this base would have been visible above the floor. The trimming of the top around the circumference of the top indicates that the wooden column was circular and perhaps as much as 96 cm in diameter. It would seem that the edges cracked away from the core of the drum, the latter having been removed by the robbers.

### Architectural Fragments Not Illustrated

*Identification Number:* 02TR01U08arc01

*Description:* Sandstone architectural fragment with clamp cutting.

*Identification Number:* 02TR02U04arc01

*Description:* Sandstone architectural fragment with one worked surface.

## FINDS FROM THE ASHLAR BUILDING

### Silver and Copper Alloy

#### Silver Sheet Fragment

*Site Inventory Number:* KO2.127

*Plate:* 117d

*Identification Number:* 02TR05U13met01

*Photograph:* 05dpnk0511

*Dimensions:* W: 18 mm

*Description:* Silver sheet fragment with parallel ridges. All edges are broken, but there seem to be traces of attachment holes along one edge. Found in black floor deposit in the front room.



#### Copper Alloy Shank Fragment

*Site Inventory Number:* —

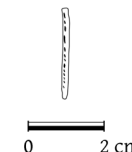
*Plate:* 117e

*Identification Number:* 03TR05U02met03

*Photograph:* 12dpkc1419

*Dimensions:* L (extant): 23 mm; Sect (shank): 2 × 2 mm

*Description:* Shank fragment, square in section with pointed tip. From the stone fill.



## Iron Objects

### Iron Arrowhead

*Site Inventory Number:* —

*Plate:* 117f

*Identification Number:* 03TR05U03met07

*Photograph:* 05dpnk0609

*Dimensions:* L: 62 mm

*Description:* Iron arrowhead with bent tang, complete.



## Small Iron Points

A set of iron points, square in cross section, each one apparently complete and some highly corroded, scattered through the fill.

*Site Inventory Number:* —

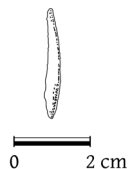
*Plate:* 117g

*Identification Number:* 03TRO5U01met01

*Photograph:* 12dpkc1417

*Dimensions:* L (extant): 29 mm; Sect: 3 × 3 mm

*Description:* Iron point fragment, square in section.



*Site Inventory Number:* —

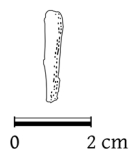
*Plate:* 117h

*Identification Number:* 03TRO5U02met02

*Photograph:* 12dpkc1418

*Dimensions:* L (extant): 24 mm; Sect: 3 × 5 mm

*Description:* Iron point fragment, rectangular in section, tip missing.



*Site Inventory Number:* —

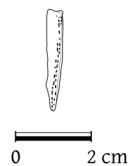
*Plate:* 118a

*Identification Number:* 03TRO5U02met05

*Photograph:* 12dpkc1422

*Dimensions:* L (extant): 26 mm; Sect: 3 × 3 mm

*Description:* Iron point, square in section, complete.



*Site Inventory Number:* —

*Plate:* 118b

*Identification Number:* 03TRO5U02met06

*Photograph:* 12dpkc1423

*Dimensions:* L (extant): 36 mm

*Description:* Point, square in section, highly corroded, complete.



*Site Inventory Number:* —

*Plate:* 118c

*Identification Number:* 03TRO5U03met08

*Photograph:* 12dpkc1424

*Dimensions:* L (extant): 35 mm; Sect: 4 × 4 mm

*Description:* Point, square in section, complete.



*Site Inventory Number:* —

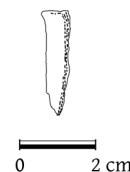
*Plate:* 118d

*Identification Number:* 03TRO5U03met09

*Photograph:* 12dpkc1425

*Dimensions:* L (extant): 28 mm; Sect: 5 × 3 mm

*Description:* Point, rectangular in section, almost complete.



*Site Inventory Number:* —

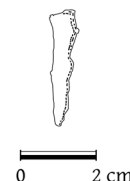
*Plate:* 118e

*Identification Number:* 03TRO5U03met10

*Photograph:* 12dpkc1426

*Dimensions:* L (extant): 31 mm; Sect: 3 × 3 mm

*Description:* Point, square in section, highly corroded, complete.



*Site Inventory Number:* —

*Plate:* 118f

*Site Inventory Number:* 03TRO5U03met11

*Photograph:* 12dpkc1427

*Dimensions:* L (extant): 35 mm; Sect: 5 × 3 mm

*Description:* Point, rectangular in section, complete.



**Triangular-Headed Iron Nails***Site Inventory Number:* K02.126*Plate:* 118g*Identification Number:* 02TR05U03met01*Photograph:* 05dpnk0701*Dimensions:* L (extant): 130 mm; W (head): 17 mm

*Description:* Triangular-headed iron nail with flat head and square shank, twisted and bent, excellent condition, complete. There are signs of hammering on the head. Found in the collapse.

*Site Inventory Number:* –*Plate:* 119b*Identification Number:* 03TR05U03met05*Photograph:* 05dpnk0613*Dimensions:* L: 94 mm; W (head): 13 mm; Th: 5 mm

*Description:* Triangular-headed iron nail, square in section, tip missing, bent. Found in the burned red-brown deposit immediately above the floor.

*Site Inventory Number:* K02.142*Plate:* 119a*Identification Number:* 02TR05U03met03*Photograph:* 05dpnk0624*Dimensions:* L: 82 mm; W (head): 12 mm; Sect (shank): 6 × 6 mm

*Description:* Triangular-headed iron nail with asymmetrical flat head and square shank, tip missing. Found in the collapse.

*Site Inventory Number:* –*Plate:* 119c*Identification Number:* 03TR05U02met04*Photograph:* 12dpkc1420*Dimensions:* L (extant): 53 mm; W (head): 12 mm; Th (head): 3 mm; Sect (shank): 3 × 4 mm

*Description:* Triangular-headed iron nail with asymmetrical flat head and rectangular shank, tip missing. Found in the collapse.

**Blunt-Topped Iron Nail***Site Inventory Number:* –*Plate:* 120a*Identification Number:* 02TR05U03met02*Photograph:* 05dpnk0707*Dimensions:* L (extant): 71 mm; Sect (shank): 8 × 8 mm

*Description:* Iron nail with blunt top, square in section, complete, heavily corroded. Found in the collapse.





## Architectural Iron

### Iron Band

*Site Inventory Number:* –

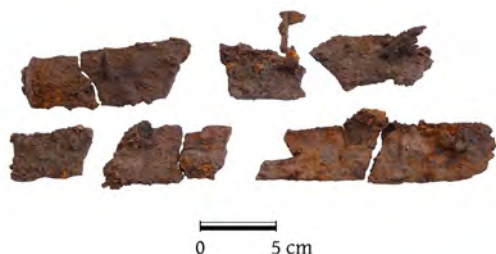
*Plate:* 120b

*Identification Number:* 03TR05U03meto6

*Photograph:* 05dpnk0608

*Dimensions:* L (extant): ca. 522 mm; W: ca. 5 mm

*Description:* Fragments, some joining, of an iron band with a minimum of four nail fragments in place. Very poorly preserved, but one fracture appears to show that it was bent before it was corroded, thus suggesting that it might very possibly have been bent in the same fashion as other bands.<sup>117</sup> Found in the inner room close to the side wall, in a burned red-brown deposit immediately above the floor.



*Discussion:* A number of iron bands with nails are known from Kerkenes, including larger ones from the Cappadocia Gate and from the Monumental Entrance, the latter described in this volume. Fragments of a fenestrated band were also found in TT15 on the floor of the large hall at the northern end of the site. Some or all of them appear to have come from wooden doors. These fragments might also have come from a door, but the nails lack the domed heads and are smaller than those from the Monumental Entrance and the Cappadocia Gate. It is not unlikely that the following two items, a cotter pin and a hook-like nail, were associated.

### Cotter Pin

*Site Inventory Number:* –

*Plate:* 121a

*Identification Number:* 03TR05U02meto1

*Photograph:* 05dpnk0611

*Dimensions:* L (extant): 80 mm; Dia (eye): 39 mm

*Description:* Iron cotter pin, arms incomplete. Found in the destruction debris.



### Spike or Nail

*Site Inventory Number:* –

*Plate:* 121b

*Identification Number:* 03TR05U03meto4

*Photograph:* 05dpnk0612

*Dimensions:* L: 132 mm

*Description:* An unusual iron spike or nail with the head at a right angle to the shank; the shank is rectangular in section and tapers to a point. Complete.



<sup>117</sup> Observation by Joseph Lehner, who is undertaking a detailed study of the Kerkenes metals.

## Frit

### Small Frit Bead

*Site Inventory Number:* KO2.143

*Plate:* 121c

*Identification Number:* O2TRO5U13gfa01

*Photograph:* O5dpnk1308

*Dimensions:* Dia: 4 mm; Dia (perforation): 2 mm

*Description:* Very small frit bead.



## Wooden Object

### Small Wooden Bolster Fragment

*Site Inventory Number:* KO3.161

*Plate:* 121d

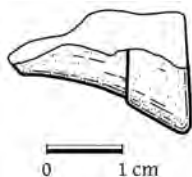
*Identification Number:* O3TRO5U04wdn01

*Photographs:* 18dpkc0112, O8dpkc1164

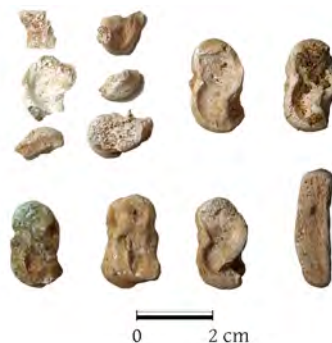
*Dimensions:* L (extant): 23 mm; Dia: ca. 20 mm

*Description:* Furniture fragment, burned. Part of a small wooden bolster.

*Discussion:* This item is the only wooden furniture fragment found at Kerkenes through 2011, though ivory, antler, and bone inlay fragments signal the presence of such furniture. Phrygian woodworking skills are well known from Gordion, where unusual circumstances of burial resulted in exceptional preservation. However, as with the stone bolsters, parallels for this Kerkenes fragment are elusive.



*Description:* A group of six astragali, ovicaprid knucklebones, together with six fragments that belong to at least two more bones, were found in the inner room. Only two of them have evidence of being worked. One (not worked, shown at lower left on the plates) has become green in parts as a result of contact with copper alloy. One of the worked examples is flattened on the lateral side (pl. 122b, bottom row, third from left); the other is flattened on all four sides (pl. 122a-b, bottom right). Four of them are right, two left.



*Discussion:* Astragali are abundant in archaeological deposits. Apart from occurring as simple food waste, astragali often had other uses. Worked astragali found in groups or singly, as well as those that are unworked but found in contexts or quantities that imply a specific use, are abundant at sites in Anatolia and all over the Mediterranean from at least as early as the Chalcolithic. They are found in domestic, funerary, and sanctuary areas. Possibly the largest group of astragali is a deposit of 22,771 pieces found in Korykeion Andron in Delphi, close to the sanctuary of Apollo that was established by Cretans and the god himself, believed to have accompanied them there in the form of a dolphin.<sup>118</sup> The cave, though, was devoted to Pan and the Nymphai, not to Apollo. The Ashlar Building is just next to the Audience Hall, where the dolphin bone was found.

Connections between Kerkenes and Ionia are hinted at by both the ivory furniture inlay discovered at the northern end of the city in 1996, and by the gold ornament discovered at the Cappadocia Gate in 2011.<sup>119</sup> Interpretations of astragali from the Artemision at Ephesus, of approximately the same date as these Kerkenes finds, as well as the slightly later examples from Didyma, are thus of interest.<sup>120</sup>

There are many interpretations for the use of astragali, among which uses are as game pieces,

## Bone Astragali

by Evangelia Pişkin and Geoffrey D. Summers

*Site Inventory Number:* —

*Plate:* 122a-b

*Identification Number:* O3TRO5U03bon01

*Photographs:* 12dpkc0833, 12dpkc0828

*Context:* These pieces were recovered from the burned debris above the heavily burned floor of the inner room. They were only recognized as objects in the course of post-excavation study of animal bones from the Palatial Complex.

<sup>118</sup> Amandy 1984.

<sup>119</sup> Dusinger 2002.

<sup>120</sup> Greaves 2012; Greaves 2013.

counters, spiritual and religious items, and even money.<sup>121</sup> It is apparent that these bones had all these functions and maybe even more, but which function in each case is difficult to decide. The group found in the Ashlar Building might also be a whole suite of game pieces, and the fact that it contains both worked and unworked bones may be taken as a sign that astragali were shaped or left unaltered because each one had a different meaning in the game.

## Burned Debris

### Burned Mudbrick

*Site Inventory Number:* –

*Plate:* 123a

*Photograph:* 02dpjv2116

*Dimensions:* Rectangular, ca. 35 × 20 × 10 cm

*Description:* Mudbrick burned to an orange color, made from gritty granitic clay with much chopped vegetal temper.

*Discussion:* Burned debris recovered from the Ashlar Building comprised fragments of floor fallen from the loft above the front room and a small number of rectangular mudbricks. The loft floor fragments were of burned mud, mostly of a bright orange color, with impressions of reeds and flat wooden surfaces.



### Burned Clay with Reed Impressions

*Site Inventory Number:* –

*Identification Number:* 02TRO5U02bld01

*Description:* Burned clay roofing material with reed impressions.

*Site Inventory Number:* –

*Identification Number:* 02TRO5U02bld02

*Description:* Burned clay roofing material with reed impressions.

*Site Inventory Number:* –

*Identification Number:* 02TRO5U10bld01

*Description:* Burned mudbrick.

*Site Inventory Number:* –

*Identification Number:* 02TRO5U17bld01

*Description:* Burned mud plaster.

## Architectural Stone

### Sandstone Plug

*Site Inventory Number:* –

*Plate:* 123b

*Identification Number:* 02TRO5U23arc01

*Photographs:* 03dpjv1502, 03dpjv1506

*Dimensions:* L: 14.1 cm; W: 9 cm; Th: 5.5 cm (max.), 3 cm (min.)

*Description:* Sandstone plug for filling a gap in stone walling or flooring. Toolmarks are present on all six sides.



## FINDS FROM THE MONUMENTAL ENTRANCE

### Gold

#### Gold-Headed Tack

*Site Inventory Number:* KO2.145

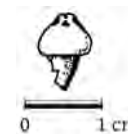
*Plate:* 124a

*Identification Number:* 02TRO1U02met05

*Photograph:* 05dpnk0512

*Dimensions:* L: 10 mm; D: 7 mm

*Description:* Small iron pin or nail, tip perhaps missing, with solid hemispherical head covered with gold foil. Found between pavers.



#### Gold Foil Fragment

*Site Inventory Number:* KO4.176

*Plate:* 124b

*Identification Number:* 04TR16U15met02

*Photograph:* 05dpnk0521

*Dimensions:* 6 mm (max.)

*Description:* Very small, tangled strip of embossed gold foil. Found between pavers.



<sup>121</sup> Bozbay 2012; Gilmour 1997; Holmgren 2004.

### Gold Strip Fragments

*Site Inventory Number:* KO5.210

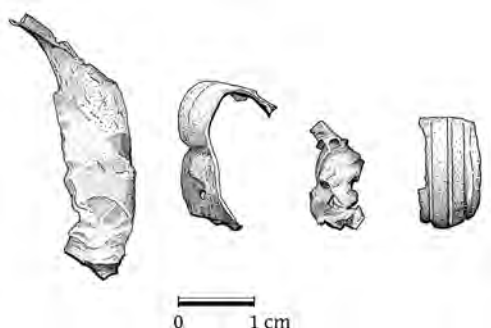
*Plate:* 124c

*Identification Number:* O5TR21U10met01

*Photographs:* O5dpnc1835, O5dpnc1837

*Dimensions:* L (largest fragment): 35 mm; W: 10 mm; L (smallest fragment): 15 mm; W: 6 mm

*Description:* Four small fragments of gold strip, thin and curled. One fragment appears to have three indented decorative lines. Found between stone pavers inside the entrance.



### Gold Animal Horn

*Site Inventory Number:* KO5.215

*Plate:* 125

*Identification Number:* O5TR16U16met05

*Photographs:* O5dpnc1815, O5dpnc1816, O5dpnc1817

*Yozgat Museum Registration Number:* 1517

*Dimensions:* L: 116 mm; Dia (base): 32 mm; Dia (knob): 19 mm; Th: 0.5 mm; Dia (attachment holes): 2 mm

*Description:* Hollow sheet gold animal horn. Formed around wood, some of which is preserved in a carbonized state, slightly deformed, but probably not originally round in section. Made from two pieces of gold with attachment holes both sides of the base.

*Discussion:* An animal horn, perhaps from a bull but possibly an ibex, from a composite object. The only element to have been recovered from this object, it was found immediately adjacent to the column base by the South Platform. It is not impossible that it fell from an adornment on top of the freestanding column.

Earlier horns from the Hittite Empire period made of precious sheet metal include



those on three bull rhytons, each one with pair of separate horns and a handle (i.e., the horns were not handles). Apparently made of silver-copper alloy, one horn is complete and in place. It was originally nailed onto a core, perhaps of wood. These horns were found near Kastamonu.<sup>122</sup>

### Melted Gold Alloy

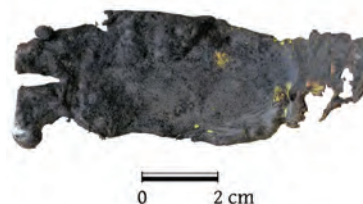
*Site Inventory Number:* —

*Plate:* 126a

*Identification Number:* O5TR15U14met03

*Photographs:* O5dpnc1848, O5dpnc1849

*Description:* Melted metal covered with a black patina. Preliminary pXRF analysis suggests it is a gold alloy enriched with silver and copper. Further work is required. The patina, which may be related to the burning, is perplexing.<sup>123</sup>



### Silver Objects

#### Silver Nail

*Site Inventory Number:* KO3.162

*Plate:* 126b

*Identification Number:* O3TR11U10met01

*Photograph:* O5dpnk0504

*Dimensions:* L: 17 mm; Dia (head): 4 mm; W (shank, max.): 2 mm

*Description:* Silver nail with a domed head; small, excellent condition, complete. Noninvasive sample taken by Joseph W. Lehner.



#### Silver Tacks

*Site Inventory Number:* KO4.174

*Plate:* 126c

*Identification Number:* O4TR14U19met01

*Photograph:* O5dpnk0501

*Dimensions:* L: 11 mm; W (head max.): 3.5 mm

*Description:* Tack, silver, with offset oval head. Noninvasive sample taken by Joseph W. Lehner.



<sup>122</sup> Emre and Çınaroğlu 1993, pp. 676–78, 677 fig. 4, 709 fig. 3a–b, and pl. 129.

<sup>123</sup> I am grateful to Joseph Lehner for sharing the results of his preliminary analysis.

*Site Inventory Number:* KO5.211  
*Plate:* 126d  
*Identification Number:* O5TR21U09met02  
*Photograph:* O5dpnc1802

*Dimensions:* L: 21 mm; Dia (head): 4 mm

*Description:* Tack of silver or silver and copper alloy, complete. Found on the pavement inside the entrance. Noninvasive sample taken by Joseph W. Lehner.



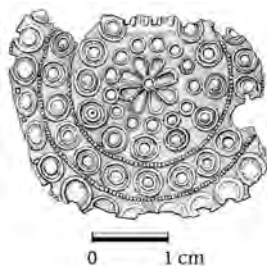
#### Silver Alloy Appliqué

*Site Inventory Number:* KO4.175  
*Plate:* 126e  
*Identification Number:* O4TR16U15met01  
*Photograph:* O4dpcs0924

*Dimensions:* Dia: 38 mm

*Description:* Silver alloy appliqué, two-thirds of a circle with a straight top. Embossed decoration, fine holes for attachment to material around the edge. Thin sheet or foil. Decoration comprises three registers divided by beaded lines.

The central portion contains a flower with eight petals around a double circle, surrounded by thirteen double circles. Above them, at center top, is a pair of bolsters with sewing holes between and to both sides. The bolsters break into a row of eleven triple concentric circles. The same concentric circles, originally fifteen in number, fill the next register. The outermost band seems to have contained as many as twenty larger circles with central bosses. No original outer edge is extant, and it appears as though the foil may have been folded over something. The holes for fixing the foil are trapezoidal, as though made by inserting very small tacks rather than sewing.



#### Silver Sheet Not Illustrated

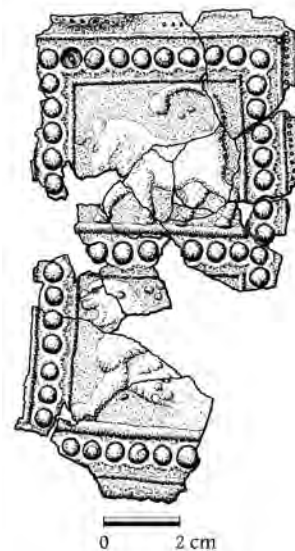
*Site Inventory Number:* —  
*Identification Number:* O5TR15U09met01  
*Dimensions:* 21 × 6 mm  
*Description:* Fragment of sheet metal.

## Copper Alloy Objects

### Embossed Copper Alloy Plaque Decorated Sheet

*Site Inventory Number:* KO5.204  
*Plate:* 127  
*Identification Number:* O5TR17U14met01  
*Photograph:* 14dpkc0301  
*Dimensions:* H (extant): 129 mm; W (extant): 73 mm

*Description:* Joining fragments of an embossed copper alloy plaque. The preserved part is divided into two rectangles, one above the other, each containing an embossed creature. There were one or more additional rectangles below, where the plain top of the next panel is extant (without perforations), and to the left-hand side, as can be seen at the extremity on the left where the bot-



tom corner of the raised frame of the panel is visible. Borders around the rectangles are filled with a row of dome-headed tacks between embossed lines. Small, closely spaced perforations along the perimeter of the plaque at top and right suggest that it was sewn onto a textile. The animal in the upper panel, a lowering bull with forelegs bent and tail arched over the back, is realistic in fashion. One horn and a raised ear are depicted, as well as the sexual organs. The lower animal is a roaring, striding lion.

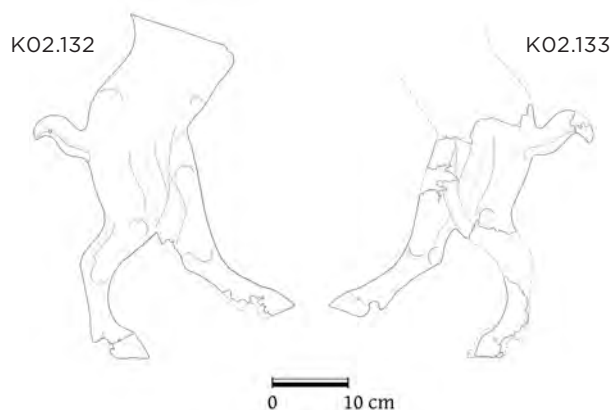
*Conservation:* The fragments were cleaned by static immersion in ethanol followed by gentle brushing with a soft paintbrush, then this was followed by mechanical cleaning with a scalpel. The fragments were joined using either HMG cellulose nitrate adhesive or Paraloid B-72 acrylic resin in acetone:ethanol. On the underside, joins were reinforced by placing small strips of Japanese tissue paper perpendicularly to the breaks and adhering them by brushing on a diluted solution of Paraloid B-72 in acetone:ethanol.

**Ibex Cut from Copper Alloy Sheet***Site Inventory Number:* K02.132*Plates:* 128, 129*Identification Number:* 02TRO1U02meto1*Photograph:* 05dpnk1021*Yozgat Museum Registration Number:* 1546*Dimensions:* 446 mm (estimated max.)

*Description:* The more complete of the pair of fragments. Preservation varies from excellent to poor, with many breaks in the left leg and cracks in the right.

*Site Inventory Number:* K02.133*Plates:* 130, 131*Identification Number:* 02TRO1U02meto2*Photograph:* 14dpkc0201*Dimensions:* 446 mm (estimated max.)

*Description:* The less complete of the pair of fragments. Preservation varies from excellent to poor, with many breaks in the left leg and cracks in the right.



*General Description:* A pair of very similar, but not identical, opposed animal silhouettes cut from sheet metal and embellished by punching. Only the lower portions of each animal were recovered, the one facing right being the more fully preserved, with its original top edge surviving. The metal is sheet copper alloy that, after cutting, was provided with a coat of tin on parts of the outer surface. The fragments were found together lying directly on the pavement in the forecourt of the Monumental Entrance. They are, to all intents and purposes, identical.

Description of the better-preserved K02.132, facing right, will suffice for both. It stands on its rear right hoof, the inner left leg being raised. The short tail, which certainly identifies the animal as an ibex or wild goat, is extended in a raised position. The back is arched in a way that makes it possible, but not certain, that the head was turned. The piece is complete apart from minor portions of the left leg and hoof. It was attached, presumably to wood, by means of three holes, one at the top of each hoof and one in the tail, the latter hole accommodating a nail with a larger shaft than those in the hoofs. Muscles and joints are articulated by indented lines and very slightly raised circular bosses, thereby enhancing the lifelike appearance. Note that an iron pin with gold foil on the head found a little to the south could conceivably have come from the upper part of the same feature.

*Discussion:* It can be easily imagined that these anti-thetical animals stood on both sides of a sacred tree. They would have sported long curved horns that were very possibly fashioned from precious metals, such as gold and silver alloys. The two animals may have been placed on a pediment above the doors in the front façade, or on the doors themselves. Whatever their original position, these preserved lower portions would seem to have been torn down and discarded.

A lion cut from sheet copper alloy excavated at Bayraklı, and now on display at the İzmir Archaeology Museum, is on a similar scale to these ibex. It is said to be of about the same date as the Kerkenes fragments. It would be of great interest to know whether it too had tin coating.<sup>124</sup>

The motif of an ibex on each side of a sacred tree has a very long history in the ancient Near East, from whence it was transferred to the Aegean and the eastern Greek world. The closest parallels in both time and space to these animals in metal at Kerkenes are probably the architectural terracottas excavated at Gordion and, perhaps slightly later in date, Pazarlı.<sup>125</sup>

<sup>124</sup> The lion seems not to have been published. Images can be found on the Internet, for example at: <http://www.pbase.com/dos-seman/image/134542857>.

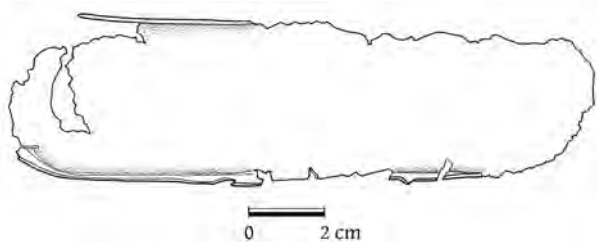
<sup>125</sup> For Gordion see Glendinning 2007, p. 186, figure at right; for Pazarlı see Sivas and Sivas 2007, color illustrations on pp. 6, 131, and 132.

**Copper Alloy Scoop**

*Site Inventory Number:* KO2.136  
*Plate:* 132  
*Identification Numbers:* O2TR01U07met01,  
 O2TR01U07met02

*Photograph:* 10dpkc1270  
*Dimensions:* L: 152 mm; W: 41 mm; H (rim): 3 mm

*Description:* Long, thin, oblong object, rounded at both ends, with a low rim surviving in places. Incomplete and very fragile. Found on the pavement, associated with O2TR01U07met02. Preliminary analysis at METU by Macit Özenbaş in 2003 using SEM (Jeol 6400 JSMTracor Northern) EDX gave tin at 75–79%, copper at 8–10%, iron at 11–15%. This composition probably indicates tinned bronze. Joseph Lehner is currently undertaking more detailed analysis.



*Discussion:* Possibly a scoop. An Achaemenid silver scoop of about the same dimensions formed part of the so-called Lydian Treasure.<sup>126</sup> There are several similar Achaemenid period silver scoops in the British Museum.<sup>127</sup>

**Hairgrip**

*Site Inventory Number:* KO5.185  
*Plate:* 133a  
*Identification Number:* O5TR15U14met02  
*Photograph:* O5dpnc1503

*Dimensions:* L: 55 mm; W (loops): 15 mm

*Description:* Hairgrip, copper alloy, in five pieces, full length preserved but in poor condition. Found under collapse.

**Arrowhead**

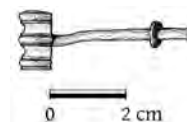
*Site Inventory Number:* KO4.172  
*Plate:* 133b  
*Identification Number:* O4TR14U16met01  
*Photograph:* O5dpnk1024  
*Dimensions:* L: 38 mm; W (max.): 15 mm; Dia (socket): 7 mm

*Description:* Bilobate socketed arrowhead with part of barb preserved, tip missing. From burned debris.

**Copper Alloy Attachment**

*Site Inventory Number:* KO5.203  
*Plate:* 133c  
*Identification Number:* O5TR17U12met01  
*Photographs:* O5dpnc1548, O5dpnc1549  
*Dimensions:* L: L (total): 46 mm; L (bolster): 16mm; W (bolster): 9 mm

*Description:* Attachment in the form of a half-bolster and shaft with a ring or washer. The head is articulated with three reels on the front face. The back of the head, where the shaft attaches, is flat. The shaft itself is slightly flared and flattened at the tip. Orange corrosion is present on the body of the shaft.

**Copper Alloy Nails**

*Site Inventory Number:* KO2.137  
*Plate:* 133d  
*Identification Number:* O2TR01U02met04  
*Photograph:* O5dpnk0915  
*Dimensions:* L (extant): 21 mm; Dia (head): 4 mm; Dia (shank): 2 mm

*Description:* Small copper alloy nail with round head and shank, tip missing. Found between pavers.



*Site Inventory Number:* KO5.212  
*Plate:* 133e  
*Identification Number:* O5TR21U17met01  
*Photograph:* O5dpnc1803

*Dimensions:* L: 33 mm; Dia (head): 4 mm

*Description:* Small copper alloy nail with rounded head, bent, good condition, complete.



<sup>126</sup> Özgen and Öztürk 1996, p. 113 no. 70.

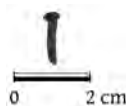
<sup>127</sup> Curtis and Tallis 2005, p. 128 nos. 136–139.

*Site Inventory Number:* K05.213  
*Plate:* 133f  
*Identification Number:* 05TR21U12met01  
*Photograph:* 05dpnc1806  
*Dimensions:* L: 20 mm; Dia (head): 3 mm

*Description:* Small nails, one complete and fragments of at least four more.



*Site Inventory Number:* –  
*Plate:* 133g  
*Identification Number:* 05TR21U09met03  
*Photograph:* 05dpnc1842  
*Dimensions:* L (extant): 12 mm; Dia (head): 4 mm; Dia (shaft): 2 mm  
*Description:* Rivet or small nail fragment.



#### Copper Alloy Wire

*Site Inventory Number:* –  
*Plate:* 133h  
*Identification Number:* 05TR16U17met02  
*Photograph:* 05dpnc1843  
*Dimensions:* L: 45 mm

*Description:* Wire fragment, twisted at one end, bent at the other; perhaps a hairgrip.



#### Copper Alloy Shafts

*Site Inventory Number:* –  
*Plate:* 133i  
*Identification Number:* 05TR16U17met03  
*Photograph:* 05dpnc1844  
*Dimensions:* L: 30 mm

*Description:* Shaft fragment, square in section.



*Site Inventory Number:* –  
*Plate:* 133j  
*Identification Number:* 05TR14U03met01  
*Photograph:* 05dpnc1823  
*Dimensions:* L: 16 mm and 28 mm; Dia: 2 mm

*Description:* Two fragments of copper alloy shaft or wire.



#### Scraps of Copper Alloy Not Illustrated

*Site Inventory Number:* –  
*Identification Number:* 04TR11U14met01  
*Description:* Copper alloy melt product, presumably from destruction event.

*Site Inventory Number:* –  
*Identification Number:* 04TR15U01met01  
*Description:* Copper alloy sheet fragment.

*Site Inventory Number:* –  
*Identification Number:* 04TR16U15met03  
*Dimensions:* W: 42 mm  
*Description:* Sheet metal strip fragments with small perforations along both finished edges.

*Site Inventory Number:* –  
*Identification Number:* 05TR11U00met03  
*Description:* Flake of sheet metal.

*Site Inventory Number:* –  
*Identification Number:* 05TR15U14met04  
*Description:* Sheet metal, two fragments, apparently with parts of two raised bosses. Very encrusted with corrosion products.

*Site Inventory Number:* –  
*Identification Number:* 05TR16U18met20  
*Description:* Sheet metal fragments.

*Site Inventory Number:* –  
*Identification Number:* 05TR17U14met02  
*Dimensions:* L: 70 mm  
*Description:* Sheet metal strip, two joining fragments.

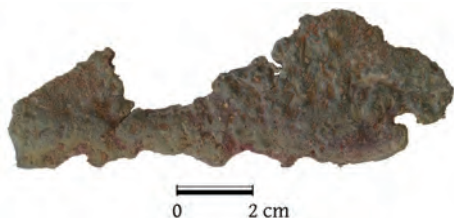


*Site Inventory Number:* —  
*Identification Number:* O5TR17U14metO6  
*Dimensions:* L (extant): 50 mm; W: 24 mm; Th: 0.5 mm; Dia (holes): 0.25 mm  
*Description:* Sheet metal; several small perforations, one with pin fragment in place.

## Lead

### Melted Lead Lumps

*Site Inventory Number:* —  
*Plates:* 134a-b  
*Identification Number:* O5TR16U12metO1  
*Photographs:* O5dpnc1858, O5dpnc1859  
*Dimensions:* L: 117 mm; W: 40 mm; Th: 8 mm  
*Description:* Melted lead, shapeless. Found on the stone pavement.



*Site Inventory Number:* —  
*Plates:* 135a-b  
*Identification Number:* O5TR16U12metO2  
*Photographs:* O5dpnc1871, O5dpnc1872  
*Dimensions:* L (largest): 78 mm  
*Description:* Melted lead, two shapeless pieces, and three small elongated pieces. The large pieces were found adhering to granite blocks in wall.



*Site Inventory Number:* —  
*Plate:* 135c  
*Identification Number:* O5TR17U14metO5  
*Photograph:* O8dpnk0906  
*Description:* Melted lead, shapeless.



## Iron Objects

### Iron Hairgrip

*Site Inventory Number:* KO4.173  
*Plate:* 135d  
*Identification Number:* O4TR14U16metO2  
*Photograph:* O5dpnk0906  
*Dimensions:* L (extant): 37 mm; D (wire): < 2 mm  
*Description:* Iron hairgrip, lower portions of both prongs missing.



### Iron Pin

*Site Inventory Number:* —  
*Plate:* 135e  
*Identification Number:* O5TR14U03metO2  
*Photograph:* O5dpnc1845  
*Dimensions:* L: 47.5 mm; Dia: 2.5 mm  
*Description:* Iron pin, head missing.



## Architectural Iron

### Two Associated Iron Bands from TR16

*Site Inventory Number:* KO5.191  
*Plates:* 136, 138, 153a (nail)  
*Identification Number:* O5TR16U18metO5  
*Photograph:* 10dpkc1202  
*Dimensions:*

*Band:* L (total): 1960 mm; W: 53 mm; Th: 5 mm  
*Holes in band:* Dia: 12 mm; rectangular hole: 11 × 15 mm; Dist. (between hole centers, in mm from square end): 56, 350, 270, 315, 270, 315, 285, 350, 315, 20.  
*Nail:* L: 148 mm; Dia (head): 19 mm; H (head): 14 mm; Sect (shaft at top): 11 × 11 mm

*Description:* Iron band bent almost double. There are six circular nail holes punched through from one side and, at one end, a square hole punched through from the opposite side. The end with the square hole is also cut square from the same side as the hole, the cut edge being beveled. The other end is cut at a slant close to the last hole. There is a dome-headed nail preserved in place in the central hole, hammered



through from the opposite side to that which the holes were punched from, so that the burrs around the holes were against the wood. The smaller of the two iron bands from TR16, K05.191, found in an undisturbed context in the destruction level in the court of the Monumental Entrance.

*Conservation:* When excavated in 2005, the band was found to be bent and twisted. It was covered in loose soil, iron corrosion products, and fluffy white carbonate. The exterior layer of corrosion had spalled off in areas to reveal a wet-looking surface beneath. The band was ductile, which revealed that its core was still metallic. The surfaces of the band were dry brushed to remove loose carbonate; then its surfaces were cleaned several times by scrubbing with ethanol and/or isopropanol. It was stored with silica gel.

In 2010, the band was actively corroding; fresh iron corrosion products had appeared on its surfaces since it was first cleaned in 2005. Loose flakes were removed. The surfaces of the band were scrubbed with ethanol to remove the fluffy, orange, active corrosion products that had appeared since the band was first cleaned. A sealed bag consisting of two types of oxygen- and water-vapor-resistant barrier film was constructed to house the iron band. (The bag's opaque lower face consists of aluminized polyethylene and polypropylene MarvelSeal 360. The transparent upper face is made from Escal that has a transparent polypropylene outer layer with an inner layer composed of a vacuum-deposited ceramic on a PVA substrate.) Three edges of the bag were heated with an iron to bond the two types of barrier film. Silica gel with cobalt chloride indicator (blue gel) and a humidity indicator card were placed inside the bag with the iron band before the fourth edge was sealed. Each year when the Kerkenes finds depot is reopened the condition of the iron band, the color of the silica gel, and the reading on the humidity indicator card are checked.

*Site Inventory Number:* K05.192  
*Plates:* 137, 138a, 138c (nail), 139  
*Identification Number:* 05TR16U18met06  
*Photograph:* 10dpkc1203  
*Dimensions:*

*Band:* L (total): 3120 mm; W: 50 mm; Th: 6 mm  
*Holes in band:* Dia: 12 mm; Dist. (between hole centers in mm, from rounded end): 50, 240, 270, 360, 350, 380, 350, 300, 285, 385, 20  
*Nail:* L: 142 mm; Dia (head): 91 mm; H (head): 16 mm; Sect (shaft at top): 9 × 9 mm

*Description:* Iron band bent almost double, still ductile, rounded at one end, cut straight at the other, with ten circular nail holes all punched through from the same side. One dome-headed nail was in position in the third hole from the square end. The larger of the two iron bands from TR16, K05.192 was found in an undisturbed context in the destruction level in the court of the Monumental Entrance.

*Conservation:* The details of the condition, conservation treatment, and storage of this iron band are the same as for K05.191, above.



#### Two Associated Iron Bands from TR11

Two iron bands, presumably from a wooden door, were found in the ashy burned layer directly above the stone pavement of the court in TR11. The drawing of the larger, better-preserved piece serves to illustrate the salient points as well as the poor state of preservation. The metal was highly corroded, with wooden pseudomorphs visible in the corrosion products. Many parts were coated with bright white carbonate accretions.

*Site Inventory Number:* —  
*Plates:* 140, 141, 142a-c  
*Identification Number:* 03TR11U08met01  
*Dimensions:*

*Band:* L: 2155 mm; W: 75 mm; Th: 3 mm  
*Holes in band:* Dia: 10 mm; Dist. (between hole centers in mm, from end to end): 35, 190, 55, 180, 95, 90, 195, 300 (?), 135, 55, 200, 55, 115, 215, 205, 35

*Longer dome-headed nail:* L: 146 mm; H: 13mm;  
D (head): 20 mm

*Shorter dome-headed nail:* L: 134 mm; H (head):  
12 mm; D (head) 17 mm

*Description:* Iron band, bent into a V shape, complete in eight joining pieces. Pierced by twelve holes all punched through from the same side. Two dome-headed nails, square in section and slightly differing in size, are preserved in place.



*Conservation:* When excavated, the iron band was in very poor condition. It was totally mineralized, actively corroding, and had laminated and broken into a large number of fragments. Following cleaning and some mending, the fragmented band was stored in sections on firm supports made from insulation foam and placed inside sealed bags constructed from two types of oxygen- and water-vapor-resistant barrier film. (The bag's opaque lower face consists of aluminized polyethylene and polypropylene Marvel-Seal 360. The transparent upper face is made from Escal that has a transparent polypropylene outer layer with an inner layer composed of a vacuum-deposited ceramic on a PVA substrate.) Three edges of the bags were heated with an iron to bond the two types of barrier film. Silica gel and a humidity indicator card were placed inside the bags with the iron band before the fourth edge was sealed.

*Site Inventory Number:* —

*Plate:* 141a

*Identification Number:* 03TR11U08met02

*Dimensions:*

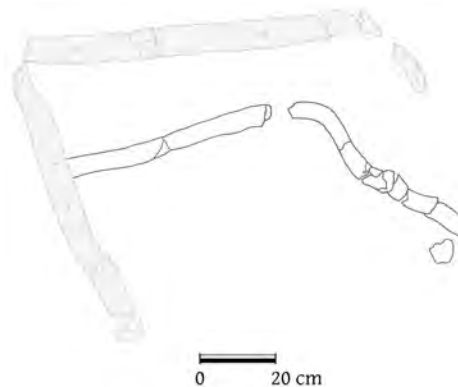
*L (total):* 1170 mm; *W:* 55 mm; *Th:* 3 mm

*Holes in band:* *Dia:* 12 mm

*Nail:* *L:* 119 mm; *H (head):* 12 mm; *Dia (head):* 17 mm

*Description:* Iron band, complete in six joining pieces. Pierced by three holes all punched through from

the same side. Associated with a dome-headed nail, shank square in section.



*Conservation:* The details of the condition, conservation treatment, and storage of this iron band are the same as for 03TR11U08met01, above.

#### Fragments of Iron Bands Not Illustrated

*Site Inventory Number:* —

*Identification Number:* 05TR15U15met01

*Dimensions:* *L:* 26 mm; *W:* 17 mm

*Description:* Sheet fragment, perhaps part of a band.

*Site Inventory Number:* —

*Identification Number:* 05TR15U15met02

*Dimensions:* *L:* 36 mm; *W:* 28 mm

*Description:* Sheet fragment, perhaps part of a band.

*Site Inventory Number:* —

*Identification Number:* 05TR21U08met01

*Dimensions:* *L × W (largest fragment):* 45 × 33 mm

*Description:* Sheet fragments, perhaps from an iron band.

*Site Inventory Number:* —

*Identification Number:* 05TR21U09met04

*Dimensions:* *L × W (largest fragment):* 60 × 48 mm

*Description:* Sheet fragments, perhaps from an iron band.

*Site Inventory Number:* —

*Identification Number:* 05TR21U11met01

*Dimensions:* *L (extant):* 41 mm; *W (extant):* 47 mm; *Th:* 6 mm

*Description:* Sheet fragment, perhaps from an iron band.

*Site Inventory Number:* —  
*Identification Number:* O5TR21U12metO2  
*Dimensions:*

*First fragment:* L (extant): 680 mm; W (extant): 38 mm; Th (extant): 2 mm

*Second fragment:* L (extant): 18 mm; W (extant): 41 mm; Th: 4 mm

*Description:* Two sheet fragments, perhaps from an iron band. The second fragment has part of a nail shaft.

*Site Inventory Number:* —  
*Identification Number:* O5TR21U12metO3  
*Dimensions:* L (extant): 45 mm; W (extant): 45 mm; Th: 5 mm; Dia (hole): 11 mm

*Description:* Sheet fragment, perforated, from an iron band.

*Site Inventory Number:* —  
*Identification Number:* O5TR21U13metO1  
*Description:* Iron sheet fragments, possibly from a band, plus an iron nail shank fragment.

#### Discussion of the Iron Bands:

Two pairs of bands were recovered from the destruction level in the court of the Monumental Entrance. In both cases, one band was larger than the other. No standard unit of measurement could be ascertained. Additional fragments of similar iron bands were recovered from the rear of the Monumental Entrance, in TR21. The distribution, in front of the front façade and at the rear of the inner façade, makes it highly likely that these bands were somehow associated with the large double-leaved doors at the front and back. Furthermore, a similar, smaller pair of bands found in a doorway leading into a side chamber at the Cappadocia Gate seems to demonstrate that these types of bands were from the doors themselves.<sup>128</sup> If this was indeed the case, it is nevertheless not at all easy to understand how the bands functioned or where on the doors they were placed. Evidence from the Cappadocia Gate, where one band that was folded double had the two ends fastened together by the same nail, demonstrates that these bands from the Monumental Entrance were also doubled around timber with large nails penetrating holes on both sides. It is probable that this arrangement could be achieved only by making the holes in the bands while the timbers were being assembled,

so carpentry and smithing would have been done in the same location or workshop.

## Iron Brackets and Braces

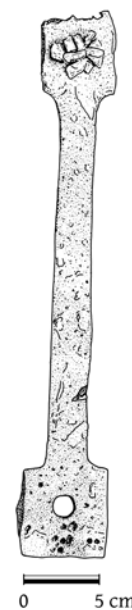
### Iron Brackets

*Site Inventory Number:* KO5.207  
*Plate:* 143  
*Identification Number:* O5TR17U14metO7  
*Photographs:* O5dpnc1541, O5dpnc1546  
*Dimensions:* L: 360 mm; W (center): 26 mm; W (ends): 60 mm; Th (ends): 15 mm; Th (center): 22 mm; Dia (hole): 12 mm

*Description:* Iron bracket or clamp with square ends, each one with a nail hole; perhaps part of a corroded nail is in place. Wooden pseudomorphs are preserved on the underside.

*Conservation:* The surfaces of the bracket were covered in carbonate accretion, soil, and loose iron corrosion products. Surfaces of the bracket and all associated fragments were dry brushed and then scrubbed and rinsed with isopropanol. Any joins found among associated fragments were adhered using Paraloid B-72 acrylic resin in acetone:ethanol.

When its storage box was opened in 2015, the bracket was found to be actively corroding. It was scrubbed with ethanol to remove the fresh corrosion products. A sealed bag consisting of two types of oxygen- and water-vapor-resistant barrier film was constructed to house the iron bracket. (The bag's opaque lower face consists of aluminized polyethylene and polypropylene MarvelSeal 360. The transparent upper face is made from Escal that has a transparent polypropylene outer layer with an inner layer composed of a vacuum-deposited ceramic on a PVA substrate.) Three edges of the bag were heated with an iron to bond the two types of barrier film. Silica gel with cobalt chloride indicator (blue gel) and a humidity indicator card were placed inside the bag with the iron bracket before the fourth edge was sealed.



<sup>128</sup> Summers 2021.

*Site Inventory Number:* KO3.163  
*Plates:* 142d, 144, 145  
*Identification Number:* O3TR11U12met01  
*Photographs:* O3dpjv5832, O3dpjv6004, O3dpjv7133

*Dimensions:* L: 390 mm; W (bar): 32 mm; W (ends, max.): 62 mm; Th: 10 mm; Dia (holes): 14 mm; L (complete nail): 210 mm; H (nail head): 12 mm; Dia (nail head): 20 mm; D (shank, max.): 12 mm

*Description:* Large iron bracket with nails. Large bar, rectangular in section with larger rectangular ends, each pierced by a single circular hole. Very slightly bent, excellent condition. Two dome-headed nails, one with tip missing, rounded toward the top then square in cross section. Found in the ashy layer above the pavement.

*Conservation:* Corroded. The bracket has some corrosion blisters on its surfaces. Mechanically cleaned. A sealed bag consisting of two types of oxygen- and water-vapor-resistant barrier film was constructed to house the iron bracket. (The bag's opaque lower face consists of aluminized polyethylene and polypropylene MarvelSeal 360. The transparent upper face is made from Escal that has a transparent polypropylene outer layer with an inner layer composed of a vacuum-deposited ceramic on a PVA substrate.) Three edges of the bag were heated with an iron to bond the two types of barrier film. Silica gel with cobalt chloride indicator (blue gel) and a humidity indicator card were placed inside the bag with the iron bracket before the fourth edge was sealed. Each year when the Kerkenes finds depot is reopened the condition of the iron bracket, the color of the silica gel, and the reading on the humidity indicator card are checked.



#### Iron Bracket Fragments

*Site Inventory Number:* —  
*Plate:* 146a  
*Identification Number:* O4TR14U20met01  
*Photograph:* O5dpnk0908

*Dimensions:* L: 50 mm; L (end): 17 mm

*Description:* Iron bracket or clamp with splayed end. The shaft is square in section and has a blunt end.



*Site Inventory Number:* —  
*Plate:* 146b  
*Identification Number:* O4TR14U21met01  
*Photograph:* O5dpnk0601

*Dimensions:* L (longer section): 45 mm; L (shorter section): 20 mm

*Description:* Iron bracket or clamp with bent end.

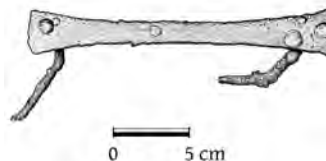


#### Iron Braces

*Site Inventory Number:* KO3.164  
*Plate:* 146c  
*Identification Number:* O3TR11U12met03  
*Photograph:* O5dpnk0615

*Dimensions:* L: 203 mm; W (center): 17 mm; W (ends): 17 mm; Th: 4 mm; L (extant nail): 106 mm

*Description:* Swallow-tailed iron brace with a single nail hole at each end containing remnants of heads and part of one shank and loose shank fragment; complete.



*Conservation:* Covered in carbonate accretion, soil, and loose iron corrosion products. There are some corrosion blisters on its surfaces. Mechanically cleaned.

*Site Inventory Number:* —  
*Plate:* 147  
*Identification Number:* O3TR11U12met06  
*Photograph:* 12dpnd0508

*Dimensions:* L: 212 mm; W (right-hand end): 30 mm; W (center): 10 mm; L (nail): 110 mm

*Description:* Swallow-tailed iron brace with a single nail hole at each end and two nails in place.



*Conservation:* Corroded, mineralized. Some patches of carbonate accretion. Nails are bent.

Some mechanical cleaning was carried out. A sealed bag consisting of two types of oxygen- and water-vapor-resistant barrier film was constructed to house the iron brace. (The bag's opaque lower face consists of aluminized polyethylene and polypropylene MarvelSeal 360. The transparent upper face

is made from Escal that has a transparent polypropylene outer layer with an inner layer composed of a vacuum-deposited ceramic on a PVA substrate.) Three edges of the bag were heated with an iron to bond the two types of barrier film. Silica gel with cobalt chloride indicator (blue gel) and a humidity indicator card were placed inside the bag with the iron brace before the fourth edge was sealed.

*Site Inventory Number:* KO3.165

*Plate:* 148a

*Identification Number:* O3TR11U12metO4

*Photograph:* O5dpnkO616

*Dimensions:* L: 211 mm; W (center): 17 mm; W (ends): 20 mm; L (nail fragment): 120 mm

*Description:* Swallow-tailed iron brace with a single nail hole at each end containing nails, square in section.



*Site Inventory Number:* KO3.166

*Plate:* 148b

*Identification Number:* O3TR11U12metO5

*Photograph:* O5dpnkO618

*Dimensions:* L (long fragment): 120 mm; W (center): 15 mm; W (ends): 30 mm; Th: 4 mm; L (longest nail): 120 mm

*Description:* Swallow-tailed iron brace with a single nail hole at each end and two nails, part missing, altogether in three fragments.



*Site Inventory Number:* KO5.184

*Plate:* 148c

*Identification Number:* O5TR11U00metO2

*Photograph:* O5dpnc1501

*Dimensions:* L: 202 mm; W (center): 11 mm; W (ends): 22 mm and 30 mm; Th: 6 mm; Dia (holes): 6 mm

*Description:* Swallow-tailed iron brace with a single nail hole at each end, complete. From the destruction, near the column base on the northern side.



*Site Inventory Number:* KO5.186

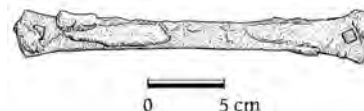
*Plate:* 149a

*Identification Number:* O5TR16U15metO1

*Photograph:* O5dpnc1505

*Dimensions:* L: 240 mm; W (center): 18 mm; W (ends): 27 mm and 30 mm; Th: 5 mm

*Description:* Swallow-tailed iron brace with one nail in place, complete. Headless nails are square in section. From the destruction.



*Site Inventory Number:* KO5.187

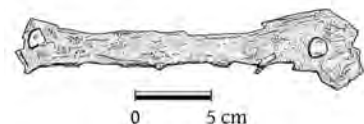
*Plate:* 149b

*Identification Number:* O5TR16U16metO3

*Photograph:* O5dpnc1508

*Dimensions:* L (extant): 220 mm; W (center): 12 mm; W (ends): 29 mm; Th: 6 mm

*Description:* Swallow-tailed iron brace with nail fragments in place at each end and wooden pseudomorphs, complete in two fragments. From ashy deposit above the pavement.



*Site Inventory Number:* KO5.188

*Plate:* 150a

*Identification Number:* O5TR16U16metO4

*Photograph:* O5dpnc1510

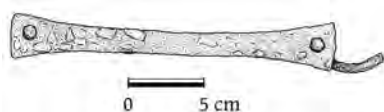
*Dimensions:* L: 202 mm; W (center): 18 mm; W (ends): 28 mm; L (nail): 110 mm; L (nail shaft, straight section): 80 mm

*Description:* Swallow-tailed iron brace with nails in place at each end and wooden pseudomorphs on the underside, complete in three joining fragments. Headless nails are square in section. One complete nail has the end bent over and thus provides an indication of the thickness of the wood, presumably a door. From ashy deposit above the pavement.



*Site Inventory Number:* K05.205  
*Plate:* 150b  
*Identification Number:* 05TR17U14met04  
*Photograph:* 05dpnc1535  
*Dimensions:* L: 210 mm; W (center): 9 mm; W (ends): 30 mm; Th: 6 mm; L (nail): 142 mm; L (to bend in nail): ca. 66 mm; Dia (head): 10 mm

*Description:* Slightly swallow-tailed iron brace with nails, one complete, in place at each end; complete in poor condition. Headless nails are square in section. One complete nail has the end bent over and thus provides an indication of the thickness of the wood. From destruction debris.



*Site Inventory Number:* K05.206  
*Plate:* 151  
*Identification Number:* 05TR17U14met03  
*Photograph:* 05dpnc1540  
*Dimensions:* L: 205 mm; W (center): 15 mm; W (ends): 28 and 32 mm, Th: 6 mm; L (nail) : 125 mm; L (to bend in nail): ca. 66 mm

*Description:* Swallow-tailed iron brace with nails, one complete, in place at each end; complete in poor condition. Headless nails are square in section. One complete nail has the end bent over and thus provides an indication of the thickness of the wood. From destruction debris.



#### Iron Brace Fragments

*Site Inventory Number:* –  
*Plate:* 152a  
*Identification Number:* 05TR16U16met02  
*Photograph:* 05dpnc1857  
*Dimensions:* W (end): 23 mm; L (nail extant): 103 mm; Th: 5 mm

*Description:* Swallow-tailed iron brace fragment and nail, highly corroded with vegetal pseudo-morphs. Found in the ash above the pavement.



*Site Inventory Number:* –  
*Plate:* 152b  
*Identification Number:* 05TR16U18met18  
*Photograph:* 05dpnc1860  
*Dimensions:* L (extant): 55 mm; W (end): 31 mm; Th: 6 mm

*Description:* Swallow-tailed iron brace and nail, one end only, with wooden and vegetal pseudo-morphs. Found in destruction.



*Site Inventory Number:* –  
*Plate:* 152c  
*Identification Number:* 05TR16U18met19  
*Photograph:* 05dpnc1861

*Description:* Swallow-tailed iron brace, highly corroded fragments. Found in destruction.



#### Iron Brace Fragments Not Illustrated

*Site Inventory Number:* –  
*Identification Number:* 05TR16U14met01  
*Description:* Swallow-tailed iron brace, two joining fragments and two nail shaft fragments, highly corroded with wooden pseudo-morphs and perhaps preserved wood. Found in the ash above the pavement.

#### Dome-Headed Iron Nails

*Site Inventory Number:* K05.191  
*Plates:* 153a, see also 136, 138  
*Identification Number:* 05TR16U18met07  
*Photograph:* 10dpkc1201  
*Dimensions:* L: 148 mm; Dia (head): 19 mm; H (head): 14 mm; Sect (shaft at top): 11 × 11 mm  
*Description:* Dome-headed nail. Found in place in the iron band (also K05.191).



*Site Inventory Number:* —  
*Plate:* 153b  
*Identification Number:* 03TR11U08met01  
*Photograph:* 03slvf462  
*Dimensions:* L: 127 mm (longer nail), 122 mm (shorter nail); Dia (heads): 16 mm

*Description:* Two dome-headed nails with square shanks. Found with iron band.



*Site Inventory Number:* —  
*Plate:* 153c  
*Identification Number:* 03TR11U12met02  
*Photograph:* 03dpjv7047  
*Dimensions:*  
*Longer nail:* L: 146 mm; Dia (head): 20 mm; H (head): 13 mm  
*Shorter nail:* L: 134 mm; Dia (head): 17 mm; H (head): 12 mm

*Description:* Two dome-headed nails with square shank. From the ashy layer above the pavement.



*Site Inventory Number:* —  
*Plate:* 153d  
*Identification Number:* 04TR11U00met01  
*Photograph:* 04dpcs0105  
*Dimensions:* L: 140 mm; Dia (head): 15 mm; W (shank, max.): 9 mm

*Description:* Dome-headed nail, complete. Found during cleaning.



*Site Inventory Number:* KO5.189  
*Plate:* 154a  
*Identification Number:* 05TR16U18met01  
*Photograph:* 05dpnc1514  
*Dimensions:* L: 160 mm; Dia (head): 12 mm; H (head): 14 mm

*Description:* Dome-headed iron nail, excellent condition, complete. Covered with white residue, probably carbonate. The upper third of the shank is round in section, the remainder square. From destruction debris.



*Site Inventory Number:* KO5.190  
*Plate:* 154b  
*Identification Number:* 05TR16U18met03  
*Photograph:* 05dpnc1516  
*Dimensions:* L: 160 mm; Dia (head): 20 mm; H (head): 15 mm

*Description:* Dome-headed iron nail, excellent condition, complete. The shank is square in section. From destruction debris.



*Site Inventory Number:* KO5.193  
*Plate:* 154c  
*Identification Number:* 05TR16U18met07  
*Photograph:* 05dpnc1518  
*Dimensions:* L: 160 mm; Dia (head): 20 mm; H (head): 9 mm; W (square shank, top): 12 × 12 mm

*Description:* Dome-headed iron nail, straight, excellent condition, complete. From destruction debris.





*Site Inventory Number:* KO5.194  
*Plate:* 154d  
*Identification Number:* O5TR16U18met08  
*Photograph:* O5dpnc1520  
*Dimensions:* L: 135 mm; Dia (head): 20 mm; H (head): 14 mm; W (square shank, top): 12 mm  
*Description:* Dome-headed iron nail, flaking with corrosion on the shaft, complete. From destruction debris.



*Site Inventory Number:* KO5.197  
*Plate:* 155a  
*Identification Number:* O5TR16U18met11  
*Photograph:* O5dpnc1526  
*Dimensions:* L: 147 mm; Dia (head): 19 mm; H (head): 15 mm; W (square shank, top): 11 mm  
*Description:* Dome-headed iron nail, straight, excellent condition, complete. From destruction debris in association with iron bands.



*Site Inventory Number:* KO5.195  
*Plate:* 154e  
*Identification Number:* O5TR16U18met09  
*Photograph:* O5dpnc1522  
*Dimensions:* L: 143 mm; Dia (head): 20 mm; H (head): 12 mm; W (square shank, top): 12 mm  
*Description:* Dome-headed iron nail, flattened head, bent end indicating the width of the wood; excellent condition, complete. From destruction debris.



*Site Inventory Number:* KO5.198  
*Plate:* 155b  
*Identification Number:* O5TR16U18met12  
*Photograph:* O5dpnc1512  
*Dimensions:* L: 150 mm; Dia (head): 21 mm; H (head): 11 mm; W (square shank, top): 11 mm  
*Description:* Dome-headed iron nail, curved, excellent condition, complete. From destruction debris in association with iron bands.



*Site Inventory Number:* KO5.196  
*Plate:* 154f  
*Identification Number:* O5TR16U18met10  
*Photograph:* O5dpnc1524  
*Dimensions:* L: 131 mm; Dia (head): 19 mm; H (head): 15 mm; W (square shank, top): 11 mm  
*Description:* Dome-headed iron nail, straight, excellent condition, complete. From destruction debris in association with iron bands.



*Site Inventory Number:* KO5.199  
*Plate:* 155c  
*Identification Number:* O5TR16U18met13  
*Photograph:* O5dpnc1528  
*Dimensions:* L: 142 mm; Dia (head): 20 mm; H (head): 16 mm; W (square shank, top): 11 mm  
*Description:* Dome-headed iron nail, curved, excellent condition, complete. From destruction debris in association with iron bands.



*Site Inventory Number:* K05.200  
*Plate:* 155d  
*Identification Number:* 05TR16U18met14  
*Photograph:* 05dpnc1530  
*Dimensions:* L: 150 mm; Dia (head): 17 mm; H (head): 16 mm; W (square shank, top): 10 mm  
*Description:* Dome-headed iron nail, hammer-flattened head, curved, excellent condition, complete. From destruction debris in association with iron bands.



*Site Inventory Number:* K05.201  
*Plate:* 155e  
*Identification Number:* 05TR16U18met16  
*Photograph:* 05dpnc1532  
*Dimensions:* L: 142 mm; Dia (head): 91 mm; H (head): 16 mm; Sect (shaft at top): 9 × 9 mm  
*Description:* Nail from iron band K05.192, found in position.



*Site Inventory Number:* K05.208  
*Plate:* 156a  
*Identification Number:* 05TR17U14met09  
*Photograph:* 05dpnc1534  
*Dimensions:* L: 230 mm; Dia (head): 31 mm; H (head): 16 mm; Dia (shank, top): 16 mm  
*Description:* Very large dome-headed iron nail, straight, excellent condition, complete. The upper part of the shank is round; farther down it appears to have been hammered but is not square. From ashy debris.



*Site Inventory Number:* K05.202  
*Plate:* 156b  
*Identification Number:* 05TR16U18met17  
*Photograph:* 18dpkc0108  
*Dimensions:* L: 130 mm; Dia (head): 20 mm; H (head): 9 mm; W (square shank, top): 11 mm  
*Description:* Large dome-headed iron nail, top flattened by hammering, straight, excellent condition, complete. From destruction debris.



*Site Inventory Number:* —  
*Plate:* 156c  
*Identification Number:* 04TR14U23met01  
*Photograph:* 04dpcs2003  
*Dimensions:* L: 93 mm  
*Description:* Dome-headed iron nail, square in section.



**Blunt-Headed Iron Nail**  
*Site Inventory Number:* —  
*Plate:* 156d  
*Identification Number:* 04TR11U22met01  
*Photograph:* 05dpnk0605  
*Dimensions:* L: 105 mm; W (shank): 9 × 6 mm  
*Description:* Blunt-headed iron nail, rectangular in section.



**Iron Shaft Fragment**  
*Site Inventory Number:* —  
*Plate:* 156e  
*Identification Number:* 04TR11U22met02  
*Photograph:* 05dpnk0907  
*Dimensions:* L: 260 mm  
*Description:* Shaft fragment, square in section.



*Site Inventory Number:* —  
*Plate:* 156f  
*Identification Number:* 04TR15U03met01  
*Photograph:* 04dpcs0402  
*Dimensions:* L: 85 mm

*Description:* Fragment of shank of hook or nail with tip, bent.



*Site Inventory Number:* —  
*Plate:* 157a  
*Identification Number:* 05TR15U14met01  
*Photograph:* 05dpnc1833  
*Dimensions:* L (extant): 60 mm

*Description:* Nail fragment, highly corroded, with square shank and perhaps a triangular head.

*Conservation:* Surface encrusted with corrosion products and soil; corrosion was orange, powdery, and granular in areas. Surface gently brushed with a stiff brush dampened with ethanol to remove soil and loose corrosion products; hard encrustations removed using pliers, tweezers, and/or scalpel.



*Site Inventory Number:* —  
*Plate:* 157b  
*Identification Number:* 05TR16U18met15  
*Photograph:* 05dpnc1850  
*Dimensions:* L: 40 mm; H (head): 13 mm; Dia (head): 16 mm

*Description:* Dome-headed iron nail head and part of shaft.



### Iron Nail Shank Fragments Not Illustrated

*Identification Number:* 04TR16U01met01  
*Dimensions:* L: 65 mm  
*Description:* Shank fragment with point, bent.

*Identification Number:* 05TR16U17met01  
*Dimensions:* L: 121 mm  
*Description:* Nail shank fragment.

*Identification Number:* 05TR16U18met02

*Dimensions:* L: 135 mm

*Description:* Shank, perhaps from a dome-headed nail, square in section, curved.

*Identification Number:* 05TR16U18met04

*Dimensions:* L: 130 mm

*Description:* Shank, perhaps from a dome-headed nail, square in section.

*Identification Number:* 05TR17U14met08

*Dimensions:* L: 60 mm

*Description:* Shank fragment with tip, square in section.

## Iron Objects

### Sheet Iron Object

*Site Inventory Number:* K02.135

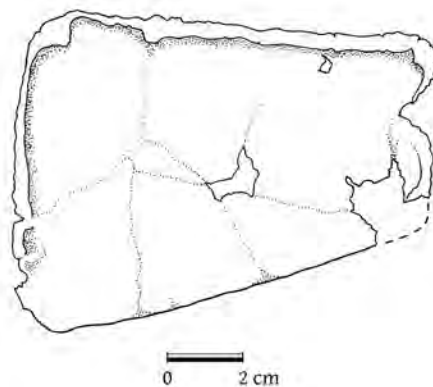
*Plate:* 157c

*Identification Number:* 02TR01U02met03

*Photograph:* 05dpnk1022

*Dimensions:* L (unfolded): 138 mm; W: 105 mm; Th: 7 mm; H (rim): 3 mm

*Description:* Rectangular iron object with shallow raised rim, accidentally folded into an irregular shape. Thick, heavily worked iron sheet metal, hammered on the edges to form a curve. It is possibly architectural. Much of one end is missing, and it is completely mineralized. Found directly beneath the ibex cutout K02.133.



## Cotter Pins

*Site Inventory Number:* K05.209

*Plate:* 158a

*Identification Number:* 05TR20U07met01

*Photograph:* 05dpnc1808

*Dimensions:* L: 70 mm; Dia (loop): 33 mm; Th: 5 mm

*Description:* Cotter pin, largely complete. Found above the pavement inside the entrance.

*Conservation:* Corroded. Surfaces covered with loose orange corrosion products and soil. Surfaces were scrubbed with a stiff brush moistened in ethanol to remove loose soil and corrosion.

*Site Inventory Number:* –

*Plate:* 158b

*Identification Number:* 05TR17U12met02

*Photograph:* 05dpnc1829

*Dimensions:* L (extant): 45 mm; Dia (loop): 34 mm; Th: 5 mm

*Description:* Iron cotter pin, eye and part of one shank.



### Metal Objects from the Surface Not Illustrated

*Site Inventory Number:* –

*Identification Number:* 06PALAU00met01

*Dimensions:* L (extant): 19 mm; Th (shaft); 2mm; Dia (head): 5 mm

*Description:* Small iron nail fragment with round flat head. Probably recent from an animal shoe.

*Site Inventory Number:* –

*Identification Number:* 09PALAU00met01

*Description:* Copper alloy sheet, folded, fragment only. One surface has a high sheen.

## Stone Objects

## Hone Fragment

*Site Inventory Number:* –

*Plate:* 158c

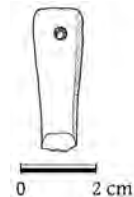
*Identification Number:* 02TR01U01stn01

*Photograph:* 05dpnk1309

*Dimensions:* L (extant): 37 mm

*Description:* Fragment of a stone hone, pierced at one end for suspension, square in section with rounded corners.

*Discussion:* Found in topsoil but probably an Iron Age hone, since there are parallels from Kerkenes and elsewhere.



## Stone Bead

*Site Inventory Number:* –

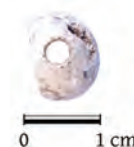
*Plate:* 158d

*Identification Number:* 05TR15U09stn01

*Photograph:* 05dpnc0112

*Dimensions:* H: 8 mm; W: 11 mm

*Description:* Stone bead. Part of one side has broken off. Texture in break suggests material is stone.



## Worked Ivory and Bone Fragments

by Evangelia Pişkin, Noël Siver, and Geoffrey D. Summers

A number of ivory and bone inlay fragments were recovered in the course of excavation, while others were recognized in the course of post-excavation study of animal bones. All except two very small fragments with incisions were found in destruction debris above the passage and room between the two façades, in TR14, or in the southwestern corner of the court; many were from contexts later disturbed by robbing pits in TR15. They were not in situ but instead scattered, as though the objects of furniture they embellished were broken up before the fire.

The majority of fragments appear as though they might have been geometric, and many display marks made by a cutting tool, perhaps a saw, on one surface. While many fragments have slanted or beveled edges that suggest inlays, there are three fragments with incised decoration that could have come from other types of objects, and two fragments that appear to have come from openwork. Additionally,

some small fragments appear to have been too thick for inlays and may thus have come from objects of some kind. While the number of fragments is quite large, approaching sixty, the total volume of ivory is not very great, amounting to only a very small portion of an entire tusk. It is not possible to determine whether there was a local school of ivory carving or a trade in exotic finished items, though in either case the ivory itself would have been imported. Very intricately inlaid wooden furniture is, of course, well known from the slightly older tumuli of the Phrygian elite at Gordion, so it would not be surprising to find that a sixth-century Phrygian tradition of furniture making came to include ivory inlay as the raw material became, perhaps, more readily available.

#### Carved Ivory Disc Fragment

*Site Inventory Number:* —

*Plate:* 158e

*Identification Number:* O5TR17U14bon01

*Photograph:* 18dpkc0122

*Dimensions:* L (extant): 1.84 mm

*Description:* Fragment of ivory disk with incised, excised, and punctated decoration on the preserved surface. Part of a curved edge that, if a true arc, gives a diameter of 40 mm. Orientation is unknown. A narrow rim is defined by an incised line. Within center are curved bands defined by incised lines, one filled with punctations made by stabbing with a sharp pointed tool. Broken and badly fire damaged.



#### Carved Ivory Fragments

*Site Inventory Number:* —

*Plate:* 158f

*Identification Number:* O4TR14U20bon02

*Photograph:* O4dpcs1407

*Dimensions:* H (extant): 11 mm

*Description:* Fragment of carved ivory element, apparently openwork; perhaps part of a lotus.



*Site Inventory Number:* —

*Plate:* 158g

*Identification Number:* O4TR14U20bon03

*Photograph:* O4dpcs1407

*Dimensions:* L: 23.5 mm

*Description:* Ivory inlay fragment, part of a floral motif.



*Site Inventory Number:*

KO4.171

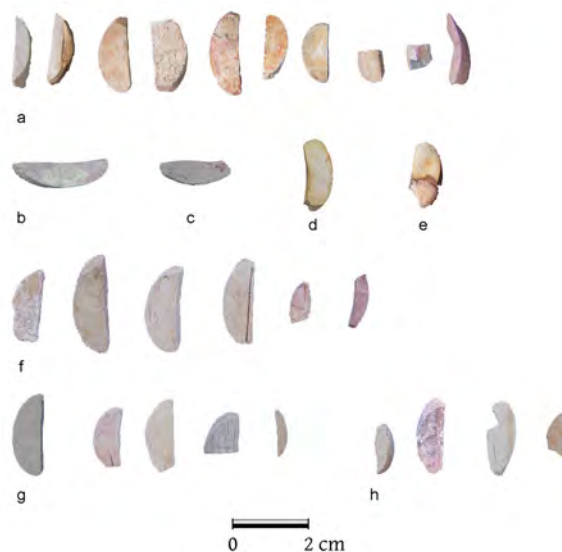
*Plate:* 159

*Identification Numbers:* O4TR15U03bon01,  
O5TR15U09bon02,  
O5TR15U14bon02,  
O4TR11U22bon01,  
O4TR14U20bon0,  
O5TR15U14bon01,  
O5TR15U14bon03,  
O5TR15U00bon01

*Photographs:* O4dpcs1406, O5dpcs0108,  
O5dpcs0109, O4dpcs1405,  
O4dpcs1407, O5dpcs0110,  
O5dpcs0106, O5dpcs0113

*Dimensions:* L: 13–25 mm

*Description:* 29 fragments of curved ivory inlay with beveled edge, cut marks on one surface, and one smooth surface. All are less than a semicircle.



*Site Inventory Number:* —

*Plate:* 160a

*Identification Number:* O5TR15U14bon04

*Photograph:* O5dpcs0106

*Dimensions:* L: 16 mm; W: 11 mm

*Description:* Triangular ivory inlay.



*Site Inventory Number:* —  
*Plate:* 160b  
*Identification Number:* 04TR14U20bon04  
*Photograph:* 04dpcs1407  
*Dimensions:* L : 27 mm

*Description:* Ivory fragment, trapezoidal in section with a curved chip broken from one face.



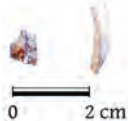
*Site Inventory Number:* —  
*Plate:* 160c  
*Identification Number:* 05TR15U14bon05  
*Photograph:* 05dpcs0106  
*Dimensions:* L (largest fragment): 27 mm  
*Description:* Ten scraps of ivory.



*Site Inventory Number:* —  
*Plate:* 160d  
*Identification Number:* 05TR14U00bon01  
*Photograph:* 05dpcs0107  
*Dimensions:* L: 14 mm; W: 6 mm  
*Description:* Fragment of ivory with toolmarks.



*Site Inventory Number:* —  
*Plate:* 160e  
*Identification Number:* 05TR15U09bon01  
*Photograph:* 05dpcs0111  
*Dimensions:* L (larger): 19 mm; L (smaller): 9 mm  
*Description:* Two fragments of ivory, probably inlays.



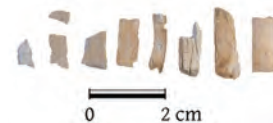
#### Ivory Fragment Not Illustrated

*Site Inventory Number:* —  
*Identification Number:* 05TR21U12bon01  
*Description:* Two very small scraps of ivory with indications of incised decoration on one surface. Note that the context, TR21, is inside the Monumental Entrance; thus these scraps may very well have washed down from the west.

#### Carved Bone Fragments

*Site Inventory Number:* —  
*Plate:* 160f  
*Identification Number:* 04TR16U13bon01  
*Photograph:* 12dpkc0860

*Description:* In TR16, Unit 13, there were nine small pieces of bone that appear worked, flattened, and somewhat squared. They were all intensely burned to a white color.



*Site Inventory Number:* —  
*Plate:* 160g  
*Identification Number:* 04TR15U01bon01  
*Photograph:* 12dpkc0863

*Description:* One piece of worked bone was found. Of oval shape. It was burned white.



#### Baked Clay and Pottery Objects

##### Baked Clay Bead

*Site Inventory Number:* —  
*Plate:* 161a  
*Identification Number:* 04TR14U11pob01  
*Photograph:* 04slvf0706

*Dimensions:* H: 11 mm; Dia: 13 mm  
*Description:* Biconical baked clay bead with flattened ends, pierced, pale-orangey-brown surfaces.



##### Baked Clay Sphere

*Site Inventory Number:* —  
*Plate:* 161b  
*Identification Number:* 04TR15U01pob01  
*Photograph:* 04dpcs0101

*Dimensions:* Dia: 18 mm  
*Description:* Baked clay sphere, pierced. Smoothed reddish-brown surfaces.



**Baked Clay Whorls**

*Site Inventory Number:* KO2.129  
*Plate:* 161c  
*Identification Number:* 02TR01U02pob01  
*Photograph:* 08dpc1157  
*Yozgat Museum Registration Number:* 1518  
*Dimensions:* Dia: 31 mm; H: 20 mm; Dia (perforation): 2 mm

*Description:* Baked clay whorl. The core is buff with large white grits, the surface brown slipped and very worn. The bottom of the whorl may have been shaved.



*Site Inventory Number:* K99.084  
*Plate:* 161d  
*Identification Number:* 99SOUTU0opob01  
*Yozgat Museum Registration Number:* 1394  
*Dimensions:* W (max.): 38 mm; H: 26 mm

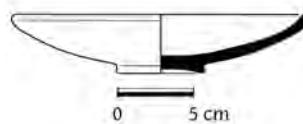
*Description:* Biconical baked clay whorl, rather irregular with the hole not central. Found on the surface close to the palace.

**Iron Age Pottery**

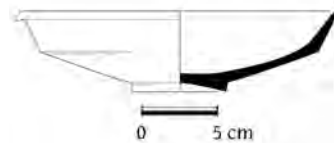
Very little pottery was excavated at the Monumental Entrance, none being found in situ. Restorable vessels were restricted to the bowls and jug cataloged below. All the bowls and the jug exhibit secondary burning from the destruction. There were few other diagnostic sherds. They were presumably somewhere in the Entrance at the time of the fire, as indicated by the large size of the fragments and the number of joining sherds, but it is not possible to determine whether they were placed somewhere or were dropped at the time of the fire. In addition to the bowls, there were a few sherds from a very small number of pithoi that had graffiti scratched onto their surfaces. These sherds were recovered from very disturbed contexts, with no evidence to associate them with activity at the Monumental Entrance. It is possible that some of these pithos sherds were originally thrown into the rubble core of the South Platform. These pieces are described in the catalog of marks and graffiti.

**Bowl with Alphabetic Graffito**

*Site Inventory Number:* KO4.179  
*Plate:* 162  
*Identification Number:* 04TR11U22pot01  
*Photograph:* 04dpc2108  
*Dimensions:* Dia: 202 mm; Dia (base): 58 mm; H: 30 mm  
*Description:* Bowl with alphabetic graffito on underside of base. Fine shallow bowl with concave disc base, about half complete. Secondary burning has changed the original hardness and color. Fine fabric with no visible temper, burnished. Slipped and burnished to a high sheen. There is an alphabetic Paleo-Phrygian graffito on the underside of the base, pot mark catalog number 17.

**Carinated Bowl with Pot Mark**

*Site Inventory Number:* KO5.214  
*Plates:* 163a-b  
*Identification Number:* 05TR16U16pot01  
*Joining Sherds:* 05TR16U17, 05TR17U12  
*Photograph:* 08dpc2219  
*Yozgat Museum Registration Number:* 1570  
*Dimensions:* Dia (rim) 215 mm; Dia (base); 60 mm; H: 55 mm  
*Description:* Carinated bowl with concave disc base, burned, complete. Probably wheel-made, fine vegetal inclusions and occasional white grits, gray core, burnished. The surface is now gray with brown patches, but the original color is uncertain. There are three crosses incised on the underside, pot mark catalog number 14. Found in the ashy destruction above the pavement.



*Conservation:* Mended using HMG cellulose nitrate adhesive. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

**Bowl Base with Pot Mark***Site Inventory Number:* –*Plate:* 163c*Identification Number:* O4TR15U05pot01*Photograph:* O5dpnk1218*Dimensions:* Dia (base): 45 mm

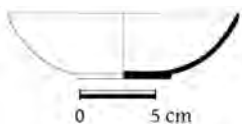
*Description:* Very concave disc base of a bowl of plain fine gray ware with no visible temper, slipped and burnished with a cross incised under the base after firing, pot mark catalog number 13. From a disturbed context at the Monumental Entrance.

**Bowl with Disc Base***Site Inventory Number:* KO4.178*Plate:* 163d*Identification Number:* O4TR11U14pot02

*Additional Sherds:* TR11U04 (1 sherd),  
TR11U09 (1 sherd),  
TR11U10 (1 sherd),  
TR11U14 (5 sherds),  
TR11U16 (1 sherd),  
TR14U09 (1 sherd)

*Dimensions:* Dia: 15 cm; H: 42 mm

*Description:* Fine rounded bowl with disc base, wheel-made, about half complete made up from scattered joining sherds. Secondary burning has changed the original hardness and color. Fine fabric with no visible temper, burnished.



*Conservation:* Mended using HMG cellulose nitrate adhesive.

**Molded Sherd***Site Inventory Number:* KO4.180*Plate:* 163e*Identification Number:* O4TR14U02pot01*Photograph:* O5dpnk1222*Dimensions:* L (extant): 36 mm

*Description:* Sherd from a vessel with leaf-shaped molding, possibly a phiale. Fine ware with no visible temper, very light in weight, original color cream or buff beneath a typical brown patina. From a secondary context.

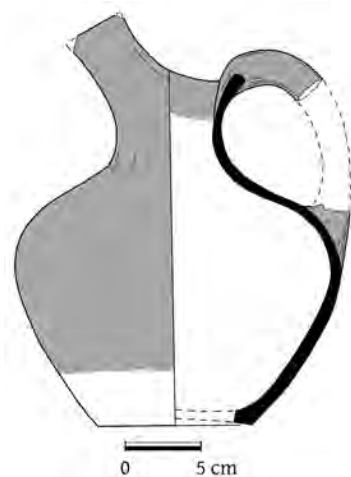
**Jug with Cutaway Spout***Site Inventory Number:* –*Plate:* 164*Identification Number:* O5TR15U15pot01

*Joining Sherds:* one from TR16U11  
and one from TR16U17

*Photograph:* O5dpnc2120

*Dimensions:* Dia (max.): 215 mm; Dia (base): 100 mm;  
H: 272 mm

*Description:* One-handed jug with cutaway spout, incomplete. Wheel-made, grit temper that has spalled on the surface, probably during the fire rather than in the kiln. Slipped and burnished exterior. Fire-altered after breakage with the result that joining sherds have different surface colors, while the original color is uncertain.

**Jug Fragments Not Illustrated***Site Inventory Number:* –*Identification Number:* O3TR11U12pot01

*Description:* Trefoil-spouted jug fragment consisting of six joining rim and neck sherds.

*Site Inventory Number:* KO4.181*Identification Number:* O4TR14U21pot01

*Description:* One-handed jug with trefoil spout, part only. Wheel-made, some grit temper, cream exterior, smoothed and almost burnished in patches.



## Burned Debris

### Burned Debris from the Front Façade

Above the southern end of the foundation slot of the front façade was a huge mass of burned debris, some of which had vitrified from the heat of the fire. This mass comprised burned mud, some burned mudbrick, and hand-sized burned granite. There were impressions and pseudomorphs of timber (pls. 165b, 166b, 167a), some squared (pl. 167b right). While the majority of this debris had been disturbed in later times, two large chunks and several other sizable pieces were found in position. Further large masses of fused stone with some mud were recovered in the collapse into the court. Representative samples of this debris were taken to the stone workshop, beneath which they are currently stored. Smaller pieces of burned debris, including samples with impressions of burned reeds (pls. 167b left, 168–169), timber, and matting were deposited in the excavation depot. It was not possible to discern from this mass of burned and fused material what the structure of the façade had looked like, nor was there sufficient preserved material for for any sense of the timber frame to be recovered. No timber or substantial pieces of charcoal were preserved, the wood having been reduced to ash in the fire. As described elsewhere in this report, it is thought that the façade was a large timber-framed structure, in the center of which was a pair of wooden doors set in a massive timber frame that included a timber threshold. Similar frames are represented in rock-cut façades such as the so-called Midas Monument in the Phrygian Highlands. At 2.5 m, the façade is so thick that it would obviously have comprised two parallel frames tied together with cross members. There does not appear to have been sufficient burned debris to have filled the entire space between the twin timber frames, an observation which raises the possibility that reeds and mud accounted for much of the infilling, and that the mass of fused debris came from the platform walling to the south, having fallen into a void as the façade itself collapsed outward onto the pavement. The amount of burned mud with impressions of layers and sometimes bundles of reeds that was recovered, though not quantified, was sufficient to support this architectural reconstruction. It is suggested in this report that the two façades which cross the Monumental Entrance closely resembled Phrygian rock-cut façades in the Phrygian Highlands. Furthermore,

the façades could be reconstructed as having raised walkways above the doors that allowed foot passage between the platforms to each side. On the basis of these rock-cut architectural façades, walkways are thought to have been hidden behind, or perhaps between, pediments rather than as parapets or battlements. It must, however, be admitted that no evidence was recovered from the fallen debris which provides positive support for this reconstruction.

As the surface of stone pavement to the east of the façade was exposed in the course of excavation, it was possible to recognize stains made by fallen and burned timbers. However, because of the focus on recovery of chips of stone sculpture and inscription, together with the constant danger of collapsing trench edges and platform facing stones, the slow and careful process of exposing the pavement over several seasons was not conducive to detailed recording of these enigmatic traces. Above the pavement, particularly in the central area, there was a deposit several centimeters thick of black, burned soil that was generally damp and rather “greasy.” This deposit included traces of burned reeds and burned clay, some of the latter containing ghostly impressions of layers of reeds, sometimes evidently in bundles. However, it is not absolutely certain how much of this debris had fallen from the façade and how much from structures that might have once stood on the platforms to each side of the court. It did, however, peter out toward the stone face of the South Platform, a fact that perhaps makes it unlikely that much debris fell from a structure on the platform. Some of the fragments, particularly those with impressions of what looks to be woven reed matting (pl. 170a), could conceivably have been from roofing of the small room between the façades, but there was no debris of this type above its burned floor. Examples of carbonized reeds are shown on plate 117a–b.

Vitrification of some of the granite and sandstone (pl. 170b) indicates that during the conflagration temperatures rose more than 800 degrees Celsius, and might have reached in excess of 1000 degrees in places. Species identification of charcoals has not been made, but most is clearly Austrian pine (*Pinus nigra*). None of the wood or the wood impressions possess sufficient rings for dendrochronological analysis. If the wind was blowing through the Monumental Entrance, as it so often does, it is not difficult to visualize high temperatures that reduced almost all the timber to ash.

## Timber Column Fragment

One substantial burned timber, the core of which was wood rather than charcoal, was recovered from in front of the North Platform. This timber was sent to the Malcolm and Carolyn Wiener Laboratory for Aegean and Near Eastern Dendrochronology at Cornell University, where it was studied by Peter Kuniholm and his team. It proved to have 197 rings preserved, with the last ring dated to 884 BC + 4 / - 7 years. If, as seems highly likely, this timber was the inner part of the column that stood on the sandstone base adjacent to the southern side of the North Platform, it would have originally been some 80 to 85 cm in diameter. This measurement is completely consistent with some 300 or more rings having been lost, with the column being more than twice the diameter of the preserved piece.

## Mudbricks

The only mudbricks that were found in the Monumental Entrance were associated with the small room located between the two façades. These mudbricks were rectangular and of the same size as those found elsewhere, measuring some 22 × 35 cm. Additionally, several bricks and brick fragments of half-cylindrical form were found. Their particular function is not known. Similarly shaped mudbricks were discovered at the Küçük Höyük at Gordion, where they should be of about the same date.<sup>129</sup>

## Carved Stone

### Semi-Iconic Idols

Before presenting the catalog of idol blocks and fragments, it may be helpful to provide an overview. The following summary is accompanied by tables 6 and 7. Idols stood on both the southeastern corner of the North Platform and the northeastern corner of the South Platform. On the very corner of the South Platform stood an L-shaped corner block with arms of equal length, which essentially comprised two double-faced idols conjoined at the corner, Idol Block 1 (pls. 171c–176). It is highly likely that the freestanding Idol Blocks 2 and 3 stood on the northern side of the platform. It is probably correct to assume that idols also stood along the front edges of the platforms, but this is an assumption. All the pieces are sandstone.

In sum, fallen from the South Platform are fragments of a corner block, Idol Block 1, with extant portions of three of the original four idol faces identified and doubtless portions of the fourth face among the floating pieces. Additionally, there are portions of three freestanding double-faced idols, thus making for a minimum total of eight idol faces. The number of extant fragments is entirely consistent with this minimum. Further, a unique piece from a smaller idol bears a curl with a cut edge to its left (pl. 197c).

With regard to the North Platform, there are a few small fragments that appear to have broken off from a similar corner block to that on the south as well as a small number of pieces that could have come from either the corner block or from one or more freestanding double-faced idols.

The catalog begins with the idols from the South Platform, starting with the corner block (Idol Block 1) from the northeastern corner. Each of the two freestanding double-faced idols (Idol Blocks 2 and 3) that stood on the northern side facing the Gate Court is next described and, finally, the floating fragments. The catalog concludes with the pieces associated with the southeastern corner of the North Platform.

### Semi-Iconic Idol Faces

While the basic form of each idol face is the same, there are minor variations. The L-shaped corner block (Idol Block 1) comprises portions of two double-faced idols, one on each equidistant arm joined at a 90-degree corner (pls. 171c–176). On this block, the sides of the idol faces at the corner are in relief, while the outer sides and the ends are in the round. The two freestanding idol blocks (Idol Blocks 2 and 3) each consist of a large sandstone block in the form of a double-sided semi-iconic stele. All three idol blocks were designed to be viewed from both sides. All blocks taper from the base to the top. On the corner block, the vertical face is outside, and it is presumed that the two freestanding idol blocks also had vertical outer and slanted inner faces. The lower portion (one-fifth) of the block is rectangular in section. The diameter of the head of Idol Block 2 is greater than the width of the base and the “curls” also protrude beyond the edge of the base. This is not, however, always the case. The top of the rectangular lower portion of the block is marked by a straight ledge. The upper four-fifths consists of a

<sup>129</sup> Young 1953, p. 163.

Table 6. Idol fragment dimensions ranked according to the diameter of the head

<i>Idol Block</i>	<i>Diameter (cm)</i>	<i>Diameter Face (cm)</i>	<i>Band Width (cm)</i>	<i>Diameter Curl (cm)</i>	<i>Diameter Boss (cm)</i>
<i>Idol Block 2, Face A</i>	88	64	12	27	11
<i>Idol Block 2, Face B</i>	88	64	12	27	11
<i>Idol Block 4</i>	89	71	8.8		
<i>05TR17U14arc01</i>	90	78	6		
<i>03TR11U00arc05</i>	92	80			
<i>Idol Block 1, Face A</i>	94	78	8.5	25	9.5
<i>Idol Block 1, Face B</i>			12	30	9
<i>Idol Block 3</i>	112	96	8	25.5	9
<i>05TR17U14arc08</i>				24	9
<i>03TR11U08arc03</i>				20.5	8.5
<i>05TR17U12arc12</i>				25	9
<i>05TR17U14arc20</i>				17	8

head with a curl on each shoulder. In other words it is shaped like the Greek letter omega except that instead of ending in a horizontal line each side terminates in a circle. There is a compass-drawn central boss within the curl. An indentation for one end of the compass can be seen in the center of the boss and also in the center of the head. Each of the two faces of the head has a wide, raised circular band along the outer edge surrounding a central recessed area. Each of the curls at the shoulders consists of a cylinder partially projecting from the side of the block. Each of the two surfaces of each curl has a raised band of decoration in the shape of a 6 on one side and a reversed 6 on the other side of the block. This raised band continues on to form the band around the edge of the head. Each idol is slightly different, for instance, in the position of the curls relative to the ledge at the top of the base. In the case of Idol Block 2, the lower portion of the curl overlaps the ledge at the top of the base (pls. 184–189). In another instance, that of Idol Block 1, Face B, the bottom of the curl rests on the ledge (pls. 178,–179). Idol Block 5 is unusual in that there is a narrow space between the bottom of the curl and the top of the base (pl. 193b–c). Dimensions are neither precise nor standard (table 6), each idol being individually marked out with the aid of a compass but without the use of a template. Nevertheless, these minor differences are barely noticed without close scrutiny. Idol Block 2 is unique in having two identical marks

in the form of a C on one face of the base. The idols on the inner faces of the L-shaped corner block are necessarily narrower (due to the thickness of the stone) than those on the outer sides. The side view of the front arm of Idol Block 1 (pl. 182) shows that the cylindrical curl tapered from front to back because the diameters of both the curls and the head were less than those on the outer face. It is likely that the left side of the top of the block slanted inward to reduce the diameter of the band.

The idols were finished with single-pointed tools that have left visible marks on most surfaces. Surfaces of the recessed heads were mostly smoothed, as were some of the raised bands. There were no traces of wear, either from exposure to the weather or from continual touching. The corner block has one extant square cutting in the top, but no idol fragments have cuttings for wooden clamps or for dowels.

The same variety of wackestone was selected to make these idols as was used for the sculpture in the round and the bolster blocks, as well as for the courses of large sandstone blocks in the walling of the North and South Platforms. Distinctive bedding in this stone was an important guide to sorting fragments when join finding because color and even surface texture were altered by heat and direct contact with fire. In spite of assiduous examination, no trace of paint could be found, nor is there any obvious trace of weathering of the stone surfaces prior to the destruction.

Table 7. Distribution of semi-iconic idol fragments by trench

<i>Part</i>	<i>TR</i>	<i>ID</i>	<i>Note</i>	<i>K Number</i>	<i>Faces</i>
<i>Corner (?), North Platform</i>	11	03TR11U08arc02	Curl, perhaps corner block		1
<i>Idol Block, North Platform</i>	11	03TR11U08arc03	Idol Block 6, freestanding		1
<i>Idol Block, North Platform</i>	11	03TR11U01arc05, 04TR11U00arc011	Band, one face, freestanding		1
<i>Idol Block, North Platform</i>	11	03TR11U12arc05	Curl		1
<i>Idol Block, South Platform</i>	16	04TR16U08arc06	Curl, freestanding		1
<i>Idol Block, South Platform</i>	17	05TR17U11arc03, 05TR17U11arc04, 05TR17U14arc04, 05TR17U14arc11, 05TR17U14arc19	Idol Block 2, freestanding	K05.232	2
<i>Idol Block, South Platform</i>	17 + 16	05TR17U14arc05, 05TR17U14arc09, 05TR17U14arc12, 05TR17U14arc18	Idol Block 3, freestanding, One frag. in TR16		2
<i>Idol Block, South Platform</i>	17	05TR17U14arc08	Probably Idol Block 3, freestanding		1
<i>Idol Block, South Platform</i>	17	05TR17U14arc01	Band, one face, freestanding		1
<i>Idol Block, South Platform</i>	17	05TR17U14arc13	Band, one face, freestanding		1
<i>Idol Block, South Platform</i>	17	05TR17U12arc06	Curl, right side, freestanding		1
<i>Idol Block, South Platform</i>	17	05TR17U12arc12	Curl, right side, freestanding		1
<i>Corner Block, South Platform</i>	16, 17	04TR16U08arc02, 04TR16U08arc03, 04TR16U08arc05, 05TR17U12arc11, 05TR17U12arc14	Idol Block 1, two conjoined idols on an L-shaped block. Band, top, with dowel cutting; parts of four faces and one end.		4
<i>Idol Corner, South Platform</i>	17	05TR17U14arc20	Small curl in relief		1

## Dating of the Idols

Dating of these idols at Kerkenes cannot be in doubt: one or two decades before the middle of the sixth century BC. This dating is generally later than is usually assumed for idols elsewhere in Phrygia, apart, that is, from a Boğazköy example associated with the statue of a goddess accompanied by two small musicians found at the Südburg. The date of the single-sided semi-iconic idol on a built stepped monument at the Cappadocia Gate is very close in time to that of these idols at the Palatial Complex.

Reference to table 7 also shows that a few small pieces were found in TR11, in the northern part of the Gate Court. This discovery demonstrates that there was an arrangement of idol blocks on the North Platform similar to that on the South Platform.

With regard to the South Platform, the portions of the idol that were recovered by excavation stood, as already shown, on the northeastern corner and on the edge of the northern wall overlooking the Gate

Court. It is highly likely that they extended along the front of the platform, and that excavation would reveal more examples in the bank of fallen masonry. Whether they continued along the entire length of the platform front is unknown. At the Cappadocia Gate it was discovered that sandstone blocks had been used to embellish the corners of the pair of towers flanking the front of the entrance. At the Monumental Entrance idols might have been set up only on corners.

With regard to the corner block, the small engaged bracket at the inner corner is somewhat enigmatic. It might be partially explained by a desire to maximize the area of the top of the block, perhaps in relation to possible weakness caused by the cutting of the dowel hole. The first thought is that this hole was intended for a wooden post to which, for instance, an awning might be attached on special occasions. However, the inner engaged bracket, which had the effect of increasing the surface area of the top of the block, raises another intriguing

possibility. The shallow circular area trimmed (not worn) down around the square cutting could indicate that something stood on the corner, held in position by a square wooden dowel. There is a similar square dowel hole in the base of the statue of a draped figure. This would imply that the overhanging inside corner, the square hole, and the shallow circular depression were all part of an original design to house some kind of image. If that were the case, it would be unique. None of the many representations cut into rock faces in the Phrygian Highlands show these types of idols supporting other images.

### The Meaning of the Idols

Discussion of these pieces cannot close without some reference as to what may have been represented or symbolized by these images. The short answer is that we do not know. The general form of these idols is well known throughout Phrygia. A smaller, single-sided example of slightly different form, without the band around the head and with bolster-like curls on the shoulders, was set up on a built stepped monument at the Cappadocia Gate, while graffiti depicting others were found at the front of the same gateway. These double-sided idols are, however, unique. Susanne Berndt has fully set out the irrefutable evidence that these images are anthropomorphic, or semi-iconic, and has furthermore demonstrated that the headbands and curls represent hair. Kurt Bittel thought that wood might have been commonly used for the production of these types of idols. In the Phrygian Highlands there are many representations of similar idols incised into rock faces.

The life-sized statue of a goddess, whether or not she is to be identified with Matar, installed at the Cappadocia Gate, would seem to preclude the idea that these idols represented major deities in a Phrygian pantheon. Nevertheless, they were undoubtedly of acute cultic significance. They resemble in broad terms the idol that was found in position on the top of a built stepped monument at the Cappadocia Gate, but now with a band of hair framing the head and ending in curls, in the form of engaged cylinders rather than bolsters, on the shoulders. Similar semi-iconic stone idols are found throughout Phrygia, including, east of the Kızılırmak, at Boğazköy. They can be freestanding, carved out of bedrock, or incised into rock faces. At Midas City in the Phrygian Highlands, the so-called Pyramid Tomb has a row of what appear to be not dissimilar idols, but without

bands and curls of hair, carved just below the apex of the pitched roof, and there are rows or groups of idols carved into the rock at other locations. There are, additionally, pairs, in some cases with shared hair, as well as groups of idols that may or may not have been associated with one another. These widespread examples are usually assumed to represent a deity, and have often been identified with Matar, sometimes accompanied by a male god, but there is no direct evidence to support such an assumption. Phrygian idols can be associated with rock-cut stepped monuments or with rock-cut seats, both of which features seem to have been intended to receive offerings of some kind, and they can also occur as isolated objects in secondary contexts. Examples from Gordion and Boğazköy have facial features clearly depicted, while an example of a double idol on which each of the two images is rendered with indications of clothing, reused in more recent times at Faharet Çeşme to the west of Ankara, confirms that the semi-iconic form was indeed intended to signify a human shape. Representations of these various kinds of Phrygian idols are not found, with one somewhat dubious exception, among the doodles incised onto the walls of Megaron 2 at Gordion. At Kerkenes, by contrast, both semi-iconic and aniconic versions can be seen among graffiti at the Cappadocia Gate.

The placement of the idol in a city gate at Kerkenes is highly suggestive of a protective function, and it is not impossible that they were associated with imagery of a protective deity, echoing arrangements at the Cappadocia Gate and reconfirming associations between protective deities and monumental gates in general. The Monumental Entrance provided space for public gathering and performance under the shadow of the royal residence. These idols would have impressed onlookers, as they were intended to do, thus adding to the multiple symbols of power, prestige, permanency, and legitimacy of the ruling elite.

## Catalog of Idol Representations

### Corner Block, Idol Block 1

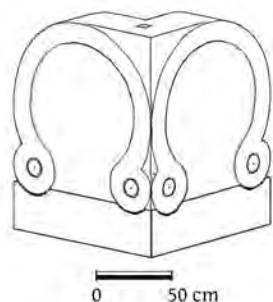
*Site Inventory Number:* —

*Plates:* 171c, 172, 173, 174, 175, 176, 178, 179, 180, 181, 182

*Identification Numbers:* 04TR16U08arc02,  
04TR16U08arc03,  
04TR16U08arc05,  
05TR17U12arc11,  
05TR17U12arc14

*Photographs:* 18dpkc0246, 18dpkc0232, 07dpkc1202, 18dpkc0202, 18dpkc0225, 18dpkc0242, 18dpkc0262, 07dpkc1220, 14dpkc0305, 08dpkc1397

*Description:* An L-shaped corner block, slightly taller than the length of the equal sides (pl. 176b). Extant portions of this block comprise three nonjoining parts, each part having itself been assembled from a number of fragments. Idols were carved in relief on all four faces, with the two outer sides being in the round, while the inner portions were in relief. This reconstruction is confirmed by the way in which the top surface of the block dips down to both sides as it extends away from the corner. Of the three large portions, it is indubitable that two, the top corner piece and the vertical corner, belong to this block even though they do not physically join. It is not quite as certain that the large double-sided piece that is reconstructed as making up the outer end of the front arm actually belongs, but the idol face on the outside has exactly the expected dimensions, while the inner face, which is poorly preserved, appears to have suitably smaller dimensions. The top corner piece and the vertical corner piece that can be placed below will be described first, followed by the large double-faced piece.



The top corner comprises 04TR16U08arc02, consisting of four joining pieces, and 04TR16U08arc05, consisting of nine joining pieces. These two portions were joined in 2017. It is the corner of an L-shaped block, each of the two arms being the same length. It possesses three exterior worked faces. The vertical corner portion is made up of six joining fragments.

The sandstone varies in quality from very fine to coarse, with a single thin red stripe curving through it at an angle. There are nodules in that part of the stone on the right side. The color of the stone's surface has been altered by fire. It varies from beige to bright orange. There are patches of white carbonate accretion on various areas of the surfaces of the stone. Some broken surfaces of the stone have been darkened by fire.

The top is noticeably curved as it dips toward the curved top of the outer side of each idol, and cut into it is a vertical square dowel hole. The toolmarks nearing the end of the dowel hole are very rough. The end of the dowel hole is very irregular. To one side of the dowel hole is a faint circular area with noticeably slighter toolmarks. The portions of the two exterior faces each have a section of raised band, while the lower nonjoining piece, comprising 04TR16U08arc03 and 05TR17U12arc14, has continuations of bands on both exterior faces as well as parts of the curls. The front of the block has preserved parts of the raised band together with the edge of one curl. Where the right-hand edge of the band meets the corner, it is slightly less than its full width. The small preserved areas of worked surfaces of the interior corner, not fully understood, appear to be a kind of engaged corner bracket. Most of the toolmarks on the surfaces of the block are fairly coarse.

The large portion of the left-hand side, 05TR17U12arc11, comprises many fragments. It tapers toward the top with the front Face A being vertical, and the rear Face B slanted. There are two extant curls, one on each face of the preserved portion. The cylindrical element with curls on each end is slightly tapered from Face A to Face B, the former being slightly wider than the latter.

Dimensions of Face A of the front idol could be measured or estimated with accuracy. Extant height of left side: 78 cm; estimated total height at corner: 128 cm; estimated length of base: 98 cm; thickness of base: 35.6 cm; estimated thickness of the top: 28.5 cm; extant width: 58 cm; estimated diameter of head: 105 cm; estimated diameter of face: 94 cm; width of band: 8–8.5 cm; depth of the surface outside the band: 3.5 mm; inside the band, i.e., the idol face: 8 mm; height from the bottom to the horizontal ledge between the curls: 28.5 cm; height of base from lower right-hand corner to upper right-hand corner of the base that is just below the cylinder of the curl: 30 cm; diameter of curl: 25 cm; diameter of the boss within the curl: 9.5 cm; depth of the square dowel hole in the top: 13.8 cm; width of each of side wall: 5.5 cm; diameter of the circular depression on the top from the center of the dowel hole: ca. 15 cm.

Face B is poorly preserved. Estimated total height: 132 cm; estimated width: 94 cm; height of base: 34 cm; estimated diameter of head: 88 cm; estimated diameter of face: 66 cm; width of band: 12 cm; diameter of curl: 30 cm; diameter of boss: 9 cm. Face B would have been smaller than Face A, because

Table 8. Elements of the corner, Idol Block 1

Corner Block	TR	ID Number	Description
Top	16, 16	04TR16U08arc02, 04TR16U08arc05	Band, top, with dowel cutting, parts of two idol faces, and interior corner
Vertical corner	16, 17	04TR16U08arc03, 05TR17U12arc14	Parts of two front faces with portions of bands and curls
Double-faced side portion	17	05TR17U12arc11	Carved in the round, portions of two idol faces

the width of the available area was reduced by the thickness of the other arm. That this was indeed the case would seem to be confirmed by the observation that it is likely that the top of the idol slanted down from front to back so as to accommodate the smaller radius of the head on Face B. There are, nevertheless, oddities that set this face slightly apart from the others. The dimensions of both the curl and the band, but not the boss, are exceptionally large (table 8). Paradoxically, the face was of a smaller diameter, with the curls closer to one another than seems to have been the norm. Lastly, because of the smaller diameter of the head the extant curl rested on the ledge below rather than cutting through it on Face A. Thus, the proportions of the elements on Face B, that is, the band's width and diameter, the large size of the curls, and the diameter of the recessed face, are noticeably different to those on Face A. It can easily be imagined that the contiguous inner face of the other arm would not have been dissimilar. The difficulty faced by the mason in working on the conjoined and slanted faces on the inner side of the L-shaped block may provide some explanation for these slight peculiarities.

When recovered from the site, the main portion of only Face A of Idol Block 1 had a height of 78 cm. Additional joining fragments of Face A are not shown on either the drawing or the photograph because it has not been possible to fix them in place securely. Regarding the highest fragment of Face A with a worked surface, the broken inner part can be seen in the photograph of Face B (pls. 180–181). The join was confirmed by means of the group of six Face B fragments with the raised band that are visible at the upper right. It is thus possible to estimate the total height of Face B to have been 132 cm. Their connection to the Face A fragment can be seen in the side view of Idol Block 1 on plate 182.

*Discussion:* A single L-shaped block on the top corner of the platform has obvious structural advantages over two separate blocks that could be more

easily toppled. It would, nevertheless, have required considerably more effort to quarry, move some distance from quarry to site, and carve in position than smaller discrete blocks. In order to depict idol faces on both sides there had to be some adjustment to the idol face width on the inner side. There is evidence, noted above, that this was indeed the case, as a result of which it is likely that the very top of the band was in relief—otherwise the head would not have been curved.

### Idol Block 2

*Site Inventory Number:* KO5.232

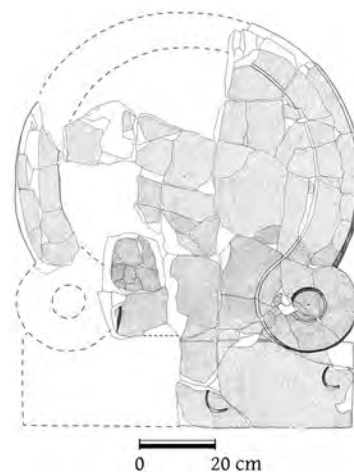
*Plates:* 177, 183, 184, 185, 186, 187, 188, 189, 190

*Identification Numbers:* 05TR17U11arc03,  
05TR17U11arc04,  
05TR17U14arc04,  
05TR17U14arc11,  
05TR17U14arc19

*Photographs:* 10dpkc1119, 10dpkc1707,  
07dpnc1222, 07dpnc1221,  
10dpkc1711, 10dpkc1705,  
10dpkc1108, 08dpkc1317

*Yozgat Museum Registration Number:* 1684

*Description:* An idol block in a large number of joining fragments, approximately 70% complete. On Face A there is one complete curl, the other being a restoration, and two deeply incised marks in the shape of the letter C on the base. The curls project, and the bottom



quarter of each curl extends below the ledge along the top of the base. Face B has a complete curl and a part of a second. Marks of a narrow pointed tool can be seen on the base and the raised bands, the faces

of which are more carefully finished. On Face A, a portion of the head is fire blackened, as are the two joining fragments at the left-hand side of the base, as well as part of the base of Face B. The block tapers toward the top, with one face being vertical, the other slanted. The brown stone contains inclusions.

Height: 110 cm; width between curls: 88 cm; total diameter: 88 cm; thickness at base: 31 cm; thickness at highest preserved point: 22 cm. Face A: diameter of face: 64 cm, width of band: 11 cm; diameter of curl: 27 cm; diameter of boss 11 cm; height of base from the bottom to the horizontal ledge: 22 cm. Face B: diameter of face: 64 cm; width of band: 11 cm; diameter of curl: 27 cm; diameter of boss: 11 cm; height of base from the bottom to the horizontal ledge: 22 cm.

Due to its large size and weight, this idol block was taken to Yozgat Museum in 2010 in fourteen joining sections. Final assembly was carried out in the museum, where it is currently on display in the foyer. Restoration for display was undertaken by Noël Siver and Erik Lindahl with the help of Alison Whyte (pls. 177, 189). The following note, with section numbers indicated, was written by Noël Siver:

The Kerkenes idol block has been restored in such a way that it can easily be dismantled. There are fourteen sections. Sections 1–6, 9, 10, 12, and 13 consist of groups of sandstone fragments that have been mended together using Paraloid B-72 acrylic adhesive. In the case of sections 1, 2, 6, 9, 10, 12, and 13, small gaps were filled using Polyfilla patching plaster. Sections 7, 8, 11, and 14 are gapfills made from AKG Gazbeton (autoclaved aerated concrete blocks) that were cut to shape using a saw and a file or rasp. Small amounts of Polyfilla were used to fill the gaps between the Gazbeton sections and the neighboring stone sections. Both the Gazbeton and the Polyfilla gapfills were painted using acrylic paints.

### Idol Block 3

*Site Inventory Number:* —

*Plate:* 192

*Identification Numbers:* O5TR17U14arc05,  
O5TR17U14arc09,  
O5TR17U14arc12,  
O5TR17U14arc18

*Photographs:* O8dpkc1318, O8dpkc1317

*Dimensions:* Dia (head): 112 cm; Dia (face): 96 cm; W (band): 8 cm; Dia (curl): 25.5 cm; Dia (boss): 9 cm

*Description:* A portion of an idol block consisting of numerous joining fragments. The full profile comprising a projecting cylinder with curls on each end as well as fragments of the second pair of curls, together with all of a worked raised band on one face and part of a worked raised band on the other, are preserved along with what might be a nonjoining portion of the base, but the interior of the head and part of the rectangular base are missing. The block tapers noticeably toward the top.

The stone has a distinctive golden surface and cocoa-colored core, while the base has been altered to a gray color as a result of fire. All were found in July 2005 in TR16 and TR17.



0 20 cm

### Idol Block 4

*Site Inventory Number:* —

*Plate:* 193a

*Identification Numbers:* O5TR17U14arc14,  
possibly O5TR17U14arc13

*Photograph:* O7dpkc1424

*Dimensions:* Maximum preserved: 77 cm; Dia (head): 89 cm; Dia (face): 71 cm; W (raised band): 8.3–9 cm (with an average of 8.8 cm)

*Description:* Part of the upper portion of only one face of an idol block comprising a portion of the head in joining sherds. The outer surface of raised circular band is blackened.



0 10 cm



## Idol Block 5

Site Inventory Number: —

Plates: 193b-c

Identification Number: O5TR17U14arc08

Photographs: O7dpkc1235, O7dpkc1420

Dimensions: Dia (overall of curl on Face A): 24 cm; Dia (central boss of curl on Face A): 9 cm; D (depth of cylinder between the two curls): 32 cm; Dist (between curl and ledge): 1.5 cm

Description: Portion of the projecting cylinder of an idol block that terminates in two curls. The left-hand curl pictured below is far more complete than the curl on the opposite end of the cylinder. The curl is next to a ledge that forms a straight line. It is unusual because the raised circular band of the curl does not overlap the ledge, as is the case with other idol blocks. There are also, not illustrated, joining fragments of the raised band (the “hair”) of the head of this idol block. The stone has a brown surface and greenish core.



## Idol Block 6

Site Inventory Number: —

Plates: 194a-b

Identification Number: O3TR11U08arc03

Photographs: O3dpjv7247, O3dpjv7249

Dimensions: W (idol, max. extant): 32.3 cm; W (band): 6 cm; Dia (boss): 8.5 cm

Description: Portion of an idol block with a curl in the form of a projecting cylinder with part of one face preserved. This stone is in very poor condition. It has lots of cracks and has broken into a large number of fragments, with the central boss having been sheered off. Its base (in joining fragments) may have been found. The surface of the coarse brown stone is reddened; patches of white carbonate accretion appear on surfaces.



## Idol Block Fragments

Site Inventory Number: —

Plate: 194c

Identification Numbers: O3TR11U00arc05, O4TR11U00arc11

Photographs: 14dpkc0302

Dimensions: Dia (head): ca. 92 cm; Dia (face): ca. 80 cm

Description: Two joining fragments of the same head. The only worked surface that is preserved is the central recessed area and an adjoining portion of its raised circular band.

Marks made by finishing with a single-pointed tool are extant on all preserved surfaces. Patches on the brown stone are reddened and blackened by fire.



Site Inventory Number: —

Plate: 195a

Identification Number: O5TR17U14arc01

Photograph: 14dpkc0301

Dimensions: Dia (head): 90 cm; W (band): 9 cm

Description: Joining fragments of a large portion of one side of a head of an idol block. The stone has a green core and brown side wall.



*Site Inventory Number:* —  
*Plate:* 195b  
*Identification Number:* 05TR17U14arc13  
*Photograph:* 14dpkc0307  
*Dimensions:* L (fragments max.): 42 cm

*Description:* Probably part of Idol Block 4, comprising a large portion of a head in five joining body sherds with one worked surface. Two of the fragments have the inner part of the raised circular band. The outer edge of the band and the outer worked surface of the side wall have not survived.



*Site Inventory Number:* —  
*Plate:* 196a  
*Identification Number:* 03TR11U08arc02  
*Photograph:* 06dpjc1015

*Description:* Many fragments of the “head,” both joining and nonjoining fragments of the central recessed area and an adjoining portion of its raised circular band. These pieces were in the burned debris adjacent to the wall of the North Platform.



*Site Inventory Number:* —  
*Plate:* 196b-c  
*Identification Number:* 03TR11U12arc05  
*Photographs:* 06dpsg0501, 06dpsg0502  
*Dimensions:* L (fragments max.): 25 cm

*Description:* This item appears to be part of a curl. It consists of two joining fragments of a raised band around a central boss. The stone is red.



*Site Inventory Number:* —  
*Plate:* 196d  
*Identification Number:* 04TR16U08arc06  
*Photograph:* 06dpsg0517  
*Dimensions:* L (fragments max.): 31 cm

*Description:* Some twenty joining and nonjoining fragments from a curl comprising part of the cylinder with a fragment of idol body. Pale banded stone. Surface color varies from red to brown; the stone has inclusions and narrow red veins.



*Site Inventory Number:* —  
*Plate:* 196e  
*Identification Number:* 05TR17U12arc06  
*Photograph:* 14dpkc0106  
*Dimensions:* L (extant): 19.3 cm; W (band): 7.2 cm

*Description:* A right-hand curl comprising a portion of surface of raised band and body of cylinder with a small projecting portion of block. Fairly coarse pale-brown sandstone, color altered by fire. Joining fragment from U14.



*Site Inventory Number:* —  
*Plate:* 197a  
*Identification Number:* 05TR17U12arc09  
*Photograph:* 06dpsg0310  
*Dimensions:* L (extant): 11.5 cm; D (extant): 13 cm

*Description:* A single fragment that is probably part of a curl. The sandstone is fine reddish brown, fire altered to shades of red.



*Site Inventory Number:* —  
*Plate:* 197b  
*Identification Number:* O5TR17U12arc12  
*Photograph:* O6dpsgO415  
*Dimensions:* L (extant): 34 cm; H (extant): 27 cm;  
 D (extant): 14cm; Dia (curl): 25 cm; Dia (boss): 9 cm  
*Description:* A single large fragment with a curl. The stone is brown and green.



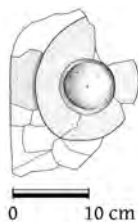
#### Idol Block Fragment Not Illustrated

*Site Inventory Number:* —  
*Identification Number:* O5TR17U12arcO2  
*Dimensions:* L × W (fragment): 13 × 14 cm  
*Description:* Sandstone idol block ledge fragment.

*Site Inventory Number:* —  
*Identification Number:* O5TR17U12arc13  
*Description:* Sandstone corner fragment of a rectangular or square architectural block that is possibly part of an idol block.

#### Idol in Relief

*Site Inventory Number:* —  
*Plate:* 197c  
*Identification Number:* O5TR17U14arc2O  
*Photograph:* O6dpsgO3O8  
*Dimensions:* Dia (curl): 14 cm; Dia (boss): 7 cm  
*Description:* An edge fragment of an idol in relief with part of a curl. In brown stone with marks from a single-pointed tool.



## Bolsters

All the bolsters so far discovered at Kerkenes are of sandstone. There is a considerable variation from the original color and texture of the stone, very often altered by heat and direct contact with fire during the destruction. All the bolsters were recovered from the Monumental Entrance. Apart from fragments of the largest bolsters, thought to have broken off the sides of stone capitals atop freestanding columns (see below), and one poorly preserved block with small engaged bolsters found on the pavement between the Entrance and the Audience Hall, all were found in the front of the Entrance. Most or all had been disturbed by later treasure seekers, with no bolsters being found in situ where they had fallen, apart from fragments of the bolster slab that seems to have been associated with the inscribed and sculpted block and the draped statue. This observation has implications regarding the original position and purpose of the bolsters.

These bolsters come in five sizes. Those carved three-quarters in the round, in such a way that they project forward from the stone block of which they are a part, are termed “engaged bolsters.” “Bolster ends” are carved in relief, probably always occurring singly or in pairs between engaged bolsters. Additionally, the semi-iconic idol set up on the top of a stepped monument at the Cappadocia Gate was provided with a small bolster on each shoulder.<sup>130</sup>

### The Term “Bolster”

In deciding what to call these distinctive shapes the term “bolster” was adopted. Similar shapes often found in Phrygian metalwork (admittedly on a very much smaller scale), especially on handle attachments to copper alloy bowls, have been termed bolsters at Gordion. Second, the form in which the two ends taper toward the center, where there is sometimes a concentric ridge around the girth, might be thought to represent a type of bolster cushion or pillow restricted around the center with a tie. This term, which has been used in all preliminary reports and papers, has the advantage of brevity and is not confused with descriptive terms employed for architectural stone.<sup>131</sup>

<sup>130</sup> Summers 2021.

<sup>131</sup> The term is also used with regard to architectural rock-cut façades in the Phrygian Highlands (Berndt-Ersöz 2006). Haspels (1971) called them “roundels.” Small metal examples are sometimes termed “spools” or “reels.”

## Definitions of Bolsters

An engaged bolster is three-quarters round and engaged to an architectural block. Thus it is an integral component of an architectural stone block. It is double ended. A bolster end appears as decoration on the surface of an architectural stone block consisting of one or two raised, compass-drawn concentric bands around a central disk. In the case of the smaller bolster ends (on K03.167), the outer of the two bands is larger than the inner one. There is a “dimple” in the center of the central disk where the compass point would have been inserted. In the best-preserved example (K03.167) from the Monumental Entrance, is a pair of bolster ends between two engaged bolsters (pls. 198–200b). On the medium-sized frieze, however, there are single bolster ends between engaged bolsters (pls. 201–202). They taper toward the center. The central portion has a “saddle” with ledges at each end. Each of the small examples on the bolster slab K03.167 has a raised band around the waist, a feature not found on larger examples. Ends have a central boss and a concentric raised band that were marked out with a compass, the point of which has left a central hole. Edges are often beveled. Bolster ends, carved in relief, sometimes, and perhaps always, occurred on the same blocks as engaged bolsters. Large bolsters and bolster ends were probably elements of stone capitals (see below). All were cut from wackestone and finished with a single-pointed tool. Some were more carefully finished than others, with large areas of surface smoothed. The bolsters found in the monumental gateway at Kerkenes are of five sizes.

## Original Placement of Bolsters

The smallest bolsters and bolster ends were confined to the four sides of a single slab (pls. 198–200). Elsewhere it has been suggested that this slab was a component of a built monument, most probably erected on the South Platform, which included relief sculpture with inscription in Paleo-Phrygian.

Medium-sized bolsters and bolster ends (pls. 201–205a) all seem to have belonged to a single linear frieze. For a long time it was thought that these pieces came from a larger version of the slab just discussed, and therefore had come from a freestanding monument set up in the Entrance. It is now understood, however, that this frieze embellished the north wall of the South Platform. The way in which they were burned indicates that they rested on

timber beams. The suggested arrangement is shown in plates 95 and 96.

Slightly smaller bolsters are only represented by fragments (pl. 206). Their original position is unknown, but they could very well have come from a similar frieze, not impossibly in the wall of the North Platform.

The largest bolsters, of which one is complete, seem to have broken off the sides of stone capitals to the freestanding wooden columns (pls. 96, 207, 208). Four such columns stood in the Monumental Entrance, two close to the front of the court, and two at the rear, behind the inner façade. Of the latter pair only that on the northern side was excavated. Supporting evidence for this proposition is that parts of these large bolsters were the only pieces found in the rear section of the Entrance apart from one badly eroded block (see below). There is no indication as to whether the bolsters were on the sides of the capitals, or on front and back.

Finally, one abraded block of sandstone, turned red by fire, bears a pair of bolsters one above the other. This piece was recovered from the area between the inner side of the Monumental Entrance and the Audience Hall. Although there is no certainty as to where it originally came from, it provides the only evidence so far that similar architectural embellishment was used in structures other than the Monumental Entrance. The position in which the block was found is compatible with its having rolled down from the front of the Audience Hall, in which case the block could have tumbled from the façade.

## Comparanda

No bolsters have been reported from the Phrygian capital at Gordion. In 2004, G. Kenneth Sams kindly showed members of the Kerkenes team the architectural stonework from Gordion that is housed in the excavation depot. It was striking that there were no close parallels whatsoever. To the best of my knowledge, no architectural blocks with bolsters have been found anywhere in Phrygia or beyond. There are, however, excellent parallels to be found in the rock-cut architectural façades of the Phrygian Highlands. Small bolsters are to be seen on the Bahşayış shaft monument at Gökbağçe, where engaged bolsters and bolster ends frame squares on the geometric façade as well as adorn the king post. Cylindrical examples project above the center of the niche and the side posts of the shaft monument at Dekeli Taş. Badly preserved bolsters project from the top and bottom

of the king post on the Arslankaya monument. On the Mal Taş shaft monument façade in the Köhnüş Valley, three large projecting bolsters, cylindrical in form and carved with bead and reel decoration, could be seen, one above the hole in the niche and one above each of the door posts. They cannot now be seen. Similar small bolsters seem to be represented in the Phrygian tiles from Pazarlı.<sup>132</sup>

## Discussion

### *Chronology*

Rock-cut architectural façades in the Highlands of Phrygia are probably all to be dated to the first half of the sixth century BC, that is, to the period of Lydian domination. The Bahşayış monument is sometimes put a little later, but the existence of small bolsters from Kerkenes annuls stylistic reasons. The architectural terracottas from Pazarlı should probably be dated to the early Persian period. A date in the first half of the sixth century is therefore strongly supported by the evidence from the Phrygian Highlands.

### *Symbolism*

The simplest explanation for these architectural bolsters is that, like acroteria, they were originally the ends of wooden building beams that became transformed into decorative architectural elements. If this was so, then as Haspels long ago suggested, the concentric circles would represent the growth rings in the ends of the beams. Such a pragmatic explanation has much to commend it. There does not seem to be any reason to think that these bolsters are in any way connected to Aeolian capitals or the Ionic order of architecture. It may also be suggested that the tapering of the two ends of a bolster toward the center reflects furniture carving, as possibly suggested by the partially preserved wooden element from the Ashlar Building. However, similar bolsters are found on the shoulders of semi-iconic Phrygian idols, including the Kerkenes example at the Cappadocia Gate. Furthermore, the faces of the curls on the idol blocks from the Monumental Entrance, although cylindrical rather than tapering toward the middle, have very similar concentric circles. It has already been noted that very much smaller bolsters are found in Phrygian bronze working, to which it may be added that they also occur in Iron Age pottery, often on jug handles, both in Phrygia and in

pots of the Alişar IV tradition. Concentric circles are also used as a filling motif on Alişar IV painted pottery. It is of course perfectly possible that concentric circles carried different meanings in various media and at different scales, or that they may have been simply decorative in some or all instances. If so, the use of concentric circles rather than spirals to represent curled hair on the semi-iconic idols would reflect a reduction of naturalism to geometric patterning that is generally characteristic of Phrygian artistic taste. It would, of course, be interesting to know whether the use of architectural bolsters was restricted to buildings and monuments of cultic importance.

## The Catalog

All bolster fragments are currently housed in the excavation depot, apart from a selection currently on display in the Yozgat Museum. One of the pieces in the Yozgat Museum very probably joins the large block with engaged bolsters with bolster ends in carved relief between them, but it has not been possible to verify that they actually join.

This catalog of bolsters is arranged by bolster size, from smallest to largest. Only the best examples have been drawn. Drawings are all at a scale of 1:5, photographs are at approximately the same scale. Most bolsters are incomplete, having been smashed before or during the fire, with the fragments later dispersed by robbers. As the process of join finding and mending progressed over several seasons, a number of bolsters ended up with more than one identification number (ID). Only the best-preserved and most representative examples were given site inventory numbers, or K numbers. In both cases the years represent the year in which the number was assigned, rather than the year in which the item was actually found. However, where the pieces were evidently carved, the year of the ID number would coincide with the year of excavation.

In describing the engaged bolsters, three measurements were taken for the concentric bands: the central band (c), the inside band (i), and the outside band (o). Measurements for the outside band did not include the beveled edge, and is marked where the measurement was taken (example: top = top of the bolster). Measurements for the total radius were taken when applicable. The maximum radius was also taken when applicable.

<sup>132</sup> See discussion in Summers 2006.

With regard to the bolster ends, three measurements were taken for the concentric bands: the central disk (c), the inside band (i), and the outside band (o). Measurements for the outside band did not include the beveled edge. Measurements for the total radius were taken when applicable.

### Small Bolsters

Eight small, engaged bolsters and bolster ends belong to a single slab, K03.167. These engaged bolsters are unusual in having a raised band around the waist.

### Small Bolster Block Outside the Monumental Entrance

The last two items in the catalog, K06.220 and 05TR21U12arc01, came from a different context, not from the Monumental Entrance itself. They demonstrate that similar architectural elements were incorporated into structures or monuments elsewhere in the Palatial Complex.

### Medium-Sized Bolsters and Bolster Ends

Medium-sized bolsters can be divided into those with beveled rims and those without them. Table 9 shows that three ends of engaged bolsters do not have beveled rims, making a minimum of two complete bolsters. Furthermore, one bolster fragment with a beveled rim has a diameter of about 15.5 cm, significantly larger than the others of this type. The three examples without bevels are of more or less the same diameter. This evidence suggests that there was more than one structure of some kind into which bolsters were incorporated.

### Large Bolsters, Bolster Ends, and Stone Capitals

The number of large engaged bolsters recovered is consistent with a derivation from large stone capitals to each of four freestanding wooden columns, two at the front and two at the rear of the Monumental Entrance. These bolsters would have broken off two sides of each capital, making a total of eight complete bolsters, or sixteen engaged bolster faces. That the core blocks of these (putative) capitals were not identified can be put down to the extent to which they were smashed during the destruction, and then scattered through the debris by treasure seekers. The extent of damage may be judged by the fragments of bolster ends of the same diameter (and carved in relief from the same pale stone), which

show traces of considerable burning, and that appear to have sheared off the fronts and backs of these same stone capitals. Bolster-end sizes, together with the narrow margins between the outer circle and block edges, suggest that there were two bolster ends on each face, making four per capital or sixteen in total. As table 9 shows, no more than seven ends of this size were recovered. It should, however, be noted that none of the large engaged bolster fragments were recovered from the burned debris immediately above the stone pavement. Distribution of these fragments is not, therefore, incompatible with positioning on tall wooden columns that fell in the course of the fire, but not at its initial stage.

### Slab with Small Bolsters

*Site Inventory Number:* K03.167

*Plates:* 198, 199, 200a-c

*Identification Numbers:* 03TR11U01stn01,  
03TR11U04stn03,  
03TR11U04stn10,  
03TR11U08arc01,  
03TR11U08arc04,  
03TR11U08stn14,  
03TR11U08stn16,  
03TR11U08stn21,  
04TR16U06,  
05TR17U07arc01

*Photographs:* 08dpkc1432, 08dpkc1374,  
17dpkc0807

*Yozgat Museum Registration Number:* 1581

*Dimensions:* Overall: ca. 48 × 48 × 10 cm; L (bolsters): 13 cm; Dia (bolsters): ca. 7 cm

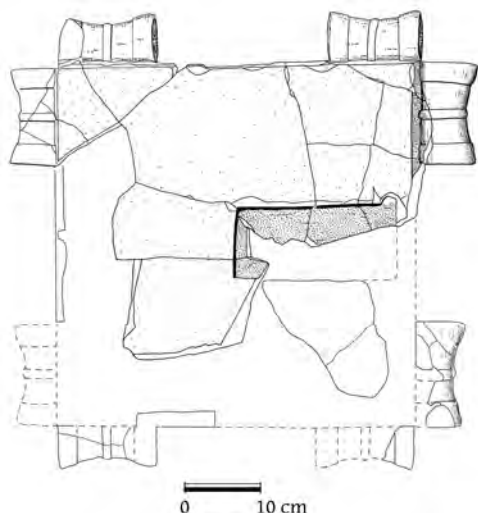
*Description:* Monumental decorative element consisting of a flat, almost square, fine sandstone slab with eight small-sized engaged bolsters, one at the corner on each side, and pairs of bolster ends in relief between. Bolster ends are adjacent to the engaged bolsters, with a central blank space between each one. Arrangement of the bolsters is symmetrical. One surface has a shallow rectangular slot extending from the center of the slab toward one edge. Two extensions of this slot at the corners of the short end nearest the edge are reminiscent of a similar feature in the topmost step of the stepped monument at the Cappadocia Gate, indicating that this was the top of the slab and that another stone element was fitted into this slot. The underside has a central square slot to hold the slab in position, either with a large dowel or a stone tenon. As a result of these two features cut into top and bottom, the slab was very thin at the center and thus easily

## EXCAVATIONS AT THE PALATIAL COMPLEX

Table 9. Bolsters and bolster ends from the Monumental Entrance Court

<i>Small</i>							
	<i>Engaged</i>	<i>End</i>	<i>Length</i>	<i>Diameter</i>	<i>Bevel</i>	<i>Engaged</i>	<i>Ends</i>
K03.167	X	X	13	7	no	8	8
<b>Total</b>						<b>8</b>	<b>8</b>
<i>Medium</i>							
	<i>Engaged</i>	<i>End</i>	<i>Length</i>	<i>Diameter</i>	<i>Bevel</i>	<i>Engaged</i>	<i>Ends</i>
K06.216, etc.	X		28	12	yes	3 (6 faces)	2 (1 extant)
K06.218	X		20.3	11	yes	1 (2 faces)	
03TR11U08arc06	X			15.5	yes	1	
03TR11U05arc01	X			14.6	no	1	
03TR11U12arc04	X			14.8	no	1	
05PALAUarc02	X			15	no	1	
05TR17U14arc10	X			15.5	?	1	
04TR16U13arc01	X				?	1	
05TR17U11arc02	X				?	1	
03TR11U08arc07	X				?	1	
03TR11U08arc03		X		14			
<b>Total</b>						<b>12 (16 faces)</b>	<b>2</b>
<i>Large</i>							
	<i>Engaged</i>	<i>End</i>	<i>Length</i>	<i>Diameter</i>	<i>Bevel</i>	<i>Engaged</i>	<i>Ends</i>
K06.217	X		44	22.6	yes	1 (2 faces)	
04TR14U02arc01	X			22	yes	1	
03TR11U12arc01	X			24	yes	1	
03TR11U12arc02	X			24.4	yes	1	
05TR17U14arc16	X			21	yes	1	
03TR11U08arc08	X			22	yes	1	
03TR11U03arc01	X			22	yes	1	
03TR11U12arc03	X			24	yes	1	
03TR11U08arc09		X		?			1
04TR11U00arc01		X		23			1
05TR16U16arc01		X		23			1
05TR16U17arc01		X		23			1
05TR17U05arc01		X		ca. 23			1
05TR17U05arc02		X		ca. 23			1
05TR17U12arc10		X		?			1
<b>Total</b>						<b>8 (9 faces)</b>	<b>7</b>

broken. The full description given in the earlier publication is not in need of revision.<sup>133</sup>



*Conservation:* The joining edges of the fragments were consolidated using a 3% solution of Paraloid B-72 acrylic resin in acetone:ethanol 95:5. Mended using a 50% solution of Paraloid B-72 acrylic resin in acetone:ethanol 95:5. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

### Architectural Block with Bolsters

*Site Inventory Numbers:* KO6.216, KO6.219, KO6.221, perhaps KO6.222

*Plates:* 200d-e, 201, 202, 203, 204

*Identification Numbers:*

KO6.216 05TR16U14arc05,  
05TR15U17arc01,  
05TR17U14

KO6.219 05TR17U12arc01,  
05TR17U14arc07

KO6.221 05TR17U12arc08,  
05TR17U14

KO6.222 05TR16U14arc04,  
05TR16U18,  
05TR17U14

Fragments 05TR17U14arc02

*Photographs:* 10dpkc0664, 10dpkc0665, 10dpkc0657, 10dpkc0655, 10dpkc0658, 05dpnc2020, 05dpnc2019, 05dpnc2017, 05dpnc2018, 05dpnc2028, 05dpnc2029, 06dpsg0301

*Yozgat Museum Registration Number:* 1582

*Dimensions:* L (block, extant): 100 cm; H (block): 23.2 cm; D (block): 42.9 cm; L (bolsters): 29 cm; Dia (bolsters): 16 cm; Dia (band): 11 cm; Dia (boss): 6 cm; Dia (bolster end): 13 cm; Dia (boss, bolster end): 6.5 cm

*Description:* This architectural block appears to have three engaged bolsters and two bolster ends on the preserved narrow side and to have been part of an architectural frieze that extended over more than a single stone. The rims of each bolster are beveled. Bolster surfaces are generally smoother with no visible toolmarks. The block was broken before fragments were burned.

Fragments of this block were dispersed in two ways at different times. The first was during the destruction of the Monumental Entrance, when the block was smashed before or during the fire, as demonstrated by very marked differences in fire alteration to joining fragments. Second, centuries later, the looting activities of treasure seekers further separated the pieces. As a consequence, this single block has been assigned four K numbers. Furthermore, one corner with an engaged bolster attached (KO6.222), currently on display at the Yozgat Museum, very probably joins to the rest of the block that is currently housed in the stone depot at Kerkenes. It should be possible to reunite these pieces and, if the join is confirmed, for the entire preserved portion of this block to be restored for display. Noël Siver has written the note in the following section (Reconstruction of the Architectural Block with Bolsters) concerning the post-excavation history of this block from the discovery of the first pieces to the current situation in the summer of 2014.



*Discussion:* The original placement and purpose of this block has been discussed above and is shown on plates 95 and 96. It is likely that other bolsters with the same dimensions broke off similar blocks from the same structure or monument. The extent of the burning demonstrates proximity to timber.

<sup>133</sup> This artifact was published before complete restoration by Geoffrey Summers, with drawings by Ben Claasz Cockson and photographs by Murat Akar, in Draycott et al. 2008, pp. 63–66 and pls. 62–64 and 66.



Distribution of the fragments indicates that the original position was on the northern edge of the South Platform, close to the center of the Gate Court.

*Conservation:* Mended using a 50% solution of Paraloid B-72 acrylic resin in acetone:ethanol 95:5. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

## Reconstruction of the Architectural Block with Bolsters

by Noël Siver

All the component fragments of this sandstone bolster block were excavated from the Monumental Entrance in 2005. They were found in TR15, TR16, and TR17. Many of the fragments were assigned ID numbers soon after they were excavated. Join finding was begun in 2005 and continued in 2006.

### 2006

The following objects were assigned K numbers:

*K06.216:* an engaged bolster consisting of fragments both with and without ID numbers as follows: 05TR16U14arc05, 05TR15U17arc01, and 05TR17U14. Its surface had been blackened by fire.

*K06.219:* an engaged bolster consisting of fragments with ID numbers 05TR17U14arc07 and 05TR17U12arc01. Preserved along with this bolster is part of the flat surface of the block of which it was an integral part. A small portion of the end of the block is preserved. The bolster protrudes past the end of the block.

*K06.221:* a bolster end consisting of 05TR17U-12arc08 and a fragment from 05TR17U14.

In 2006, the body of a sandstone architectural block—in two shades of green and in a large number of fragments—was mended. Its ID number is 05TR17U14arc02.

### 2007

A surface fragment with the scar of one half of an engaged bolster was joined to one quarter of one surface of this block.

### 2008

An unnumbered fragment (reddish in color due to alteration by fire) with the scar of one half of an engaged bolster was found to join (lengthwise) to one half of the underside of engaged bolster K06.216.

Prior to photographing this new combination of elements, a search was made for more joins. It was discovered that the reddish fragment under K06.216 joins to one broken side of bolster end K06.221. K06.221. In turn, joins to the block fragment of engaged bolster K06.219.

### 2010

It was discovered that the reddish edge fragment on which engaged bolster K06.216 sits joins to the main body of the block (opposite the surface fragment that was joined in 2007). Lastly, six unnumbered joining edge fragments (rust color) joined to the opposite face of the main body of the block.

Two of the three dimensions of the bolster block are now known.

### Small Engaged Bolster

*Site Inventory Number:* K06.218

*Plate:* 205a

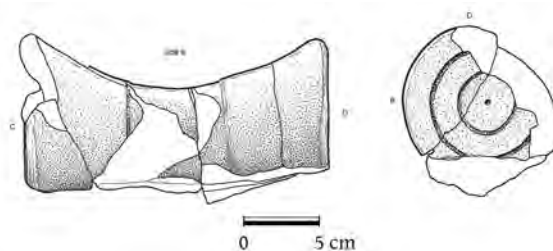
*Identification Number:* 05TR17U11arc01

*Photographs:* 05dpnc2038, 05dpnc2039, 06dpcj0114, 06dpcj0119

*Yozgat Museum Registration Number:* 1583

*Dimensions:* L: 20.3 cm; D: 9.5 cm; Dia: 11 cm; Dia (boss): 4 cm; W (inner band): 1.7 cm; W (outer band): 1.2 cm

*Description:* Small engaged bolster with beveled rims in several joining fragments. Surfaces smoothed, but the central portion is slightly rougher. There are no visible toolmarks. Slightly coarse, pale-brown sandstone with small inclusions. Burned after breakage, fire altered to shades of red in places. Joining fragments: one from 05TR15U17, one from 05TR17U11, two from 05TR17U13, and two from 05TR17U14.



*Conservation:* Mended using a 50% solution of Paraloid B-72 acrylic resin in acetone:ethanol 95:5. Gapfilled with Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

## Bolster Fragments

Site Inventory Number: —

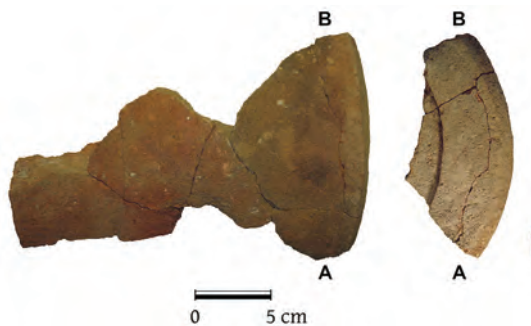
Plate: 205b

Identification Number: 03TR11U08arc06

Photographs: 06dpsg0125, 06dpsg0124

Dimensions: Dia: 15.5 cm

Description: Engaged bolster fragments with beveled rim. The sandstone is whitish with inclusions; the slightly fire-reddened surface is smoothed.



Site Inventory Number: —

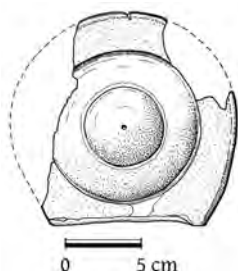
Plate: 205c

Identification Number: 03TR11U05arc01

Photograph: 05dpnk0415

Dimensions: Dia: 14.6 cm; Dia (boss): 5.5 cm; W (inner band): 2.4 cm; W (outer band): 2.4 cm

Description: Engaged bolster end, not beveled. Originally reddish-orange color altered by fire.



Site Inventory Number: —

Plate: 206a

Identification Number: 03TR11U12arc04

Photographs: 06dpsg0170, 06dpsg0177

Dimensions: L (extant): 13 cm; Dia: 14.8 cm; Dia (boss): 7.6 cm; W (inner band): 2 cm; W (outer band): 2.5 cm

Description: Engaged bolster fragments. Not beveled, no visible toolmarks. Greenish sandstone with inclusions.



Site Inventory Number: —

Plate: 206b

Identification Number: 05PALAU00arc02

Photographs: 06dpsg0105, 06dpsg0108

Dimensions: L (extant): 14 cm; H (extant): 15 cm

Description: Engaged bolster fragments. Smoothed with shallow toolmarks on face of rim. Four joining fragments: 05PALAU00arc02, 03TR11U05, and two unstratified pieces.



Site Inventory Number: —

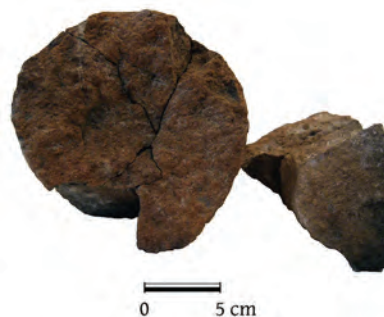
Plate: 206c

Identification Number: 05TR17U14arc10

Photograph: 06dpsg0104

Dimensions: Dia (extant): 15.5 cm

Description: Engaged bolster fragments, fire altered and poorly preserved.



Site Inventory Number: —

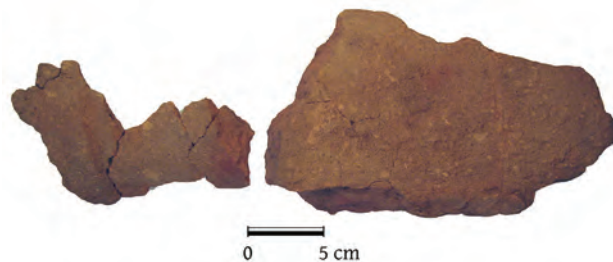
Plate: 206d

Identification Number: 04TR16U13arc01

Photograph: 06dpsg0165

Dimensions: L (largest fragment): 20 cm

Description: Engaged bolster body fragments. Gritty sandstone, originally yellowish orange, largely altered to shades of red.



*Site Inventory Number:* —  
*Plate:* 206e  
*Identification Number:* 05TR17U11arc02  
*Photograph:* 06dpsg0110  
*Description:* Fragment of engaged bolster with central boss. Orangey-brown gritty sandstone.



*Site Inventory Number:* —  
*Plate:* 206f  
*Identification Number:* 03TR11U08arc07  
*Photograph:* 06dpsg0117  
*Dimensions:* L (extant): 14 cm; Dia (extant): 13 cm  
*Description:* Engaged bolster fragment, very worn.



*Site Inventory Number:* —  
*Plate:* 206g  
*Identification Number:* 03TR11U08arc05  
*Photograph:* 05dpnk0418  
*Dimensions:* D: 14 cm; Dia (boss): 9.8 cm; W (inner band): 2 cm; W (outer band): 2.5 cm  
*Description:* Bolster end fragment. There is a scar along one edge, at top in the photograph, that very probably indicates where an engaged bolster has broken off. Totally blackened by fire.



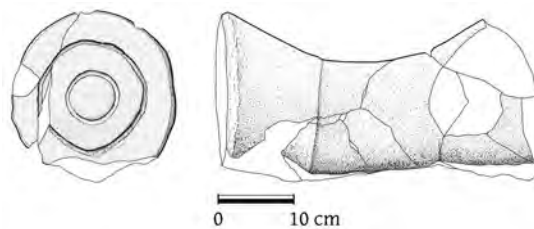
## Large Bolsters and Bolster Ends

### Engaged Bolsters

*Site Inventory Number:* KO6.217  
*Plate:* 207a  
*Identification Number:* 05TR17U12arc07  
*Photographs:* 06dpcj0120, 06dpcj0123  
*Yozgat Museum Registration Number:* 1584

*Dimensions:* L: 44 cm; D: 21 cm; Dia: 22.6 cm; Dia (boss): 6.9 cm; W (inner band): 3.7 cm; W (outer band): 4 cm

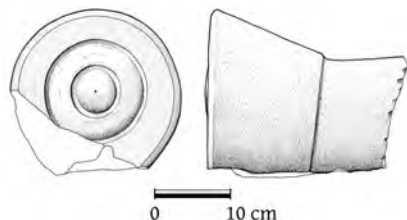
*Description:* Large, double-ended, engaged bolster, largely complete with edges of one end missing. Beveled rims. Smooth with traces of toolmarks closer to the engaged edge indicating a single-pointed tool. Coarse whitish sandstone with many inclusions, giving a speckled effect. Slightly fire-reddened surface.



*Conservation:* In restoring this bolster in 2006 for future museum display, it was deemed necessary to remove the white carbonate crust. Fragments were washed in tap water and soaked for approximately one hour. They were then immersed in a 5% solution of nitric acid in tap water for between five and ten minutes and lightly brushed. Fragments were then subject to static immersion in separate containers, the rinse water being changed on a 12-hour cycle over three days. Once dry, fragments were assembled using Paraloid B-72 acrylic resin. In 2007 it was gapfilled using Polycell's Interior Polyfilla (calcium sulfate hemihydrate, with cellulose ethers and retarding agents). The gapfills were inpainted using Daler-Rowney's Cryla acrylic paints.

*Site Inventory Number:* —  
*Plate:* 207b  
*Identification Number:* 04TR14U02arc01  
*Photograph:* 06dpcj0144  
*Dimensions:* L (extant): 25.5 cm; Dia: 22 cm; Dia (boss): 6.4 cm; W (inner band): 3 cm; W (outer band): 3 cm

*Description:* Almost complete end of a large engaged bolster with beveled rim. Sandstone with inclusions, whitish in color with brown shades.



*Site Inventory Number:* —

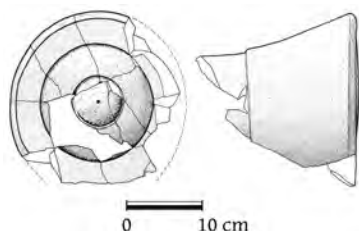
*Plate:* 208a

*Identification Number:* 03TR11U12arc01

*Photograph:* 05dpnk0420

*Dimensions:* Dia: 24 cm; Dia (boss): 6.6 cm; W (inner band): 4.5 cm; W (outer band): 3.5 cm

*Description:* Engaged bolster fragments with beveled rim. Smoothed and carefully carved. Yellowish orange sandstone with inclusions, reddened by fire.



*Site Inventory Number:* —

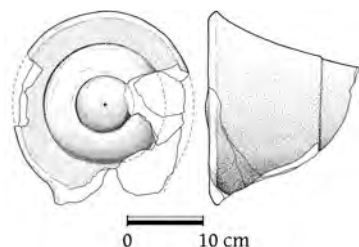
*Plate:* 208b

*Identification Number:* 03TR11U12arc02

*Photograph:* 05dpnk0421

*Dimensions:* Dia: 24.4 cm; Dia (boss): 8 cm; W (inner band): 4 cm; W (outer band): 3.2 cm

*Description:* Engaged bolster fragments with beveled rim. Smoothed and carefully carved. Brown sandstone with inclusions, parts made gray and black by fire.



*Site Inventory Number:* —

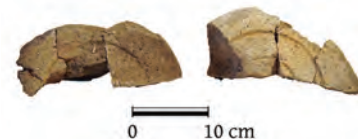
*Plate:* 208c

*Identification Number:* 05TR17U14arc16

*Photograph:* 06dpsg0135

*Dimensions:* Dia: 21 cm; W (outer band): 3.9 cm; W (inner band): 3.9 cm

*Description:* Parts of one end of a large engaged bolster with beveled rims in joining and nonjoining fragments. Whitish sandstone. Color and texture altered by fire, now very brittle.



*Site Inventory Number:* —

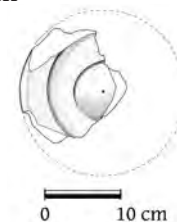
*Plate:* 209a

*Identification Number:* 03TR11U08arc08

*Photograph:* 05dpnk0417

*Dimensions:* Dia: 22 cm; Dia (boss): 6.4 cm; W (inner band): 3.9 cm; W (outer band): 3.2 cm

*Description:* Engaged bolster fragment with beveled rim. Body smoothed, faces rougher with visible toolmarks.



*Site Inventory Number:* —

*Plate:* 209b

*Identification Number:* 03TR11U03arc01

*Photograph:* 06dpsg0133

*Dimensions:* Dia: 22 cm; Dia (boss): 7 cm; W (inner band): 3.3 cm; W (outer band): 3.3 cm

*Description:* Engaged bolster, single fragment of one end. The rim was probably beveled. Gritty brownish sandstone, some parts blackened by fire.



*Site Inventory Number:* —

*Plate:* 209c

*Identification Number:* 03TR11U12arc03

*Photograph:* 06dpsg0144

*Dimensions:* Dia: 24 cm; W (inner band): 4.5 cm; W (outer band): 3.5 cm

*Description:* Engaged bolster fragments with beveled rim edge. Smoothed with visible toolmarks adjacent to the block



on both front and side. Light brown sandstone, color altered by fire.

#### Bolster Ends

Site Inventory Number: —

Plate: 209d

Identification Number: O3TR11U08arc09

Photograph: O6dpsg0304

Dimensions: H (extant): 30 cm; W (inner band): 3.8 cm; W (outer band): 3 cm

Description: Bolster end fragment with one edge preserved. Friable brownish sandstone burned red after breakage.



Site Inventory Number: —

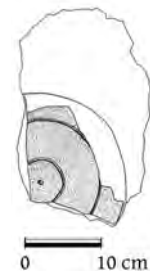
Plate: 210a

Identification Number: O4TR11U00arc01

Photograph: O5pdnk0423

Dimensions: Dia: 23 cm; Dia (boss): 6 cm; W (inner band): 4.8 cm; W (outer band): 3.3 cm

Description: Bolster end fragment with slightly smoothed surface. Orange sandstone with fine grits.



Site Inventory Number: —

Plate: 210b

Identification Number: O5TR16U16arc01

Photograph: O6dpsg0412

Dimensions: H (extant): 29 cm; L (extant): 36 cm

Description: Large bolster end fragments. The top and left-hand side are original edges, the bottom is a broken, slightly jagged edge. The bolster end is close to the two preserved edges. The sandstone



contains a fine red line running horizontally from one side of the fragment to the other. The stone is in poor condition and very worn. Its color, now gray, has been altered by fire.

Site Inventory Number: —

Plate: 210c

Identification Numbers: O5TR16U17arc01,  
O5TR15U15arc01

Photograph: O6dpsg0401

Dimensions: L (extant): 22 cm; H (extant): 12 cm; Dia: 23 cm; Dia (boss): 7 cm; W (inner band): 3.7 cm; W (outer band): 5 cm

Description: Bolster end fragments, highly burned.



Site Inventory Number: —

Plate: 211a

Identification Number: O5TR17U05arc01

Photograph: 14dpkc0106

Dimensions: L (max. extant): 22 cm; W (band): 4.5 cm

Description: Bolster end fragment from the corner of a block in three joining fragments. The bolster end is unusually close to one edge of the block and only 2 cm from the other. Color altered by fire.



Site Inventory Number: —

Plate: 211b

Identification Number: O5TR17U05arc02

Photograph: O6dpsg0408

Dimensions: W (block): 14 cm; H (extant): 13 cm; L (extant): 16 cm

Description: The corner of a block with partial bolster end on face. The back, top, and side have clearly visible toolmarks. Coarse pale sandstone, partially burned after breakage.



*Site Inventory Number:* —  
*Plate:* 211c  
*Identification Number:* 05TR17U07arc02  
*Photograph:* 06dpsg0506  
*Dimensions:* L (extant): 24.8 cm; H (face, extant): 12 cm; Th (extant): 10 cm; Dia (boss): 7 cm; W (band): 4 cm  
*Description:* Corner block with part of a large bolster end, with a portion of concentric, raised, circular band and boss. Hard whitish sandstone. Fine toolmarks on face, coarser marks on the top and side of the block.



*Site Inventory Number:* —  
*Plate:* 211d  
*Identification Number:* 05TR17U12arc10  
*Photograph:* 06dpsg0303  
*Dimensions:* L (extant): 20 cm; W (band): 3.8 cm  
*Description:* Fragment of a bolster end. Coarse white sandstone, surface now a reddish brown color.



*Site Inventory Number:* —  
*Plate:* 211e  
*Identification Number:* 05TR17U12arc10  
*Photograph:* 06dpsg0402  
*Dimensions:* L (extant): 21 cm; Dia: 21 cm; W (band): 3.4 cm  
*Description:* Bolster end fragments. Burned gray.



#### Bolster Fragments Not Illustrated

*Site Inventory Number:* —  
*Identification Number:* 04TR11U00arc02  
*Dimensions:* H: 12 cm; L: 26.5 cm; Dia (max.): 4 cm  
*Description:* Large sandstone bolster end fragment.

*Site Inventory Number:* —  
*Identification Number:* 04TR11U00arc12  
*Dimensions:* Fragment (max.) 13 × 8 cm  
*Description:* Sandstone engaged bolster fragment.

*Site Inventory Number:* —  
*Identification Number:* 05TR17U12arc03  
*Description:* Sandstone bolster fragments.

## Bolsters to the West of the Monumental Entrance

### Engaged Bolster Fragment

*Site Inventory Number:* —  
*Plate:* 211f  
*Identification Number:* 05TR21U12arc01  
*Photograph:* 06dpsg0411  
*Dimensions:* L (max. extant): 12 cm  
*Description:* Engaged bolster fragment. Very friable sandstone.

*Discussion:* This poorly preserved fragment of an engaged bolster is of importance because, having been found in TR21, it indicates that there were probably architectural bolsters incorporated into monuments or structures behind (i.e., to the west of) the Monumental Entrance.



### Block with Engaged Bolster

*Site Inventory Number:* KO6.220  
*Plate:* 211g  
*Identification Number:* 05TR20U09arc01  
*Photograph:* 06dpcj0129  
*Dimensions:* H (block): 29.5 cm; L (block, extant): 25.5 cm; W (extant): 16 cm; L (bolster): 19.8 cm; Dia (bolster end): 10.7 cm

*Description:* A unique piece consisting of a smallish three-quarters round engaged bolster protruding from a relatively deep block. The stone is eroded, with the reddish color resulting from the fire.

*Discussion:* This unique but abraded fragment is of a type not seen in the Monumental Entrance. It was found on the stone pavement in TR20, having presumably rolled down the slope, possibly from the Audience Hall or from some composite monument that stood nearby.



## Miscellaneous Granite and Sandstone Architectural Fragments

### Architectural Granite Fragments

*Site Inventory Number:* —

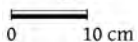
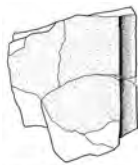
*Plate:* 212a

*Identification Number:* 05PALAU00arc03

*Photograph:* 10dpkc0603

*Dimensions:* L (max.): 20 cm

*Description:* Granite piece with groove along one corner. Orientation uncertain.



*Site Inventory Number:* —

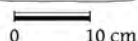
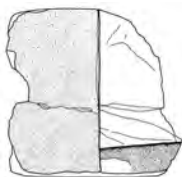
*Plate:* 212b

*Identification Number:* 05PALAU00arc04

*Photograph:* 10dpkc0611

*Dimensions:* W (fully extant): ca. 21 cm

*Description:* Granite architectural piece in two joining fragments. A right-angled cutting, perhaps for a wooden beam or post.



### Architectural Sandstone Fragments

*Site Inventory Number:* —

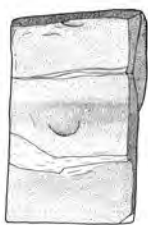
*Plate:* 213a

*Identification Number:* 05PALAU00arc05

*Photograph:* 10dpkc0605

*Dimensions:* Block (max): 27 × 16 × 16 cm

*Description:* Sandstone element with rebate. Incomplete in three joining pieces, partially damaged by burning.



*Site Inventory Number:* —

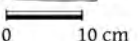
*Plate:* 213b

*Identification Number:* 05PALAU00arc06

*Photograph:* 10dpkc0609

*Dimensions:* L (max.): 20 cm

*Description:* Shaped sandstone fragment.



*Site Inventory Number:* —

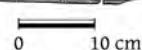
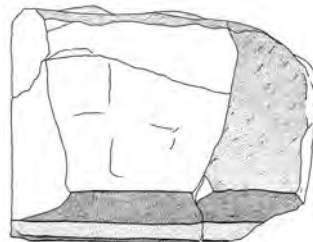
*Plate:* 214a

*Identification Number:* 05PALAU00arc08

*Photograph:* 10dpkc0637

*Dimensions:* L (extant): 41 cm; W: 33 cm; H: 19.5 cm

*Description:* Sandstone block with rebates in three joining pieces.



*Site Inventory Number:* —

*Plate:* 214b

*Identification Number:* 05TR17U12arc04

*Photograph:* 10dpkc0622

*Dimensions:* L (extant): 17.5 cm

*Description:* Corner of a sandstone block with a cutting.



### Architectural Sandstone Fragments Not Illustrated

*Site Inventory Number:* —

*Identification Number:* 04TR14U09stn01

*Dimensions:* L: 4.3 cm

*Description:* Sandstone fragment with curving, smoothed surface.

*Site Inventory Number:* —

*Identification Number:* 04TR15U02stn01

*Dimensions:* H: 8 cm; L: 11 cm; D: ca. 2.5 cm

*Description:* Sandstone block fragment with simple linear molding.

*Site Inventory Number:* —

*Identification Number:* 04TR16U11bld01

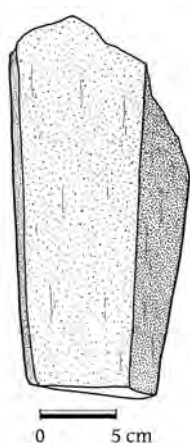
*Description:* Sandstone architectural block fragment.

*Site Inventory Number:* –  
*Identification Number:* O5TR16U16arcO2  
*Dimensions:*  
*Fragment 1:* L: 6.2 cm; W (max.): 16.1 cm;  
 Th (max.): 0.9 cm  
*Fragment 2:* L: 6 cm; W (max.): 12.6 cm;  
 Th (max.): 1 cm  
*Description:* Two nonjoining fragments of one face of an architectural block. This block is unusual in that it is very narrow. Color altered by fire, blackened.

*Site Inventory Number:* –  
*Identification Number:* O5TR17U14arc17  
*Description:* Worked sandstone fragment.

## Plugs

**Granite Plug**  
*Site Inventory Number:* –  
*Plate:* 215a  
*Identification Number:* O5PALAU00arcO1  
*Photograph:* 10dpkcO6O6  
*Dimensions:* L: 24 cm  
*Description:* Large granite plug for repair/gapfilling, one end broken.



**Sandstone Plugs**  
*Site Inventory Number:* –  
*Plate:* 215b  
*Identification Number:* O4TR15U13stnO1  
*Photograph:* O4dpcs2O14  
*Dimensions:* L: 10.3 cm  
*Description:* Sandstone plug.



*Site Inventory Number:* –  
*Plate:* 215c  
*Identification Number:* O4TR16U08arcO1  
*Photograph:* O4dpcs1413  
*Dimensions:* Plug (max.) 10 × 11 × 4.2 cm  
*Description:* Smallish, flat, and slightly wedge-shaped sandstone plug worked on at least four and possibly five faces. Traces of hatched pointed chisel marks on one of the flat faces; fewer on the other one, which appears to have some flat chisel marks.



*Site Inventory Number:* –  
*Plate:* 215d  
*Identification Number:* O5TR16U18arcO3  
*Photograph:* 17dpcsO4O1  
*Dimensions:* L: 7.5 cm; W: 8 cm  
*Description:* This small sandstone object, presumably an architectural plug, has four worked surfaces: two flat, one convex, one concave. Roughly the shape of a three-sided pyramid, the object has four points. Two of the points are broken off at the tip.



## Blocks with Clamp Cuttings

All clamp cuttings discovered so far at Kerkenes have been found in the cut facing stones of the two platforms that flank the Monumental Entrance. The cuttings are splayed at both ends in the form usually termed swallow-tailed, dovetailed, or straight-sided butterfly. These particular cuttings, especially the larger examples, have distinctive triangular ends with sections between them that are only slightly tapered toward the center at the edge of the stone. Clamps themselves were of wood, one charred example being found in situ. One row of three small, neatly made clamp cuttings was found in a single granite block in the South Platform. Here it was evident that the block had cracked during construction, with clamps being used to secure the loose fragment to the block from which it was splitting. Otherwise, all examples were large and rather roughly hewn into soft sandstone and limestone (more properly wackestone) blocks of the upper two courses of the pseudo-ashlar masonry of the platforms. Clamps



were employed to secure adjacent facing blocks, in one instance angled across the northeastern corner of the South Platform. However, many of these cuttings were perpendicular to the inner edge of the stone blocks, presumably to house the ends of timber elements that tied some face stones back into the rubble core of the platform.

### Comparanda

Swallow-tailed clamp cuttings are known from the Phrygian Highlands. Of particular interest are the cuttings in blocks facing a terrace wall protecting Staircase B at Midas City that, like the cutting in facing blocks of the South Platform of the Monumental Entrance, seem to have been for timbers that anchored the face stones into the core behind. These examples at Midas City should be close in date to the Kerkenes ones, presumably predating Lydian control. Very similar cuttings can be seen in the Phrygian sculptures from the Ankara region now kept in the Museum of Anatolian Civilizations. They are perhaps close in time to the Kerkenes examples. No clamp cuttings of this kind are reported from the Phrygian capital at Gordion, though Early Phrygian animal protomes of poros stone were apparently fixed in position with wooden elements. Similar clamp cuttings have not been reported from Iron Age structures at Boğazköy or Alaca Höyük or from the Neo-Hittite site of Göllü Dağ. The earliest clamp cuttings of this type to have been found on the Anatolian Plateau that are known to me are in each end of a Neo-Hittite block bearing a hieroglyphic Luwian inscription found at Porsuk, now in the Niğde Museum, but it is not possible to determine whether the clamps themselves were of wood or metal. A slightly later example was found in the so-called Tomb of Alyattes at Sardis, where the clamp itself was of lead. Similar lead clamps of an earlier date are also reported from the Neo-Assyrian city of Khorsabad in northern Iraq, one being on display in the Louvre. Rare in Anatolia before the sixth century, dovetail clamps were common in New Kingdom Egypt, from where the method is thought to have been emulated at Ugarit in the Levant. There is not, however, any tradition of these types of clamp cuttings in Central Anatolia during the Late Bronze Age. Later, in the Persian period, wooden clamps of the same basic form were frequently employed in tombs in the Uşak region of Lydia and around Sardis itself.

### Discussion

Clamp cuttings for wooden clamps at Kerkenes seem to have been employed only in the last stages of architectural development. It is notable that clamps were not set into granite, with the one exception of the mending clamps noted above, presumably because the properties of this stone were not conducive to cutting. It must also be significant that the clamped stones were blocks used to retain the upper part of large rubble-filled platforms where the outward pressure on the walling would have been significant. Here blocks were not only clamped together, but they seem also to have been tied back into the rubble core. The cuttings themselves are large and fairly crude, made to take clamps that were cut to shape on the spot and hammered into place so as to fit tightly.

If the development of this type of clamp cutting was introduced into eastern Phrygia only in the second quarter of the sixth century, as current evidence from Kerkenes suggests, this fact would add weight to other arguments that the sculpting of the Ankara orthostats should be placed around the same time. Where, then, did the builders in Phrygia learn the techniques of clamping stones? Not, evidently, from Gordion or from Lydia. Because, as already discussed, the tradition of stone bolsters has its best parallels in the Highlands of Phrygia, it is tempting to suppose that clamps may have come from the same region, perhaps originally employed in techniques of timber building. If this was the case, the paucity of evidence might simply reflect the dearth of excavated Middle Iron Age sites on the western part of the Anatolian Plateau.

### Catalog of Clamp Cuttings

The catalog includes those clamp cuttings that were recorded during the course of excavation. Some of them were not preserved because of the badly damaged condition of the stones, as described in chapter 7. Others were left in situ or stacked against the new wall to the southeast of the excavated area. In both of these cases, the stones have deteriorated from prolonged exposure to the elements. Some stones with cuttings were brought back to the excavation depot. These last items were given identification numbers and are stored under the stone workshop. No stones with clamp cuttings were given inventory numbers, or K numbers, and none are currently in the Yozgat Museum. Stones with

clamp cuttings that were not brought down from the excavation do not have identification numbers, the majority having disintegrated since they were excavated. Some cuttings extended over two stones that the clamps themselves tied together, but some appear to have been made for shaped projections at the ends of timber elements that tied stone blocks into the rubble core behind. The single example of an angled cutting appears to have been made to accommodate the end of a wooden beam that braced blocks on both sides of a corner in such a way that the central portion of the beam was encased in the rubble core. It is probable that the slanted cuttings on the tops of the sculpted Phrygian orthostats from the Ankara region were made for similar arrangements. In the catalog, each cutting has been given an individual number. In the few instances where there is more than one cutting in the same stone, each cutting has been given its own discrete number. Where the stone has been given an identification number, it too is given in the catalog.

#### Clamp Cutting Numbers 1-3

*Site Inventory Number:* —

*Plate:* 216

*Photographs:* 05dphp0607,  
05dphp0605

*Dimensions:* L (total): ca. 15 cm; W (ends): 6–7 cm; D (cutting): ca. 3 cm

*Description:* Three mending-clamp cuttings made in the top of a single granite block where a crack had appeared during construction. The stone seems to have been at the northeastern corner of the South Platform. This is the sole example of clamp cuttings made into granite and the only example of mending clamps.



#### Clamp Cutting Numbers 4-5

*Site Inventory Number:* —

*Plate:* 217

*Identification Number:* 03TR11U12arc06

*Photograph:* 10dpkc0616

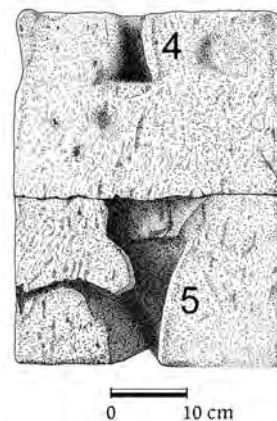
*Dimensions:*

*Block:* L: 47 cm; W: 35 cm; D: 18 cm

*Cutting 4:* L: 9 cm; W (end): 6 cm; D: 4 cm

*Cutting 5:* L: 16 cm; W (end): 7 cm; D: 4 cm

*Description:* Complete sandstone block, broken with clamp cuttings in each of the short ends. The sandstone is unusual in being brown and speckled with inclusions. Found in the ashy destruction layer immediately above the pavement of the Gate Court.



*Discussion:* This block is of an unusually small size and cut from an uncommon type of wackestone. The marked difference in the size of the clamp cuttings in both ends suggests a special function. It is possible, therefore, that this block was part of some built monument rather than being in the wall face of one of the platforms.

#### Clamp Cutting Numbers 6-8

*Site Inventory Number:* —

*Plates:* 218, 219a

*Photographs:* 05dphp2110, 05dphp1117,  
05dpca0304

*Dimensions:*

*Block:* L: ca. 90 cm; W: 55 cm

*Cutting 6:* W (end): 7 cm; L: 20 cm

*Cutting 7:* W (end): 15 cm; L: ca. 45 cm

*Cutting 8:* W (end): 7 cm; L: 20 cm

*Description:* Complete but broken block fallen from the northeastern corner of the South Platform. There is a perpendicular cutting, number 6, in one end of the block, at left in the photograph, positioned closer to the front of the block than to the back. The much larger cutting, number 7, found with some of the carbonized wooden clamp in place, is diagonal to the long axis of the block, its end approximately in the center of the rear edge. A third

cutting, number 8 at right, was for a timber tying the block back into the rubble core of the platform.



*Discussion:* The fallen position of this block indicates that it was built into the northeastern corner of the South Platform. Its exact placement is, however, impossible to determine with certainty. The smaller cutting was to clamp this block to the next. Thus, this stone was probably butted against and clamped to the corner stone in the wall face of the platform front. If, as is likely, the front face stone was of similar dimensions, the diagonal cutting would be for one end of a beam that braced the two stones at their centers, with the middle of the timber running through the corner of the rubble core of the platform.

Burn marks along the top of the stone, that is, along the lower half in the photographs, indicate the existence of a large, probably squared, beam that would have been laid between this course and the topmost course of masonry in the platform wall face. This uppermost course of stone would have been of a contrasting white or whitish color.

#### Clamp Cutting Numbers 9–10

*Site Inventory Number:* –

*Plate:* 219b

*Photograph:* 14dpkc0401

*Dimensions:*

*Block:* H: 47 cm

*Cutting 9:* L (extant): 20 cm; W (end): 7 cm; D: 7 cm

*Cutting 10:* L: 36 cm; W (end): 13 cm; W (neck): 7 cm; W (center): 4 cm; D: 6.5 cm

*Description:* Two clamp cuttings in a block of burned and friable light-colored wackestone. Part of one faced end of the stone is preserved, at upper left in the photograph. The left-hand portion of the long rear side at the top of the picture is trimmed rather coarsely to butt against an adjacent stone, while the longer portion to the right has been roughly hacked. The smaller cutting, number 9, is only approximately perpendicular to the side and parallel to the end of the block. Cutting number 10 has a steeply splayed

inner end and is placed at an angle of about 45 degrees to the block.



*Discussion:* This light-colored block very probably came from the topmost masonry course of the northern wall of the South Platform. Presumably, this stone fell from the front of the South Platform with the angled cutting for a beam at 45 degrees across the corner, while cutting 9 was for a timber that tied the block into the platform core.

#### Clamp Cutting Numbers 11–12

*Site Inventory Number:* –

*Plate:* 220a

*Photograph:* 04dpca0104

*Dimensions:*

*Cutting 11:* W (end): ca. 6 cm

*Cutting 12:* W: ca. 9 cm

*Description:* Fragmentary architectural block of brown sandstone. Found slipped forward from the preserved top of the northern face of the South Platform. The larger cutting, number 12, which had fire-blackened sides, probably housed the end of a wooden element that tied the block into the platform core. The smaller cutting, number 11, held a clamp securing this block to its neighbor in the wall face. Original surfaces bear the marks of a single-pointed tool. There are carbonate accretions on all surfaces.



## Clamp Cutting Number 13

*Site Inventory Number:* –*Plate:* 220b*Photograph:* O4dpjv2386

*Description:* The southern portion of a large, brown, sandstone block, very badly fire damaged, found in situ on the preserved top of the northern wall of the South Platform. The complete, very long cutting housed a wooden element that tied the block back into the platform core. There were no cuttings in the ends of this block.



wackestone. Found, as the photograph shows, in a disturbed context.



## Clamp Cutting Numbers 16-17

*Site Inventory Number:* –*Plate:* 222, 223*Identification Number:* O4TR16Uo8arcO4*Photograph:* O4dpcs1914*Dimensions:*

*Cutting 16:* L (extant): 24 cm; W (end): 14 cm; D: 7 cm

*Cutting 17:* D: 3 cm

*Description:* Part of a block in three joining pieces with two clamp cuttings in the preserved surface. The large, incomplete cutting, with steeply splayed end, is perpendicular to the axis of the block and presumably, therefore, present to tie the face block back into the core of the South Platform. The corner of a small clamp cutting in the end of the block (cutting 17), at top left in the photograph, would have tied this block to its neighbor in the wall face of the South Platform.

## Clamp Cutting Number 14

*Site Inventory Number:* –*Plate:* 221a*Photograph:* O5dphpO615*Dimensions:* W (end): 8 cm; L: 25 cm

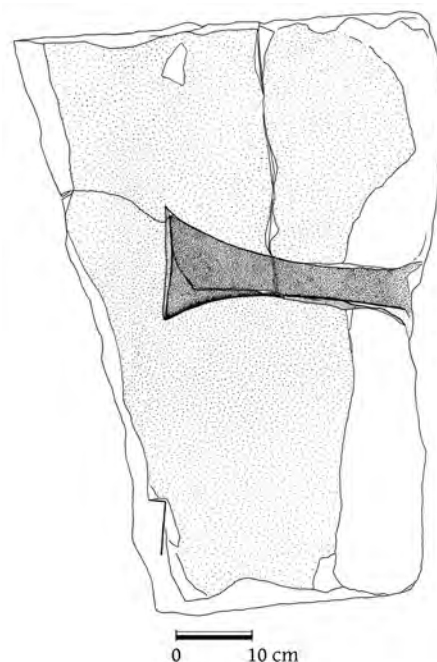
*Description:* Clamp cutting in the end of a masonry block close to the front edge.



## Clamp Cutting Number 15

*Site Inventory Number:* –*Plate:* 221b*Photograph:* O4dpjv1512*Dimensions:* W (end): 7 cm; L: 22 cm

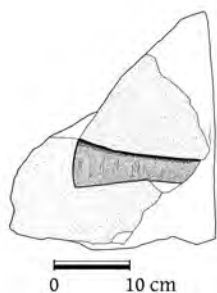
*Description:* Clamp cutting in one end of a large, fragmentary, incomplete block of white friable



## Clamp Cutting Number 18

*Site Inventory Number:* —*Plate:* 224a*Identification Number:* 03TR11U00arc06*Photograph:* 10dpkc0646*Dimensions:**Block (extant):* L: 31 cm; W: 26 cm; H: 18.5 cm*Cutting L (extant):* L: 17 cm; W (end): 5 cm; D (max.): 4 cm

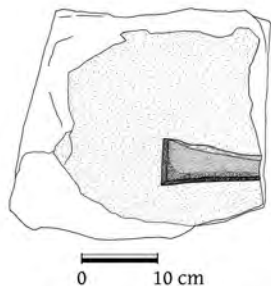
*Description:* Greenish-gray sandstone block fragment with two worked faces, and a long clamp hole in the top surface not exactly perpendicular to the cut edge of the stone. Single-pointed toolmarks on top; horizontal toolmarks in clamp hole.



## Clamp Cutting Number 19

*Site Inventory Number:* —*Plate:* 224b*Identification Number:* 03TR11U00arc03*Photograph:* 03dpjv7424*Dimensions:* W (cutting, end): 6 cm; L: 13 cm; D: 4 cm

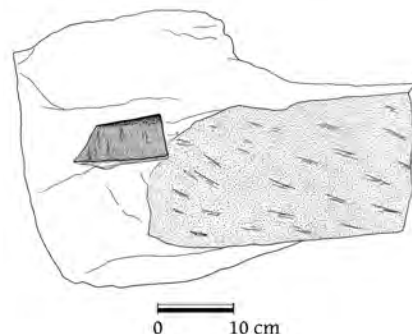
*Description:* Clamp cutting with coarse marks of a single-pointed tool. Orange and yellow sandstone with patchy carbonate accretion.



## Clamp Cutting Number 20

*Site Inventory Number:* —*Plate:* 225*Identification Number:* 03TR11U00arc09*Photograph:* 04dpcs0702*Dimensions:* W (cutting, end): 6 cm; D: 6 cm

*Description:* Partially preserved clamp cutting in one end of a large piece of a pale-brown wackestone block with three worked faces. Toolmarks are visible on the top surface as well as in the cutting itself. The rear of the block, at left in the photograph, is very roughly trimmed.



## Clamp Cutting Numbers 21-22

*Site Inventory Number:* —*Plate:* 226a*Identification Number:* 04TR16U03arc01*Photographs:* 04dpcs1922*Dimensions:**Cutting 21 (extant):* L: 30 cm; W (end): 9 cm; D: 8 cm*Smaller cutting 22:* L (extant): 22 cm; W (end): 8 cm; D: 4 cm

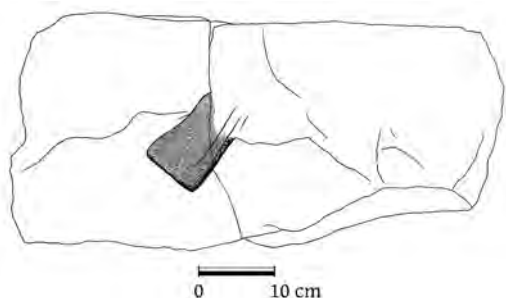
*Description:* Large block in ten fragments, incomplete, not mended. Pale-brown sandy wackestone with white carbonate accretion. This item is the only architectural block that has clamp cuttings on different surfaces. It is likely that the block cracked during construction, with the result that the block was reoriented. Only the smaller, more complete, cutting is illustrated.



## Clamp Cutting Number 23

*Site Inventory Number:* –*Plate:* 226b*Identification Number:* 03TR11U00arc04*Photograph:* 04dpcs0713*Dimensions:* W (cutting, end): 8 cm; D (max.): 8 cm

*Description:* One preserved end of a deep cutting in the preserved pieces of a large block. The end of the cutting is deeper than the central section. The cutting is probably at 45 degrees to the long axis of the block. Friable greenish wackestone with thick, white, carbonate accretion.



## Clamp Cutting Number 24

*Site Inventory Number:* –*Plate:* 227a*Identification Number:* 03TR11U00arc07*Photograph:* 04dpcs0716*Dimensions:* D: 6 cm

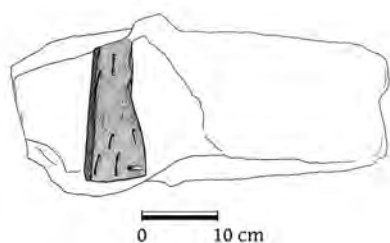
*Description:* Part of a clamp cutting in pale-brown stone with carbonate accretions.



## Clamp Cutting Number 25

*Site Inventory Number:* –*Plate:* 227b*Identification Number:* 03TR11U04arc02*Photograph:* 04dpcs0801

*Description:* Part of a long clamp cutting.



## Clamp Cutting Number 26

*Site Inventory Number:* –*Plate:* 228a*Identification Number:* 04TR16U11arc01*Photograph:* 10dpkc0651*Dimensions:* L: 9 cm; W (cutting, end): 5 cm; D: 3 cm

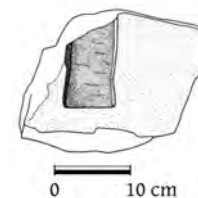
*Description:* Partially preserved clamp cutting in one end of a block with three preserved faces. There are white carbonate accretions on the stone.



## Clamp Cutting Number 27

*Site Inventory Number:* –*Plate:* 228b*Identification Number:* 05PALAU00arc07*Photograph:* 10dpkc0632*Dimensions:* W (cutting, end): 6.5 cm; D: 5 cm

*Description:* Clamp cutting fragment, not noticeably splayed.

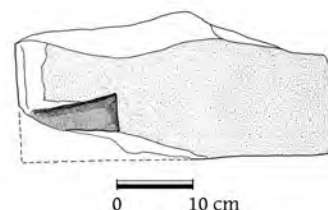


## Clamp Cutting Number 28

*Site Inventory Number:* –*Plate:* 228c*Identification Number:* 05PALAU00arc09*Photograph:* 10dpkc0635

*Dimensions:* W (cutting, end): 6.5 cm; L (cutting): 16.5; D (cutting): 4 cm; L (block, extant): 44.2 cm; W (block, extant): 17 cm; H (block, extant): 21.3 cm

*Description:* Clamp cutting in one end of a large block, not quite perpendicular.



## Clamp Cutting Number 29

Site Inventory Number: —

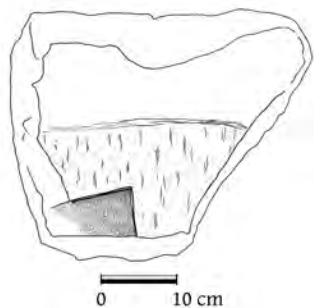
Plate: 229

Identification Number: 05PALAU00arc10

Photograph: 10dpkc0633

Dimensions: L (block, extant): 40 cm; W (extant): 33.5 cm; H (extant): 10.5 cm

Description: Part of a clamp cutting.



## Clamp Cuttings Not Illustrated

Site Inventory Number: —

Identification Number: 03TR11U00arc10

Description: Three joining fragments of a large architectural stone with one worked face, most of which is very roughly chiseled and which has a raised, smoothed border at one end. A gap in this border between two of the joining fragments may be the remains of a clamp cutting (if it is not an unfortunate break).

Site Inventory Number: —

Identification Number: 03TR11U08arc10

Description: Small red-colored fragment of a sandstone architectural block with remains of a clamp hole.

Site Inventory Number: —

Identification Number: 05TR16U18arc02

Description: Sandstone architectural block fragment with a clamp cutting.

## Stone Fragments with Drip Marks

A small number of fragments of faced stone were seen to have marks left by some kind of liquid, possibly paint or resin. The traces do not appear to have been deliberately applied. No attempt at chemical analysis has yet been made.

## Fragment of Sandstone Block with Drip Marks

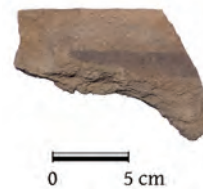
Site Inventory Number: —

Plate: 230a

Identification Number: 04TR16U06stn03

Photograph: 04dpcs0818

Description: Fragment of sandstone block with two worked faces, a front and edge, the front bearing a stripe of dark pigment. Worked surfaces are very smooth.



## Sandstone Fragments with Drip Marks

Site Inventory Number: —

Plate: 230b-c

Identification Number: 03TR11U08stn11

Photographs: 03dpjv7201, 03dpjv7204

Description: Sandstone fragments with drip marks on the worked faces. Two joining pieces and one nonjoining.



Site Inventory Number: —

Plate: 230d

Identification Number: 03TR11U08stn38

Photograph: 03dpjv7202

Description: Large corner fragment of sandstone with traces of paint on one face and alternating dark and red stripes in one corner. The faces have pointed and flat toolmarks.



Site Inventory Number: —

Plate: 231a

Identification Number: 03TR11U08stn39

Photograph: 04dpcs0315

Description: Fragment of sandstone with one worked face, bearing drip marks and flat toolmarks.



*Site Inventory Number:* —  
*Plate:* 231b  
*Identification Number:* 03TR11U08stn45  
*Photograph:* 04dpcs0335

*Description:* Three joining sandstone fragments with two worked faces with marks on both in the shape of partial hand print. Marks made with a tool blade. The angle between worked faces is less than 90 degrees. Fire-blackened color.



Sandstone Fragments with Drip Marks Not Illustrated

*Site Inventory Number:* —  
*Identification Number:* 05TR16U18arc01  
*Description:* Small flat fragment of sandstone with striped paint ghosts on facade.

*Site Inventory Number:* —  
*Identification Number:* 05TR17U14arc06  
*Description:* Four joining fragments of sandstone with stripes, perhaps ghosts of paint.

*Site Inventory Number:* —  
*Identification Number:* 03TR11U08stn40  
*Description:* Fragment of sandstone with one worked face and faint, dark, striped marks.

*Site Inventory Number:* —  
*Identification Numbers:* 03TR11U08stn41,  
 03TR11U08stn42

*Description:* Two nonjoining fragments of sandstone from the edge of the same block with drip marks on one face. Flat chisel marks. The angle between

the two worked faces is less than 90 degrees, so the block tapered.

*Site Inventory Number:* —  
*Identification Number:* 03TR11U08stn43  
*Description:* Fragment of sandstone with one slim worked face bearing drip marks and marks made with a pointed tool.

*Site Inventory Number:* —  
*Identification Number:* 03TR11U08stn44  
*Description:* Fragment of sandstone with one worked face, trace of staining, perhaps paint.

## IN SITU ARCHITECTURAL ELEMENTS AT THE MONUMENTAL ENTRANCE

### Column Bases, Wackestone

Three column bases of pale-yellowish-brown sandstone were excavated in the Monumental Entrance, one pair at the front and one of another pair at the rear. All are of the same form, more or less square in plan and all the same height. There is a shallow circular recess on the top to accommodate a round wooden column. Variation in the diameter of the recesses might suggest that they were cut to fit. The timber columns, which were probably black pine, could have been several meters tall. They bore almost certainly stone capitals with bolsters on both sides and bolster ends in relief on the front and back.

### Plinth, Wackestone

The pale-yellowish stone chosen for the plinth placed in the southwestern corner of the court tended to crumble into large rounded fragments. The top measures 210 × 70 cm. The maximum exposed height is also about 70 cm, being greater at the front than the rear on account of the incline of the pavement. How much of the base is buried below the pavement

Table 10. Dimensions of the three excavated sandstone column bases in the Monumental Entrance

Column Base	Width (cm)	Length (cm)	Height (cm)	Volume (cu. m)	Diameter (cm)
Front south	103	114	51	0.6	86
Front north	121	120	51	0.74	85
Back north	114	132	52	0.78	80



is unknown. It is assumed that there was a second, identical plinth in the same position on the northern side of the court where a hole had been dug by treasure seekers. There was no pattern of burning, nor were there any other indications of what might have stood on these plinths.

## Aniconic Stele, Granite

An aniconic granite stele stood against the northern doorpost of the rear façade. In front of it was a square depression in the stone paving, presumably for a ritual of some kind. The stone had been roughly shaped. Facing the Audience Hall, this stone would have been seen only by those leaving the Palatial Complex. Both the position and the visibility are closely paralleled by the aniconic stele set up at the Cappadocia Gate. In the plans a second stele is shown against the southern architrave, but there is no firm evidence to support this reconstruction. At the Cappadocia Gate, where the plan of the gate precludes such an arrangement, placement of monuments is asymmetric. On the other hand, the front court at the Monumental Entrance does appear to have been symmetrical placement.

## MASONS' MARKS

From the Monumental Entrance have come a total of seven incised marks on stone of the type frequently referred to as masons' marks. All these marks are boldly and precisely cut, some if not all of them with a chisel. This intentionality sets these marks apart from the doodles at the Cappadocia Gate. It is surely significant that all these marks have been found cut into soft sandstone, none having been recognized in the carefully faced granite at the Monumental Entrance. However, a series of simple marks, described in detail in chapter 5, has been found chiseled into the carefully dressed faces of granite blocks inside the Ashlar Building. Additionally, two marks of a different kind in the form of a C were inscribed on one face of Idol Block 2. No masons' marks were found at the Cappadocia Gate, where large sandstone blocks set along the front parapets of the South, Middle, and East Tower tops were trimmed with a variety of tools.

One mark was found on the back face of a large in situ sandstone block built into the South Platform. This hidden position confirms the interpretation of these marks as masons' marks and indicates some

administrative function more usually associated with such marks, while the location on a smoothed portion of the back of this partially dressed stone is perhaps indicative of cutting at the construction site rather than the quarry. None of the marks are alphabetic.

## Catalog of Masons' Marks

### Sandstone Block with Masons' Mark

*Site Inventory Number:* —  
*Plate:* 232a  
*Photograph:* 04dpjv1262

*Description:* Sandstone block in the northern wall of the South Platform (TR15) with a mark in the form of three parallel lines, the lowermost of which as shown in the photograph is bent upward. In 2004 the stone was left in situ in the wall.



### Sandstone Fragments with Incised Marks

*Site Inventory Number:* —  
*Plate:* 232b  
*Identification Number:* 03TR11U08stn26  
*Photograph:* 05dpcs0618  
*Dimensions:* L (two complete lines): 30 mm

*Description:* An incomplete mark incised on a fragment of faced sandstone. The mark is perhaps in the form of a trident. The stone is burned.



*Site Inventory Number:* —  
*Plate:* 232c  
*Identification Number:* 04TR16U00arc01  
*Photograph:* 05dpcs0609

*Dimensions:* L (extant): 24 mm and 32 mm; W: 4 mm; D: 1 mm; L (extant line): 21 mm

*Description:* Fragment of faced sandstone with an edge at bottom. The extant mark comprises incomplete portions of two straight lines meeting at a 90-degree corner.



Site Inventory Number: —  
 Plate: 233a  
 Identification Number: O4TR16U14arcO2  
 Photograph: O4dpcs2021

Dimensions: L (extant line): 21 mm  
 Description: Fragment of faced sandstone with part of one edge. Part of an incised line is preserved.



0 5 cm

Site Inventory Number: —  
 Plate: 233b  
 Identification Number: O4TR16U14arcO3  
 Photograph: O5dpcs0614

Dimensions: L (extant): 28 mm  
 Description: Fragment of faced sandstone with toolmarks and a smoothed area. Part of a linear incision is preserved on the smoothed area.



0 5 cm

Site Inventory Number: —  
 Plate: 233c  
 Identification Number: O5TR17U11arcO3  
 Photograph: O5dpcs0606

Dimensions, cross: 30 × 30 mm  
 Description: Fragment of sandstone with roughly trimmed face bearing a deeply incised mark, probably complete, in the form of a cross.



0 5 cm

Site Inventory Number: —  
 Plate: 233d  
 Identification Number: O5TR17U12arcO5  
 Photograph: O5dpcs0603

Description: Fragment from the edge of a sandstone block with a deeply incised, complete mark on one face. The mark comprises two elements, a U above a straight line.



0 5 cm

## BYZANTINE OBJECTS FROM THE MONUMENTAL ENTRANCE

### Byzantine Coin

#### Copper Alloy Coin

Site Inventory Number: KO4.170  
 Plate: 234a  
 Identification Number: O4TR16U05met01  
 Photographs: O4dpcs0617, O4dpcs0618  
 Description: Byzantine coin.

Issuer: Justinian I

Date ruled: AD 527–565

Metal: Copper alloy

Denomination: Follis

Struck/cast: Struck

Date struck: AD 560 or 561

Diameter: 34 mm

Weight: 18.35 g

Obverse legend: D N IVSTINI-ANVS PP AVG

Description, obverse: Emperor helmeted and cuirassed bust facing, holding globus cruciger and shield, to right cross

Description, reverse: Large M (denomination in Greek numeral, M = 40, 40 nummae = 1 follis), cross above.



0 2 cm

Regnal year: Left field: ANNO; right field: XXXIII

Mint in exergue: THUP = Theopolis (Antioch)

Officina: Γ (= officina 3)

### Glass

#### Conical Glass Whorl

Site Inventory Number: KO3.146  
 Plate: 234b  
 Identification Number: O3TR11U04gfa01  
 Photographs: O3dpjv6181, O3dpjv6183  
 Dimensions: Dia: 23 mm; H: 9 mm; Dia (hole): 3 mm

*Description:* Conical glass whorl, pierced; excellent condition, complete. Core-formed brown glass with spiral of trailed and raised yellow glass. One hole and several very small blemishes caused by bubbles.



## MISCELLANEOUS UNSTRATIFIED FINDS

### Pottery

Sherd with Painted Pattern

*Site Inventory Number:* —

*Identification Number:* 05TR21U01pot01

*Plate:* 234c

*Photograph:* 17dpkc0402

*Description:* Small sherd, part of a pedestal base; fine buff ware, dark glossy paint, well burnished. The design seems to be a meander pattern around the underside of the base of a small closed vessel.



*Discussion:* The only sherd of Iron Age pottery recognized as being an import, very probably from the Aegean region. Possibly East Greek.

### Unstratified Objects

Iron Arrowhead

*Site Inventory Number:* K94.042

*Plate:* 234d

*Identification Number:* 94PALAU00meto1

*Photograph:* 05dpnk0823

*Dimensions:* L: 32 mm; W (max.): 5 mm; W (min.): 3 mm

*Description:* Iron arrowhead.



Iron Blade Fragment

*Site Inventory Number:* —

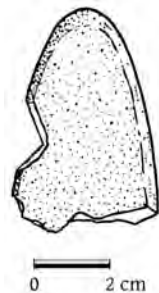
*Plate:* 234e

*Identification Number:* 05TR20U12meto1

*Photographs:* 05dpnc1868

*Dimensions:* L (extant): 55 mm; Th: 8 mm

*Description:* Part of blade from a large iron tool.



## CHAPTER 9

POT MARKS AND GRAFFITI ON POTTERY  
AT KERKENES DAĞ

SUSANNE BERNDT

## GENERAL COMMENTS

In spite of the limited amount of pottery found at Kerkenes Dağ, there are nevertheless nineteen pottery vessels or sherds bearing an inscribed mark—a relatively high number. Tarsus, in contrast, had tens of thousands of sherds, but the number of pot marks is only equal to the amount from Kerkenes Dağ.<sup>133</sup> The majority of the pot marks from Kerkenes are from the Palatial Complex and its Monumental Entrance. There are only two pot marks known from the Cappadocia Gate.<sup>134</sup> A pot mark may be inscribed either before firing or after. The majority found at Kerkenes were inscribed after firing. Only the mark on the flat base of catalog number 10, and possibly the mark on the base of catalog number 13, were incised before firing. A pot mark may signify the potter or organization within the pottery workshop, or might relate to the owner. Marks can also relate to quantity or capacity, or can indicate content or even function. Pot marks signifying the potter or workshop would generally be incised before firing. If this understanding is correct, we may suggest that those marks incised after firing were not related to manufacture. That not all the Kerkenes pot marks indicated content or functioned as measurement

marks is made clear by the mark incised onto a pottery funnel, catalog number 8. This mark may be an owner's mark or an indication of, for example, which liquid it was intended to be used for.

## ALPHABETIC MARKS

There are four pots (cat. nos. 1, 2, 6, 9) from the Monumental Entrance, in addition to one from the Cappadocia Gate,<sup>135</sup> that are inscribed with a mark that is identical to the Phrygian letter “reversed N.” This letter represented the phoneme /j/, transliterated as *y*.<sup>136</sup> That this mark was intended to signify this letter is, however, doubtful. At Gordion it is not uncommon to find alphabetic marks applied to pottery vessels, the five most common letters being *a*, *d*, *m*, *e*, and *y*.<sup>137</sup> At Kerkenes, however, there are no known examples of the single letters *a*, *d*, *m*, *e*, or indeed of any letter other than *y*, which indicates that *y* was applied as a nonalphabetic pot mark rather than as an alphabetic mark.<sup>138</sup> Roller likewise argued that *y* was used as a nonalphabetic pot mark at Gordion during the same period.<sup>139</sup> At Kerkenes the mark was always applied on the shoulder immediately next to the handle. We may

<sup>133</sup> Hanfmann 1963, p. 329.

<sup>134</sup> Summers 2021, cat. nos. 1–2 (site inventory nos. K11.275, K11.274), pp. 118–19.

<sup>135</sup> Summers 2021, cat. no. 1 (site inventory no. K11.275), p. 118.

<sup>136</sup> Brixhe 2008, p. 73.

<sup>137</sup> Roller 1987, p. 34.

<sup>138</sup> The letter *y* occurred elsewhere in Kerkenes as part of inscriptions with several letters see Draycott and Summers 2008, cat. no. 16, p. 68; cat. no. 18, p. 69.

<sup>139</sup> Roller 1987, pp. 34–35. It is worth noting that *y* rarely appeared in later material, and hardly ever occurred alone after the sixth century BC at Gordion.

therefore suggest that it had a specific meaning, plausibly connected with the vessel's function or ownership, or some kind of administration. This suggestion is perhaps supported by the archaeological context, three of the examples being found between Structures A and D, while the fourth came from the adjacent Structure C. In addition, a jug from the Cappadocia Gate bears an identical mark on the shoulder.<sup>140</sup> Two more jugs, catalog numbers 3 and 4, with a different mark incised on the shoulder below the handle, came from the same archaeological context as the first two examples, between Structures A and D. Despite the fact that only fragments of some of these jugs are preserved, they all appear to be spouted jugs of very similar shape and of roughly the same size. Slight variations in size notwithstanding, it seems reasonable to assume they had all served the same function that, as indicated by their spouts, involved the pouring of liquid. I would suggest that the pot marks on these specific vessels are administrative marks because they are all located in the same position, next to the handle, where they would have been easily seen by users of the vessel. Since this type of vessel was not intended for storage, the most plausible suggestion is that the pot mark indicated which liquid it was intended for, though other possibilities cannot be excluded. We should here further note that one preserved example of this type of mark, the letter *y*, was also applied in an identical position to a jug found at Gordion. This jug was found on the Küçük Höyük and dates to the same period as the Kerkenes examples, the mid-sixth century BC.<sup>141</sup>

A graffito is inscribed on the underside of the base of catalog number 17. As described in the catalog, the reading is uncertain. If the reading *bs* or *sb* is preferred, then close parallels concerning the letter *s* may be found both at Kerkenes and

Boğazköy.<sup>142</sup> A similar example of this type of the letter *b* is also found at Boğazköy.<sup>143</sup>

A partly preserved inscription of several letters (cat. no. 11) is found on a raised band along the body of a large pithos. The same order of letters is known from Gordion in a partly preserved inscription. A fragment of grey ware was inscribed . . . ] *a(?)sia* [. . . or . . . .] *aisa(?)* [. . . . It was found in the mantle of Tumulus E, dated to the sixth century BC.<sup>144</sup> Below the tumulus were remains of a domestic(?) house dated to the end of the sixth century BC,<sup>145</sup> and it is possible that this sherd came from it. This building had rooms that seem to have served specific purposes, including serving as a bakery. The inscription from Kerkenes may be the partly preserved name of an owner, but considering that the vessel was a pithos, the inscription may also have been a reference to its content.

## NONALPHABETIC MARKS

Four vessels (cat. nos. 8, 12, 13, 14) are marked with a simple cross or X, which is a very common mark found in many cultures.<sup>146</sup> In two cases (cat. nos. 13 and 14) the marks are incised on the underside of shallow bowl bases, while the other two are more visible. A variation of the cross with two prongs added to the end of one line is mark catalog number 7. A similar mark but with considerably longer prongs is also known from Gordion.<sup>147</sup> Both marks are applied on the exterior surface of the bowl.

There is one additional vessel with a mark on the underside of the base, catalog number 10. Pot mark catalog number 10 is the only example that was certainly incised before firing. An identical figure is found below the base on one more pot from Kerkenes,<sup>148</sup> and several times on pottery from Gordion.<sup>149</sup> In two cases at Gordion is the mark doubled,

<sup>140</sup> Summers 2021, cat. no. 1 (site inventory no. K11.275), p. 118.

<sup>141</sup> Roller 1987, cat. no. 2B-6, p. 34.

<sup>142</sup> Kerkenes: Draycott and Summers 2008, cat. no. 18, p. 69; cat. no. 15, p. 68. Boğazköy; Bossert 2000, cat. no. 1317, pl. 101.

<sup>143</sup> Bossert 2000, cat. no. 1318, pl. 101.

<sup>144</sup> Brixhe and Lejeune 1984, cat. no. G-267; Anderson 2012, p. 176.

<sup>145</sup> Anderson 2012, p. 184 with fig. 12.12.

<sup>146</sup> For other Phrygian examples see Roller 1987, cat. nos. 1A-11, 12, 13, 17; 2A-8, 37, 61, 66, 115, 116, 117, 122, 123, 124, 133, 164, 169, 170, 190, 194, 198, 221, 228; 2B-141, 188; and Bossert 2000, cat. nos. 384, 615, 877.

<sup>147</sup> Roller 1987, cat. no. 2A-128.

<sup>148</sup> Summers 2021, cat. no. 2 (site inventory no. K11.274), p. 118.

<sup>149</sup> Roller 1987, cat. nos. 2A-63, 2A-34.

that is, a cross with a V pattern on each arm.<sup>150</sup> All of them are made after firing, and in at least two instances they are on the underside of the base. Roller interpreted those from Gordion as owner's marks,<sup>151</sup> an interpretation that is plausible for catalog number 10 as well.

In addition to the letter y applied on the shoulder next to a handle, there are two other marks applied in the same location, catalog numbers 3 and 4. Pot mark catalog number 4 is best described as a "double mark." Similar marks are known, for example, from Gordion and Old Smyrna.<sup>152</sup> These two pot marks from Kerkenes are also from the same context as the other marked jugs from Kerkenes. Possibly these two pot marks are also intended to mark the function of the vessels.

Pot marks on handles are in general common, with numerous examples from Gordion and other more or less contemporaneous settlements,<sup>153</sup> but from Kerkenes Dağ there is only one known example (cat. no. 5).

A partly preserved mark, catalog number 15, is applied on the exterior wall below the rim of a vessel with thick walls, perhaps a storage vessel. Pot mark catalog number 16, applied on the exterior raised band of a pithos, had a short vertical line repeated four times, which may be an indication of that it was a measurement mark. Capacity marks from Gordion were basically of two types: either a number of parallel lines of equal length, similar to catalog number 16, or a number of concentric circles.<sup>154</sup>

## CATALOG

### Catalog Number 1

*Site Inventory Number:* K00.123  
*Plate:* 101a  
*Identification Number:* 00CT23U02pot02  
*Photograph:* 05dpnk1118  
*Yozgat Museum Registration Number:* 1574  
*Context:* Found between Structures A and D.

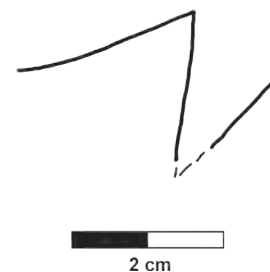
*Description:* One-handed orange ware jug with cutaway spout, faceted vertical bar handle, and traces of paint. After firing, the letter-form N in reverse, transliterated as y, was incised on the shoulder, partly beneath and to the right of the handle. For a description and illustrations of the jug, see chapter 8, Iron Age Pottery from between Structures A and D, site inventory number K00.123



### Catalog Number 2

*Plate:* 101b  
*Identification Number:* 00CT23U02pot05  
*Context:* Found between Structures A and D.

*Description:* Neck and part of the shoulder of a large one-handed jug with cutaway spout and handle scar on rim. Very similar to catalog number 1; slightly smaller than the following jug, catalog number 3. After firing, the letter-form N, transliterated as y, was incised on the shoulder, probably to the right of where the handle would have been. For a description and illustrations of the jug, see chapter 8, Iron Age Pottery from between Structures A and D, ID number 00CT23U02pot05.



<sup>150</sup> Roller 1987, cat. nos. 2A-167, 2A-187.

<sup>151</sup> Roller 1987, p. 8.

<sup>152</sup> Roller 1987, cat. no. 2B-160; Jeffery 1964, p. 40, cat. no. 11, fig. 1.

<sup>153</sup> See, e.g., marks on handles from Gordion in Roller 1987, cat. nos. 2A-29, 2A-30, 2A-35, 2A-46, 2A-48, 2A-78, 2A-94, 2A-95, 2A-96, 2A-106, 2A-145, 2A-159, 2A-162, 2A-170, 2A-198, 2A-207, 2A-216, 2A-224, 2A-229; from Tarsus, Hanfmann 1983, cat. nos. 1653, 1655-1656, 1659-1668, 1670-1672.

<sup>154</sup> Roller 1987, pp. 60-65.

## Catalog Number 3

Plate: 102a

Identification Number: 00CT23U02pot06

Context: Found between Structures A and D.

Description: Large one-handed jug with cutaway spout and faceted vertical bar handle between rim and shoulder. Very similar to catalog number 1. A mark in the shape of a V above three vertical lines (not shown) was incised on the shoulder, immediately on the right-hand side of the handle, after firing. For a description of the jar, see chapter 8, Iron Age Pottery from between Structures A and D, ID number 00CT23U02pot06.



## Catalog Number 6

Identification Number: 00CT23U02pot09

Context: Found between Structures A and D.

Description: Sherd from the shoulder of a jug, handmade, pale yellowish brown with considerable grit temper and burned out inclusions, uneven interior, and smoothed exterior. The letter-form N in reverse, transliterated as y, was incised after firing.



## Catalog Number 4

Identification Number: 00CT23U02pot04

Context: Found between Structures A and D.

Description: Large one-handed jug with cutaway spout. Faceted vertical bar handle from rim to shoulder. Complete rim to shoulder profile in eleven joining sherds. Handmade, probably very similar to catalog number 1, but with cream-colored surface beneath rust-colored paint, not illustrated. Incised on shoulder after firing. The mark is like a double mark. The first mark resembles Δ, while the second, joining mark consists of a vertical line with a curved short tail extending from its upper part and a triangle at the bottom part.



## Catalog Number 7

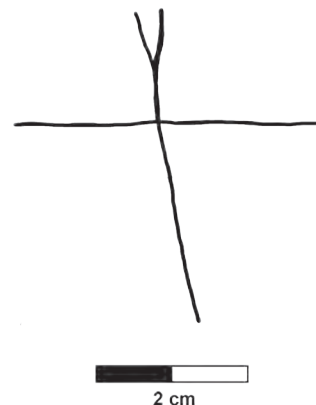
Plate: 98a

Identification Number: 00CT27U02pot01

Photograph: 01slvfl413

Context: Found in front of the recess in the Structure A glaxis.

Description: Rim of shallow bowl, dark gray, perhaps from secondary firing, slipped and polished, with three incised concentric rings on the exterior. Two joining sherds. The mark comprises a cross with two prongs at top of the vertical line and is incised on the exterior of the body. Incised after firing.



## Catalog Number 5

Plate: 102b

Identification Number: 00CT23U02pot03

Context: Found between Structures A and D.

Description: Krater with rounded base and two vertical strap handles. Two parallel, almost horizontal lines of different length; the bottom one runs across a V, while the upper one ends in line with the V. Incised on the upper part of the handle after firing. For a description of the jar, see chapter 8, Iron Age Pottery from between Structures A and D, identification number 00CT23U02pot03.



## Catalog Number 8

Site Inventory Number: K00.088

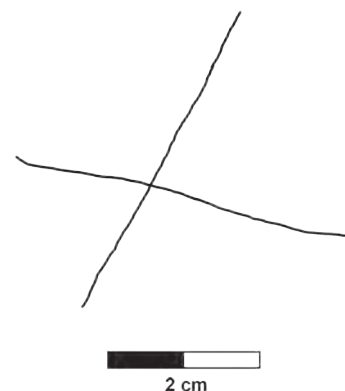
Plate: 104b

Identification Number: 00CT15U05pot01

Photograph: 05dprnk1114

Context: Structure C, found on floor of the northern room, close to other pottery vessels.

Description: Funnel with a cross incised on the interior of the body before firing. For a description of the funnel, see chapter 8, Iron Age Pottery from Structure C.



## Catalog Number 9

Site Inventory Number: K00.092  
 Plate: 103c  
 Identification Number: 00CT15U03pot02  
 Photograph: 05dpnk1103

Context: Found on floor of Structure C.

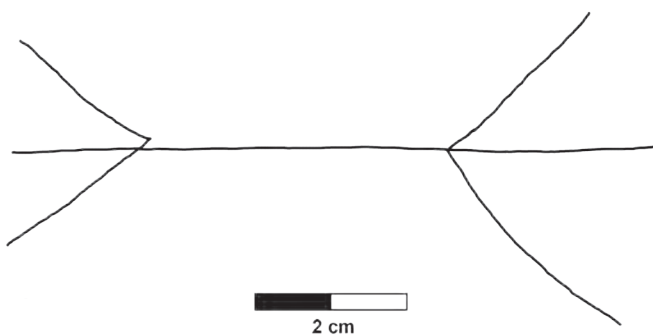
Description: The letter-form, N in reverse, transliterated as y, is incised on the shoulder, possibly of a jug next to the handle. Incised after firing. For a description of the sherd, see chapter 8, Iron Age Pottery from Structure C.



## Catalog Number 10

Site Inventory Number: K00.091  
 Plate: 105a  
 Identification Number: 00CT15U05pot02  
 Photograph: 05dpnk1104

Context: Found pressed into the floor of the northern room of Structure C.



Description: Flat base of closed vessel with a mark incised on the underside of the base before firing. Line with V on each end. For a description of the sherd, see chapter 8, Iron Age Pottery from Structure C.

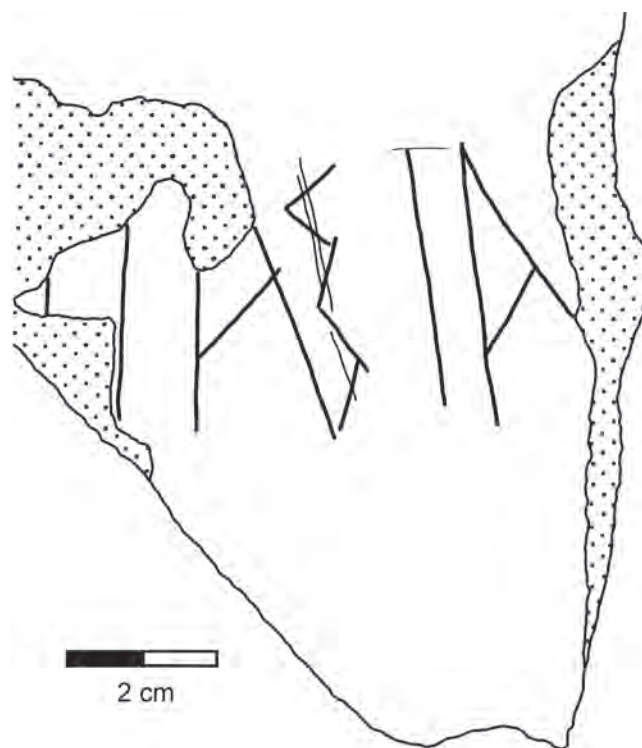
## Catalog Number 11

Site Inventory Number: K04.177  
 Plate: 235a  
 Identification Number: 04TR11U14pot01  
 Photograph: 04dpcs0516

Dimensions: H (band): 42 mm

Context: From a disturbed context at the Monumental Entrance.

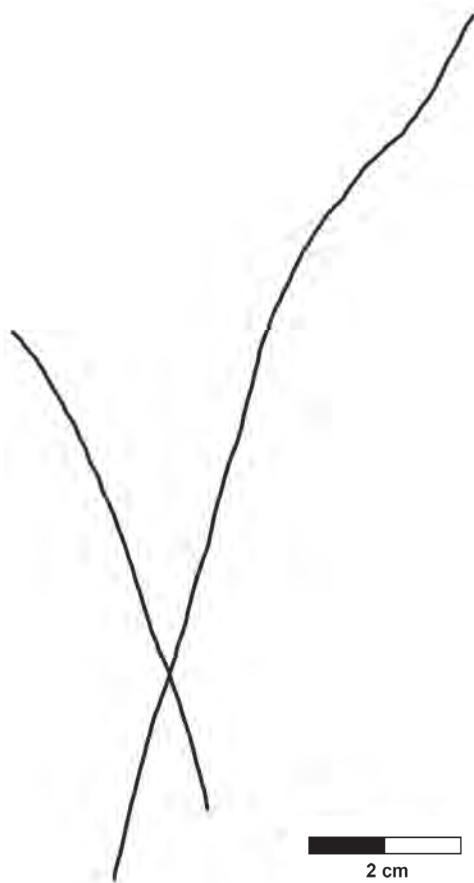
Description: Pithos shoulder fragments, of which two joining sherds bear a graffito. Medium grit temper, orangey brown with a thick pale-brown core and exterior surface, smoothed. The graffito inscribed on a raised band along the body after firing. The left part of the graffito is missing, and there are two partially preserved vertical lines, either belonging to one letter or two, which are followed by A S I A. The letter S has several superimposed incised lines, which may be due to a writing error. The letter I has a faint short horizontal line at the top, which is not as deeply incised as the vertical line, making it uncertain whether a T or I was intended.





## Catalog Number 12

*Plate:* 235b  
*Identification Number:* O4TR15U01pot02  
*Photograph:* O5dpnk1219  
*Context:* From a disturbed context at the Monumental Entrance.

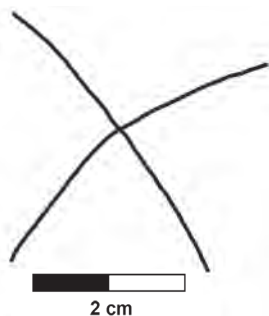


*Description:* Sherd from a pithos with an X incised on the exterior after firing. The sherds have a pale brown, well-burnished exterior. There are random scratches in addition to the graffito.

## Catalog Number 13

*Plate:* 163c  
*Identification Number:* O4TR15U05pot01  
*Photograph:* O5dpnk1219  
*Context:* From a disturbed context at the Monumental Entrance.

*Description:* Very concave disk base of a bowl of plain fine gray ware with no visible temper, slipped and burnished, with a cross incised under the base after firing.



## Catalog Number 14

*Site Inventory Number:* KO5.214  
*Plates:* 236  
*Identification Number:* O4TR16U16pot01  
*Photographs:* O8dpkc2220, O8dpkc2221  
*Yozgat Museum Registration Number:* 1570  
*Context:* From the destruction level at the Monumental Entrance.



*Description:* Carinated bowl with everted rim and concave disk base. Three crosses were incised on the underside after firing. One cross is under the base, the other two on each side of the base. The cross at the bottom of the drawing has two faint additional lines across the vertical line. For illustrations and description of the bowl, see chapter 8, Iron Age Pottery from the Monumental Entrance.

## Catalog Number 15

Site Inventory Number: K03.156

Plate: 237a

Identification Number: O3TR11U01pot01

Photograph: O3slvf4602

Context: Monumental Entrance, rubble fill.

Description: Rim sherd from a fine bowl. The surface is pale brown and spalled from secondary burning, the core now light red. Preserved is a diagonal line with a horizontal line above and a vertical line on the right-hand side. Incised after firing.



## Catalog Number 16

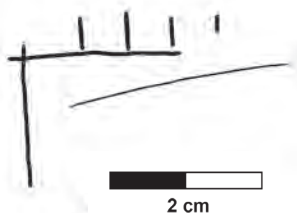
Plate: 237b

Identification Number: O4TR15U01pot01

Photograph: O4dpcs1204

Context: Topsoil/fill of the Monumental Entrance.

Description: Sherd from a pithos. Graffito on the raised band along the body comprises two lines at a 90-degree angle, with four short, vertical, parallel lines above. A more faint horizontal line is incised below. Incised after firing.

Catalog Number 17<sup>155</sup>

Site Inventory Number: K04.179

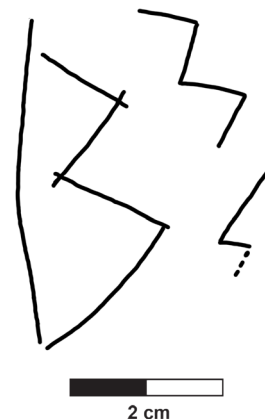
Plates: 162, 237c

Identification Number: O4TR11U22pot01

Photographs: O4dpcs2108, O4dpcs2111

Context: From the destruction level at the Monumental Entrance.

Description: Base of shallow bowl with letters incised under the base after firing. Plausibly two letters are intended (BS/SB), but it cannot be excluded that four letters (ISSN/NSSI) were intended. The first letter should probably be read as B but could also be divided into two letters: I S. The following two zigzag lines probably formed the letter S, but if the letters are read sinistroverso, the zigzag lines may also be read as two separate letters, one above the other. One letter would then be S, while the other letter would be N. If read sinistroverso, the reading would be SB or NSSI. For illustrations and a description of the bowl, see chapter 8, Iron Age Pottery from the Monumental Entrance.



<sup>155</sup> Brixhe and Summers 2006, p. 133, fig. 35.



## CHAPTER 10

## ANIMAL BONES FROM THE PALATIAL COMPLEX

EVANGELIA PIŞKIN

## INTRODUCTION

The animal bones recovered from the Palace Complex are in similar condition to the bones from the Cappadocia Gate: highly fragmented, often burned, and sometimes with eroded surfaces. The main factors of destruction are the acidity of the soil, the hard clay matrix containing the bones, proximity of the archaeological layers to the contemporary ground level, and the effect of the conflagration of the city at the end of its life. The bones' condition is therefore not specific to the assemblage recovered from the Palatial Complex; it is highly likely that bones recovered from any other part of the Kerkenes site would be similarly poorly preserved. Similar effects have been seen in other materials such as ceramics and metals. This situation is unfortunate; nevertheless, the site itself is most worthy of such an investigation because of its very well excavated and defined contexts, which also have a very tight and proven chronology. Animal-bone assemblages in poor condition are not rare incidences in the world of zooarchaeology, while well-dated and precisely described contexts are the most valuable and, indeed, most meaningful factors for such a study. What is more, Kerkenes was a very short-lived settlement and was not reoccupied after its destruction. As a result, the bone assemblage under study truly represents the period and is free of later contaminations of the sort that can easily go undetected in the case of animal bones. The study of the Palatial Complex bone assemblage, despite the difficulties imposed by the poor preservation, is therefore expected to contribute important information on

habits and diet of the “elite” sector of the city, as opposed to the more ordinary sector, perhaps the workforce, that may be represented at the Cappadocia Gate.<sup>155</sup> Most definitely, new results from the excavations now taking place in the northern part of the city will provide invaluable comparisons.<sup>156</sup>

## RESEARCH AIMS

At a site such as Kerkenes, that is, a large city of which only a portion is excavated, attempting to assess the overall economy from a limited assemblage is not a sound aim. It is more meaningful to talk about bone waste representing events of animal use. From these events, patterns may be traced, and, if they are seen to be repeating, conclusions and some generalizations may be drawn. For these purposes, the total assemblage of bones is examined first. Then each sufficiently large subassemblage is quantified and studied separately, in order to (1) check for consistency or deviance in the observed patterns and (2) identify any indications for specific uses of context or animal. Finally, the analysis of animal bones from the Palatial Complex is compared with the results from the Cappadocia Gate and other sites of Iron Age date.

## METHODS

A total of 2,423 bone fragments was recorded from trenches excavated at the Palatial Complex. Of these fragments, 2,232 were used for the calculations, the

<sup>155</sup> Pişkin 2021.

<sup>156</sup> <https://sciences.ucf.edu/anthropology/kerkenes/>.

rest being excluded according to the criteria described below. Because of poor preservation, a very large portion of the assemblage could not be identified at the species level. Unidentifiable bones were put into categories according to the size of the animal they may represent: cattle-sized, sheep-sized, and pig-sized. Three additional categories were created to take into account the particular difficulties encountered in the Kerkenes assemblage. The first category is small mammal bones; several of these items appear to represent very young ovicaprids, but as they could not be positively identified, they were simply recorded as small mammals. The second category, hare-sized, includes bones of animals of the size of a hare or a large bird. Both of these categories were further subdivided according to bone type as follows: (1) long bones, including all leg bones except phalanges and tarsals/carpals; (2) flat bones, including fragments of scapula and pelvis (but skull, rib, and vertebrae pieces too fragmented to be recognized as such might also have been included); (3) ribs; and (4) vertebrae. Finally, any bones that did not fit into the above categories were recorded in the third category: unidentified.

For diagnostic zones (DZ),<sup>157</sup> only bones with at least 50 percent of one zone preserved were counted. Skull fragments and teeth were excluded, but mandibles with teeth and isolated deciduous fourth molars and permanent third molars were counted. Vertebrae, ribs, carpals, and tarsals, except astragali and calcanea, were excluded. The category “front leg” includes the scapula, humerus, radius, and ulna. The category “back leg” includes the pelvis, femur, and tibia.

For the number of identified specimens (NISP), all fragments were counted with the exception of a group that belong to one (partial) bird found in TR16, a group of astragali found in TR05, teeth fragments, and fragments of undetermined spongy bone. Teeth were counted only when 50 percent or more of the whole tooth was preserved. In addition, a second NISP (NISP 2) was calculated on exactly the same principles, but excluding human bones and those that could not be identified at the species level. This task was done in order to make easier comparisons of percentages, with the percentages calculated by DZ and minimum number of individuals (MNI), in which the unidentified bones cannot be included. Because the assemblage was very fragmented, a

large number of bone fragments were classified as unidentified, with the result that identified bones have very low scores, which, superficially, appear very different when compared to the percentages of DZ and MNI.

MNI is based on the most commonly occurring bone or tooth, with the reservation that this should have at least one zone of 50 percent or more (if tooth, also 50% or more). Additionally, sides (left/right) and fusion data were taken into account. Location in trenches (that may imply different animals, therefore different MNI) is not accounted for in the general species proportion table (table 11), but MNI, DZ, and NISP were all calculated again for each of the individual trenches that had enough bones to permit this analysis. Again, the group of astragali from TR05 was excluded from MNI calculations. The deposit in CT27 unit 02, in which there was an abundance of skull fragments, was not excluded because it was considered that doing so would distort the quantity of wild animals brought into or used in the palace. For the skeletal representation tables, when the bone fragments could be assigned to species, the DZ method was followed. For the counts of “size” category the NISP counts are given. Teeth fragments with less than 50 percent preserved were put into a separate category as teeth fragments.

## SPECIES PROPORTIONS

A total of 65.9 percent of the bone fragments (1,472 fragments) could not be securely assigned to species. Based on NISP 1 (table 11), the high number of sheep-sized fragments indicates the importance of this species. The proportion of cattle might have been considerably higher if bones not positively assigned to species but only to cattle-sized animals, were indeed cattle. The category of pig-sized bones, relatively few in number, is difficult to define. Furthermore, bones of young pigs may have been included in the sheep-sized category. Bones of small mammals identified at the species level, such as hare or fox, are very few, but the 2.55 percent of fragments assigned to the small mammal category hints that their numbers were originally greater. A further 12.19 percent of fragments that could not even be assigned to a size category is a strong indicator of the high degree of fragmentation of the assemblage.

<sup>157</sup> For a description of the DZ method, which eliminates the danger of counting the same bone twice, see Dobney and Rielly 1988.

Comparing the proportions of the size categories with the proportions of the bones identified at the species level, the major difference that arises is that cattle appear to be more important by size than they do by species. The same difference seems to hold true for the small mammals. On the other hand, the relative importance of ovicaprids and pigs remains the same in the size categories: sheep-sized bones are most abundant, while pig-sized bones occur in smaller numbers. The species proportions as calculated by the three methods (NISP, DZ, and MNI) differ significantly due to the nature of each quantification technique.

The relative importance of the four main domestic species—cattle, sheep, goat, and pig—is the same when ranking is taken into account. Ovicaprids were the most commonly consumed species. Very few of the ovicaprid bones could be identified at the species level (sheep or goat). Among fragments identifiable at the species level, those representing sheep occur almost twice as frequently as those representing goats. Cattle are always ranked second, followed by domestic pig. Domestic pig has an overall stable representation, ranging from 3.23 to 9.62 percent. Cattle have similar percentage values in NISP 2 and MNI, but an inflated percentage value in DZ. Ovicaprid

Table 11. Total NISP, DZ, and MNI of the Palatial Complex  
NISP 1 = all bones, NISP 2 = only species also counted in DZ and MNI

<i>Species</i>	<i>NISP 1</i>		<i>NISP 2</i>		<i>DZ</i>		<i>MNI</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
<i>Cattle</i>	87	3.9	87	11.48	49	18.85	4	9.76
<i>Sheep</i>	8	0.36	8	1.06	7	2.69	2	4.88
<i>Goat</i>	5	0.22	5	0.66	4	1.54	2	4.88
<i>Ovicaprid</i>	241	10.8	241	31.79	101	38.85	7	17.07
<i>Pig</i>	72	3.23	72	9.5	25	9.62	3	7.32
<i>Cattle-sized</i>	389	17.43						
<i>Pig-sized</i>	122	5.47						
<i>Sheep-sized</i>	621	27.82						
<i>Boar</i>	300	13.44	300	39.58	54	20.77	12	29.27
<i>Hare</i>	6	0.27	6	0.79	5	1.92	2	4.88
<i>Fallow deer</i>	3	0.13	3	0.4	2	0.77	1	2.44
<i>Red deer</i>	2	0.09	2	0.26	2	0.77	1	2.44
<i>Roe deer?</i>	1	0.04						
<i>Deer?</i>	2	0.09						
<i>Bird</i>	4	0.18						
<i>Bird?</i>	3	0.13						
<i>Bear</i>	12	0.54	12	1.58	5	1.92	3	7.32
<i>Dog</i>	1	0.04	1	0.13	1	0.38	1	2.44
<i>Fox</i>	1	0.04	1	0.13	1	0.38	1	2.44
<i>Canid</i>	1	0.04						
<i>Small mammal</i>	57	2.55						
<i>Horse</i>	4	0.18	3	0.4	3	1.15	1	2.44
<i>Human</i>	1	0.04						
<i>Dolphin</i>	17	0.76	17	2.24	1	0.38	1	2.44
<i>Unidentified</i>	272	12.19						
<b><i>Total</i></b>	<b>2,232</b>	<b>100</b>	<b>758</b>	<b>100</b>	<b>260</b>	<b>100</b>	<b>41</b>	<b>100</b>

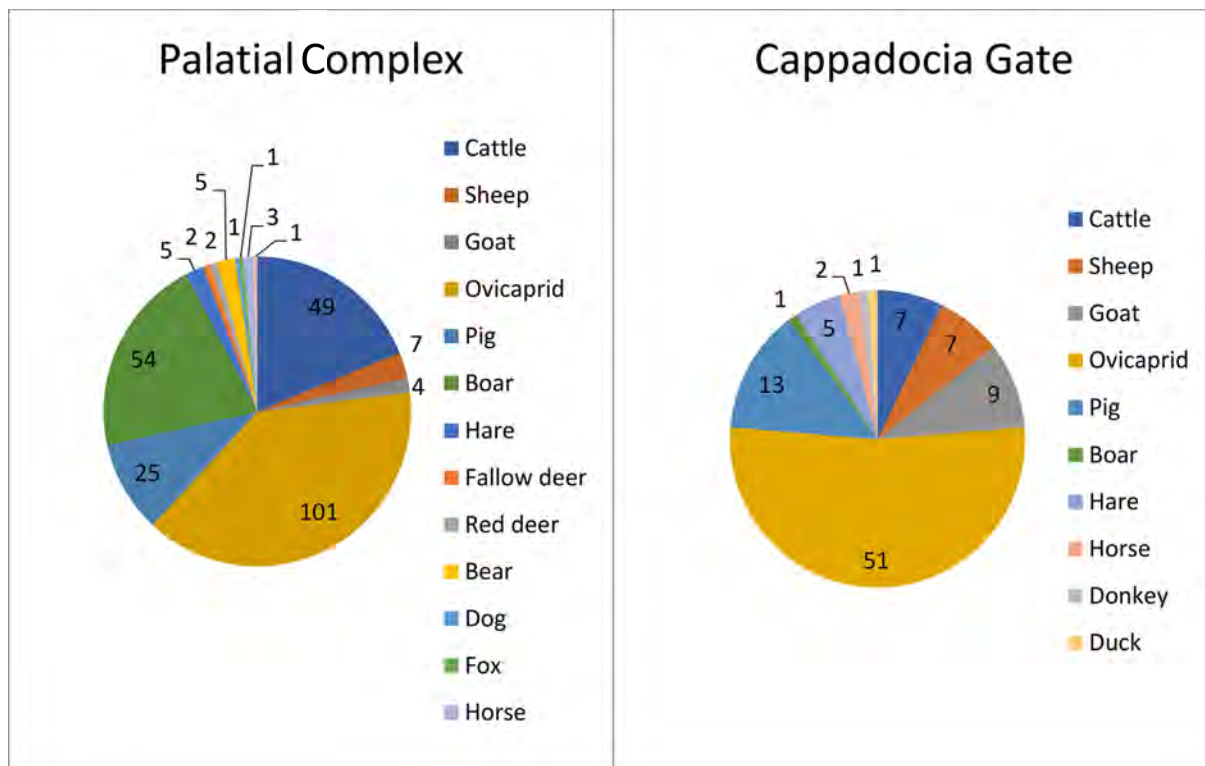


FIGURE 1. Comparison of the Palatial Complex and Cappadocia Gate based on Diagnostic Zones (raw numbers are inserted in the pie charts)

percentages, on the other hand, change in relative proportions, falling to a considerably lower level in MNI and NISP 1. This last observation can be a counter effect of the high MNI percentage of the boar (a term that always refers to wild pig) heads discovered in CT27. That this has affected the representation of ovicaprids rather than the other species can be explained by the higher fragmentation of sheep and goat bones compared to the relative completeness of cattle and domestic pig bones. Indeed, this fragmentation is also reflected by the high proportions of sheep-sized bones. The same factor may have inflated ovicaprid proportions in NISP 2 and DZ. With regard to cattle, a discrepancy is evident in the DZ method, in which cattle percentages appear to be double or nearly double those calculated by the other two methods. This discrepancy is the counter effect of cattle bones' being more complete and hence retaining some countable DZ, while the proportions of boar are much reduced by this method.

Boar bones are also highly fragmented and thus have a high NISP 2, but few bones are preserved with countable DZ. At the same time, boar has a high MNI because of the abundance of canine teeth recovered. These teeth were countable for MNI but not for DZ. Despite this effect, it was thought that the boar remains should not be subtracted from the

assemblage, because doing so would have masked the importance of hunting. These variations in species proportions across different calculation methods are all indicative of biases that are inherent in each method and translate differently from species to species, depending on the use and taphonomic history of each species. Added to this general methodological issue is the very poor preservation of the Kerkenes assemblage, which probably affected bones to different degrees and makes looking at absolute numbers a rather fruitless if not misleading process. Four horse bones, one dog bone, and another canid bone testify to the presence of these species at Kerkenes, but little else can be said about them. A single human bone is obviously a stray find, presumably from the Byzantine burial (see chapter 11).

Among the wild species, the most abundant is clearly wild pig. The second most commonly found wild species is bear. Bears are not thought of as a typical "food" species. Nevertheless, their presence testifies to hunting as an important part of the culture and habits of the people of the palace. Fox and the curious find of a dolphin jaw should belong in the same category. Deer, hare, and bird remains have been found, but in low numbers. It is rather curious that deer is not better represented among the prized game.

Table 12. Breakdown of bone fragments by trench. The sign + indicates that there was an abundance of small fragments of badly broken teeth (less than 50 percent) that are not included in the calculations. Teeth less than 50 percent preserved and spongy bone fragments are not included in these counts.

<i>Trench</i>	<i>Location</i>	<i>Number of bones</i>
CT14	Glacis, northern end of northern side	6
CT10	Glacis north tower corner	16
CT27	Glacis, between north and south towers	641+
CT8	Glacis, in front of south tower	7
CT7	Glacis, in front of south tower	2
CT5	Palace clearance south glacis end	48
CT6	Palace clearance south glacis end	64
CT24	Farther to north of Structure C, west of Structure A	6
CT22	Behind north wall of Structure C	12
CT13	Behind Structure C building at north, next to Structure A	71
CT16	Between Structure C and Structure A	120
CT18	Between Structure C and Structure A	426
CT15	Inside Structure C	31
CT23	Between Structure D and Structure A	30
CT20	Structure B	20
CT30	North Platform	17
TR05	Ashlar Building	39
TR02	Audience Hall	34
TT22	Audience Hall	206
TR01	Monumental Entrance	7
TR11	Monumental Entrance, between North and South Platforms	70
TR14	Monumental Entrance, between North and South Platforms	212
TR15	Monumental Entrance, between North and South Platforms	119
TR16	Monumental Entrance, between North and South Platforms	72

## THE SPATIAL POSITION OF FINDS

The breakdown of the bones recovered by trench is given in table 12. Some clusters and patterns in the bone rubbish disposal are discernible. One of the important contexts was the ancient ground surface in front of the Structure A glacis that was covered by stone collapsed from the structures above. Most of the surface in front of the outer face of the glacis is almost free of such rubbish. At the northern corner (CT14), only six bone fragments were recovered, while the ground in front of the north tower (CT10) was also almost devoid of bones (16 fragments). The

space between the two towers was divided into two trenches. Of them, CT01 contained no bones, while CT27 to the south was exceptionally rich in bones, having the highest count of all trenches (641), together with other unique finds, all concentrated in one shallow context beneath the fallen stone (unit 02). This concentration can be considered a specific and unique deposition event. Almost no bones were recovered from the trenches along the front of the south tower, but two trenches at the southern corner (CT05 and CT06) produced a moderate amount of bone. The derivation of these bones is uncertain: they may have been discarded on the ground at the foot of the glacis or have come from animal parts



displayed on the glacis itself or on the structures above. In either case, they were covered when the upper portions of the stone building collapsed during the fire. To the south of Structure B, only seven bones, all from TR01, were found above the large paved court in front of the Monumental Entrance to the Palatial Complex, but here the pavers were immediately below the modern surface.

Within the Monumental Entrance, between the two platforms, a sizeable concentration of bones was found in the group of trenches (TR11, TR14, TR15, and TR16). The fill of this space was found to have been badly disturbed by looters in later times. The animal bones from these contexts are probably all of Iron Age date, although the possibility of some contamination from the activities of later treasure seekers cannot be entirely excluded. In any case, the context is mixed, with the result that, while the bones belong generally to activities associated with the Palatial Complex, they cannot be said to relate specifically to the entranceway itself.

Inside the complex, bones were recovered from various trenches. The central area, where the Audience Hall, Structure B, the Ashlar Building, and the North Platform have been excavated, appears to have been kept rather clean. Exceptionally, one trench (that portion of TT22 that falls outside the northern wall of the Audience Hall see pls. 44–45) produced a group of bones that numbered 206 fragments, including the unique find of a dolphin

jawbone. This context is very clearly described and appears to be a small midden-like rubbish heap accumulated against the outer face of the northern wall of the Audience Hall. Whether this was the result of a single instance of rubbish disposal or repeated ones is not determined.

The majority of bones recovered from the Palatial Complex originated among the structures that occupy the area behind Structure A. There is a lot of variation in the bone content of the several trenches that were excavated. Most of the bone finds are from the area between Structure C and the back face of Structure A, CT16, and CT18. The majority came from CT18, with the total number of bone fragments recovered from these two trenches being 696. It seems that this confined area could have been a dumping spot for kitchen waste, an interpretation that might be strengthened by its association with pottery vessels. Here, too, it is uncertain whether the context represents a single deposition event or a more gradual buildup.

### Trench CT27

Trench CT27 is located in front of the glacis in the Structure A recess (pl. 10). The bones came from unit 02 and were all very heavily burned and cracked. The assemblage is unique; it is mostly composed of the bones of hunted wild animals, with very few from cattle and sheep/goat (table 13). Among

Table 13. Species proportions in CT27

CT27 Species	NISP		DZ		MNI	
	Number	Percent	Number	Percent	Number	Percent
Cattle	11	1.7	5	6.8	1	5.3
Ovicaprids	38	5.9	8	11	3	15.8
Boar	300	46.8	53	72.6	11	57.9
Cattle-sized	67	10.5		0.0		
Sheep-sized	28	4.4		0.0		
Pig-sized	11	1.7		0.0		
Fallow deer	3	0.5	2	2.7	1	5.3
Deer?	1	0.2		0		
Bird?	1	0.2		0		
Bear	12	1.9	5	6.8	3	15.8
Unidentified	169	26.4		0		
<b>Total</b>	<b>641</b>	<b>100</b>	<b>73</b>	<b>100</b>	<b>19</b>	<b>100</b>

Table 14. Skeletal representation in CT27

CT27	Cattle		Cattle-sized		Ovicaprids		Sheep-sized		Boar		Pig-sized		Bear	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<i>Skeletal elements</i>														
<i>Mandible + teeth</i>	2	15.4							27	7.1				
<i>Maxilla + teeth</i>					4	10.5			12	3.1				
<i>M3</i>					5	13.2			21	5.5			5	41.7
<i>Canine</i>									29	7.6			5	41.7
<i>Teeth ≥ 50 percent</i>	5	38.5			21	55.3			143	37.4			2	16.7
<i>Teeth fragments</i>									87	22.8				
<i>Skull</i>	3	23.1	6	9.1	5	13.2	2	7.11	63	16.5	1	9.1		
<i>Front leg</i>					1	2.6								
<i>Metapodia</i>					1	2.6								
<i>Back leg</i>	2	15.4			1	2.6								
<i>Carpals + tarsals</i>														
<i>Phalanges</i>	1	7.7												
<i>Vertebrae</i>			2	3.03	0		1	3.6			1	9.1		
<i>Ribs</i>			5	7.6	0		8	28.6			1	9.1		
<i>Long bone</i>			16	24.2	0		16	57.1			7	63.6		
<i>Flat bone</i>			37	56.1	0		1	3.57			1	9.1		
<b>Total</b>	<b>13</b>	<b>100</b>	<b>66</b>	<b>100</b>	<b>38</b>	<b>100</b>	<b>28</b>	<b>100</b>	<b>382</b>	<b>100</b>	<b>11</b>	<b>100</b>	<b>12</b>	<b>100</b>

them, the most commonly found animal is boar (wild pig) and the second is bear, with at least three individual bears and eleven boars represented. In addition, there are three bones of fallow deer and one more fragment that was tentatively assigned to “deer.” There is no small game such as hare. The majority of unidentified fragments belong to cattle-sized animals, in contrast to what is found in all other contexts, where the majority of bone fragments come from sheep-sized animals. Nevertheless, these cattle-sized fragments more likely belong to boar or bear, whose large bones could easily be attributed to this category when broken into small pieces. In addition, there is quite a large number of heavily fragmented bones and teeth in such poor condition that they could not be classified, even to size categories, with sufficient certainty. It is therefore considered that the bones found here represent the spoils of hunting, more specifically the hunting of large mammals, with a clear preference for wild pig and some bear. It is curious that deer, an animal prized for its meat, antlers, and hide, is so scarcely represented. It might be that deer skulls with antlers still attached were sent directly to workshops for carving

of the antler. It appears more likely that the composition of the assemblages indicates a case of hunting, particularly of two ferocious animals, and this likelihood may hold the key for interpreting the deposit.

Another issue to be resolved is whether only wild animals were deposited on or at Structure A. The presence of skulls attributed to cattle and sheep (one cattle, three sheep/goat) obviously argues against selective deposition of hunted animals only. It should nevertheless be pointed out that the bones were so badly preserved that a distinction between the domestic species of cattle and sheep/goat and their wild relatives could not be definitely confirmed by osteometric techniques, though visual inspection suggests they were domestic.

Most interesting in this bone assemblage is the very clear dominance among all recovered species of skeletal elements from the head (table 14), with boar and bear teeth being the most attested (pl. 234a–b). The good number of skulls found all together is an indication of a single type of activity in a specific location on one or multiple occasions. Very few long bones were found, and of them almost all were too fragmented for identification. Their highly

fragmented state may be considered an indication that they were not necessarily part of the “head” assemblage but could have accumulated accidentally.

One question to be raised is, why skulls only? While some bone fragments belong to other body parts, there are no metapodia or phalanges that would indicate that skins of animals were prepared here for leatherwork or bear pelts were cleaned or exhibited here. The lack of these elements also argues against the remains’ being butchery waste, since typically butchery waste contains the bones of the extremities as well as head elements. What is more, it would have been most curious to have waste dumped in such a public location. It seems that there is a specific treatment of the heads, perhaps the trophies of hunting parties. Even though heads may simply have been cut off and discarded outside the confines of the Palatial Complex, it seems more likely that the heads were severed and deposited or hung here in a symbolic act, which possibly brings again to mind the fact that the assemblage is dominated by two fierce beasts, wild pig and bear. In this instance, they might have been hung on the walls of

Structure A as symbols testifying to the greatness and prowess of the king or the king’s hunters.

## Trenches CT18 and CT16

The fill of the Monumental Entrance was disturbed by later looters, and one intrusive Byzantine burial (described in chapter 11) was also unearthed. Much of the fill should have come from the cores of the platforms as described in chapter 7. This bone assemblage is therefore considered an accumulation of bone discarded from the Palatial Complex through time and different episodes.

Trench CT18 has a typical assemblage of everyday food refuse dominated by ovicaprids, cattle, and pig. There is also a handful of hare bones and two that might be of deer. Two bones of horse and one of a canid are probably random inclusions. Coming to the skeletal elements present, there are fragments from all parts of the body but with a clear dominance of long bones. Skull parts are fewer overall. Ribs are more common than vertebrae, but circumstance this is due to fragmentation. Metapodia are scarce, phalanges and carpals more common. This

Table 15. Species proportions in CT18 and CT16

Species	CT18 NISP		CT18 DZ		CT18 MNI		CT16 NISP		CT16 DZ		CT16 MNI	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Cattle	31	7.3	23	30.3	2	13.3	6	5.2	3	16.7	1	16.7
Goat	2	0.5	2	2.6	2	13.3						
Ovicaprids	67	15.7	31	40.8	3	20	16	13.9	10	55.6	2	33.3
Sheep	5	1.2	5	6.6	2	13.3						
Pig	15	3.5	10	13.2	3	20	6	5.2	3	16.7	1	16.7
Cattle-sized	96	22.5					46	40				
Sheep-sized	128	30					32	27.8				
Pig-sized	24	5.6					4	3.5				
Horse	2	0.5	1	1.3	1	6.7						
Hare	2	0.5	1	1.3	1	6.7						
Small mammal	1	0.2					3	2.6				
Canid/dog	1	0.2					1	0.9	1	5.6	1	16.7
Deer?	1	0.2					1	0.9	1	5.6	1	5.6
Red deer	2	0.5	2	2.6	1	6.7						
Roe deer?	1	0.2	1	1.3								
Unidentified	48	11.3										
<b>Total</b>	<b>426</b>	<b>100</b>	<b>76</b>	<b>100</b>	<b>15</b>	<b>100</b>	<b>115</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>6</b>	<b>100</b>

imbalance can be explained by both the higher number of phalanges and carpals in the body, and also their durability. In short, bones from meaty parts appear to be better represented, with no preference for front or hind legs. That the hind leg always appears present in slightly lower numbers is a methodological factor. Three bones were counted for the hind leg and four bones for the front. Additionally, the front leg has more dense/durable elements than the hind leg.

The CT16 assemblage is very fragmented and as such has given very poor results on identification at the species level. Ovicaprids are again dominant, followed by cattle and pig in about equal proportions. Other species are represented by a single hare bone and one dog bone. Some unidentified small-mammal bones may belong to hare or other small mammals.

In the skeletal representation, there are a few more bones belonging to skull elements for ovicaprids than there were in CT18, with the most common bones again being front and hind legs, followed by unidentified fragments of long bones. This assemblage may be considered similar to that in CT18. Slight differences can be attributed to the

fact that in CT16 fewer bones were recovered (115) as compared to CT18 (426), thus the “resolution” of the former sample is coarser.

A separate table for the skeletal representation in CT16 is not published here because the countable bones were few. In summary, cattle bones are present with two head elements, one carpal, and one phalange. Pig is poorly represented, with two head elements, two front legs, and one back leg. The most complete profile is for ovicaprids: six head elements, four front legs, and three back legs; phalanges and carpals/tarsals are missing. Cattle-sized and sheep-sized elements are well enough represented, with most belonging to cattle-sized animals (45 in total). Of them, most are fragments of long bones. For the cattle-sized group, twenty-eight pieces were counted, while for the sheep-sized group, half as many pieces were found (14). A few pieces of other bones have been scored in both size categories: seven vertebrae, five ribs, and four flat bones for the cattle-sized category and nine vertebrae, five ribs, and one flat bone for the sheep-sized category. Pig-sized bones number four, and none of them belong to long bones; they are one flat bone, one vertebra,

Table 16. Skeletal representation in CT18

CT18	Cattle		Cattle-sized		Ovicaprids		Sheep-sized		Pig		Pig-sized	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<i>Mandible + teeth</i>	2	6.9			1	1.47						
<i>Maxilla + teeth</i>												
<i>Md+mx fragments</i>	1	3.5	2	2.2	17	25	1	0.8				
<i>M3</i>					3	4.4			1	7.1		
<i>Canine</i>												
<i>Teeth ≥ 50 percent</i>	1	3.5			12	17.6			1	7.1		
<i>Skull</i>			5	5.4	1	1.5			2	14.3		
<i>Front Leg</i>	4	13.8			17	25			5	35.7		
<i>Metapodia</i>	1	3.5			1	1.5			2	14.3		
<i>Back Leg</i>	3	10.3			11	16.2			2	14.3		
<i>Carpals + tarsals</i>	8	27.6	2	2.2	2	2.9			1	7.1		
<i>Phalanges</i>	8	27.6			3	4.41						
<i>Vertebrae</i>	1	3.5	12	12.9			8	6.4			1	4.2
<i>Ribs</i>			23	24.7			27	21.4			8	33.3
<i>Long bone</i>			32	34.4			74	58.7			7	29.2
<i>Flat bone</i>			17	18.3			16	12.7			8	33.3
<b>Total</b>	<b>29</b>	<b>100</b>	<b>93</b>	<b>100</b>	<b>68</b>	<b>100</b>	<b>126</b>	<b>100</b>	<b>14</b>	<b>100</b>	<b>24</b>	<b>100</b>

and two ribs. Overall, the ovicaprid skeletal profile appears more complete, even though it does lack the bones from the extremities; the cattle and pig assemblages are rather fragmentary. Nevertheless, it would be difficult to argue for partial representation on the grounds of many long-bone fragments classified in the cattle-sized category. For the pig category, however, the evidence is too scant to interpret representation of this animal. These finds are better interpreted in relation to CT18. There, the pig bones belonging to the head elements were again few, while the legs, including metapodia, were somewhat dominant. It is interesting that the pig assemblages from CT27 and TT22 are, in contrast, dominated by head elements.

## Trench TT22

Trench TT22 lies in the northeastern part of the Audience Hall. Most of the trench is located inside the walls of the Hall, but a small part of it explored an open area and a small room annexed to the Hall outside its northern wall, as described in chapter 4. The bones from TT22 all come from a single context (unit 22), and they are located on an external pavement adjacent to this outer-small room. Looking at species proportions, the TT22 assemblage appears to be dominated by what would normally be regarded as regular kitchen refuse. Here pig and ovicaprid make up most of the bone refuse, being found in about equal proportions using the NISP method and

in deviation from the usual higher ovicaprid representation. The DZ method, on the other hand, gives a score of 0 percent for pig, a massive 72.2 percent for ovicaprids, and 27.8 percent for cattle.<sup>158</sup> In MNI, the pig scores the largest percentage (57.1). This very large discrepancy between the methods is caused by the type of elements preserved for each species.

Examination of the skeletal representation helps clarify the composition of the assemblage and the relative importance of species. Cattle are mostly represented by small bones, carpals/tarsals, and phalanges. Cattle bones may be incidentals there. Even though all bones of a skeleton can be evidence for the consumption of a species, lack of large meat-bearing bones from an area is a negative piece of evidence for characterizing the context as one of consumption refuse. Small bones such as the ones found here for cattle can easily escape cleaning episodes and may have been incorporated in the sediment as the remnants of previous activities. However, one could also postulate that large bulky bones of consumed cattle may have been taken away to be disposed of in a more suitable environment, such as a large rubbish dump beyond the vicinity of the palace. It is difficult to decide what the case is, but it is reasonable to assume that such a context can be considered spurious for the evaluation of the importance of cattle. To be able to draw conclusions about these issues, obviously a large number of contexts should be examined for possible patterns that could reveal bone and animal-waste disposal behavior at

Table 17. Species proportions in TT22 without the dolphin elements

TT22 Species	NISP		DZ		MNI	
	Number	Percent	Number	Percent	Number	Percent
Cattle	5	2.4	5	27.8	1	14.3
Ovicaprids	22	10.7	13	72.2	2	28.6
Pig	21	10.2	0	0	4	57.1
Cattle-sized	20	9.7				
Sheep-sized	91	44.2				
Pig-sized	15	7.3				
Small mammal	6	2.9				
Unidentified	26	12.6				
<b>Total</b>	<b>206</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>7</b>	<b>100</b>

<sup>158</sup> The 0 percent for pig is because we have only head elements for which DZ are not counted. This 0 percent score of pig automatically inflates the proportions of ovicaprids and cattle. In this assemblage, the DZ method is therefore biased.

Table 18. Skeletal representation in TT22

Skeletal elements	Cattle		Cattle-sized		Ovicaprids		Sheep-sized		Pig		Pig-sized	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Mandible+teeth					1	5.6						
Maxilla+teeth					1	5.6			1	4.8		
md+mx fragments							1	1.1	6	28.6	3	20
M3					1	5.6						
Canine									9	42.9		
Teeth $\geq$ 50 percent					3	16.7			5	23.8		
Skull			1	5.3			2	2.3				
Front Leg	1		2	10.5	5	27.8	2	2.3				
Metapodia					1	5.6						
Back Leg			1	5.3	3	16.7	2	2.3				
Carpals + tarsals	2		1	5.3	3	16.7						
Phalanges	2											
Vertebrae			1	5.3			1	1.1			1	6.7
Ribs			2	10.5			11	12.4			5	33
Long bone			6	31.6			63	70.8			5	33
Flat bone			5	26.3			7	7.9			1	6.7
<b>Total</b>	<b>5</b>		<b>19</b>	<b>100</b>	<b>18</b>	<b>100</b>	<b>89</b>	<b>100</b>	<b>21</b>	<b>100</b>	<b>15</b>	<b>100</b>

Kerkenes. Ovicaprid remains, on the other hand, look as though they represent full carcasses, as might be expected for a regularly consumed species. All elements are present, but “meaty” bones rather dominate the assemblage. Interestingly, pig is represented only by head elements. Counting with the NISP method, a score of 10.2 percent for pig results from twenty-one bone fragments. The MNI calculations based on the number of mandibular canines present indicate four individuals. If it could be demonstrated that entire heads were present, it would reveal something about culinary preferences. Nevertheless, canines’ being a somewhat special part of the body, sometimes collected for decorative purposes or jewelry, dilutes the argument for the special consumption of heads. A handful of the maxilla and mandible fragments may have resulted from the collection/extraction of canines.

Some ovicaprid head bones are present, but they are few in number (7 ovicaprid vs. 21 pig). To conclude the discussion of the domestic-animal remains found in TR22, and in an attempt accurately to assess the relative importance of each species, it

is helpful to consider the unidentified bones. Sheep-sized bones overwhelm the assemblage (44.2%), indicating that consumption centered around this animal. Pig-sized bones are few, as always; therefore, pig did not play the particularly large role that is indicated by the MNI. Unidentified bones of cattle-sized animals are also few, therefore fragmentation is not the driving factor for the low scores of cattle.

Among these bones, but not included in the calculations, are the remains of a bottle-nosed dolphin. The pieces all belong to a single mandible fragment, (pl. 239), with no other elements having been identified. That the dolphin was found together with other food waste might suggest that this species was consumed in some way. In this case, it would have been rare fare, given that the closest sea is about 300 km away from Kerkenes, with high mountain passes between. Nevertheless, it is questionable whether or not the maxilla of the dolphin represents an animal that was eaten. For the dolphin head to have been transported in a wholesome state to Kerkenes, it would have required some sort of preserving, either by salting or smoking. Preserving the head of

such a large animal is not an easy task. Heads tend to spoil easily, and salting or smoking the brain inside the skull is probably not achievable. It can therefore be asked whether this bone represents food refuse or a special object. It may have come to the palace from an expedition to the coast where it might have been caught (and eaten?), then brought to Kerkenes as a trophy. Or it might have been just a defleshed bone from a dead dolphin, collected from a shore as a curiosity. Whatever the case, it appears that, not surprisingly, the palace had some interest in wild animals as well as the “exotic.” Hunting has been a source of pride for many of the aristocracy through the ages, as has the collection of trophies and curiosities. The keeping of even live wild animals is a very well known pastime of the rich and powerful from at least Late Bronze Age times until today. These animals were agents holding meanings that can demonstrate personal qualities, such as the braveness and skills of the owner or his or her ability to construct and maintain such economic and social relationships that would provide him or her with the desired “objects,” in this case the rare dolphin.

## THE MONUMENTAL ENTRANCE

A number of contiguous trenches were excavated in the Monumental Entrance: TR01, TR11, and TR14–21 (pl. 10). Bone finds were scant in the area right in front of the entrance (TR11), but there were four trenches in the paved court between the two platforms that had a concentration of bones. These

bones were inspected separately (trench by trench), but no important differences were observed among them. Consequently, all these bones are presented here together. First, there is a group of bones that belong to a burned skeleton of a bird. These are mostly concentrated in TR16 unit 13. A couple of bones scattered in TR11 unit 14 (3 fragments) and TR15 unit 06 (1 fragment) likely belong to the same bird. These bones were burned white and very fragmented. It was difficult to determine the species. It is most likely a small owl. It seems that the bird was nesting somewhere in the towers and got caught in the fire that destroyed the city. These bones are excluded from the calculations. One horse third phalange found in TR15 unit 01 and a human bone fragment (TR16 unit 09) are also excluded.

The vast majority of bones are very fragmented and could not be assigned to a species. These trenches have the highest level of unidentifiable bones (84.8%). Most of the identified bones belong to ovicaprids. Very few bones were identified as cattle or pig, and these examples occur in about equal amounts in NISP, though pig numbers are about double those of cattle in the DZ and MNI methods. Of the six hare bones found, three came from the trenches in front of the Monumental Entrance; two of the remaining hare bones were found in CT18, and one in CT16.

In the entrance, there is an overall underrepresentation of heads for all three animals. Cattle and pig bones are few. Cattle are mostly represented by small bones of the extremities. Pig, on the other hand, is mostly documented by elements of the front

Table 19. Species proportions at the Monumental Entrance

<i>TR11, TR14, TR15, TR16</i>	<i>NISP</i>		<i>DZ</i>		<i>MNI</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
<i>Species</i>						
<i>Cattle</i>	12	2.8	4	9.8	1	11.1
<i>Ovicaprids</i>	35	8.2	24	58.5	4	44.4
<i>Pig</i>	14	3.3	9	22	2	22.2
<i>Hare</i>	3	0.7	3	7.3	1	11.1
<i>Fox</i>	1	0.2	1	2.4	1	11.1
<i>Cattle-sized</i>	68	16				
<i>Pig-sized</i>	36	8.5				
<i>Sheep-sized</i>	217	51.1				
<i>Small mammal</i>	39	9.2				
<b>Total</b>	<b>425</b>	<b>100</b>	<b>41</b>	<b>100</b>	<b>9</b>	<b>100</b>

Table 20. Skeletal representation at the Monumental Entrance

TR11, TR14, TR15, TR16	Cattle		Cattle-sized		Ovicaprids		Sheep-sized		Pig		Pig-sized	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<i>Skeletal elements</i>												
<i>Mandible + teeth</i>												
<i>Maxilla + teeth</i>												
<i>Md+mx fragments</i>					2	6.3						
<i>M3</i>												
<i>Canine</i>									2	16.7		
<i>Teeth ≥ 50 percent</i>	1	9.1			2	6.3						
<i>Skull</i>	4	36.4			2	6.3			1	8.3		
<i>Front leg</i>	1	9.1			14	43.8			4	33.3		
<i>Metapodia</i>												
<i>Back leg</i>	1	9.1			5	15.6						
<i>Carpals + tarsals</i>	3	27.3			5	15.6			3	25		
<i>Phalanges</i>	1	9.1			1	3.1			1	8.3		
<i>Vertebrae</i>			4	6.0	1	3.1	10	4.7			1	2.9
<i>Ribs</i>			20	29.9			52	24.2	1	8.3	9	26.5
<i>Long bone</i>			24	35.8			96	44.7			10	29.4
<i>Flat bone</i>			19	28.4			57	26.5			14	41.2
<b>Total</b>	<b>11</b>	<b>100</b>	<b>67</b>	<b>100</b>	<b>32</b>	<b>100</b>	<b>215</b>	<b>100</b>	<b>12</b>	<b>100</b>	<b>34</b>	<b>100</b>

leg. Ovicaprid bones show a very clear pattern. Even though bones from most parts of the skeleton are found in small numbers, there is an abundance of meat-bearing bones, and among them the majority are from the front leg. The difference compared to the back leg is appreciable, with fourteen bones belonging to front legs, while only five are counted for back legs. Turning to the bones identified at the size level, there are many long-bone fragments, especially of ovicaprids, fewer flat bones, and very few vertebrae. Ribs, in contrast, are abundant. Overall, ribs are more abundant in these trenches than they were in most others, save for CT18. In CT18, cattle-sized and pig-sized ribs occurred in about equal numbers, as in these trenches. Ovicaprid ribs, though, are a very obvious exception. They are found in about double the quantity as in CT18 and in much higher numbers than in any other trench. This situation is reminiscent of the finds at the Cappadocia Gate, where front-leg elements were dominant as well as ribs.

<sup>159</sup> Bull and Payne 1982.

<sup>160</sup> Silver 1969.

## AGEING EVIDENCE

There is very little ageing data. Most valuable would have been the data from the wild boar found in CT27, but, unfortunately, all the mandibles were so fragmented that nothing more than individual teeth, sometimes with bits of jawbone attached, were preserved. The only age estimation that could be done was on pieces retaining the permanent third molar of the mandible. That these pieces were all well beyond stage 3 means they should also be much older than 35–38 months.<sup>159</sup> No milk teeth were found. The canine fragments recorded were, with one exception, all from boars.

Likewise, very little information could be recovered for the ageing of domestic animals. Ageing is based on epiphyseal fusion according to Silver.<sup>160</sup> Because few sheep and goat bones could be separated at the species level, they are all combined in table 21 under the general category “ovicaprids.” The mortality profile that emerges is based on a



total of sixty-three bones. Four of them were at the “fusing” stage: two expected to fuse at 10 months, one at 13–16 months, and one at 36–42 months. The first three bones show culling in the animal’s first year, while the fourth bone indicates a second stage of culling at about 3 years of age. Taking together the unfused and the fusing bones, we could speak of five animals slaughtered at under 1 year, two under 2 years, three under 2.5 years, and seven under 3–3.5 years of age. These bones show a regular slaughter of young animals, with culminations of about the same magnitude at intervals of 1 year. The majority of bones are fused: a good number of animals are more than 10 months old (19), five are more than 13–16 months, twelve are over 18–28 months, and ten are over 30–36 months. Taking into account the fused bones that exceed 3–3.5 years old together with the unfused-fusing bones, had at least 15.9 percent of the sheep/goat flocks at Kerkenes were kept beyond 3–3.5 years and at least 27 percent were killed at under 3–3.5 years. Of the animals eaten young, 7.9 percent were slaughtered before their first year—a husbandry strategy that aimed to keep some stock past

maturity for reproduction or secondary products, while some portion of the flocks was killed young for meat. It is interesting that there are no very young deaths, as is usually expected when there is intensive focus on milk products; nevertheless, many juvenile animals were slaughtered before they reached the “maximum” meat weight. This slaughtering is often explained as an economic practice seeking to limit the number of animals to be kept and maintained through the winter, but such an explanation may not be very persuasive relative to a palace economy; rather, a preference for tender meat should be considered as a possible explanation.

Information about the pig-mortality profile is very poor. Only fourteen bones could be counted. It roughly shows the usual tendency for meat exploitation, but no details on how it is practiced can be derived from this small sample. No bone fusing after two years of age is found, while about equal numbers of fused and unfused bones are found for pigs under two year old. The findings show that pigs were slaughtered at various ages up to a maximum age of two years.

Table 21. Epiphyseal fusion of ovicaprids and pig: F = fused, UF = unfused, FG = fusing.

<i>Ovicaprids</i>				<i>Pig</i>					
	<i>Months</i>	<i>F</i>	<i>UF</i>	<i>FG</i>		<i>Months</i>	<i>F</i>	<i>UF</i>	<i>FG</i>
<i>Scapula D</i>	6–10	2			<i>Scapula D</i>	12	1	1	
<i>Pelvis</i>	6–10				<i>Pelvis</i>	12			
<i>Humerus D</i>	10	8		1	<i>Humerus D</i>	12	1		
<i>Radius P</i>	10	9		1	<i>Radius P</i>	12	3		
<i>1st phalange</i>	13–16	1	2	1	<i>2nd phalange</i>	12			
<i>2nd phalange</i>	13–16	4			<i>Metacarpal D</i>	24			
<i>Metacarpal D</i>	18–24	1			<i>Tibia D</i>	24	1	1	
<i>Tibia D</i>	18–24	7	2		<i>1st phalange</i>	24	1	1	
<i>Metatarsal D</i>	20–28	1			<i>Calcaneum</i>	24–30		2	
<i>Ulna P</i>	30	3	3		<i>Metatarsal D</i>	27			
<i>Calcaneum</i>	30–36	1			<i>Ulna P</i>	36–42			
<i>Femur P</i>	30–36	2	3		<i>Femur P</i>	42			
<i>Radius D</i>	36	4	2		<i>Radius D</i>	42		1	
<i>Humerus P</i>	36–42				<i>Humerus P</i>	42			
<i>Femur D</i>	36–42	3	1	1	<i>Femur D</i>	42			
<i>Tibia P</i>	36–42				<i>Tibia P</i>	42		1	

A cattle-mortality profile is not shown in table 21, because all cattle bones found were fused except for calcanea. Among the four calcanea recorded, three were unfused and one fused. This bone fuses at about 36–42 months of age.<sup>161</sup> Apart from the calcanea, information on fusion was available for two scapulae, three pelvises, one metatarsal, three distal humeri, two proximal and one distal femora, seven first phalanges, and five second phalanges. All these were fused. Accordingly, it appears that most of the cattle were kept to a rather advanced age, with a few killed rather younger but perhaps not so young: the evidence for culling is for a stage before 3–3.5 years old, and that evidence amounts to only 10.7 percent of the 28 total bones discussed here.

A further question examined was whether or not there were neonatal and very young animals like those found at the Cappadocia Gate. Neonatal animals were not found, but some bones from very young or young animals were recorded. These bones were very few in comparison with the number of such bones found at the Cappadocia Gate. In detail, very young ovicaprid bone fragments were found: one humerus, one metacarpal, and one mandible. These fragments could not be precisely aged, because the epiphyses part and the teeth of the mandible were missing, but judging from the size and the porosity of surface of the bone, the animals are thought to have been a few weeks old. Two further fragments of radii, which also could not be aged for the same reason, perhaps came from animals a couple of months old. As to the pig remains, two bones, one calcaneum and one scapula, are classified in the very young category, two fragments of radii are in the young category, and one unworn and probably unerupted mandibular third molar fragment with root formation ongoing would also have been from a young animal. No cattle remains are classified in these age categories. Most of these bones are found in trenches CT18 and CT16, which are associated with kitchen waste. It is not unthinkable to cook and eat such young animals. In Gordion, Sebastian Payne reported in 1975 two sheep or goats (more likely sheep)—almost full skeletons, one found in a cooking pot and one nearby—from “post-Phrygian” levels.<sup>162</sup> These animals were aged to between two and eight weeks old.

## DISCUSSION

The Palatial Complex animal-bone assemblage is relatively small and highly fragmented. Despite these limitations, economic trends could be traced, and some aspects of everyday life at the palace were unraveled. The dominant role of sheep and goat in the overall economy is apparent. Ovicaprid bones are the most abundant in all contexts. Cattle and pig are lesser contributors to the species composition. Even though both cattle and pigs are larger than ovicaprids, hence each individual provides more meat than a sheep or goat, cattle herds are smaller and pigs are less numerous. Because of the small number of remains at Kerkenes, it would be difficult to specify which of these two, cattle or pig, were kept in larger numbers, but overall, cattle are slightly more abundant than pig. Hunting also plays an important role in the life of the palace. It is nevertheless difficult to determine whether hunting was important for supplementing the diet with delicacies at the same time as satisfying a social function such as providing meat for banquets or rather a sport and/or display of the abilities of certain individuals. It seems more likely that hunting played both roles, but quite some importance could have been placed on its social function in the palace. In this regard, further confirmation might be reflected in the lack of remains of deer (good for providing) and rather low representation of hare (easy to catch), in contrast to the abundance of hard-to-hunt animals (wild boar and bear).

Apart from the total calculations of the entire assemblage, subassemblages for the trenches that provided relatively large amounts of bones were analyzed. Looking at the percentages of species between trenches and trying to extract a meaning from them is a rather tricky matter. Each trench assemblage has a different ratio of species. Obviously, none is truer than the other. They simply represent the “rubbish of the day,” and each disposal event produces another combination of bones as the daily “menu” changes. Ratios of such small assemblages should not be taken at face value but rather examined as cases that may reveal an unusual combination (if one exists), and confirm/refute the overall trends of economy explained in the total calculations for the particular archaeological context. Here at the Kerkenes Palatial Complex, each trench

<sup>161</sup> Silver 1969.

<sup>162</sup> Payne 1975.

confirmed the importance of ovicaprids together with the secondary role of cattle and pigs. The unusual combination from trench CT27 was the large number of hunted animals. This assemblage is also peculiar due to the fact that it contains almost only the heads of the animals and very few other parts.

### Comparison of Species Proportions at the Palatial Complex with Those at the Cappadocia Gate

Comparison of two areas excavated at Kerkenes, the Cappadocia Gate and the Palatial Complex, showed some clear differences both in species proportions and in skeletal-part preferences. In the Palatial Complex, the diversity of species is higher, especially among wild species. Cattle consumption was also more important, pig was less so, and sheep appear to be preferred to goat to some limited extent. Hunted animals, especially large boar, are also very prominent in the assemblage, even if they mostly come from a specific context. Among the remains of game, the very low representation of deer in both areas is curious.

In figure 1, the species proportions based on DZ for the Palatial Complex and Cappadocia Gate are shown. The dominant role of ovicaprids is easily seen in both. They obviously constitute the bulk of meat consumed in Kerkenes. There are apparent fluctuations in the proportions of species in these locations. Some of them are slight, and as such it is hard to establish whether or not they are a real trend. For example, goat is more abundant than sheep at the Cappadocia Gate, while the opposite is true for the Palatial Complex. Pig is also more abundant at the Cappadocia Gate proportionally: even if the raw numbers are higher at the Palatial Complex, the portion of pig in the pie diagram is higher at the Cappadocia Gate. Would this fact mean that the meat of pigs and goats was of lower value than that of sheep? Future work on more bones from a variety of contexts in Kerkenes would help shed light on and clarify these possibilities. Nevertheless, what appears to be a real difference in the domestic economy is the higher consumption of cattle in the palace, which occupies about two-thirds of the first quarter of the pie. The most striking divergence, though, is the role hunting plays among the palace people. About a quarter of the pie represents game animals in the palatial quarter, while they make for barely half a quarter at the Cappadocia Gate. Not only the

frequencies but also the species composition is different. Most of the game at the Cappadocia Gate is hare, with only one bone from a boar and another from a duck representing other animals. In contrast, the palace game animals include deer as well as bear and a fox, plus the curious find of a dolphin (if this was consumed at all).

Regarding preferential consumption of meat “cuts” in the Palatial Complex, there was not much evidence for partial carcasses, with all parts of the body being present, although extremities were somewhat underrepresented. Metacarpals and metatarsals are rather few, phalanges are only from cattle, and carpals and tarsals are relatively better represented for both cattle and ovicaprids and somewhat less for pig. The lack of metapodia might be related to preferential selection and removal of these bones for tool or object manufacture. The lower scores of the phalanges and carpals and tarsals might be due to their small size. Alternatively, they may be lacking because the animals were slaughtered and the carcasses butchered somewhere outside the complex. If this was the case, then heads were not removed from dressed carcasses; instead, they were brought into the palace and eaten. The extremities may then have remained attached to the hides and been sent together with them for disposal or leatherwork. The only area where preferential consumption of specific meat cuts could be established is at the Monumental Entrance. There, mostly front-leg elements and abundant ribs are found. It would be rather unsound to attribute this to biases related to taphonomic processes and density-mediated attrition, because the skeletal representation revealed in all other trenches did not show the same pattern. Furthermore, ribs are not among the denser bones with high survivorship. Interestingly, this particular pattern described for the Monumental Entrance matches the finds from the Cappadocia Gate; thus, it seems that comparing the same types of bone from the same type of architectural or functional context is meaningful. It might not be unreasonable to argue that this circumstance could be evidence for particular provisions for crews that constructed or maintained the gate.

### Comparison with Bone Assemblages from Other Sites

A number of sites in the vicinity of Kerkenes have published animal-bone assemblages. Here the sites

of Gordion, Kaman-Kalehöyük, Çadır Höyük, Maşat Höyük, and Oluz Höyük will be discussed. These sites are not of the same status or cultural affiliations and often do not precisely correspond in dating with each other. The assemblage from Kaman (here I consider phases IIa and IIb) comes from a “village” site that is on the border of influence between the Phrygian and Neo-Hittite cultures.<sup>163</sup> Maşat Höyük is also a village. The bones from Çadır Höyük, which is also a rather small site, have a very wide chronology. They are all discussed together as “Iron Age,” but there are two subdivisions of this period in the dating of this site, the early Iron Age (1200–900 BC), and the middle and late Iron Ages (900–330 BC). Oluz Höyük appears to be a rather larger site. YHSS Phase 5 at Gordion (dated 700–500 BC in the zooarchaeological report)<sup>164</sup> is the one that best matches Kerkenes. Furthermore, the contexts of the bones are somewhat similar: high-status elite residential and public buildings are described for Gordion.<sup>165</sup>

In general, ovicaprids constitute the backbone of animal husbandry in Iron Age Anatolia, followed by cattle and pig, both in much lower and varying proportions. This sequence is confirmed in other sites relatively close to Kerkenes, namely, Gordion, Kaman Kalehöyük, and Çadır Höyük. Proportions differ from site to site surely, but the tendency toward ovicaprids is apparent. In the composition of sheep and goat flocks, an increase in goat proportions has been discussed at Gordion and Kaman, with this shift attributed to a possible degradation of the environment.<sup>166</sup> At Kerkenes, the fragmentary nature of the materials did not allow for a sound statistical establishment of sheep-to-goat ratios, but these ratios appear to fluctuate in proportion between the two areas studied, with sheep being more abundant in the palace.

At Kaman Kalehöyük, a marked increase in ovicaprids is documented in subphase IIb, reaching as much as 70 percent. Game, especially hare, is more plentiful than in any prior phase. This (along with other) evidence is interpreted by Hongo as marking

a change in ethnic affiliation.<sup>167</sup> Hongo argues that in subphase IIa the animal economy returns to similar trends as seen in earlier phases, with ovicaprids still dominant, but not by such a high margin, and cattle and pig in a lesser role. Hare is also very abundant in this phase, but it will decrease considerably in the next phases of the Islamic period.<sup>168</sup> Red deer is present in all phases, but with very few examples.

At Maşat, the picture appears somewhat different, with cattle the most numerous, followed by pig and then ovicaprids. This bone assemblage is hand-picked and very small (155 bones from layers and 283 from pits), and I consider the results to reflect the bias of the recovery method and small assemblage size.<sup>169</sup> Also at Maşat, the bone assemblage derived from pits (which are imprecisely dated) had a totally different composition, with ovicaprids dominant, followed by cattle, then by pig. Even if the pits may include intrusive materials, this composition is a clear example of the differences in deposition that may exist between contexts. With the biases that a small assemblage carries, the Maşat case should not offer valid species-proportion comparisons. A useful piece of information that the Maşat study adds to this discussion is the presence of two bones and one antler from red deer, which increases the rather sparse information on the utilization of cervids and the possibility of their becoming rarer in this period. Two recovered partridge bones also testify to the hunting of birds, which appears to be relatively important for this period.

The available bone assemblage from Oluz Höyük is also small.<sup>170</sup> Area B, layer 5, dated to the seventh century BC, has only two horse bones. The sixth-century BC layer in the same area produced only four cattle bones, two ovicaprid bones, two pig bones, and one bird bone. Finds in layers from various trenches belonging to the fifth century BC are more abundant. Of the total of fifth-century BC bones published, twenty-eight are of cattle, ninety-one ovicaprid, thirty-four pig, seven hare, eight bird, and two deer. Sheep are much more numerous than

<sup>163</sup> Hongo 1998.

<sup>164</sup> Zeder and Arter 1994.

<sup>165</sup> Zeder and Arter 1994.

<sup>166</sup> Zeder and Arter 1994; Hongo 1996.

<sup>167</sup> Hongo 1996; 1998.

<sup>168</sup> Hongo 1996.

<sup>169</sup> The same result as for Maşat was found in the small, hand-picked assemblages of the early Iron Age levels at Korucutepe, and Büyükale (Boğazköy); Boessneck and von den Driesch 1975; Vogel 1952; Pişkin 2013.

<sup>170</sup> Onar 2010.

goat. While levels contemporaneous with Kerkenes are not yet well known, the later settlement of the fifth century BC appears to conform to the general pattern of species exploitation: ovicaprids in the greatest numbers, then cattle, then pig. Hare and birds are relatively abundant, but deer is rare (two bones only).

At Çadır Höyük, only 10 km from Kerkenes, the Iron Age assemblage contains 34 percent ovicaprids, 11.8 percent cattle, 10.2 percent pig, 2.4 percent fallow deer, and 0.4 percent hare.<sup>171</sup> It thus conforms with the general pattern of domestic economy, but not with that of game: deer is abundant, while hare is rare. Nevertheless, it should be remembered here that the bones referred to as Iron Age in Çadır Höyük have a very broad chronological span (see above).

The bone assemblage from Gordion has many similarities with that from the Palatial Complex.<sup>172</sup> Proportions of domestic species calculated by NISP are given as cattle 19 percent, ovicaprids 60 percent, and pig 21 percent. These figures resemble the sequence of importance at the Palatial Complex revealed by NISP 2 (table 1): cattle score 11.46 percent, ovicaprids 33.46 percent, and pig 9.49 percent. There is also an increase in birds that may be attributable to the introduction of domestic fowl rather than the hunting of wild birds. In Gordion, only four deer bones (making up 3 percent of the wild animals) were found in YHSS phase 5, in comparison to twenty-three bones (20% of wild animals) in the preceding phase 6. Overall, the deer finds decline sharply from the Middle Phrygian period onward at Gordion. Again, in phase 5, seventy-seven hare bones were found (60% of the wild animals). This is the highest occurrence of hare for all phases at Gordion.

It is worth noting that the intensive hunting of boar documented in Kerkenes has not been recorded at any other site. This uniqueness contributes to the argument that the particular assemblage in CT27 had a special nature and function. The dominance there of boar and the significant presence of bear may be indicative of some sort of display reflecting the capacity of the palace to kill such formidable beasts. Deer bones were sparse at Kerkenes despite the important evidence for hunting activity demonstrated by the finds in CT27. Indeed, deer is rare

at most of the other sites discussed. Concomitant with the decrease in deer, there is a general tendency toward a more intensive exploitation of hare. The decrease of deer as well as increased goat finds mentioned above have been connected with general environment degradation.<sup>173</sup> Hongo is in agreement on the basis of changes in the ratio of sheep to goat at Kaman Kalehöyük.<sup>174</sup> For Kerkenes it is difficult to make such a case because of the opposing evidence in CT27.

## CONCLUSIONS

The exercise of studying the animal bones from Kerkenes has proven a challenging one. Not only were the bones burned and fragmented to a very high degree, but also the composition of the assemblage appears to be influenced by “spatially” characteristic trends. While these trends were very tempting to investigate and interpret, the limited number of available contexts and the small size of these subassemblages negated the chance of a much-desired confirmation. Overall, it can be said with confidence that sheep and goat comprise the bulk of the flocks. It was confirmed that cattle and pig were constant elements in the animal husbandry but were clearly much fewer in number than ovicaprids. Hunting of small animals and big game was significant in cultural rather than economic terms. Some of the hunting, in particular the hunting of boar and bear, might have had a very special character and was surely used as a social marker. Unique was the discovery of a piece of dolphin jaw in TT22. These finds are indications of the role the animals played not only in diet but also in communicating cultural signals.

Comparisons with other sites in the wider region show that Iron Age animal husbandry was largely based on rearing ovicaprids, while cattle and pig held a lesser position. This result is more or less universal within Anatolia for this period. The possibility of some environmental degradation is argued for in some reports because of an increase in goat numbers and the limited number of deer bones recovered from most of the sites. At Kerkenes, a vast amount of

<sup>171</sup> Arbuckle 2009.

<sup>172</sup> Zeder and Arter 1994.

<sup>173</sup> Zeder and Arter 1994, p. 114.

<sup>174</sup> Hongo 1998, p. 260.

timber would have been required for building and as fuel, with the result that local deforestation would have been significant and ongoing. Nevertheless, hunting appears regularly to supplement the diet, but it is mostly aimed at small game and perhaps also birds. The finds from Kerkenes confirm this tendency as far as it concerns small game and the lack of deer. The finds of boar and bear seem to reflect the opposite, that there is good forest cover. Nevertheless, boar namely, a rather wide range of

habitat and may have been hunted in marshy valleys around the site, where they are still in abundance today, while bear may have been hunted some distance away, perhaps in higher hills to the north. Boars would have been a threat to agricultural produce and bears a threat to flocks. The hunting of both species would have been beneficial for the subjects of the palace and a good advertisement of their concern with such animals, as well as of the capabilities of the hunters.



## CHAPTER 11

## THE BYZANTINE PERIOD

YILMAZ SELIM ERDAL and GEOFFREY D. SUMMERS<sup>174</sup>

Throughout this volume, frequent reference has been made to the looting activities of treasure seekers. This activity included destruction of the upper part of the stone glacis of Structure A, the digging out of the sandstone column base in the Audience Hall, and the robbing of faced granite blocks from the Ashlar Building. At the Monumental Entrance, a large pit was dug into the top of the South Platform, the collapsed and burned debris in the court was disturbed, and the northern plinth was destroyed and the rear column base displaced. Some of this later destruction, especially at the Ashlar Building, was evidently related to the quarrying of the Iron Age buildings for good building stone required for construction elsewhere, quite possibly on the acropolis, but in the Monumental Entrance the disturbance was obviously associated with treasure hunting. Additionally, most of the tumuli with stone cist graves have been robbed.<sup>175</sup> It is not known when, or over what period or periods of time these activities took place. Construction of the cist graves, together with the small tumuli in which the stone cists were constructed, involved taking stone from the remains of earlier, Iron Age structures. The builders of these tombs in the vicinity of the Palatial Complex doubtless availed themselves of the Structure A glacis for large capstones, most probably in the Hellenistic period.<sup>176</sup> Evidence for the date of later robbing is sparse. An isolated grave, described below, in the Monumental Entrance court is closely dated by a mint-condition follis of Justinian. This interment was disturbed by looting activities, and perhaps predates their commencement.

Auxiliary evidence for the date of the disturbance in the Monumental Entrance court amounts to no more than a conical glass spindle whorl that has Middle Byzantine parallels. No substantial fragments of post-Iron Age pottery were recovered at the Palatial Complex, with the only recognizable pieces being very small sherds of late sigillata from disturbed contexts on the South Platform and among the rubble on top of Structure A.

THE BYZANTINE-PERIOD  
BURIAL

Discovery of a human skeleton in the loose debris filling the Monumental Entrance court was completely unexpected. No grave cut could be identified in the very loose stone debris (pl. 240). The position of the body, however, can leave no doubt that this feature was a burial and not, as was thought at first, the remains of someone who was trapped by collapse in the course of looting. The grave must have been quite shallow, perhaps only a few centimeters below the ground surface as it then was. Orientation was approximately east-west, with the head at the west end. The body was laid on its back with arms by the side, probably with hands on the abdomen. The skull, which is incomplete, was in an unnatural position, demonstrating that the burial had been disturbed. Postmortem disturbance on one or more occasions also accounts for the incompleteness of the skeleton and, probably, damage to the cranium. Because the rubble is very loose, with many voids and

<sup>174</sup> Study of the skeleton was made by physical anthropologist Yılmaz Selim Erdal.

<sup>175</sup> See Summers and Summers 2008 for a brief account and references.

<sup>176</sup> Bittel 1969; Kühne 1969; Müller-Karpe 2006.



contains many very large stones that fell or were thrown down from the northern face of the South Platform, simply pulling out or levering to one side large stones would have been sufficient to account for the disturbance. There were no grave goods apart from the coin of Justinian that, although retrieved from the loose soil, was undoubtedly associated.

This burial is an isolated one. There is no clue as to why this particular location should have been chosen. Both the shallowness of the grave and the very loose rubble in which it was made might be thought to indicate hasty burial in a hole that was made by pulling out loose stones, perhaps by persons lacking tools with which to dig into the hard Kerkenes soil.

### Physical Anthropology

The skeleton, which is badly preserved, consists of an incomplete cranial vault, fragmented facial bones, an incomplete and fragmented vertebral column, ribs, clavicles, scapulae, humeri, a pelvis, femora, tibiae, fibulae, and few metacarpals, metatarsals, and phalanges.

All the epiphyses of the preserved long bones are fused; but that the cranial sutures are open shows that the individual died in young adulthood (18–30 years old). A narrower estimate of the age at death is possible by using dental calcification.<sup>177</sup> The calcification of the apex of the third molar was not complete; therefore, the individual might have been between 18 and 21 years old. Morphological characteristics such as the frontal tuber, mental eminence, and masseter muscle attachments of the skeleton show female characteristics; however, the narrow sciatic notch and heavily built mastoid process indicate male characteristics. The sex of the individual cannot be determined properly, but the skeleton is possibly that of a female.

As the skeleton is badly preserved, no measurements can be taken. Nor do we know the morphological characteristics of the skeleton. Only the maximal length of the right femur (ca. 415 mm), left tibia (346 mm), and fibula (335 mm) could be measured during the excavation. Using maximal lengths of the femur and tibia, body height is estimated at 156.1–161.9 cm using the Trotter and Gleser equation.<sup>178</sup>

Nonspecific infection on the medial surface of the right tibia and around the nutrition foramen of the right femur and distal end of the fibulae were observed. These infectious lesions are subperiosteal new bone formation and are similar to hematomata. Particularly, the infection on the right tibia is unilateral, showing that these lesions might be related to skeletal trauma (pl. 241b–c).<sup>179</sup> The individual also has some signs of anemia. Parietal bones near the lamboidal sutures and the right orbital roof show porosity. Porotic hyperostosis on the parietals and cribra orbitalia on the orbital roof indicate a cribrotic form of anemia.<sup>180</sup>

Dental remains are the only well-preserved part of the skeleton. Thirty-one teeth have been examined; only the upper left first premolar is missing postmortem. No caries, dental calculus, or periodontal disease was observed. Attrition is slightly developed. Only the small parts of the dentine are exposed on the incisors, canines, premolars, and first molars, but small enamel chippings have been detected on the maxillary right first molar, left maxillary central incisor, first and second molars, and mandibular right first and left second molars. Slightly developed linear enamel hypoplasia has been observed on almost all dental remains.<sup>181</sup> These data show that the age of the individual is young; foods were well prepared and contained no abrasive ingredients. The individual, however, suffered some growth disturbances related to nonspecific physiological stressors during the growth period.

<sup>177</sup> Buikstra and Ubelaker 1994.

<sup>178</sup> Trotter and Gleser 1952.

<sup>179</sup> Ortner 2003.

<sup>180</sup> El-Najjar et al. 1976.

<sup>181</sup> Goodman and Rose 1990.

## CHAPTER 12

## CONCLUDING REMARKS

GEOFFREY D. SUMMERS

CONSIDERATIONS ON  
KERKENES AS AN IRON AGE  
CAPITAL

In a conference volume dedicated to ancient citadels in Turkey, Mehmet-Ali Ataç, Timothy Harrison, and the author of this chapter offered independent analyses of Neo-Assyrian and Neo-Hittite citadels and cities as well as of Kerkenes as a Phrygian capital.<sup>182</sup> Looking again at these papers, it is striking how different Kerkenes is from cities in the Hittite world as well as those in northern Mesopotamia and North Syria. The so-called “citadel cities” of the ancient Near East contain citadels protected with inner sets of strong defensive walls pierced by towered gates with internal chambers, all topped with crenellations that exuded strength. They protected and perhaps isolated the king. Palaces, temples that legitimized divine kingship, and doubtless treasuries, were situated behind these same citadel walls. Surely also relevant is the observation that these Neo-Hittite and Neo-Assyrian cities were founded on open plains, often with an earlier settlement mound (höyük or tell) recycled for the citadel. An exception is the second-millennium capital of the Hittite Empire at Hattusa, only 50 km from Kerkenes in a straight line; but Hattusa too follows the Near Eastern pattern with a prominent and strongly defended citadel, the Büyükkale, protecting the palace even though the main temple, Temple 1, together with its massive storerooms, was located in the lower city.

Here it is worth pulling together many of the salient points and suggestions that have been made in reports and papers published over the last twenty years of research at Kerkenes. Some earlier ideas have been discarded in the light of fresh evidence; others have simply fallen by the wayside as our perspectives have developed. These erroneous ideas can well be ignored.<sup>183</sup> What follows can be no more than an interim assessment that reflects current thinking. This excavation report is not the place for an exhaustive comparative study, one that would become outdated in the time between writing and publication. Nevertheless it behooves us to offer some broader interpretation of what we have termed the Palatial Complex. It is pertinent first to discuss some of the wider issues concerning the place of Kerkenes in the development of cities, palaces, and citadels in Anatolia. Then, discussion will turn to the location of this walled complex within the city before turning to accessibility and access. This analysis will lead to discussion of implications for the relationship between the palace and the urban population. Finally, the complex itself and what can be gleaned of layout, circulation, and possible functions will bring this volume to a conclusion. Focus will be on the city as we currently perceive it to have been immediately before the destruction, when, as a result of remote sensing, a reasonably clear idea of the urban layout as well as the plans of many individual buildings have been gleaned.

Kerkenes was a new foundation on a previously uninhabited site.<sup>184</sup> It was chosen as the site for a

<sup>182</sup> Ataç 2013; Harrison 2013; Summers and Summers 2013.

<sup>183</sup> Some of the bones of discarded ideas are picked over in Summers and Summers 2010.

<sup>184</sup> In this volume and elsewhere, brief mention has been made of the association of Kerkenes with the large site of Uşaklı Höyük a few kilometers to the north. New work at Uşaklı makes it increasingly likely that it is to be identified with the Hittite city of Zippa-

new capital, surely a royal city, in historical circumstances that are unknown. Events in the second half of the seventh century BC included the collapse of Urartu followed sometime thereafter by the demise of the Neo-Hittite city-states on the Anatolian Plateau. Benefactors of these upheavals, which may have had much to do with the Cimmerians, included Lydia and Cilicia.<sup>185</sup> Not only the ruling elite but also the entire urban population of Kerkenes seem to have been culturally Phrygian, as demonstrated by inscriptions and graffiti in Paleo-Phrygian, Phrygian cultic imagery, Phrygian traditions of architecture, and so forth. The conclusion that a large number of people moved eastward across the Kızılırmak (the Red River), out of what had once been the Phrygia of King Midas, to found a new independent kingdom, surely Pteria, seems plausible. Therefore, it can be argued, Kerkenes was a kind of ideal city that contained all those elements thought necessary for a splendid new capital. Spatial relationships between these urban components were constrained only, if at all, by the topography of the chosen site and the location of springs. It was a cultural choice to select a mountaintop rather than to build somewhere on the lower, more level land that abounds in this upland region. Existing settlements, such as Alişar Höyük, presumably ancient Ankuwa,<sup>186</sup> and Kuşaklı (Uşaklı), probably the older Hittite Zippalanda, were perhaps subjugated but not selected for a new capital. The choice of Kerkenes Dağ itself reflects both its physical dominance over the surrounding territory and the relative abundance of perennial water. In the minds of the founding power, these perceived advantages obviously outweighed the highly exposed location that would have made long winters bitterly cold.<sup>187</sup>

At Kerkenes, the Iron Age acropolis, or citadel, is today marked on maps as Keykavus Kale. Locally, it is simply called the Kale, an oblique reference to the lime-mortared curtain wall and towers of the Byzantine castle. In earlier times, it was a waterless granite tor that the Great Kings of the Hittite Empire are thought to have called Mount Daha, abode of the Storm God of Zippalanda.<sup>188</sup> Whether or not this dominating peak was provided with stone defenses before the Persian period is moot.<sup>189</sup> It is safe, however, to assume the existence of a cultic center in the Iron Age city, though it is clear that there was insufficient level ground for construction of either a large temple precinct or a palace. Scott Branting's reconstruction of the network of urban streets at Kerkenes appears to confirm the notion that the citadel was not frequently visited.<sup>190</sup> In summary, the morphology of the hilltop capital at Kerkenes was one in which the citadel was set apart. Its looming dominance would doubtless have symbolized protection, very possibly enhanced by a gleaming shrine that, visible from many points in the city, would have reflected the setting sun. From a more functional perspective, in times of threat this high and steep-sided acropolis perhaps provided the comfort of offering a safe haven of last resort in the unfortunate event of an enemy force's breaching the strong city defenses.

It has been argued elsewhere that this citadel at Kerkenes appears to have had much in common with the Lydian acropolis at Sardis.<sup>191</sup> Sardis, of course, outshines Kerkenes in size, strength, grandeur, and longevity, although the two capitals were apparently destroyed in the same year, on current reckoning in 547/546 BC, in the course of the Persian conquest under Cyrus the Great.<sup>192</sup> Thus, the splendid apogee of both capitals was reached in the same decades.

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landa, in which case Kerkenes would have been Mount Daha. Regardless of precise identifications, the Kerkenes Dağ would have been a sacred peak associated with the Hittites. However, no shred of evidence for Hittite activity on the Kerkenes Dağ has been observed.

<sup>185</sup> Summers 2013.

<sup>186</sup> Crasso 2005; 2008.

<sup>187</sup> Full discussion of the difficult issue of "Phrygian-ness," movements of people versus emulation of culture (including language), and an attempt to understand who actually lived at Kerkenes would be necessarily speculative. Summers 2018 addresses some of these issues.

<sup>188</sup> For the Kale see: Summers 2001; Summers and Summers 2013. For identification of the Kale with Mount Daha see Gurney 1995; now seemingly confirmed by new work at Kuşaklı (Uşaklı); Mazzoni et al. 2010; Summers 2013; see also de Martino 2017.

<sup>189</sup> In spite of its dominating aspect from both within the city and from afar, the Kale does not in fact attain the highest elevation within the city; that accolade belongs to the Kiremitlik at the southeastern extremity. For the dating of the glaciol on the Kale see Summers et al. 1996; Summers 2001; Kealhofer et al. 2010.

<sup>190</sup> Summers and Summers 2013, pp. 146–48 with Branting's maps reproduced as figs. 12–13.

<sup>191</sup> Summers and Summers 2013, pp. 155–56. For the Sardis acropolis see Greenewalt et al. 2003; Cahill 2009.

<sup>192</sup> For the Persian destruction of Sardis see Cahill 2010.

At Sardis, too, the citadel seems to have been little more than a high refuge with, if architectural terracottas are any guide,<sup>193</sup> one or more cultic buildings.

There is, however, a difficulty with this interpretation of Kerkenes as an essentially West Anatolian city, and that is the contrast with the earlier Phrygian capital at Gordion. Gordion lies on the flood plain of the Sakarya River, the classical Sangarios.<sup>194</sup> It is true that Gordion had long been a settlement of some, if not great, significance, and, as Atatürk's important victory over Greek forces at the Battle of the Sakarya demonstrates, the location had strategic importance.<sup>195</sup> However, neither the location of this capital of Phrygia, nor the morphology of the city from at least as early as the time of a king known as Midas (the Great), who successfully contested control of southern central Anatolia with Sargon II of Assyria in the dying years of the eighth century BC, bears much obvious resemblance to Kerkenes.<sup>196</sup> These differences between Gordion and Kerkenes are not only morphological. The Citadel Mound at Gordion was surrounded by a walled lower city and a larger outer city. Other major contrasts are architectural and sculptural. In part, these contrasts can be explained by a Lydian takeover of Gordion, probably by Croesus,<sup>197</sup> as indicated by the introduction of Lydian architectural terracottas to embellish new or reconstructed temples on the citadel mound together with the installation of a Lydian garrison on the Küçük Höyük.<sup>198</sup> By the start of the eighth century, when rebuilding of the Gordion citadel was interrupted by a substantial fire, this Phrygian capital was a kind of citadel city in which the New Citadel provided for the ruling elite and their dependents while the populace dwelt on the plain around, in an urban area that seems already to have been a walled lower town.<sup>199</sup> This stark difference between the

morphologies of the cities at Kerkenes and Gordion cannot be explained simply by different historical trajectories, because, had they so desired, the builders of Kerkenes could easily have provided strong and imposing defenses around the urban quarter in which the Palatial Complex and other public buildings were located. This difference is also reflected in the absence from Gordion of architectural embellishment (notably bolsters), sculpture in the round, and relief sculpture that have been found in both the Cappadocia Gate and the Palatial Complex at Kerkenes. While it is true that levels securely dated to the first half of the sixth century are, in comparison with the pre-destruction levels, poorly known at Gordion, the absence of even fragments of carved stone resembling the large corpus at Kerkenes would seem to be real in the light, for instance, of the large number of architectural terracottas that were excavated.<sup>200</sup> Nor can a Lydian domination be invoked to explain the variation in architectural tradition, because the majority of stone elements found at Kerkenes, but not at Gordion, can be found in the rock-cut façades and other monuments in the Phrygian Highlands, the greatest of which, the so-called Midas Monument, was very probably made on the orders of the Lydian king Croesus.<sup>201</sup> Furthermore, as often noted, there are no rock-cut architectural façades of the type well known in the cultic landscape of the Phrygian Highlands in the Gordion-Ankara region. This absence is not, it appears, one of discovery and preservation, nor is it to be explained by differences in geology, since the Phrygian idols at Dumrek are carved out of living granite.<sup>202</sup> These variant architectural and sculptural traditions could, it is suggested, point to an origin for the Phrygian population that seems to have moved eastward across the Kızılırmak in the second half of the seventh century

<sup>193</sup> Greenewalt 2009, pp. 195, 204, fig. 15.

<sup>194</sup> Marsh 2012.

<sup>195</sup> For the importance of the Turkish victory see Mango 1999, chapter 15, pp. 306–24.

<sup>196</sup> Voigt 2013 provides an overview.

<sup>197</sup> Herodotus 1.28.

<sup>198</sup> For architectural tiles see Summerer 2005; Summers 2006c; Glendinning 2007; Ateşlier 2010. On Lydian Gordion, Devries 2005, pp. 46–51; 2012, pp. 16–19; Burke 2012, pp. 215–17. For comparison of Gordion with Sardis see Greenewalt 2012.

<sup>199</sup> Voigt 2012; 2013.

<sup>200</sup> I am most grateful to G. Kenneth Sams for showing members of the Kerkenes team very many of the stone architectural fragments that were found at Gordion and are housed in the excavation depot. We were surprised to see nothing that we recognized.

<sup>201</sup> Berndt-Ersöz 2006; 2007; Summers 2006; 2006b; 2006c. For the date of the Midas Monument see Berndt-Ersöz 2006, p. 130. Also Munn 2006, pp. 77–79 and 143–45. For the inscription see Brixhe and Lejeune 1984, M-01 a, pp. 6–9. The complex chronology of Phrygian kings with the name Midas is discussed in Berndt-Ersöz 2008.

<sup>202</sup> Berndt-Ersöz 2006.

BC. The parallels are with the Phrygian Highlands, but, given the low level of settled occupation in this upland region, a homeland farther to the south or southwest might not be thought impossible.

## THE LOCATION OF THE PALATIAL COMPLEX AND THE MORPHOLOGY OF THE IRON AGE CITY

Turning now away from these broader considerations, the location of the Palatial Complex within the constructed urban space will be considered. Several major topological elements to the ancient city can be discerned. The largest one is the lower, northwestern, portion that covers about two-thirds of the walled area. The second, which concerns us here, is the high southern ridge that includes the imposing Kale, an acropolis or citadel, which dominates the eastern side. This ridge extends southwestward to what we have called the Göz Baba Gate.<sup>203</sup> The third element, about which little is known because of later occupation, is the high Kiremitlik at the southern end of the site together with its steep northern slopes. The great walled compound of the Palatial Complex lies in the center of the stretch of this ridge between the southwestern foot of the citadel and the Göz Baba Gate. Much of this ridge was occupied by public compounds and spaces. They include the Sülüklü Göl (Leech Pond), an artificial reservoir with stone lining, which was perhaps a focal place. Northeast of this pool lies a large, artificial terraced field with two narrower terraces above. Long narrow buildings on these terraces above the field may perhaps have been royal stables, in which case the large level field beneath them would have been used for, among other things, the exercise and training of horses. The major street that entered the city through the Cappadocia Gate ran northward above and parallel to the eastern side of these putative stables before descending to the lower urban area in a great sweeping curve around the lower citadel slopes. Northeast of this road, below the steep sides of the later citadel fortifications, are the terraced foundations of a great terrace made of very large, unshaped, granite stones. The scale of

this construction, which has suffered from erosion as well as from stone robbing, possibly when fortifications were constructed on the Kale, suggests some public function. In places, the ground surface adjacent to this terrace and the buildings that it supported is littered with fragments of soft white wackestone. This stone is similar to that used for the idol found in the Cappadocia Gate as well as for the uppermost courses of masonry on the platforms flanking the Monumental Entrance to the Palatial Complex. Incorporation of this stone, which was imported from somewhere in the surrounding region, confirms the special importance of these buildings.

Returning to the urban streets, just inside the Cappadocia Gate lies the intersection between the major street running northward to the lower part of the city and that running from the East Gate below the southeastern side of the citadel and along the southern ridge to the Göz Baba Gate. The main east-west street followed a course that took it along the southeastern side of the large terrace, across the main north-south street, past the ends of the stables and field, and from there along the southeastern side of the wall enclosing the Sülüklü Göl until it reached the eastern end of the Palatial Complex. To the southeast of this street, between the Cappadocia Gate and the Palatial Complex, was a huge public area bounded by an enclosure wall on one side and the city defenses on the other. Most of this roughly triangular space was level ground that seems to have been devoid of buildings. At its center, however, is a rock outcrop that was leveled and built on, with, at the foot of its southwestern end, a shallow artificial pool enclosed by a wall and the foundations of associated structures. Here, too, fragments of sedimentary stone indicate embellishment. Opposite, on the northwestern side of the street, the land falls away. Thus, anyone approaching the Palatial Complex from the East Gate, or by turning left after entering the city through the Cappadocia Gate, would travel down a broad street between the walls that enclosed the Leech Pond on one side and a special compound of indeterminate purpose on the other. The street was unpaved, but there were stretches of narrow pedestrian pavement along one side or the other as well as drainage. The heights of these flanking walls are not known, but they would have served a limited purpose had it been possible for pedestrians to see

<sup>203</sup> The Göz Baba Gate was so named because the road from it leads southwestward along the high ridge to Göz Baba Tepe, the most elevated part of the Kerkenes Dağ, which is crowned by a gigantic Iron Age tumulus.

over them. Somewhere along this street, the upper parts of the tall twin towers at the eastern end of the Palatial Complex that surely rose higher than the wall connecting them, all strengthened by the glacis, would have become visible. In the final phase of development, the Monumental Entrance would have come into view, but perhaps not until the street widened out in front of Structure A. Thus, the visitor would have been confronted with the military might of the towered façade and the contrasting splendor of the Monumental Entrance that projected divine protection and legitimization. Open space in front of the imposing Structure A and the great stone-paved court of the Monumental Entrance could have provided arenas for display and performance. The latter would have inspired awe, rising gently up to the first great wood-framed façade between huge platforms topped with rows of semi-iconic idols, great freestanding wooden columns with stone capitals, sculpture and inscribed reliefs, and all manner of other embellishment only hinted at by the scraps that were overlooked as the fire was set and then, much later, were undiscovered by looters who dug over the collapsed debris.

On reaching the front, eastern end of the Palatial Complex, this same road continued along the northwestern side of the Complex boundary wall. Approximately 280 m in length, this enclosing wall provided some measure of protection and seclusion but could easily have been breached by a determined hostile force. This enclosure wall was not designed as a military defense. The continuation of this road, adjacent to the stretch of glacis along the northern side of the Complex, passes on the opposite side a large hall with a double-pitched roof, very probably a temple, revealed by geophysical survey and traceable on the ground. Farther on, parallel with the Palatial Complex wall, the street was flanked by rectangular urban blocks that are not noticeably different from many of those seen in the lower portion of the city. Here, presumably, resided a portion of the urban population. Beyond the back of the Palatial Complex there seem to have been yet more urban blocks until the street widened out before veering to the left and descending gently to the Göz Baba Gate. Here, too, where Erich Schmidt excavated two test trenches, TT04 and TT05, in 1928, at least one urban block contained buildings and a very large oven suggestive of some public function. A lesser street ran along the southern side of the Palatial Complex. Here, the ground slopes away quite steeply down

toward the city defenses, with the result that erosion has removed the larger part of what, if anything, was erected here.

It will now have become obvious that neither the Palatial Complex itself, nor the larger zone of public buildings and spaces on the same high ridge, were provided with military-style defenses. Certainly, as argued earlier, in an early phase of the city's development the tall stone towers and glacis of Structure A seem to have been some kind of small, fortified structure just possibly enclosing a spring. However, as the Palatial Complex came to embrace this structure the defenses were cut away at the southeastern corner as well as on the northern side, with the result that the defensive characteristics were very significantly reduced. Once the Monumental Entrance was constructed, in the final phase of development, all pretense of military architecture was abandoned, trust being placed in divine protection, exemplified by rows of large stone idols and other cultic imagery. In short, the Palatial Complex was not built within a citadel, nor was a citadel built around it. The model, if there was a model, would seem to have been Sardis rather than Gordion. But then again, we are considering Kerkenes in the late seventh and first half of the sixth centuries rather than Gordion in the ninth.

The above observations carry obvious implications about perceptions of threat held by the rulers of Kerkenes. When the city was founded, insecurity was felt deeply enough for investment in the costly construction of 7 km of impressive stone defenses—no small undertaking in terms of labor and organization. The extent to which these grand defenses were maintained is unclear, there being some evidence visible on the ground as well as discernible on geophysical imagery for encroachment on the military road that ran around the inside of the defenses, an animal enclosure built against the glacis in front of the East Tower at the Cappadocia Gate, and perhaps places where the glacis was in need of repair. On the other hand, it seems that no additions were made to the original seven city gates, even though their uneven distribution was such that only a single entrance provided egress through the 2 km long western wall. The elite, then, would appear to have feared attack from without but not from within. If the city were to fall, no one would be safe. On the other hand, it may be presumed that, if the city were attacked, the inhabitants would gain nothing by turning on their masters or letting in

the enemy. This presumption is entirely in keeping with the passage in Herodotus I, 79 that states that Croesus enslaved the Pterians, who were, by generally accepted readings of the passage, different from the people in the countryside who had done Croesus no harm. Of course the evidence, if interpretation is correct, does not prove the veracity of Herodotus. To claim otherwise would make a circular argument.

The Palatial Complex is located on a high ridge where there was level ground or, more accurately, ground that could be levelled by reducing outcrops of rock and filling hollows. Close by, and probably within the compound, were sources of perennial fresh water. The Complex faces eastward, and the platforms of the Monumental Entrance look in the general direction of the rising sun. While this latter orientation might have been deliberate, the general orientation follows that of the jointing in the granite bedrock of the Kerkenes Dağ batholith. Although the position within the city is elevated, only from the towers of Structure A would it have been possible to attain views, and even they would have been restricted by walls and double-pitched roofs covered with thatch. As the defenses were completed, so the fortified center of operations became integrated into a large complex. Thus, the position of what grew into the Palatial Complex was established when the city was founded, even if, at that moment, its eventual size and splendor were not yet perceived. Only in the final phase, with the building of the Monumental Entrance, was there perhaps a deliberate orientation so that the façades faced to the east. However, even this slight change of axis between the Audience Hall and the Monumental Entrance might be put down to expedience as the architects made the best use they could of the substantial outcrops of rock.

The trapezoidal shape of the Palatial Complex approximates the topography. The lie of the land had made obvious, if not dictated, the course to be taken by the main street running between the East Gate and the Göz Baba Gate. This street, which ran adjacent to the north-northwestern side of the Complex, would presumably have been leveled very early in the process of laying out the city, not least to facilitate animal traction for the importation of large timbers as well as general construction and urban logistics. The southern edge of the Palatial Complex largely conformed to the crest of the slope, though the eastern end, parallel to the Audience Hall,

diverged northward from this line. This irregularity in the plan, which would be dated to the second major phase of development in the reconstruction proposed here, might possibly have had as much to do with avoidance of standing buildings as with topography. It is true that the land does fall away, but not so steeply as necessarily to account for the line of the enclosing wall. As to the eastern limit of the boundary wall, no topographic reason for its position can be discerned, the ground being quite level. The total area occupied by this walled complex is approximately 3800 sq. m. While both the size of the Complex and the monumentality of the eastern end impress, as was intended, they pale by comparison with the excavated area of the Old Citadel at Gordion in terms not only of area, but also in the amounts of stone and earth that were moved, first to make the great artificial platform for the Terrace Building and then in the Unfinished Project. Closer in time to the foundation of Kerkenes, but still decades earlier, was the creation of the New Citadel at Gordion that not only involved laying down up to 5 m of nearly sterile clay, but also bringing in a huge quantity of stone to fill the defunct gate and extend the citadel eastward.<sup>204</sup>

## FUNCTIONS AND FUNCTIONARIES

Moving away from the relatively firm evidence provided by remote sensing and excavation, it is now pertinent to discuss some of the more hypothetical questions pertaining to functions and people. It should be made clear at the outset that none of the excavated finds have been of particular help in addressing these questions. While the purpose of what we have called the Audience Hall would seem to be largely self-evident, if not proven, the function of the Ashlar Building, whether cultic or secular, is entirely unknown. Possible purposes of these partially excavated structures, discussed in the relevant chapters, need not be repeated here. Instead, consideration will be given to the Palatial Complex as a whole, with a focus on its final, most glorious phase, which was dramatically curtailed when the city was put to the torch. Literature on palaces in the ancient Near East from the fourth millennium BC to Late Ottoman times is vast. Where and how to place

<sup>204</sup> Voigt 2013.

the Kerkenes Palatial Complex within this diffuse array of palaces presents a challenge that a concluding chapter to an excavation report cannot pretend to meet. The principal reason underlying this shortcoming is an absence of both textual and representational material from either the Kerkenes Palatial Complex itself or from other Iron Age contexts in central and western Anatolia. Neither Kerkenes nor Gordion, nor for that matter Sardis, has produced textual records of temple and state. While state archives must surely have existed by the sixth century, they would have been written in alphabetic scripts on perishable materials, such as parchment and papyrus.<sup>205</sup> Nor did the Iron Age peoples of these same regions engage in administrative practices that involved seals and sealings.<sup>206</sup> Lamentably, artistic representation in the Phrygian world did not include the kind of narrative relief sculptures on stone orthostats that so importantly inform about Neo-Assyrian and Neo-Hittite practice from such cities as Nineveh, Carchemish, or Karatepe. At the latter, of course, lengthy inscriptions were carved in cursive alphabetic Phoenician as well as in hieroglyphic Luwian, an observation that strengthens the view that the difference between the Phrygian and Neo-Hittite worlds cannot be explained simply by the availability of suitable stone. This absence of sculpted reliefs is in itself an important indicator that western Anatolian practice was not Near Eastern. It would, therefore, be grossly incorrect to assume that the Palatial Complex at Kerkenes was little more than a westerly and slightly later version of ancient Near Eastern palaces.

## THE INSTITUTION OF THE PALACE

The following discussion, almost entirely speculative, will consider the institution of the palace, the function of the Complex and its various components, who may have resided within the Palatial Complex, and who might or might not have had access to it. It is appropriate to begin by considering the idea of the

palace as an institution, that is, as part of the state apparatus, rather than a building or set of buildings that contained state apartments.<sup>207</sup> The combination of the imagery at the Monumental Entrance, the access it gave to the Audience Hall, the size, and, it is supposed, its imposing front façade, indicate that it was from this eastern end of the Palatial Complex that the court carried out duties related to the workings of the state. It can be guessed that these duties would have included consultation related to decision-making on a vast array of state matters, political, religious, legal, and administrative, as well as the reception of delegations from far and near. Whether the personage of the king was largely secluded, in the way that Assyrian kings seem to have been, it is not possible to know.<sup>208</sup> Was this Audience Hall also a venue for feasting and entertainment? The weather at Kerkenes is such that these kinds of festivities could only have been held in the open between late spring and autumn. In this regard, possible functions of the open courts also warrant consideration. The inclined granite paving in front of the Audience Hall covered a considerable area, one that could have been crowded on occasion by those allowed through the Monumental Entrance but who may have been excluded from entry into the great hall itself. But neither the smooth-worn slippery paving nor the steepness of the incline made for a satisfactory venue for performance.<sup>209</sup> Even less suitable for dance or parades was the yet steeper paved court at the front of the Monumental Entrance itself. Only in front of massive Structure A, where the discovery of bear bones and large tusks of wild boar suggest that skins and pelts of wild animals from the royal hunt may sometimes have been laid out on the glacis, was there more level, unpaved space suitable for performances or contests. Here, such proceedings could perhaps have been viewed by members of the royal house from the secluded vantage of the towered Structure A. Nowhere else within the Palatial Complex does there seem to have been open space sufficient for any kind of large gathering or a building adequate for large banquets. To the north of the Audience Hall, the Ashlar Building

<sup>205</sup> Wooden writing boards coated with wax could have existed, but no evidence of hinges is known from the Anatolian Plateau.

<sup>206</sup> Genz 2009; Summers 2006d.

<sup>207</sup> Winter 1993.

<sup>208</sup> Radner 2010.

<sup>209</sup> On an official visit the then Minister of Culture, Mr. Ali Koç, slipped and almost fell on the stone pavement. In regal fashion he told his aides to let him fall—it would provide the press with something to write about.



and other structures appear to be arranged around a square court. Access was restricted to the extent that views of the Ashlar Building façade would have been reserved for those entering into this smaller, secluded, paved court. Here the ground was more level, and the proximity of the buildings perhaps offered respite from bitter wind as well as shade from a beating sun, both typical of the Kerkenes high-summer climate. Palace functions other than those carried out by the king would have included scribal activities, with offices and a place to store official records. At Gordion, the Terrace Building already alluded to because of its impressive size seems to have been given over to women who wove, ground grain, and prepared food.<sup>210</sup> These women were, it is thought, a part of the palace institution located within a royal quarter. Be that as it may, no such structure or set of structures is readily apparent within the Kerkenes Palatial Complex. This is not to say that the institution of the palace at Kerkenes did not also include an important component given over to production, nor is it to deny the possibility of an establishment for the distribution of such things as tools and weapons from state depots, but no evidence has been found that these items were located within the Palatial Complex, and there are other candidates for enclosures and structures of an administrative nature in what has been tentatively identified as a zone of public spaces and buildings on the high southern ridge. Behind, that is, to the west of the Audience Hall and the Ashlar Building, space seems to have been more secluded, very possibly given over entirely to the palace household. One or both of the two large halls that lay perpendicular to the central section of the southern enclosure wall rather look as though they were elite residences. Rows of square cell-like rooms would have included storage, but perhaps of no more material than was required for use by the royal household itself. In closing this part of the discussion, it is noted that, with the possible exception of the Ashlar Building, no temple has been recognized within the Complex. While cultic buildings cannot be excluded, given the limited area of the Complex that has been investigated by excavation, there is no equivalent to Megaron 2 at Gordion, which, with its unique stone walls, symbol-laden pebble mosaic, large central hearth, and doodles that include allusions to cult, was very

possibly a temple.<sup>211</sup> On the other hand, nothing has yet been uncovered at Gordion that in any way resembles the Monumental Entrance at Kerkenes, with its cultic imagery, sculpture, and architectural embellishment.

## ACCESS AND EXCLUSION

Yet more speculative is the question of who might have had access to the Palatial Complex and who might have been excluded. The existence of public space in front of Structure A has already been noted, and its possible use for public performance alluded to. Also mentioned earlier in this chapter was the large level field below the putative royal stables and directly inside the Cappadocia Gate. Along the western edge of this field was a very long narrow building, one principal function of which could possibly have been to provide shelter for spectators, although other functions are possible. Spectators could also have lined the steep bank along the opposite side of the field, below the lowermost of the two putative stable buildings. Here, then, was space not only for the exercising and training of horses, but also for the training of soldiers, mustering of troops, athletic games, and public performances. Here, doubtless, the king would preside. The point of this discursion is that many types of public events which might have been essentially connected with the palace as an institution did not need to have been physically situated within the Palatial Complex. On an everyday basis, then, it might be expected that only the privileged would have been permitted to pass through the Monumental Entrance, and, likewise, it is not impossible that the majority of the palace household, including perhaps slaves, may have left the Complex only on special occasions, if at all. On the other hand, the enclosing wall was not particularly strong, nor, with a width of only around 0.75 m, would it have prevented anyone with determination from scaling it. In short, it can be imagined that the public face of the palace, and thus the public face of the king, was visible to all in front of the foremost façade of the Monumental Entrance. Here, the populace and visitors alike would be impressed by iconography that projected the divine legitimacy of the ruling

<sup>210</sup> Burke 2005; see also Rose (2012) who suggests that these women were slaves.

<sup>211</sup> It must, however, be admitted that no cultic paraphernalia were recovered from destruction debris in Megaron 2.

dynasty as well as by the wealth and splendor of statuary, inscription, and decorative elements in bronze and precious metals affixed, perhaps, to iron-bound doors and the pediment above. If the doors were open in both façades, glimpses could be had of the Audience Hall façade and of persons in the court before it. Rarely, perhaps, was it possible to catch sight of the king.<sup>212</sup>

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<sup>212</sup> Osborne and Summers 2014.



## CHAPTER 13

# TÜRKÇE ÖZET

## KERKENES SONUÇ RAPORU 2

### SARAY YAPI GRUBU KAZILARI

ÇEVİREN GÜZİN EREN

**K**erkenes, İç Anadolu'da Yozgat İli Sorgun İlçesi'nde yer alır. MÖ geç 7. yüzyılda, sıfırdan inşa edilen bu Demir Çağ başkenti, büyük olasılıkla Herodot'un Pteria olarak andığı kenttir. Bu kitap, kentin Saray Yapı Grubu adı verilen bölgesinde yürütülen kazıların sonuç raporudur. Kitapta hem kazıların amaçları ve yöntemleri hem de bulgular tanıtılmaktadır. Kent bir yangınla son bulmuş ve tahribatın ardından terk edilmiştir. Dolayısıyla, Saray Yapı Grubunun üzeri sonraki dönemlere ait yapılarla örtülmemiştir, ancak kalıntılar tümülüs inşası, taş devşirme ve hazine arayışı nedeniyle kısmen hasar görmüştür.

#### 1. BÖLÜM – GENEL BAKIŞ: UZAKTAN ALGILAMA, KAZI STRATEJİLERİ, YÖNTEMLER VE KAYIT SİSTEMİ

Kentin konumunun tanımlanmasının (Lev. 1) ardından bu bölümde okuyucu, MÖ 546'da Sardis'in düşmesinden kısa süre önce Lidya Kralı Kroisos ve Pers Kralı Büyük Kiros arasındaki çekişme esnasında Kerkenes'in tahribatına ilişkin tarihsel arka planın ayrıntılı olarak tartışıldığı bir önceki *Kapadokya Kapısı Kazıları* cildine yönlendirilir.

#### Saray Yapı Grubunun Konumu

Bu bölümde şehir surları (Lev. 2) ve surların topoğrafya ve su kaynaklarıyla ilişkisi tarif edilir.

Kerkenes'in kentsel coğrafyasını oluşturan öğeler arasında Demir Çağı sonrasına ait geç dönem kalıntılarını barındıran Kale, aşağı şehir, kentin yedi sur kapısı (Lev. 3), Doğu Sur Kapısı ile Kapadokya Kapısı arasında uzanan cadde, kamu yapılarına tahsis edilmiş alanlar ve Kiremitlik yer alır (Lev. 4). Saray Yapı Grubunun yüksek görünürlüğe sahip bir sırt üzerindeki konumu ve merkezi planlamanın varlığına dair deliller muhtelif uzaktan algılama yöntemleriyle ortaya konur (Lev. 5–9).

#### Saray Yapı Grubunda Araştırma Stratejileri ve Araştırmaların Gelişimi

Araştırma yöntemi olarak balon ile hava fotoğrafı, mikro-GPS taraması ve jeofizik yüzey araştırması kullanılmıştır. 1996'daki ilk test açmalarını takiben 1999'dan itibaren Saray Yapı Grubu ve Kapadokya Kapısı daha büyük ölçekli incelemeler için seçilmiştir.

İlerleyen paragraflarda “*Saray Yapı Grubu*” Teriminin kullanımı, bu yapı grubunun boyut ve konum özelliklerinin yanı sıra kuramsal açıdan da gerekçelendirilerek, *Uzaktan Algılama* yöntemleri özetlenir ve *Saray Yapı Grubu Kazılarından Beklentiler* ortaya konur.

#### Kazı Stratejileri ve Kazıların Gelişimi

Bu bölümde kazıların gelişimi, *1996 Test Açmaları*, *1999 ve 2000 Yılı Temizlik ve Kazı Çalışmaları* ve *Kazılar* olmak üzere alt başlıklar halinde açıklanır.

## Kayıt Sistemi

Açmaların, kazı birimlerinin ve buluntuların numaralandırılması dahil olmak üzere kayıt ve envanter sisteminin tanıtıldığı bu bölümde, özellikle yazıtlı, yontulmuş ve oyulmuş taş parçaların kayıt ve çalışma sistemi üzerinde durulmaktadır.

## Kronoloji

Önceden iskan edilmemiş bir alanda kentin sıfırdan inşasının yaklaşık MÖ 640'dan daha erken bir tarihe ait olamayacağını gösteren deliller özetlenir. Kentin yıkımı yaklaşık MÖ 546 yılına tarihlenir. Ancak dendrokronolojik ölçümlerden henüz kesin tarihler elde edilememiştir.

## Temizlik Çalışmalarının Başlangıcında Saray Yapı Grubunun Durumu

1993'teki çalışmaların başlangıcında yapı grubunun mimari ana hatları net olsa bile çoğu detay belirsizdi. Kentin yıkımından sonra, büyük olasılıkla Hellenistik Dönem'e ait tümülüs inşaatı da kalıntıların tahribatına yol açmış, ancak olasılıkla Bizans Dönemi'nde gerçekleşen taş devşirme ve yağmalama faaliyetleri daha da ciddi tahribata neden olmuştur.

## Saray Yapı Grubunda Arkeolojik Evrelerin Özeti

Evrelerin açıklaması Levha 13'te sunulmuştur. Kitabın ilerleyen bölümlerinde ayrıntılı olarak açıklanan evreler bu bölümde özetlenmektedir.

1. Evre: A Yapısı
2. Evre: Surlu A Yapısının Arkasındaki Yapılar  
Kabul Salonu, Kesme Taş Yapı  
B, C, D ve E Yapıları  
Zemin Döşemesinin Genişletilmesi
3. Evre: Anıtsal Giriş  
Yıkım Tabakası  
Tümülüs Mezarlar  
Bir Bizans Mezarı  
Devşirme ve Definecilik Faaliyetleri  
Yakın Zamandaki Faaliyetler

## Sonuç Raporunun Sunum Düzeni

Bu bölümde buluntuların, öncelikle mekânsal konumlarına göre ayrılıp, daha sonra yapılmış oldukları malzemeler bazında tasnif edilerek

sunulduğu açıklanır. Seramikler üzerindeki işaretler ve hayvan kemiklerine dair uzman raporları ise iki istisnayı oluşturur.

## 2. BÖLÜM – SURLU A YAPISI

Saray Yapı Grubunun doğu ucundaki A Yapısı güçlü bir suru andırır. Geniş bir duvarla birleştirilmiş iki kuleden oluşan bu taş yapının yüzünü taştan bir şev kaplar (Lev. 14). Bu bölümün alt başlıkları, yapının konumunu, kronolojisi ve tabakalarını, kazı stratejisi ve yöntemlerini ve son olarak belgeleme yöntemlerini tanıtmaktadır.

### Surlu A Yapısının Tanımı

Özgün yapının ancak bir kısmı korunagelmıştır. Ölçümlere göre, yapının korunmuş uzunluğu 44 metre, kulelerinin genişliği 11 metre ve bağlayıcı duvarın kalınlığı 5 metredir. Kulelerin özgün yüksekliğinin 12 metreyi bulması mümkündür.

### Yapı Malzemeleri ve İnşa Yöntemleri Üzerine Gözlemler

Yapının inşasında yalnızca yerel granit kullanılmıştır. Kapadokya Kapısında görüldüğü gibi, dış duvar kaplamasının ahşap hatıllarla desteklenmiş olması muhtemeldir. A Yapısı, ön tarafında daha alçak kottaki açık alan ile arka tarafında daha yüksek kotta oturan binalar arasında geçiş oluşturur. Yapının incelenen kısımlarında, ön-yüz duvarlarının ana kaya yerine taş moloz üzerine oturtulduğu ve köşelerinde büyük, sütuna benzer taşların kullanıldığı gözlenmiştir (Lev. 22).

### A Yapısının Biçimi ve İşlevi

A Yapısı, Kapadokya Kapısının ön yüzü ile karşılaştırılabilir. Yapının özgün biçimi ve işlevi belirsizdir, ancak yine de planının bir *castellum*'u andırdığı söylenebilir (Lev. 14). Yapının özgün halinde, muhtemelen günümüzde doğudaki Sülüklü Göl'ü besleyen bir su pınarını çevrelemiş olması mümkün görünmektedir.

Bu bölümde son olarak A Yapısının yıkımı ve sonraki dönemlerdeki tahribatı tartışılmakta ve korunması için alınan gerekli önlemler ana hatlarıyla sunulmaktadır.

### 3. BÖLÜM – B, D, C VE E YAPILARI, YAPI GRUBUNUN KUZEY DUVARI VE CADDE GENİŞLİĞİNCE AÇILAN AÇMA

Bu ve takibindeki bölümlerde, önceki bölümlerde uygulanan sunum yöntemi kullanılmıştır. Bir giriş paragrafını takiben *Yöntemler ve Stratejiler* tanıtılır, ardından *Kronoloji ve İnşa Evreleri* sunulur ve sonrasında her öge kendi içinde ayrıntılı biçimde tarif edilir.

#### B Yapısı ve Yapıyla İlgili Uyarlamalar

B Yapısı, daha erken tarihli A Yapısını kesen üç adet terastan oluşur (Lev. 24–27). Bu yapı, güneydoğudan A Yapısına kadar uzanan özgün zemin döşemesinin üstünde oturur halde bulunmuştur. Bu tadilatların sebebi ve B Yapısının işlevi anlaşılamamıştır. Terasların inşası her ne kadar C, D ve E Yapıları ile birlikte değerlendirilse de, yapıların zamansal sıradüzeni kesin olarak belirlenememiştir. Yine de, B Yapısının D Yapısından önce inşa edildiği kesindir.

#### D Yapısı

D Yapısı, Levha 28–31’da görülmektedir. Yapının yalnızca kuzeydoğu köşesi incelenmiştir. Bu yapıda kullanılan tekniklere, Kerkenes’in herhangi başka bir yerinde rastlanmaz. Taş duvar altlığının üst kesimi, ahşap hatılların yerleştirilebilmesi için basamaklı biçimde inşa edilmiştir. Bu hatıllar büyük olasılıkla ahşap bir üst yapının tabanını oluşturur. Kalaslar, dendrokronolojik analize uygun olmayan doğu kayınına (*Fagus orientalis*) aittir. Çökmüş hatılların dolgu içinde korunabilmesi için yalnızca küçük bir alan yanık kil tabana kadar kazılmış ve yapının içinde çeşitli buluntular keşfedilmiştir.

#### İki Odalı C Yapısı

C Yapısının güney yarısı kazılmış (Lev. 32–36), kapı girişlerine rastlanmamıştır. Duvarlar kaba taştan inşa edilmiştir. Çamur sıvanın varlığına dair herhangi bir iz yoktur. Kesitlerden gözlendiği üzere, yapının inşası ile yangınla yıkımı arasındaki sürede C Yapısının dışındaki alanlarda zemin seviyesi yükseltilmiştir. Yapının tabanı topraktandır. “C Yapısının Tabanındaki Buluntular” K00.086,

K00.118–K00.121 no.lu seramikleri, K00.097 no.lu geyik boynuzundan kakma parçasını, K00.098 no.lu aşık kemiğini ve K00.103 no.lu bakır alaşımı iğne parçasını içerir. Bu alanda kızılçık çekirdekleri de bulunmuştur.

#### Saray Yapı Grubunun Kuzey Çevre Duvarı

A Yapısının kuzey tarafında taş şevin kesildiği gözlenmiştir. Saray Yapı Grubunun kuzey duvarı, kesilmiş şevin düzensiz kenarına yaslanarak inşa edilmiştir (Lev. 37). Bu duvar istinat görevi görmüştür, çünkü kuzey taraftaki cadde ile Saray Yapı Grubunun iç mekanlarının taban seviyesi arasında hatırı sayılır kot farkı bulunmaktadır (Lev. 38).

#### C ve D Yapıları ile İlişkili Açık Alanlar

Dış alanların zemini çevre duvarı inşa edildiğinde yükseltilmiştir. Bu zeminler sıkıştırılmış toprak tabanlar ve taş döşemelerden oluşur. D Yapısının doğu ucuyla A Yapısının batı sınırı arasındaki alana, çok miktarda seramik ve hayvan kemikleri atılmıştır.

#### E Yapısı

Jeofizik taramaların yanık bir binanın varlığına işaret etmesi nedeniyle 1996’da kazılmaya başlanan bu alanda E Yapısı incelemeye alınmıştır (Lev. 39–42). Binanın tüm planı ortaya konamamış, ancak iki iç mekanın bazı kısımları açığa çıkarılmıştır. Doğudaki oda yanık kil tabana sahiptir. Olasılıkla bir çatıyla kapatılmamış olan batıdaki alan ise batı duvarı boyunca uzanan su oluşuna doğru eğimli taş döşeme bir zemine sahiptir. Ortadaki kapı girişi bu iki mekânı birbirine bağlar. Bu yapının inşasında hem kerpiç kullanıldığı, hem de çatı ya da ikinci kat tabanının inşasında kalas, kamış ve kil kullanıldığı tespit edilmiştir. Bu özel yapının işlevine dair herhangi bir kanıt elde edilememiştir.

Güney duvarın dış yüzü dibinde açılan sondaj, hem ana kayanın çıkıntılı yüzeyini ortaya çıkarmış, hem de duvar altlığının inşasını takiben alanın tesviye edildiğini ortaya koymuştur. Zemin döşemesi üzerindeki dairesel yanık kerpiç yığını, tahribat sonrası faaliyetlerin varlığını ispatlar. Bu alanla ilişkili tek buluntu K96.039 no.lu bakır alaşımı çividir.

## Kuzeydeki Cadde Genişliğince Açılan Açma

CT13 ve CT25 açmaları (Lev. 38) cadde zemininin döşenmemiş olduğunu ve güneydeki çevre duvarının taş temel altlığının 1 metreden daha yüksek olmadığını göstermiştir.

## 4. BÖLÜM – KABUL SALONU

Bir ön oda ve büyük bir ana mekandan oluşan bu yapı Saray Yapı Grubunun en geniş binasıdır. Yapıda yer alan iki sıra sütun, sazla örtülü çift beşik çatıyı desteklemektedir. Bu yapının planı Gordion'da iyi bilinen ve *megaron* olarak adlandırılan yapı tipine uygundur, ancak Kabul Salonunda merkezi bir ocağın varlığına dair herhangi bir veri bulunmamıştır.

Jeofizik taramalar yapının ana hatlarını ortaya koyduğundan (Lev. 8-9) açmalar kesin koordinatlarda konumlandırılabilmiştir. Bu bölümde yapı "Konum," "Kronoloji" ve "Strateji ve Yöntemler" alt başlıkları çerçevesinde tanıtılır. Boyutları 22 × 33 metre olan Kabul Salonu 726 m<sup>2</sup>'lik bir alanı kaplar. Yapının çatısını, ana salonda yer alan iki sıra kaba taş kaide üzerine oturan altışar adet ahşap sütun destekler ve giriş salonunda da büyük olasılıkla iki adet sütun bulunmaktadır (Lev. 43-48). Yanık kil tabanlar yüzey toprağına çok yakın olduğundan iyi korunmamıştır. Binanın ve ana mekanın girişlerinin merkezi eksende olduğu ve girişlerin üzerinde taştan baştabanlar bulunduğu düşünülmektedir. Ancak baştabanlar, sonraki dönemlerde taş devşirmek için sökülmiş olmalıdır. Buluntular seramik testicik (K00.085), bakır alaşımı kakma ve döküntü demir parçalarından ibarettir.

## 5. BÖLÜM – KESME TAŞ YAPI

Kesme Taş Yapıda kazılara başlanmasının nedeni jeomanyetik tarama verilerinde bu alanda büyük ölçekli bir yangına işaret eden yoğun sinyallere rastlanmış olmasıdır (Lev. 49-63). Bu iki odalı, doğu-batı doğrultulu ve 18 × 8,80 m boyutlarındaki yapı, 158,5 m<sup>2</sup>'lik bir alanı kaplar. İç oda, dış odanın iki katı uzunluğundadır. Yapı, moloz taş temeller üzerine oturtulmuş ve yalnızca ön yüzleri işlenmiş kesme taş bloklar (*pseudo-ashlar*) üzerinde yükselen ahşap çatki duvarlardan oluşur. İç oda, çok katmanlı kil tabana sahiptir. Dış odada ise yalnızca duvarlar

boyunca çepeçevre uzanan bir kum taşı döşemeye rastlanmış ve bu taş tabanın ortada yer alan bir halıyı çevrelemiş olabileceği düşünülmüştür. Ön odanın üstünde, kalas, kamış ve çamurdan yapılmış tabanı olan bir tavan arası bölmesinin olduğuna dair kanıtlarla karşılaşmıştır. Buluntular, iç oda tabanı üzerinde ele geçen mimariye ait çiviler ve bir grup aşık kemiği ile sınırlıdır.

"Yapı Malzemeleri" cephesi tıraşlanmış granit bloklar ve kaba taşları, granit bloklar arasında kısıki olarak ve temellerde kullanılmış yumuşak kireç taşı, yapıyı çevrelemekte kullanılan kum taşı, tavan arası bölmesinde kullanılan kerpiç, çamur sıva, ahşap kalas ve kamışların yanı sıra üçgen başlı demir çivi ve basit uçları kapsar.

Kesme taş blokların altısının yüzeyinde bir dizi çizik ve iki daireden oluşan kazınmış işaretler yer alır (Lev. 64-66); ancak bunların işlevi belirlenememiştir.

## 6. BÖLÜM – KABUL SALONU VE KESME TAŞ YAPININ GÖRSEL CANLANDIRMASI

Kabul Salonu ve Kesme Taş Yapının üç boyutlu dijital modelleri Ahmet Çinici tarafından hazırlanmıştır (Lev. 67-69). Bu modeller, kazılarda belgelenen kesin kanıtlara dayanarak üretilmiştir. Bu bölüm, modelin nasıl oluşturulduğunu her mimari öğeyi ele alarak açıklar. Görsel canlandırmalar bilinçli olarak sade hazırlanmış olsa da, iç mekanların şatafatlı şekilde bezenmiş olması kuvvetle muhtemeldir.

## 7. BÖLÜM – ANITSAL GİRİŞ

Anıtsal Girişin ana hatları belirlendiğinde, hedefimiz yapının yalnızca kuzey yarısını kazmaktı. Ancak, Eski Frigce yazıtların, küçük ölçekli kabartma heykeller ve tam yontuların keşfi, Kapı Avlusunun tümünün kazılmasını gerekli kılmıştır. Kentin sonunu getiren yangın, kaliteli taş işçiliği örneklerine tamir edilemeyecek oranda zarar verdiğiinden, kazılarımız taşların çoğunun kaybı ile sonuçlanmıştır.

Anıtsal Giriş, ilk olarak doğrudan Kabul Salonuna, ardından da Saray Yapı Grubunun diğer binalarına erişimi sağlamaktadır. Bu ana giriş belki de yapı grubunun tek girişidir ve yangından önceki son büyük ölçekli inşaat evresini temsil eder. Oyulmuş ve yontulmuş kum taşı örneklerin

aşınmamış oluşu, anıtsal girişin kentin tahribatından kısa bir süre önce inşa edildiğini gösterir.

Anıtsal girişin ekseni yaklaşık olarak doğu-batı yönlüdür, fakat giriş, taş zemin döşemeleri ve Kabul Salonu tam olarak aynı eksen üzerinde değildir. Anıtsal Girişin planı, iki yanında bir çift devasa platform yer alan, zemini taş döşeli açık bir avludan oluşur. Avlunun eğimli zemin döşemesi, çift kanatlı geniş kapıları barındıran, ahşap çatki iki cepheden ilkinde doğru çıkar. İki cephe arasında, taş döşemeli bir geçit ile geçidin kuzeyinde bir oda yer alır, ki geçidin güneyinde de simetrik olarak yerleştirilmiş bir oda bulunması kuvvetle muhtemeldir (Lev. 70-75).

Platformlar, düzenli taş sıraları ve her taş sırası arasına yerleştirilmiş ahşap hatıllar ile inşa edilmiştir. En alttaki taş sırası granitten, üstündeki iki sıra ise kum taşındandır. En üstteki sıranın sarı kum taşı, alttakinin ise beyaz kum taşı ile inşa edildiğine dair deliller bulunmaktadır. İki platformun da iç köşelerinde, platformlara bağdaşık dışa çıkıntılı bir sıra yastık üzerine yerleştirilmiş yarı-ikonik formda, büyük ikiz idoller yer alır. Yazıtlı blok ve giyimli heykel de muhtemelen Güney Platformun üzerine oturtulmuştur. Giriş Avlusunun ön tarafında yer alan iki adet kare biçimli sütun kaidesi, üst yüzeylerindeki dairesel oyuklardan anlaşıldığı kadarıyla, en az 80 cm çapında yuvarlak kesitli birer sütunu desteklemiştir. Çok yüksek olmadığı anlaşılan bu sütunlar üzerinde taştan sütun başları mevcuttur. Sütunların neyi desteklediği belirsizdir ancak bileşik heykeller için birer kaide görevi görmüş olmaları olasıdır. Avlunun yukarı batı ucunda da iki adet kum taşı heykel kaidesi yer alır, ancak bunlardan yalnızca güneydeki korunagelmiştir (Lev. 76-96).

Yapının ön oda ve ana odasının cepheleri iki platform arasında birer geçidi barındırmış olabilir. Birer alınlığa sahip olmaları kuvvetle muhtemel olan bu cephelerin Dağlık Frigya'dan bilinen kaya anıtlarının cephelerine benzedikleri düşünülebilir. İki cephe arasında yer alan oda buluntudan yoksundur ve oldukça tahrip olmuş durumdadır. Gerideki cephenin iç (batı) kenarında betimsiz bir granit stel yer alır. Yine geride, iki serbest ahşap sütunu destekleyen bir çift taş sütun kaidesi de avlunun önündeki kaideleri aksettirir.

Taş zemin döşemesi farklı evrelerde döşenmiş olup, Anıtsal Girişin ve öncülerinin zaman içerisindeki değişimine şahitlik eder. Girişin en

erken evrelerinden birinde, zemin döşemesi A Yapısına doğru yönelmiştir.

Taş işçiliği örnekleri ve mimaride kullanılan demir öğelerin haricinde, buluntular oldukça az sayıdadır. Bakır alaşımından dövülerek üretilmiş bir çift dağ keçisi gövdesi, ön cephenin alınlığını ya da kapılarını süslemiş olabilir. Bir hayvan temsiline ait olan altın boynuz ise güneydoğudaki sütun başlığı üzerinde yer aldığı düşünüldüğümüz bileşik figüre ait bir parça olmalıdır. Platform duvarının tabanına çok yakın bir noktada ele geçen demir kapı bantları, ön cephe kapılarının yangından önce sökülerek Güney Platform duvarı dibine istiflenmiş olabileceğini düşündürmektedir.

Saray Yapı Grubunda yıkım tabakasından sonraya tarihlenen tahribata dair deliller, Kuzey Platformun üzerine bir tümülüsün inşa edilmiş olabileceğini göstermektedir. Daha sonra, olasılıkla Bizans Dönemi'nde mimari elemanlar taş devşirmek için yoğun biçimde tahrip edilmiş ve bu alanda altın aramak için çok sayıda düzensiz çukur kazılmıştır. Aynı zamanda defineciler Güney Platformun üstünde kazı yapmış, çıkanları Giriş Avlusuna doldurmuş, böylece Anıtsal Girişin görünüşünü tamamen değiştirmiştir. Bu faaliyetler, taş mimari ve heykel parçalarının çoğunluğunu ve bir kısım demir eseri yerinden etmiştir. Bizans Dönemi'nde bir noktada Giriş Avlusunun dolgusuna bir mezar açılmıştır. Son olarak, definecilerce Güney Platforma açılan çukurun içine, tarihini bilmediğimiz bir dönemde bir baraka veya hayvan ağılı inşa edilmiştir.

## 8. BÖLÜM – BULUNTULAR

### Demir Çağı Metal Eserleri

Saray Yapı Grubunda altın, gümüş, bakır alaşımı, kurşun ve demir nesnelere bulunmuştur. Demir kullanımına hem küçük eserlerde hem de mimaride rastlanır. Bu bölümün başında, muhtelif metallerin her birinin kullanımına dair genel yorumlar yapılır.

### Demir Çağı'nın Yontulmuş, Yazıtlı ve Mimari Taş Eserleri

Bu bölümde öncelikle Eski Frig yazıtları ve heykellerine dair daha önceki yayın özetlenir. Ardından çeşitli tipte taşlar, özellikle granit ve *wackestone* (bir tür kireç taşı) muhtelif uygulama biçimleri ile birlikte tartışılır.



## Demir Çağı Seramiği

Kerkenes'teki seramik buluntulara dair tartışmada, yerleşimde Geç Tunç Çağı, Erken Demir Çağı veya Orta Demir Çağı'na (Alishar IV) tarihlenebilecek seramiklerin bulunmadığı vurgulanır. Bu raporda yer alan katalogda yalnızca tüm ya da tüme yakın seramik eserler sunulmuştur. Konut yapılarının kazılmamış olması nedeniyle, seramik buluntular sayıca azdır.

Bölümün geri kalanında buluntular, Surlu Yapıdan başlamak üzere, buluntu mekânlarına göre sunulur. Bu bölümde tartışılan mekânlar önceki bölümlerdeki sırayı takip etmektedir. Her mekândaki eserler yapıldıkları malzeme bazında sıralanmıştır. Önce metal buluntular, ardından seramikler ve küçük taş eserler sunulmuştur. Ardından organik malzemelerden üretilmiş eserler arasında fildişi, geyik boynuzu, kemik ve ahşap nesnelere tanıtılmıştır. Son olarak da yanmış yapı molozuna ait seçilmiş bazı parçalar ile taş mimari ve heykellere ait parçalar tanıtılmıştır.

## 9. BÖLÜM – SERAMİKLER ÜZERİNDEKİ İŞARETLER VE YAZILAR

Bu bölümde Frig seramiği üzerinde bulunan işaretler ve yazılar Susanne Berndt tarafından tanımlanmış ve değerlendirilmiştir (Lev. 235–237). İşaretler, alfabetik olan ve alfabetik olmayan şekilde ikiye ayrılır. Seramiklerin fırınlanmasından önce işlenen ve fırınlanma sonrasında kazınan işaretler arasında da ayırım yapılmıştır. Gordion başta olmak üzere diğer yerleşimlerden bilinen benzer işaretler de karşılaştırmalı olarak değerlendirmeye alınmıştır.

## 10. BÖLÜM – SARAY YAPI GRUBUNDA BULUNAN HAYVAN KEMİKLERİ

Hayvan kemiği buluntuları Evangelina Pişkin tarafından incelenmiştir. Kendisi bu bölümde araştırmanın amaç ve yöntemlerini ortaya koyar. Analizler, birincil evcil türlerin sığır, koyun, keçi ve domuz olduğunu, yabani türler arasında ise yaban domuzunun ilk sırayı aldığını ve bunu ayının takip ettiğini göstermiştir. Bu durum toplumun seçkin kesiminin avlandığına dair delil olabilir, ancak geyik

türünün yokluğu açıklanamamaktadır. Hayvan kemikleri arasındaki yunus çene kemiği ise ilginç bir buluntudur (Lev. 238–239).

Saray Yapı Grubu ve Kapadokya Kapısında bulunan hayvan kemiklerinin oranlarının karşılaştırması bazı farklılıkları da ortaya koyar. İki kesim arasındaki farklılıkların olası nedenleri de burada tartışılmaktadır. Diğer kentlerle, özellikle de Gordion ile karşılaştırıldığında Kerkenes'te yaban domuzunun avlanması istisnai bir durumdur ki bu fark olasılıkla ekonomik sebeplerden ziyade kültürel sebeplerle açıklanabilir.

## 11. BÖLÜM – BİZANS DÖNEMİ

Bu bölümde Yılmaz Selim Erdal bir adet Bizans mezarını rapor eder. Erdal, bu bireyin 18-21 yaşlarında, muhtemelen bir kadın olduğunu belirtir. İskelette enfeksiyon ve kansızlık izlerine rastlanmıştır. Mezar, Justinian'a ait son derece iyi korunmuş bir sikke ile tarihlendirilmiştir (Lev. 234a–b, 240–241).

## 12. BÖLÜM – YORUM VE TARTIŞMA

### Bir Demir Çağ Başkenti Olarak Kerkenes

Bu bölümde, Kerkenes'in, Hitit dünyasında, Kuzey Mezopotamya ve Kuzey Suriye'de 'kale-kent' olarak nitelendirilen şehirlerden ne kadar farklı olduğu vurgulanmaktadır. Yakın Doğu kentleri bir dizi güçlü iç surla tahkim edilmiş yukarı şehirleri barındırır. Yukarı şehre giriş, iç odalara sahip, kuleli sur kapılarından sağlanır ve bu kapı yapıları, gücü ifade eden mazgallı siperlerle desteklenmiştir. İç surlar bir yandan kralı korurken, diğer yandan onu kentin geri kalanından ayırır. İç sur duvarları ardında, saraylar, ilahi krallık olgusunu meşrulaştıran tapınaklar ve kent hazinesi yer alır. Geç Hitit ve Geç Asur kentleri, çevresi açık ovalarda kurulmuştur ki bu kentler, yukarı şehrin inşası için genellikle önceki dönemlere ait bir höyüğü mesken bellemiştir. Kerkenes'ten yalnızca 50 kilometre ötede 2. binyılda Hitit İmparatorluğu'nun başkenti olan Boğazköy–Hattuşa'da da Ön Asya'da gözlenen bu anlayış uyarlanmış, kentin en büyük tapınağı olan Tapınak 1 ve tapınağın devasa ambarları yukarı

şehrin dışında yer alıyor olsa da, saray Büyükkale üzerinde kolayca görünen, güçlü surlarla koruma altına alınmıştır.

Bu bölümde önce, Anadolu'da kentlerin, sarayların ve kalelerin gelişimi çerçevesinde Kerkenes'in yeri tartışılmaktadır. Ardından, Saray Yapı Grubunun kent içindeki konumu, ulaşılabilirliği ve erişilebilirliği üzerinde durulur ve bu tartışmalar ışığında saray ile kent nüfusu arasındaki ilişkilere dair çıkarımlara değinilir. Son olarak, yapı örgüsü, dolaşım ve yapıların olası işlevlerine dair yorumlar tartışılır.

Kerkenes, daha önce yerleşilmemiş bir alanda sıfırdan kurulmuş bir kenttir. Bu alan, hakkında bilgi sahibi olmadığımız tarihsel koşullar çerçevesinde yeni bir başkent ve kesin olarak bir kraliyet şehrinin inşası için seçilmiştir. MÖ 6. yüzyılın ikinci yarısındaki tarihsel olaylar arasında Urartu Devleti'nin çöküşü ve Anadolu platosundaki Geç Hitit şehir devletlerinin çözülmesi yer alır. Sebepleri büyük ihtimalle Kimmerlerle bağlantılı olan bu kargaşadan kârlı çıkan Lidya ve Kilikya olmuştur. Kerkenes'in yalnızca soylu sınıfı değil, bütün kent nüfusu kültürel anlamda Frig özellikleri taşır. Bu gözlem Eski-Frig dilindeki yazıtlar ve seramikler üzerindeki yazılar, Frig költ imgeleri, Frig mimari geleneklerinin ve benzeri özelliklerin kentteki yaygın varlığına dayanır. Bu gözlemden çıkarılan en akla yatkın sonuç, büyük insan topluluklarının bağımsız yeni bir krallık kurmak üzere Kral Midas'ın Frigyasından doğuya doğru Kızılırmak'ın ötesine göç etmiş olduğudur ki bu krallığın Pteria olduğu öne sürülmektedir. Bu nedenle, Kerkenes'in yeni kurulacak muhteşem bir başkentte olması gerektiği düşünülen tüm özelliklere sahip, ideal bir şehir olduğu iddia edilebilir. Kerkenes Dağ'ın seçilmesinin nedenleri arasında, bu dağın fiziksel olarak çevresindeki coğrafyaya hakim olması ve su kaynaklarının bolluğu akla gelir. Kenti kuran siyasi gücün zihninde avantaj olarak algılan bu özellikler, bölgedeki uzun süreli kışların doğurduğu zorlu doğal koşullar karşısında savunmasız olmasına rağmen bu alanı yerleşim için cazip kılmış olmalıdır.

Kerkenes'te Demir Çağı Akropolü ya da Kale'nin bulunduğu suda yoksun, sarp granit tepe, büyük olasılıkla Hititlerin Zippalanda Fırtına Tanrısının ikametgâhı Daha Dağı olarak isimlendirdikleri yerdir. Çevresine hakim bu doruğun Pers Dönemi öncesinde taş surlarla çevrenip çevrenmediği belirsizdir. Her ne kadar bir tapınak ya da saray yapı grubunun inşasına müsaade edecek genişlikte bir alana sahip

olmasa da, bu tepede bir Demir Çağı költ merkezinin var olduğu varsayılabilir. Scott Branting'in Kerkenes sokak ağı canlandırması kalenin yoğunlukla ziyaret edilmediği savını doğrular niteliktedir. Diğer bir deyişle, Kerkenes'te konuşlanmış bu dağlık başkentte Kale, kentin geri kalanından ayrılmıştır. Kale'nin hakim konumu şüphesiz ki korunaklılığı simgeler ve kentin birçok yerinden gözlenebilen bir mabetle pekiştirilmiş olması muhtemeldir. Kent tehdit altındayken, örneğin düşman kuvvetlerinin şehir surlarını aşması halinde, bu yüksek ve sarp hisar, kent sakinleri için nihai bir güvenli bölge sağlamış olabilir.

Kerkenes en çok Sardis'teki Lidya Akropolü ile benzerlik gösterir. Sardis her ne kadar büyüklüğü, gücü, ihtişamı ve uzun sürekliliği ile Kerkenes'i gölgede bıraksa da, bu iki başkent Büyük Kiros yönetimindeki Pers fethi esnasında aynı senede, son araştırmalara göre tahminen MÖ 547 ya da 546'da yıkılmıştır. Dolayısıyla iki başkent de en ihtişamlı dönemlerine aynı yıllarda erişmiştir. Sardis hisarının da, yalnızca yüksekteki bir sığınaktan ibaret olduğu dikkat çeker. Mimari kil levhaların varlığı gösterge kabul edilebilirse, tepede ancak bir ya da birkaç költ yapısının var olduğu düşünülebilir.

Ancak, Kerkenes'in Batı Anadolu nitelikli bir şehir olarak yorumlanmasında birtakım güçlükler karşımıza çıkar. Bu güçlükler genel olarak Kerkenes'in Erken Frig başkenti Gordion ile tezatlığından kaynaklanır. Gordion, Klasik Dönem'de Sangarios olarak bilinen Sakarya Nehri'nin taşkın ovasında, stratejik öneme sahip bir konumda kurulmuştur. Fakat bu Frig başkenti, ne konumu ne de kent düzeni bakımından Kerkenes ile benzerlik gösterir. Gordion ve Kerkenes arasındaki farklılıklar yalnızca yapısal özelliklerle sınırlı değildir. Gordion'daki İç-Kale Höyüğü, surla tahkim edilmiş bir aşağı şehir ve bundan daha geniş bir dış şehir ile çevrilmiştir. Mimari ve heykeltıraşlık eserlerinde de karşıtlıklar gözlenir. Bu zıtlıklar, Gordion'un Lidyalılarca, olasılıkla da Kroisos tarafından ele geçirilmiş olmasıyla açıklanabilir. İç-Kale Höyüğü'ndeki yeni veya yeniden yapılandırılmış tapınakları bezemekte kullanılan Lidya mimari levhalarının ortaya çıkışı ile Küçük Höyük'te kurulan Lidya garnizonunun inşası Lidya hakimiyetinin göstergeleridir. MÖ 8. yüzyıl başında Gordion İç-Kale'deki inşaat faaliyetleri büyük bir yangınla kesintiye uğradığı sırada, bu Frig başkentinin yönetici seçkin kesmi ve yakınlarına ayrılmış olan bir Yeni Kale ile hisarı çevreleyen düzlükte halkın yaşadığı

surlarla çevrilmiş bir aşağı şehirden oluşan kale-kent düzenine sahip bir yerleşme olduğu görülmektedir. Kerkenes ile Gordion'un arasındaki bu keskin yapısal fark, kolaylıkla farklı tarihsel gelişimler çerçevesinde açıklanamaz, çünkü Kerkenes'in kurucuları, eğer isteselerdi, Saray Yapı Grubu ve diğer kamu yapılarının yer aldığı kentsel alanı güçlü ve görkemli surlarla çevirip ayırabilirlerdi. Kentsel düzendeki farklılık, aynı zamanda, Kerkenes'te hem Kapadokya Kapısında hem de Saray Yapı Grubunda karşımıza çıkan mimari bezemeler (özellikle mimari yastıklar) ile kabartma ve üç boyutlu heykellerin Gordion'daki yokluğunda da gözlenir. Gordion'da mutlak olarak MÖ 6. yüzyılın ilk yarısına tarihlendirilen tabakalar pek iyi bilinmiyor olsa dahi, Kerkenes buluntuları arasında önemli yer tutan oyma taş örneklerinin Gordion'da küçük parçalarına bile rastlanmaması gerçekten anlamlıdır. Aynı zamanda, mimari gelelekteki farklılıklar, yalnızca Lidya hakimiyeti ile de açıklanamaz, çünkü Kerkenes'te keşfedilmiş olan ancak Gordion'da bulunmayan mimari taş öğelere, Dağlık Frigya'daki kaya anıtların cephelerinde ve diğer anıt eserlerde de rastlanır ki bu eserlerin en önemlisi büyük olasılıkla Lidya Kralı Kroisos'un emri ile yaptırılmış olan Midas Anıtı'dır. Dahası, Dağlık Frigya'dan iyi bilinen bir mimari tip olan bu kaya cepheler Gordion-Ankara bölgesinde de karşımıza çıkar. Dolayısıyla, farklılık gösteren bu mimari ve heykeltıraşlık gelenekleri, olasılıkla MÖ 7. yüzyılın ikinci yarısında Kızılırmak'ı geçerek doğuya göç eden bir Frig topluluğuna işaret etmektedir.

### Saray Yapı Grubunun Konumu ve Demir Çağı Kentinin Yapısı

Kentte kolayca ayırt edilebilen birden fazla topolojik öge vardır. Bunların en geniş, kentin surla çevrilmiş kısmının neredeyse üçte ikisini kaplayan, kuzeybatıdaki aşağı şehirdir. Konumuzla daha yakından ilgili olan ikinci kısım ise kentin akropolü ya da hisarı diyebileceğimiz görkemli Kale'yi de içine alan doğudaki yüksek sırttır. Bu sırt güneybatıdaki Göz Baba Kapısına doğru uzanır. Üçüncü öge ise, kentin güney ucunda yer alan ve kuzey yamaçları oldukça sarp ve dik olan yüksek Kiremitlik'tir. Saray Yapı Grubu, kamusal yapı adaları ve kamusal alanlarla iskan edilmiş bu sırtın merkezinde yer alır. Kamusal alanlar, Sülüklü Göl ve yapay olarak teraslandırılmış geniş bir alan ile bunun yukarısında kraliyet ahırları olabilecek iki dar terası içerir. Bunların da yukarısında, Kapadokya Kapısından

gelip, hisarın aşağı eteklerinden kapsamlı bir kavis yaparak aşağı şehre doğru inen cadde yer alır. Kapadokya Kapısı ve Saray Yapı Grubu arasında, bir tarafı sarayın çevre duvarı, diğer tarafı da surlarla sınırlandırılmış çok geniş bir kamusal alan vardır. Saray Yapı Grubuna erişim doğudan, duvarların arasında uzanan dar bir yoldan sağlanır. Anıtsal Giriş, ancak bu yolun A Yapısının önüne doğru genişletilmesinin ardından Yapı Grubunun son evresinde ortaya çıkmış olmalıdır. Yapı Grubunun önüne (yani doğu ucuna) ulaşıldığında, aynı yol Yapı Grubunun çevre duvarının kuzeybatı kenarı boyunca da devam eder. Yaklaşık 280 metre uzunluğundaki bu çevre duvarı bir nevi koruma ve tecrit sağlamıştır ancak yine de kararlı bir düşman gücü karşısında güvenliği kolaylıkla kırılabilir. Dolayısıyla bu çevre duvarı askeri savunma niteliğinde tasarlanmamıştır.

Ne Saray Yapı Grubunun kendisi, ne de çevresindeki daha geniş kamusal yapılarda askeri tipte savunma gözlenir. A Yapısı erken evresinde, muhtemelen bir su kaynağını çevreleyen, küçük-ölçekli ve surlu bir yapıyı andırmaktadır. Ancak gelişme sürecinde bu yapının Saray Yapı Grubuyla bağdaştırılması sonucunda, yapının güneydoğu köşesinde ve kuzey kenarındaki sur benzeri mimari öğeler ortadan kalkmış ve dolayısıyla yapı savunma amaçlı karakterini ciddi biçimde kaybetmiştir. En son evrede Anıtsal Girişin inşasıyla birlikte, askeri mimariye dair ne varsa terk edilmiştir. Kısacası Saray Yapı Grubu ne bir hisarın içine inşa edilmiş ne de bir hisar tarafından çevrelenmiştir. Dolayısıyla kentin gelişim modeli, eğer herhangi bir modelden bahsedilebilirse, Gordion'dan ziyade Sardis'i örnek almıştır. Ancak yine de hatırlamak gerekir ki Kerkenes MÖ geç 7. yüzyıl ve 6. yüzyılın ikinci yarısında, Gordion ise MÖ 9. yüzyılda değerlendirilmektedir.

Kent ilk kurulduğunda, derinden hissedilen emniyetsizlik yedi kilometre uzunluğundaki etkileyici şehir duvarlarının oldukça maliyetli inşasına zemin hazırlamıştır ki bu inşa, işgücü ve örgütlenme bağlamında hiç de azımsanacak bir girişim değildir. Özgün yedi sur kapısında ilk inşalarından sonra hiçbir değişiklik yapılmamıştır. Bu da seçkin sınıfın içeriden değil de dışarıdan gelecek saldırılardan çekindiğine işaret eder. Kentin düşmesi halinde, kentin tüm halkının tehdit altında olduğu açık bir gerçektir. Öte yandan, kentin saldırıya uğraması halinde, kent sakinlerinin ne yöneticilerine düşman kesilmekten, ne de düşmanı içeri almaktan bir fayda sağlayabileceği düşünülebilir. Herodot'un Kroisos'un Pterialıları esir aldığını belirttiği I,

79 bendinde anlatılanlar da bu yorumu birebir destekler niteliktedir.

Saray Yapı Grubunun yayılım alanının ikizkenar yamuk biçimi genel olarak topoğrafyayı takip eder. Güney kenarı sırtın eğimine büyük ölçüde uyumlu olsa da, Kabul Salonuna paralel doğu kenarı bu hat-tan biraz daha kuzeye doğru sapar. Duvarla çevrilmiş bu yapı grubu yaklaşık olarak 3800 m<sup>2</sup>'lik bir alanı kaplar.

### Sarayın İşlevi ve Görevlileri

Kabul Salonu olarak adlandırdığımız yapının işlevi kanıtlanamasa bile aşikardır, ancak Kesme Taş Yapının bir kült yapısı olarak mı kullanıldığı yoksa farklı bir işleve mi hizmet ettiği konusu tamamen belirsizdir. Bu bölümde Saray Yapı Grubu bir bütün olarak ele alınmış ve yapı grubunun yanarak tahrip olan son evresine odaklanılmıştır.

### Saray Kurumu

Bu bölümün neredeyse tamamen yoruma açık değerlendirmesi kapsamında, saray kurumu, yapı grubunun işlevi ve çeşitli öğeleri, Saray Yapı Grubunda kimlerin yaşamış olabileceği, saraya kimlerin erişim izni olup kimlerin olmadığı tartışılmaktadır. Burada Saray bir kurum olarak ele alınmıştır. Anıtsal Girişte yer alan görsel öğeler, Anıtsal Girişin doğrudan Kabul Salonuna yönelmiş olması, anıtsal boyutu ve giriş cephesinin verilere dayanarak varsaydığımız etkileyici görünümü bir arada değerlendirildiğinde, hükümdar ve maiyetinin devlet işlerine dair etkinliklerini Saray Yapı Grubunun doğu ucunda yürüttüğü sonucunda varılmaktadır. Kabul Salonu ve Kesme Taş Yapının gerisindeki (yani batısındaki) alan daha mahrem gibi görüldüğünden, bu alanın tamamen saray eşrafının kullanımına ayrılmış olduğunu düşünmek mümkündür. Güney çevre duvarının orta kısmına dik uzanan geniş yapılardan biri ya da her ikisi de seçkinlere ait konutlara benzemektedir. Hücre biçimli kare odalardan oluşan yapı sıraları depolama

maksatlı kullanılmış olabilir, fakat bu alanlar ancak soylu ailelerin ihtiyacı kadarını depolayabilecek büyüklüktedir. Tartışmanın son bölümünde, Saray Yapı Grubunda, olasılıkla Kesme Taş Yapı bir istisna olmak üzere, herhangi bir tapınak alanının tanımlanamadığı belirtilmiştir.

### Erişim ve Hariciyet

Cevapları fazlasıyla tahmin niteliği taşıyan soru ise Saray Yapı Grubuna kimin erişiminin olduğu ve kimin bu yapı grubundan hariç bırakıldığıdır. A Yapısının önünde yer alan ve daha önce bahsettiğimiz kamusal alanın olasılıkla kamusal gösteriler için kullanılmış olduğuna değinilmiştir. Bu bölümde daha önce bahsedilen bir diğer öge ise Kraliyet Ahırları olduğu öne sürülen alanın aşağısından Kapadokya Kapısına dek uzanan düzlenmiş geniş alandır. Bu alanlar göz önüne alındığında, yapı grubunun gündelik kullanımında yalnızca ayrıcalıklı kişilerin Anıtsal Girişten geçiş izni olduğu düşünülebilir. Benzer şekilde, saray eşrafının ve muhtemelen kölelerinin büyük bir çoğunluğunun yalnızca özel durumlarda Saray Yapı Grubundan dışarı çıkmış olmaları da olasıdır. Öte yandan, yaklaşık 0,75 m kalınlığındaki çevre duvarı ne güçlü bir duvardır, ne de azimli bir kişinin tırmanarak geçemeyeceği bir yapıdır. Kısacası, sarayın kamusal yüzünün, dolayısıyla kralın halka açık yüzünün Anıtsal Girişin ön cephesinin önünde herkesçe görülebilir olduğu tasavvur edilebilir. Tam da bu noktada, hem kent sakinleri hem de ziyaretçilerde hayranlık uyandıracak olan, bir yandan yönetimdeki hanedanlığın ilahi meşruiyetini simgeleyen, bir yandan da kraliyetin zenginliğini ve görkemini ortaya koyan heykeller ve yazıtlar ile tunç ve diğer değerli metallere üretilmiş olan ve girişin alınlığına ya da olasılıkla demirle çevrelenmiş kapılara monte edilmiş bezemeler yer almaktadır. Ön oda ve ana oda cephesinde yer alan kapıların açık olması halinde, Kabul Salonu ve içerideki saray eşrafı uzaktan gözlenebilir olsa da, kralın kendisinin görülmesi muhtemelen çok nadir bir durum olmalıdır.



## APPENDIX 1

## CONCORDANCE OF SITE INVENTORY AND IDENTIFICATION NUMBERS

<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
K94.042	94PALAU00met01	Arrowhead, iron	ch. 8; pl. 234d
K96.038	96TT17U01met01	Coin, modern	Not cataloged
K96.039	96TT17U05met01	Nail, copper alloy	ch. 8; pl. 110a
K96.045	96TT17U03met01	Doorpost bracket, iron	ch. 8; pl. 110b
K99.082	99CT06U01stn01	Bridle strap guide, polished stone	ch. 8; pl. 97b
K99.084	99SOUTU00pob01	Whorl, baked clay	ch. 8; pl. 161d
K00.085	00TT22U06pot01	Juglet, ceramic	ch. 8; pl. 116
K00.086	00CT15U03pot01	Juglet, ceramic	ch. 8; pl. 104a
K00.087	00CT18U04pot01	Juglet, ceramic	ch. 8; pl. 105b
K00.088	00CT15U05pot01	Funnel with pot mark, ceramic	ch. 8; pl. 104b
K00.089	00CT16U17pot01	Polychrome sherd, ceramic	ch. 8; pl. 103a
K00.090	00CT16U14pot01	Strainer spout sherd, ceramic	ch. 8; pl. 103b
K00.091	00CT15U05pot02	Base sherd with pot mark, ceramic	ch. 8; pl. 105a
K00.092	00CT15U03pot02	Sherd with pot mark, ceramic	ch. 8; pl. 103c
K00.093	00CT18U17pot01	Faceted sherd, ceramic	ch. 8; pl. 103d
K00.094	00CT23U02pot01	Tripod footed bowl, ceramic	ch. 8; pl. 100d
K00.095	00TT22U08met01	Sheet fragment, gold	ch. 8; pl. 111a
K00.096	00CT18U17bon01	Inlay, ivory	ch. 8; pl. 99c
K00.097	00CT18U04bon01	Inlays, antler	ch. 8; pl. 100a
K00.098	00CT18U03bon01	Perforated astragalus, bone	ch. 8; pl. 100b
K00.101	00CT18U17met01	Hairgrip, copper alloy	ch. 8; pl. 98d
K00.103	00CT18U17met02	Needle, copper alloy	ch. 8; pl. 98c
K00.104	00CT27U02met01	Tube, copper alloy	ch. 8; pl. 97a
K00.106	00CT16U02met01	Pointed object, iron	ch. 8; pl. 98e
K00.107	00CT18U14met01	Bar, iron	ch. 8; pl. 99a
K00.108	00TT22U22met01	Plate with 3 nails, iron	ch. 8; pl. 113a
K00.109	00TT22U07met01	Nail fragment, iron	ch. 8; pl. 114d
K00.110	00TT22U12met01	Triangular-headed nail, iron	ch. 8; pl. 113d
K00.111	00TT22U01met01	Triangular-headed nail, iron	ch. 8; pl. 113e

<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
K00.112	00TT22U01met02	Object, iron	ch. 8; pl. 113b
K00.113	00CT18U03stn01	Feldspar crystal, natural	Not cataloged
K00.114	00CT10U01pob01	Smoking pipe bowl, ceramic	Not cataloged
K00.115	00CT10U01gfa01	Bracelet, glass	Not cataloged
K00.116	00TT22U06met01	Triangular-headed nail, iron	ch. 8; pl. 114a
K00.118	00CT18U04pot02	Lid, ceramic	ch. 8; pl. 106
K00.119	00CT18U04pot03	Lid, ceramic	ch. 8; pl. 107
K00.120	00CT18U04pot04	Bowl, ceramic	ch. 8; pl. 108
K00.121	00CT18U04pot05	Pithos, ceramic	ch. 8; pl. 109
K00.123	00CT23U02pot02	Jug with pot mark, ceramic	ch. 8; pl. 101a
K02.125	02TR02U09met01	Sheet fragment, gold	ch. 8; pl. 111b
K02.126	02TR05U03met01	Triangular-headed nail, iron	ch. 8; pl. 118g
K02.127	02TR05U13met01	Foil fragment, silver	ch. 8; pl. 117d
K02.128	02TR02U10met10	Attachment or inlay, copper alloy	ch. 8; pl. 111c
K02.129	02TR01U02pob01	Whorl, baked clay	ch. 8; pl. 161c
K02.132	02TR01U02met01	Ibex cutout, copper alloy	ch. 8; pls. 128, 129
K02.133	02TR01U02met02	Ibex cutout, copper alloy	ch. 8; pls. 130, 131
K02.135	02TR01U01stn01	Object, iron	ch. 8; pl. 157c
K02.136	02TR01U07met01	Scoop, copper alloy	ch. 8; pl. 132
K02.137	02TR01U02met04	Nail, copper alloy	ch. 8; pl. 133d
K02.138	02TR02U10met07	Nail, iron	ch. 8; pl. 114b
K02.139	02TR02U10met12	Nail, iron	ch. 8; pl. 114c
K02.140	02TR02U14met01	Nail, iron	ch. 8; pl. 114e
K02.142	02TR05U03met03	Triangular-headed nail, iron	ch. 8; pl. 119a
K02.143	02TR05U13gfa01	Bead, frit	ch. 8; pl. 121c
K02.145	02TR01U02met05	Nail, iron, head covered with gold foil	ch. 8; pl. 124a
K03.146	03TR11U04gfa01	Whorl, glass	ch. 8; pl. 234b
K03.156	03TR11U01pot01	Rim sherd with pot mark, ceramic	ch. 9; pl. 237a
K03.161	03TR05U04wdn01	Furniture bolster, wood	ch. 8; pl. 121d
K03.162	03TR11U10met01	Nail, silver	ch. 8; pl. 126b
K03.163	03TR11U12met01	Brace with 2 nails, iron	ch. 8; pls. 142d, 144, 145
K03.164	03TR11U12met03	Brace with nail fragments, iron	ch. 8; pl. 146c
K03.165	03TR11U12met04	Brace with 2 nails, iron	ch. 8; pl. 148a
K03.166	03TR11U12met05	Brace with 2 nails, iron	ch. 8; pl. 148b

<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
K03.167	03TR11U01stn01 03TR11U04stn03 03TR11U08arc01 03TR11U08arc04 03TR11U08stn14 03TR11U08stn16 03TR11U08stn21 05TR17U07arc01	Bolster slab, sandstone	Sculpture vol.; pls. 62–64, 66
K03.168	03TR11U00stn01 03TR11U01stn02 03TR11U03stn01 03TR11U03stn02 03TR11U03stn03 03TR11U03stn04 03TR11U03stn05 03TR11U03stn06 03TR11U04stn01 03TR11U04stn02 03TR11U04stn04 03TR11U04stn05 03TR11U04stn06 03TR11U04stn07 03TR11U04stn08 03TR11U04stn09 03TR11U04stn11 03TR11U04stn12 03TR11U04stn13 03TR11U04stn14 03TR11U05stn01 03TR11U05stn03 03TR11U08stn01 03TR11U08stn02 03TR11U08stn03 03TR11U08stn04 03TR11U08stn05 03TR11U08stn06 03TR11U08stn07 03TR11U08stn08 03TR11U08stn09 03TR11U08stn10 03TR11U08stn12 03TR11U08stn13 03TR11U08stn15 03TR11U08stn17 03TR11U08stn18 03TR11U08stn19 03TR11U08stn20 03TR11U08stn22 03TR11U08stn23 03TR11U08stn24 03TR11U08stn25 03TR11U08stn27	Inscribed block with small-scale relief sculpture, sandstone	Sculpture vol.; pls. 28–54a, 65–66, 67a, 67b, 69, 70, 71–72, 73a, 73b, 94–95, 98



<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
	03TR11U08stn28		
	03TR11U08stn29		
	03TR11U08stn30		
	03TR11U08stn31		
	03TR11U08stn32		
	03TR11U08stn33		
	03TR11U08stn34		
	03TR11U08stn35		
	03TR11U08stn36		
	03TR11U08stn37		
	03TR11U09stn01		
	04TR11U22stn01		
	04TR14U03stn01		
	04TR14U09stn01		
	04TR16U01stn01		
	04TR16U04stn01		
	04TR16U06stn01		
	04TR16U06stn02		
	04TR16U06stn04		
	04TR16U07stn01		
	04TR16U08stn01		
	04TR16U08stn02		
	04TR16U13stn01		
	04TR16U13stn02		
	04TR16U13stn03		
	04TR16U13stn04		
	04TR16U13stn05		
	04TR16U14stn01		
	05TR14U51stn01		
	05TR17U11stn01		
	05TR17U11stn02		
K03.169	03TR11U04arc01 04TR11U01arc01	Architectural base, sandstone	Sculpture vol.; pls. 59–61, 66
K04.170	04TR16U05met01	Coin, Byzantine	ch. 8; pl. 234a
K04.171	04TR15U03bon01	Inlay, ivory	ch. 8; pl. 159a
K04.172	04TR14U16met01	Socketed arrowhead, copper alloy	ch. 8; pl. 133b
K04.173	04TR14U16met02	Hairgrip, iron	ch. 8; pl. 135d
K04.174	04TR14U19met01	Tack, silver	ch. 8; pl. 126c
K04.175	04TR16U15met01	Appliqué, silver alloy	ch. 8; pl. 126e
K04.176	04TR16U15met02	Foil, gold	ch. 8; pl. 124b
K04.177	04TR11U14pot01	Pithos sherd with graffiti, ceramic	ch. 9; pl. 235a
K04.178	04TR11U14pot02	Bowl profile, ceramic	ch. 8; pl. 163d
K04.179	04TR11U22pot01	Bowl sherds with graffiti, ceramic	chs. 8, 9; pls. 162, 237c
K04.180	04TR14U02pot01	Molded sherd, ceramic	ch. 8; pl. 163e
K04.181	04TR14U21pot01	Trefoil jug, ceramic	Not illustrated
K04.182	04TR16U02stn01 04TR16U00stn01 05TR17U14stn01	Sculpture of draped figure, sandstone	Sculpture vol.; pls. 12–26, 66, 74, 83, 85–90

<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
K05.184	05TR11U00met02	Brace with nail fragment, iron	ch. 8; pl. 148c
K05.185	05TR15U14met02	Hairgrip, copper alloy	ch. 8; pl. 133a
K05.186	05TR16U16met01	Brace with nail, iron	ch. 8; pl. 149a
K05.187	05TR16U16met03	Brace with nail fragments, iron	ch. 8; pl. 149b
K05.188	05TR16U16met04	Brace with 2 nails, iron	ch. 8; pl. 150a
K05.189	05TR16U18met01	Dome-headed nail, iron	ch. 8; pl. 154a
K05.190	05TR16U18met03	Dome-headed nail, iron	ch. 8; pl. 154b
K05.191	05TR16U18met05	Door band, iron	ch. 8; pls. 136, 138
K05.192	05TR16U18met06	Door band, iron	ch. 8; pls. 137, 138a, 139
K05.193	05TR16U18met07	Dome-headed nail, iron	ch. 8; pl. 154c
K05.194	05TR16U18met08	Dome-headed nail, iron	ch. 8; pl. 154d
K05.195	05TR16U18met09	Dome-headed nail, iron	ch. 8; pl. 154e
K05.196	05TR16U18met10	Dome-headed nail, iron	ch. 8; pl. 154f
K05.197	05TR16U18met11	Dome-headed nail, iron	ch. 8; pl. 155a
K05.198	05TR16U18met12	Dome-headed nail, iron	ch. 8; pl. 155b
K05.199	05TR16U18met13	Dome-headed nail, iron	ch. 8; pl. 155c
K05.200	05TR16U18met14	Dome-headed nail, iron	ch. 8; pl. 155d
K05.201	05TR16U18met16	Dome-headed nail, iron	ch. 8; pl. 155e
K05.202	05TR16U18met17	Dome-headed nail, iron	ch. 8; pl. 156b
K05.203	05TR17U12met01	Attachment, copper alloy	ch. 8; pl. 133c
K05.204	05TR17U14met01	Embossed sheet, copper alloy	ch. 8; pl. 127
K05.205	05TR17U14met04	Brace with 2 nails, iron	ch. 8; pl. 150b
K05.206	05TR17U14met03	Brace with 2 nails, iron	ch. 8; pl. 151
K05.207	05TR17U14met07	Bracket, iron	ch. 8; pl. 143
K05.208	05TR17U14met09	Dome-headed nail, iron	ch. 8; pl. 156a
K05.209	05TR20U07met01	Cotter pin, iron	ch. 8; pl. 158a
K05.210	05TR21U10met01	Strips, gold	ch. 8; pl. 124c
K05.211	05TR21U09met02	Tack, silver alloy	ch. 8; pl. 126d
K05.212	05TR21U17met01	Nail, copper alloy	ch. 8; pl. 133e
K05.213	05TR21U12met01	Nail, copper alloy	ch. 8; pl. 133f
K05.214	04TR16U16pot01	Bowl with pot mark 14, ceramic	chs. 8, 9; pls. 163a, 236
K05.215	05TR16U16met05	Horn, gold	ch. 8; pl. 215
K06.216	05TR16U14arc05	Bolster, sandstone	ch. 8; pls. 201, 202
K06.217	05TR17U12arc07	Bolster, sandstone	ch. 8; pl. 207a
K06.218	05TR17U11arc01	Bolster, sandstone	ch. 8; pl. 205a
K06.219	05TR17U14arc07	Bolster, sandstone	ch. 8; pls. 201, 202
K06.220	05TR20U09arc01	Bolster, sandstone	ch. 8; pl. 211g
K06.221	05TR17U12arc08	Bolster, sandstone	ch. 8; pls. 200, 201

<i>K Number</i>	<i>ID Number(s)</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
K06.222	05TR16U14arc04	Bolster, sandstone	ch. 8; pls. 200, 201
K08.228	04TR14U15stn01	Sculpture, small bird, sandstone	Sculpture vol.; pls. 29, 57, 96
K05.232	05TR17U11arc03 05TR17U11arc04 05TR17U14arc04 05TR17U14arc11 05TR17U14arc19	Idol Block 2, sandstone	ch. 8; pls. 183–191

## APPENDIX 2

## CONCORDANCE OF IDENTIFICATION NUMBERS ORDERED BY TRENCH AND THEN BY UNIT

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
CT05			
99CT05U00bon01		Perforated astragalus, bone	ch. 8; pl. 100c
CT06			
99CT06U01stn01	K99.082	Bridle strap guide, polished stone	ch. 8; pl. 97b
CT15			
00CT15U03pot01	K00.086	Juglet, ceramic	ch. 8; pl. 104a
00CT15U03pot02	K00.092	Sherd with pot mark, ceramic; pot mark cat. no. 9	ch. 8; pl. 103c
00CT15U05pot01	K00.088	Funnel with pot mark, ceramic; pot mark cat. no. 8	ch. 8; pl. 104b
00CT15U05pot02	K00.091	Base with pot mark, ceramic; pot mark cat. no. 10	ch. 8; pl. 105a
CT16			
00CT16U02met01	K00.106	Pointed object, iron	ch. 8; pl. 98d
00CT16U14pot01	K00.090	Trough spout sherd with sieve, ceramic	ch. 8; pl. 103b
00CT16U17pot01	K00.089	Polychrome sherd, ceramic	ch. 8; pl. 103a
CT18			
00CT18U03bon01	K00.098	Pierced astragalus, bone	ch. 8; pl. 100b
00CT18U04bon01	K00.097	Inlays (12), antler	ch. 8; pl. 100a
00CT18U04pot01	K00.087	Juglet, ceramic	ch. 8; pl. 105b
00CT18U04pot02	K00.118	Lid, ceramic	ch. 8; pl. 106
00CT18U04pot03	K00.119	Lid, ceramic	ch. 8; pl. 107
00CT18U04pot04	K00.120	Bowl, ceramic	ch. 8; pl. 108
00CT18U04pot05	K00.121	Pithos, ceramic	ch. 8; pl. 109
00CT18U14met01	K00.107	Bar, iron	ch. 8; pl. 99a
00CT18U17bon01	K00.096	Object fragment, ivory	ch. 8; pl. 99c
00CT18U17met01	K00.101	Hairgrip, copper alloy	ch. 8; pl. 98c
00CT18U17met02	K00.103	Needle shank, copper alloy	ch. 8; pl. 98b
00CT18U17pot01	K00.093	Faceted sherd, ceramic	ch. 8; pl. 103d

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
<b>CT23</b>			
00CT23U02pot01	K00.094	Tripod-footed bowl, ceramic	ch. 8; pl. 100d
00CT23U02pot02	K00.123	Jug with pot mark, ceramic; pot mark cat. no. 1	ch. 8; pl. 101a
00CT23U02pot03		Krater with pot mark, ceramic; pot mark cat. no. 5	ch. 8; pl. 102b
00CT23U02pot04		Jug with pot mark, ceramic; pot mark cat. no. 4	Not illustrated
00CT23U02pot05		Jug with pot mark, ceramic; pot mark cat. no. 2	ch. 8; pl. 101b
00CT23U02pot06		Jug with pot mark, ceramic; pot mark cat. no. 3	ch. 8; pl. 102a
00CT23U02pot07		Faceted sherd, ceramic	ch. 8; pl. 102c
00CT23U02pot08		Faceted sherds, ceramic	ch. 8; pl. 102d
<b>CT27</b>			
00CT27U02met01	K00.104	Tube, copper alloy	ch. 8; pl. 97a
00CT27U02pot01		Rim of shallow bowl, ceramic; pot mark cat. no. 7	ch. 8; pl. 98a
<b>Surface</b>			
94PALAU00met01	K94.042	Arrowhead, iron	ch. 8; pl. 234d
99SOUTU00pob01	K99.084	Whorl, baked clay	ch. 8; pl. 161d
05PALAU00arc01		Architectural plug, granite	ch. 8; pl. 215a
05PALAU00arc02		Bolster fragment, sandstone	ch. 8; pl. 206b
05PALAU00arc03		Architectural fragment, sandstone	ch. 8; pl. 212a
05PALAU00arc04		Architectural fragment, sandstone	ch. 8; pl. 212b
05PALAU00arc05		Architectural fragment, sandstone	ch. 8; pl. 213a
05PALAU00arc06		Architectural fragment, sandstone	ch. 8; pl. 213b
05PALAU00arc07		Block with clamp cutting, sandstone; cat. no. 27	ch. 8; pl. 228b
05PALAU00arc08		Architectural block, sandstone	ch. 8; pl. 214a
05PALAU00arc09		Block with clamp cutting, sandstone; cat. no. 28	ch. 8; pl. 228c
05PALAU00arc10		Block with clamp cutting, sandstone; cat. no. 29	ch. 8; pl. 229
06PALAU00met01		Nail, iron (modern)	Not illustrated
09PALAU00met01		Sheet, copper alloy	Not illustrated
<b>TR01</b>			
02TR01U01stn01		Hone fragment, stone	ch. 8; pl. 158c
02TR01U02met01	K02.132	Ibex cutout, copper alloy	ch. 8; pls. 128, 129
02TR01U02met02	K02.133	Ibex cutout, copper alloy	ch. 8; pls. 130, 131
02TR01U02met03	K02.135	Object, iron	ch. 8; pl. 157c
02TR01U02met04	K02.137	Nail, copper alloy	ch. 8; pl. 133d
02TR01U02met05	K02.145	Nail, iron, head covered with gold foil	ch. 8; pl. 124a
02TR01U02pob01	K02.129	Whorl, baked clay	ch. 8; pl. 161c
02TR01U02pot01		Juglet, ceramic	Not illustrated
02TR01U07met01	K02.136	Scoop, copper alloy, tin	ch. 8; pl. 132

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
02TR01U07met02		Sheet, copper alloy	Not illustrated
02TR01U08arc01		Architectural block fragment with clamp cutting, sandstone	Not illustrated
TR02			
02TR02U01bon01		Inlay, bone	ch. 8; pl. 115f
02TR02U02met01		Nail fragment, iron	Not illustrated
02TR02U03met01		Domed object, copper alloy	ch. 8; pl. 112a
02TR02U04arc01		Worked fragment, sandstone	Not illustrated
02TR02U04met01		Sheet fragments, copper alloy	Not illustrated
02TR02U04pot01		Rim sherd from carinated bowl, ceramic	Not illustrated
02TR02U09met01	K02.125	Sheet, gold	ch. 8; pl. 111b
02TR02U10met01		Tube, copper alloy	ch. 8; pl. 112b
02TR02U10met02		Tube, copper alloy	ch. 8; pl. 112c
02TR02U10met03		Rod, copper alloy	ch. 8; pl. 112d
02TR02U10met04		Sheet, copper alloy	Not illustrated
02TR02U10met05		Shank fragment, copper alloy	ch. 8; pl. 112e
02TR02U10met06		Ring, copper alloy	ch. 8; pl. 112f
02TR02U10met07	K02.138	Nail, iron	ch. 8; pl. 114b
02TR02U10met08		Ring, copper alloy	ch. 8; pl. 112f
02TR02U10met09		Ring, copper alloy	ch. 8; pl. 112f
02TR02U10met10	K02.128	Attachment, copper alloy	ch. 8; pl. 111c
02TR02U10met11		Band, copper alloy	ch. 8; pl. 111d
02TR02U10met12	K02.139	Nail, iron	ch. 8; pl. 114c
02TR02U11arc01		Column base fragments, sandstone	ch. 8; pl. 117a–c
02TR02U12met01		Split ring, iron	ch. 8; pl. 113c
02TR02U14met01	K02.140	Nail, iron	ch. 8; pl. 114e
02TR02U14met02		Nail, iron	ch. 8; pl. 115a
02TR02U14met03		Nail, iron	ch. 8; pl. 115b
02TR02U14met04		Nail, iron	ch. 8; pl. 115c
02TR02U14met05		Sheet (5 fragments), copper alloy	ch. 8; pl. 112g
02TR02U14met06		Nail, iron	ch. 8; pl. 115d
02TR02U14met07		Nail, iron	ch. 8; pl. 115e
02TR02U14met08		Shank fragment, iron	Not illustrated
02TR02U16met01		Bent shank fragment, iron	Not illustrated
TR05			
02TR05U02bld01		Reed impressions, burned clay	Not illustrated
02TR05U02bld02		Reed impressions, burned clay	Not illustrated
02TR05U02bld03		Mudbrick, burned	ch. 8; pl. 123a

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
02TR05U03met01	K02.126	Triangular-headed nail, iron	ch. 8; pl. 118g
02TR05U03met02		Nail, iron	ch. 8; pl. 120a
02TR05U03met03	K02.142	Triangular-headed nail, iron	ch. 8; pl. 119a
02TR05U10bld01		Mudbrick, burned	Not illustrated
02TR05U13gfa01	K02.143	Bead, frit	ch. 8; pl. 121c
02TR05U13met01	K02.127	Sheet, silver	ch. 8; pl. 117d
02TR05U17bld01		Plaster, burned	Not illustrated
02TR05U23arc01		Architectural plug, sandstone	ch. 8; pl. 132b
03TR05U01met01		Point, iron	ch. 8; pl. 117g
03TR05U02met01		Cotter pin, iron	ch. 8; pl. 121a
03TR05U02met02		Shank, iron	ch. 8; pl. 117h
03TR05U02met03		Shank, copper alloy	ch. 8; pl. 117e
03TR05U02met04		Triangular-headed nail, iron	ch. 8; pl. 119c
03TR05U02met05		Shank fragment, iron	ch. 8; pl. 118a
03TR05U02met06		Shank fragment, iron	ch. 8; pl. 118b
03TR05U03bon01		Astragali (group of 6), bone	ch. 8; pl. 112
03TR05U03met04		Spike, iron	ch. 8; pl. 121b
03TR05U03met05		Triangular-headed nail, iron	ch. 8; pl. 119b
03TR05U03met06		Band fragments with nail fragments, iron	ch. 8; pl. 120b
03TR05U03met07		Arrowhead, iron	ch. 8; pl. 117f
03TR05U03met08		Point, iron	ch. 8; pl. 118c
03TR05U03met09		Point, iron	ch. 8; pl. 118d
03TR05U03met10		Point, iron	ch. 8; pl. 118e
03TR05U03met11		Point, iron	ch. 8; pl. 118f
03TR05U04wdn01	K03.161	Furniture bolster, wood	ch. 8; pl. 121d
TR11			
03TR11U00arc03		Block with clamp cutting, sandstone; cat. no. 19	ch. 8; pl. 224b
03TR11U00arc04		Block with clamp cutting, sandstone; cat. no. 23	ch. 8; pl. 226b
03TR11U00arc05		Idol block fragment, sandstone	ch. 8; pl. 194c
03TR11U00arc06		Block with clamp cutting, sandstone; cat. no. 18	ch. 8; pl. 224a
03TR11U00arc07		Block with clamp cutting, sandstone; cat. no. 24	ch. 8; pl. 227a
03TR11U00arc09		Block with clamp cutting, sandstone; cat. no. 20	ch. 8; pl. 225
03TR11U00arc10		Architectural block fragments, sandstone	Not illustrated
03TR11U00stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 53b
03TR11U01pot01	K03.156	Rim sherd with pot mark, ceramic; cat. no. 15	ch. 9; pl. 237
03TR11U01stn01	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U01stn02	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 34b, 93

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
03TR11U03arc01		Bolster, sandstone	ch. 8; pl. 209b
03TR11U03stn01	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 30, 65–66, 67a
03TR11U03stn02	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 34b, 93
03TR11U03stn03	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 42b
03TR11U03stn04	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 49b
03TR11U03stn05	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 70, 98
03TR11U03stn06	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 40b
03TR11U04arc01	K03.169	Stepped base, sandstone	Sculpture vol.; pls. 59–61, 66
03TR11U04arc02		Block with clamp cutting, sandstone; cat. no. 25	ch. 8; pl. 227b
03TR11U04gfa01	K03.146	Whorl, glass, Byzantine	ch. 8; pl. 234b
03TR11U04stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 38a
03TR11U04stn02	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 67b
03TR11U04stn03	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U04stn04	K03.168	Inscription and relief, sandstone	Sculpture vol.; pls. 28, 30, 33, 65–66, 68, 92
03TR11U04stn05	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 36a
03TR11U04stn06	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 51a
03TR11U04stn07	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 40a
03TR11U04stn08	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 41a
03TR11U04stn09	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 69
03TR11U04stn10	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U04stn11	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 48b
03TR11U04stn12	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 42a
03TR11U04stn13		Relief fragment, sandstone	Sculpture vol.; pls. 29, 56a
03TR11U04stn14	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 46c
03TR11U05arc01		Bolster, sandstone	ch. 8; pl. 205b



<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
03TR11U05stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 34a
03TR11U05stn02		Bolster, sandstone	ch. 8; pl. 205c
03TR11U05stn03		Relief fragment, sandstone	Sculpture vol.; pls. 29, 55b
03TR11U08arc01	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U08arc02		Idol block fragments, sandstone	ch. 8; pl. 196a
03TR11U08arc03		Idol block fragment, sandstone; Idol Block 6	ch. 8; pl. 194a–b
03TR11U08arc04	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U08arc05		Bolster, sandstone	ch. 8; pl. 206g
03TR11U08arc06		Bolster, sandstone	ch. 8; pl. 205b
03TR11U08arc07		Bolster, sandstone	ch. 8; pl. 206f
03TR11U08arc08		Bolster, sandstone	ch. 8; pl. 209a
03TR11U08arc09		Bolster, sandstone	ch. 8; pl. 209d
03TR11U08arc10		Block with clamp cutting fragment, sandstone	Not illustrated
03TR11U08met01		Band fragments with two dome-headed nails, iron	ch. 8; pls. 141–142c
03TR11U08met02		Band fragments, iron	ch. 8; pl. 141
03TR11U08stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 46a
03TR11U08stn02	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 71–72
03TR11U08stn03	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 39a
03TR11U08stn04	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 48a
03TR11U08stn05	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 47b
03TR11U08stn06	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 36b
03TR11U08stn07	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 47b
03TR11U08stn08	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 37a
03TR11U08stn09	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 43
03TR11U08stn10	K03.168	Inscription and relief fragment, sandstone	Sculpture vol.; pls. 28, 30, 33, 65–66, 68, 92
03TR11U08stn11		Block fragments with drip marks, sandstone	ch. 8; pl. 230c
03TR11U08stn12	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 43
03TR11U08stn13	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29–30, 41b, 65–66, 95

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
03TR11U08stn14	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U08stn15	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 45b
03TR11U08stn16	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U08stn17	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 38b
03TR11U08stn18	K03.168	Relief and inscription fragment, sandstone	Sculpture vol.; pls. 28, 30, 33, 65–66, 68, 92
03TR11U08stn19	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 50b
03TR11U08stn20	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 52b
03TR11U08stn21	K03.167	Bolster slab, sandstone	ch. 8; pls. 198–200
03TR11U08stn22	K03.168	Relief fragment, sandstone	Sculpture vol.; pl. 32
03TR11U08stn23	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 35, 65–66, 94
03TR11U08stn24	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 71–72
03TR11U08stn25	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 69
03TR11U08stn26		Block fragment with mason's mark, sandstone	ch. 8; pl. 232b
03TR11U08stn27	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 37b
03TR11U08stn28	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 73a
03TR11U08stn29	K03.168	Relief fragment, sandstone	Sculpture vol.; pl. 31
03TR11U08stn30	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 37a
03TR11U08stn31	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 44b
03TR11U08stn32	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 73b
03TR11U08stn33	K03.168	Relief fragment, sandstone	Sculpture vol.; pl. 32
03TR11U08stn34	K03.168	Relief fragment, sandstone	Sculpture vol.; pl. 31
03TR11U08stn35	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 36a
03TR11U08stn36	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 52a
03TR11U08stn37	K03.168	Inscription fragment, sandstone; joined 03TR11U03stn01	Sculpture vol.; pls. 28, 30, 65–66, 67a
03TR11U08stn38		Block fragment with paint, sandstone	ch. 8; pl. 230d

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
03TR11U08stn39		Block fragment with drip marks, sandstone	ch. 8; pl. 231a
03TR11U08stn40		Block fragment with drip marks, sandstone	Not illustrated
03TR11U08stn41		Block fragment with drip marks, sandstone	Not illustrated
03TR11U08stn42		Block fragment with drip marks, sandstone	Not illustrated
03TR11U08stn43		Block fragment with drip marks, sandstone	Not illustrated
03TR11U08stn44		Block fragment with drip marks, sandstone	Not illustrated
03TR11U08stn45		Block fragment with drip marks, sandstone	ch. 8; pl. 231b
03TR11U09stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 49a
03TR11U10met01	K03.162	Nail, silver	ch. 8; pl. 126b
03TR11U12arc01		Bolster, sandstone	ch. 8; pl. 208a
03TR11U12arc02		Bolster, sandstone	ch. 8; pl. 208b
03TR11U12arc03		Bolster, sandstone	ch. 8; pl. 209c
03TR11U12arc04		Bolster, sandstone	ch. 8; pl. 206a
03TR11U12arc05		Idol block fragment, sandstone	ch. 8; pl. 196b
03TR11U12arc06		Block with clamp cuttings, sandstone; cat. nos. 4, 5	ch. 8; pl. 217
03TR11U12met01	K03.163	Bracket, iron	ch. 8; pls. 142d, 144, 145
03TR11U12met02		Two dome-headed nails, iron	ch. 8; pl. 153c
03TR11U12met03	K03.164	Brace with nails, iron	ch. 8; pl. 146c
03TR11U12met04	K03.165	Brace with nails, iron	ch. 8; pl. 148a
03TR11U12met05	K03.166	Brace with nails, iron	ch. 8; pl. 148b
03TR11U12met06		Brace with nails, iron	ch. 8; pl. 147
03TR11U12pot01		Trefoil-spouted jug sherds, ceramic	Not illustrated
04TR11U00arc01		Bolster, sandstone	ch. 8; pl. 210a
04TR11U00arc02		Bolster end fragment, sandstone	Not illustrated
04TR11U00arc11		Idol block fragment, sandstone	ch. 8; pl. 194c
04TR11U00arc12		Bolster fragment, sandstone	Not illustrated
04TR11U00met01		Dome-headed nail, iron	ch. 8; pl. 153c
04TR11U01arc01	K03.169	Stepped base, sandstone	Sculpture vol.; pls. 59–61, 66
04TR11U14met01		Melted copper alloy	Not illustrated
04TR11U14pot01	K04.177	Pithos sherd, with graffiti, ceramic; cat. no. 10	ch. 9; pl. 235a
04TR11U14pot02	K04.178	Bowl sherds, ceramic	ch. 8; pl. 163d
04TR11U22bon01		Fragment, ivory	ch. 8; pl. 159d
04TR11U22met01		Nail, iron	ch. 8; pl. 156d
04TR11U22met02		Shaft, iron	ch. 8; pl. 156e
04TR11U22pot01	K04.179	Bowl with graffito, ceramic; cat. no. 17	chs. 8, 9; pls. 162, 237c

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
04TR11U22stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 36b
04TR11U23met01		Blunt-headed nail, iron	Not illustrated
05TR11U00met02	K05.184	Brace with nails, iron	ch. 8; pl. 148c
05TR11U00met03		Sheet, copper alloy	Not illustrated
05TR11U00met04		Band fragments and nail, iron	Not illustrated
TR14			
04TR14U02arc01		Bolster, sandstone	ch. 8; pl. 207b
04TR14U02pot01	K04.180	Molded sherd, ceramic	ch. 8; pl. 163e
04TR14U03stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 46b
04TR14U09stn01		Smoothed fragment, sandstone	Not illustrated
04TR14U11pob01		Whorl, baked clay	ch. 8; pl. 161a
04TR14U14bld01		Mud with mat impressions, burned	ch. 8; pl. 170a
04TR14U15stn01	K08.228	Sculpted bird, sandstone	Sculpture vol.; pls. 29, 57, 96
04TR14U16met01	K04.172	Bilobate socketed arrowhead, copper alloy	ch. 8; pl. 133b
04TR14U16met02	K04.173	Hairgrip, iron	ch. 8; pl. 135d
04TR14U19met01	K04.174	Nail, silver	ch. 8; pl. 126c
04TR14U20bon01		Inlay, ivory	ch. 8; pl. 159e
04TR14U20bon02		Openwork fragment, ivory	ch. 8; pl. 158f
04TR14U20bon03		Inlay fragment, ivory	ch. 8; pl. 158g
04TR14U20bon04		Inlay fragment, ivory	ch. 8; pl. 160b
04TR14U20met01		Bracket, iron	ch. 8; pl. 146a
04TR14U21met01		Bracket, iron	ch. 8; pl. 146b
04TR14U21pot01	K04.181	Jug sherds, ceramic	Not illustrated
04TR14U23met01		Blunt-headed nail, iron	ch. 8; pl. 156c
05TR14U00bon01		Inlay fragment, ivory	ch. 8; pl. 160d
05TR14U03met01		Pin shaft, copper alloy	ch. 8; pl. 133j
05TR14U03met02		Pin, iron	ch. 8; pl. 135e
05TR14U51stn01		Relief fragment, sandstone	Sculpture vol.; pls. 29, 54b
TR15			
04TR15U01bon01		Worked fragment, bone	ch. 8; pl. 160g
04TR15U01met01		Sheet fragment, copper alloy	Not illustrated
04TR15U01pob01		Sphere, pierced, baked clay	ch. 8; pl. 161b
04TR15U01pot01		Pithos with graffiti, ceramic; cat. no. 16	ch. 9; pl. 237b
04TR15U01pot02		Pithos with graffiti, ceramic; cat. no. 12	ch. 9; pl. 235b
04TR15U02stn01		Architectural block, sandstone	Not illustrated

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
04TR15U03bon01	K04.171	Inlays (10), ivory	ch. 8; pl. 159a
04TR15U03met01		Shank, iron	ch. 8; pl. 156f
04TR15U05pot01		Base with pot mark, ceramic; cat. no. 13	ch. 8; pl. 163c
04TR15U13stn01		Architectural plug, sandstone	ch. 8; pl. 215b
05TR15U00bon01		Inlay fragments (4), ivory	ch. 8; pl. 159h
05TR15U09bon01		Fragments (2), ivory	ch. 8; pl. 160e
05TR15U09bon02		Inlay, ivory	ch. 8; pl. 159b
05TR15U09met01		Sheet, silver	Not illustrated
05TR15U09met02		Fragment, mineral or faience	Not cataloged
05TR15U09stn01		Bead, stone	ch. 8; pl. 158d
05TR15U14bon01		Inlay fragments, ivory	ch. 8; pl. 159f
05TR15U14bon02		Inlay fragment, ivory	ch. 8; pl. 159c
05TR15U14bon03		Inlay fragments, ivory	ch. 8; pl. 159g
05TR15U14bon04		Inlay, ivory	ch. 8; pl. 160a
05TR15U14bon05		Scraps (10), ivory	ch. 8; pl. 160c
05TR15U14met01		Nail fragment, iron	ch. 8; pl. 157a
05TR15U14met02	K05.185	Hairgrip, copper alloy	ch. 8; pl. 133a
05TR15U14met03		Melted metal	ch. 8; pl. 126a
05TR15U14met04		Sheet, copper alloy	Not illustrated
05TR15U15arc01		Bolster end fragment, sandstone	ch. 8; pl. 210c
05TR15U15met01		Sheet fragment, iron	Not illustrated
05TR15U15met02		Sheet fragment, iron	Not illustrated
05TR15U15pot01		Jug, ceramic	ch. 8; pl. 164
05TR15U17arc01	K06.216	Bolster, sandstone	ch. 8; pls. 201, 202
TR16			
04TR16U00arc01		Block with mason's mark, sandstone	ch. 8; pl. 232c
04TR16U00stn01	K04.183	Lion sculpture fragment, sandstone	Sculpture vol.; pls. 27, 91
04TR16U01met01		Nail shank, iron	Not illustrated
04TR16U01stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 54a
04TR16U02stn01	K04.182	Sculpture fragment of draped figure, sandstone	Sculpture vol.; pls. 12–26, 66, 74, 83, 85–90
04TR16U03arc01		Block with clamp cuttings, sandstone; cat. nos. 21, 22	ch. 8; pl. 226a
04TR16U04stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 44b
04TR16U05met01	K04.170	Coin, Byzantine	ch. 8; pl. 234a

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
04TR16U06stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 45a
04TR16U06stn02	K03.168	Relief fragment, sandstone	Sculpture vol.; pl. 31
04TR16U06stn03		Block fragment with drip marks, sandstone	ch. 8; pl. 226a
04TR16U06stn04	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 53a
04TR16U07stn01	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 71–72
04TR16U08arc01		Architectural plug, sandstone	ch. 8; pl. 215c
04TR16U08arc02		Corner block/Idol Block 1 fragments, sandstone	ch. 8; pls. 171b–182, 221b
04TR16U08arc03		Corner block/Idol Block 1 fragments, sandstone	ch. 8; pls. 171b–182, 221b
04TR16U08arc04		Block with clamp cutting, sandstone	ch. 8; pl. 222
04TR16U08arc05		Corner block/Idol Block 1 fragments, sandstone	ch. 8; pls. 171b–182, 221b
04TR16U08arc06		Idol block fragment, sandstone	ch. 8; pl. 196d
04TR16U08stn01	K03.168	Inscription fragment, sandstone	Sculpture vol.; pls. 28, 65–66, 70, 98
04TR16U08stn02		Relief fragment, sandstone	Sculpture vol.; pls. 29, 56b
04TR16U09skl01		Skeleton, human, Byzantine	ch. 11; pls. 240, 241
04TR16U11arc01		Architectural block, clamp cutting, sandstone; cat. no. 26	ch. 8; pl. 228a
04TR16U11bld01		Architectural block fragment	Not illustrated
04TR16U13arc01		Bolster, sandstone	ch. 8; pl. 206d
04TR16U13bon01		Worked fragments, bone	ch. 8; pl. 160f
04TR16U13stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 39b
04TR16U13stn02	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 40c
04TR16U13stn03	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 51b
04TR16U13stn04	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 50a
04TR16U13stn05	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 44a
04TR16U14arc01		Bolster, sandstone	ch. 8; pl. 211e
04TR16U14arc02		Architectural, mason's mark, sandstone	ch. 8; pl. 233a
04TR16U14arc03		Architectural, mason's mark, sandstone	ch. 8; pl. 233b
04TR16U14stn01		Relief fragment, sandstone	Sculpture vol.; pls. 29, 55b
04TR16U15gfa01		Bowl sherds (intrusive), glass	Not cataloged

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
04TR16U15met01	K04.175	Appliqué, silver	ch. 8; pl. 126e
04TR16U15met02	K04.176	Foil, gold	ch. 8; pl. 124b
04TR16U15met03		Strip fragments, copper alloy	Not illustrated
04TR16U16pot01	K05.214	Bowl with pot mark, ceramic; cat. no. 14	chs. 8, 9; pls. 163a, 236
05TR16U12met01		Melted lead	ch. 8; pl. 134
05TR16U12met02		Melted lead (2 pieces)	ch. 8; pl. 135
05TR16U14arc04	K06.222	Bolster, sandstone	ch. 8; pls. 200, 201
05TR16U14arc05	K06.216	Bolster block, sandstone	ch. 8; pls 200, 201.
05TR16U14met01		Brace with nails, iron	Not illustrated
05TR16U16arc01		Bolster, sandstone	ch. 8; pl. 210b
05TR16U16arc02		Narrow architectural block fragments, sandstone	Not illustrated
05TR16U16bot01		Carbonized reeds	ch. 8; pl. 171a–b
05TR16U16met01	K05.186	Brace with nail, iron	ch. 8; pl. 149a
05TR16U16met02		Brace with nail, iron	ch. 8; pl. 152a
05TR16U16met03	K05.187	Brace with nails, iron	ch. 8; pl. 149b
05TR16U16met04	K05.188	Brace with nails, iron	ch. 8; pl. 150a
05TR16U16met05	K05.215	Horn, gold	ch. 8; pl. 215
05TR16U17arc01		Bolster end fragments, sandstone	ch. 8; pl. 210c
05TR16U17met01		Nail shank, iron	Not illustrated
05TR16U17met02		Wire, copper alloy	ch. 8; pl. 133h
05TR16U17met03		Shaft fragment, copper alloy	ch. 8; pl. 133j
05TR16U18arc01		Block fragment with drip marks, sandstone	Not illustrated
05TR16U18arc02		Architectural block, clamp cutting, sandstone	Not illustrated
05TR16U18arc03		Architectural plug, sandstone	ch. 8; pl. 215d
05TR16U18met01	K05.189	Dome-headed nail, iron	ch. 8; pl. 154a
05TR16U18met02		Nail shank, iron	Not illustrated
05TR16U18met03	K05.190	Dome-headed nail, iron	ch. 8; pl. 154b
05TR16U18met04		Nail shank, iron	Not illustrated
05TR16U18met05	K05.191	Door band, iron	ch. 8; pls. 136, 138
05TR16U18met06	K05.192	Door band, iron	ch. 8; pls. 137, 138a, 139
05TR16U18met07	K05.193	Dome-headed nail, iron	ch. 8; pl. 154c
05TR16U18met08	K05.194	Dome-headed nail, iron	ch. 8; pl. 154d
05TR16U18met09	K05.195	Dome-headed nail, iron	ch. 8; pl. 154e
05TR16U18met10	K05.196	Dome-headed nail, iron	ch. 8; pl. 154f
05TR16U18met11	K05.197	Dome-headed nail, iron	ch. 8; pl. 155a
05TR16U18met12	K05.198	Dome-headed nail, iron	ch. 8; pl. 155b
05TR16U18met13	K05.199	Dome-headed nail, iron	ch. 8; pl. 155c

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
05TR16U18met14	K05.200	Dome-headed nail, iron	ch. 8; pl. 155d
05TR16U18met15		Dome-headed nail fragment, iron	ch. 8; pl. 157b
05TR16U18met16	K05.201	Dome-headed nail, iron	ch. 8; pl. 155e
05TR16U18met17	K05.202	Dome-headed nail, iron	ch. 8; pl. 156b
05TR16U18met18		Brace fragment, iron	ch. 8; pl. 152b
05TR16U18met19		Brace fragments, iron	ch. 8; pl. 152c
05TR16U18met20		Sheet fragments, copper alloy	Not illustrated
TR17			
05TR17U05arc01		Bolster, sandstone	ch. 8; pl. 211a
05TR17U05arc02		Bolster, sandstone	ch. 8; pl. 211b
05TR17U07arc01	K03.167	Bolster slab, sandstone	ch. 8; pls. 189–200
05TR17U07arc02		Bolster, sandstone	ch. 8; pl. 211c
05TR17U11arc01	K06.218	Bolster, sandstone	ch. 8; pl. 205a
05TR17U11arc02		Bolster, sandstone	ch. 8; pl. 206e
05TR17U11arc03		Architectural block with mason's mark, sandstone	ch. 8; pl. 233c
05TR17U11arc04	K05.232	Idol block fragment with mason's mark, sandstone; Idol Block 2	ch. 8; pls. 183–191
05TR17U11stn01	K03.168	Relief fragment, sandstone	Sculpture vol.; pls. 29, 47a
05TR17U11stn02		Relief fragment, sandstone	Sculpture vol.; pls. 29, 55a
05TR17U12arc01	K06.219	Bolster block, sandstone	ch. 8; pls. 202, 203
05TR17U12arc02		Idol block ledge fragment, sandstone	Not illustrated
05TR17U12arc03		Bolster fragments, sandstone	Not illustrated
05TR17U12arc04		Corner fragment with cutting, sandstone	ch. 8; pl. 214b
05TR17U12arc05		Architectural block with mason's mark, sandstone	ch. 8; pl. 233d
05TR17U12arc06		Idol block fragment, sandstone	ch. 8; pl. 196e
05TR17U12arc07	K06.217	Bolster, sandstone	ch. 8; pl. 207a
05TR17U12arc08	K06.221	Bolster block, sandstone	ch. 8; pls. 200, 201
05TR17U12arc09		Idol block fragment, sandstone	ch. 8; pl. 197a
05TR17U12arc10		Bolster, sandstone	ch. 8; pl. 211d
05TR17U12arc11		Corner block/Idol Block 1 fragments, sandstone	ch. 8; pls. 171c, 172–182
05TR17U12arc12		Idol block relief fragment, sandstone	ch. 8; pl. 197b
05TR17U12arc13		Idol block corner fragment, sandstone	Not illustrated
05TR17U12arc14		Corner block/Idol Block 1 fragments, sandstone	ch. 8; pls. 171c, 172–182
05TR17U12met01	K05.203	Attachment, copper alloy	ch. 8; pl. 133c
05TR17U12met02		Cotter pin, iron	ch. 8; pl. 158b
05TR17U13arc01		Architectural block, mason's mark, sandstone	Not illustrated



<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
05TR17U14arc01		Idol block fragment, sandstone	ch. 8; pl. 195a
05TR17U14arc02	K06.219	Bolster block, sandstone	ch. 8; pls. 200, 201
05TR17U14arc04	K05.232	Idol block fragment, sandstone; Idol Block 2	ch. 8; pls. 183–191
05TR17U14arc05		Idol block fragment, sandstone; possible base of Idol Block 3	ch. 8; pl. 192
05TR17U14arc06		Block fragment with drip marks, sandstone	Not illustrated
05TR17U14arc07	K06.219	Bolster block, sandstone	ch. 8; pls. 201, 202
05TR17U14arc08		Idol block fragment, sandstone; Idol Block 5	ch. 8; pl. 193b–c
05TR17U14arc09		Idol block fragment, sandstone; Idol Block 3	ch. 8; pl. 192
05TR17U14arc10		Bolster, sandstone	ch. 8; pl. 206c
05TR17U14arc11	K05.232	Idol block fragment, sandstone; Idol Block 2	ch. 8; pls. 183–191
05TR17U14arc12		Idol block fragment, sandstone; Idol Block 3	ch. 8; pl. 192
05TR17U14arc13		Idol block fragment, sandstone; perhaps Idol Block 4	ch. 8; pl. 193a
05TR17U14arc14		Idol block fragment, sandstone; Idol Block 4	ch. 8; pl. 193a
05TR17U14arc15		Block fragment, sandstone	Not illustrated
05TR17U14arc16		Bolster, sandstone	ch. 8; pl. 208c
05TR17U14arc17		Worked fragment, sandstone	Not illustrated
05TR17U14arc18		Idol block fragment, sandstone; Idol Block 3	ch. 8; pl. 192
05TR17U14arc19	K05.232	Idol block fragment, sandstone; Idol Block 2	ch. 8; pls. 183–191
05TR17U14arc20		Idol block relief fragment, sandstone	ch. 8; pl. 197c
05TR17U14bon01		Disk fragment, ivory	ch. 8; pl. 158e
05TR17U14met01	K05.204	Decorated sheet, copper alloy	ch. 8; pl. 127
05TR17U14met02		Strip, copper alloy	Not illustrated
05TR17U14met03	K05.206	Brace with nails, iron	ch. 8; pl. 151
05TR17U14met04	K05.205	Brace with nails, iron	ch. 8; pl. 150b
05TR17U14met05		Melted lead	ch. 8; pl. 135c
05TR17U14met06		Sheet, copper alloy	Not illustrated
05TR17U14met07	K05.207	Bracket, iron	ch. 8; pl. 143
05TR17U14met08		Nail shank, iron	Not illustrated
05TR17U14met09	K05.208	Dome-headed nail, iron	ch. 8; pl. 156a
05TR17U14stn01	K04.182	Sculpture, statue fragment, sandstone	Sculpture vol.; pls. 12–26, 66, 74, 83, 85–90
05TR17U15stn01		Sculpture, statue fragment, sandstone	Sculpture vol.; pls. 58, 97
TR20			
05TR20U07met01	K05.209	Cotter pin, iron	ch. 8; pl. 158a
05TR20U09arc01	K06.220	Bolster, sandstone	ch. 8; pl. 211g

<i>ID Number</i>	<i>K Number</i>	<i>Description</i>	<i>Chapter(s); Plate(s)</i>
05TR20U12met01 TR21		Tip of tool, iron	ch. 8; pl. 99b
05TR21U01pot01		Painted sherd, ceramic	ch. 8; pl. 234c
05TR21U08met01		Sheet fragments, iron	Not illustrated
05TR21U09met02	K05.211	Nail, silver	ch. 8; pl. 126d
05TR21U09met03		Rivet, copper alloy	ch. 8; pl. 133g
05TR21U09met04		Sheet fragments, iron	Not illustrated
05TR21U10met01	K05.210	Strips, gold	ch. 8; pl. 124c
05TR21U11met01		Sheet fragments, iron	Not illustrated
05TR21U12arc01		Bolster fragment, sandstone	ch. 8; pl. 211f
05TR21U12bon01		Small scraps (2), ivory	Not illustrated
05TR21U12met01	K05.213	Nails (5), copper alloy	ch. 8; pl. 133f
05TR21U12met02		Sheet fragments, iron	Not illustrated
05TR21U12met03		Door band fragments, iron	Not illustrated
05TR21U13met01		Sheet and nail fragments, iron	Not illustrated
05TR21U12bon01		Small scraps (2), ivory	Not illustrated
05TR21U17met01 TT17	K05.212	Nail, copper alloy	ch. 8; pl. 133e
96TT17U01met01	K96.038	Coin (modern)	Not cataloged
96TT17U03met01	K96.045	Doorpost bracket, iron	ch. 8; pl. 110b
96TT17U05met01	K96.039	Nail, copper alloy	ch. 8; pl. 110a
TT22			
00TT22U01met01	K00.111	Triangular-headed nail, iron	ch. 8; pl. 113e
00TT22U01met02	K00.112	Object, iron	ch. 8; pl. 113b
00TT22U06met01	K00.116	Triangular-headed nail, iron	ch. 8; pl. 114a
00TT22U06pot01	K00.085	Juglet, ceramic	ch. 8; pl. 116
00TT22U07met01	K00.109	Nail fragment, iron	ch. 8; pl. 114d
00TT22U08met01	K00.095	Sheet fragment, gold	ch. 8; pl. 111a
00TT22U12met01	K00.110	Triangular-headed nail, iron	ch. 8; pl. 113d
00TT22U22met01	K00.108	Plate with nails (3), iron	ch. 8; pl. 113a



## APPENDIX 3

## CONCORDANCE OF TRENCHES 1928-2011

<i>Name</i>	<i>Code</i>	<i>Number(s)</i>	<i>Year(s)</i>	<i>Location</i>
Schmidt Test Trench	STT	1-14	1928	Varia
Test Trench	TT	15	1996	North Sector
Test Trench	TT	16	1996	Central Area, Two-Roomed Building
Test Trench	TT	17	1996	Palatial Complex
Test Trench	TT	18	1996	Central Area, East
Test Trench	TT	19	1996	South Sector, Stables
Test Trench	TT	20	1998	North Sector
Test Trench	TT	21	1998	North Sector
Test Trench	TT	22	2000	Palatial Complex
Test Trench	TT	23-25	2004	Transportation
Test Trench	TT	26-32	2007	Transportation
Test Trench	TT	33-38	2008	Transportation
Clearance Trench	CT	1	1999	Palatial Complex, Glacis Niche
Clearance Trench	CT	2	1999	Palatial Complex, South Glacis
Clearance Trench	CT	3	1999	Palatial Complex, South Glacis & Niche
Clearance Trench	CT	4	1999	Palatial Complex, South Glacis S Corner
Clearance Trench	CT	5	1999	Palatial Complex, South Glacis S End
Clearance Trench	CT	6	1999	Palatial Complex, South Glacis S End
Clearance Trench	CT	7	1999	Palatial Complex
Clearance Trench	CT	8	1999	Palatial Complex
Clearance Trench	CT	9	1999	Palatial Complex
Clearance Trench	CT	10	1999	Palatial Complex
Clearance Trench	CT	11	1999	Cappadocia Gate, glacis N of buttress
Clearance Trench	CT	12	1999	Cappadocia Gate, glacis at wall and buttress
Clearance Trench	CT	13	2000	Palatial Complex, Structures A-D
Clearance Trench	CT	14	2000	Palatial Complex
Clearance Trench	CT	15	2000	Palatial Complex, Structure C
Clearance Trench	CT	16	2000	Palatial Complex, Structures A-D
Clearance Trench	CT	17	2000	Palatial Complex
Clearance Trench	CT	18	2000	Palatial Complex, Structures A-D

## EXCAVATIONS AT THE PALATIAL COMPLEX

<i>Name</i>	<i>Code</i>	<i>Number(s)</i>	<i>Year(s)</i>	<i>Location</i>
Clearance Trench	CT	19	2000	Palatial Complex, Structures A–D
Clearance Trench	CT	20	2000	Palatial Complex, Structure B
Clearance Trench	CT	21	2000	Palatial Complex
Clearance Trench	CT	22	2000	Palatial Complex, Structures A–D
Clearance Trench	CT	23	2000	Palatial Complex, Structures A–D
Clearance Trench	CT	24	2000	Palatial Complex, Structures A–D
Clearance Trench	CT	25	2000	Palatial Complex
Clearance Trench	CT	26	2000	Palatial Complex
Clearance Trench	CT	27	2000	Palatial Complex
Clearance Trench	CT	30	2000	Palatial Complex, North Platform
Clearance Trench	CT	48	1999	Cappadocia Gate, Glacis at South Tower
Clearance Trench	CT	49	1999	Cappadocia Gate, front of entrance passage
Clearance Trench	CT	50	2000	Cappadocia Gate, Glacis at Middle and East Towers
Clearance Trench	CT	51	2000	Cappadocia Gate, Court
Clearance Trench	CT	52	2007	Cappadocia Gate NW of South Tower
Trench	TR	1	2002	Palatial Complex, Structure B
Trench	TR	2	2002	Palatial Complex, Audience Hall
Trench	TR	3	2002	Cappadocia Gate, Entrance Passage
Trench	TR	4	2002	Cappadocia Gate, NW of North Tower
Trench	TR	5	2003	Palatial Complex, Ashlar Building
Trench	TR	6–10	2006	Central Area, Megarons
Trench	TR	11	2003	Palatial Complex, Monumental Entrance
Trench	TR	12	2003	Cappadocia Gate, Entrance Passage
Trench	TR	13	2007, 2009, 2010, 2011	Cappadocia Gate, NE side of Court
Trench	TR	14–21	2004, 2005	Palatial Complex, Monumental Entrance
Trench	TR	22	2009, 2010, 2011	Cappadocia Gate, Entrance Passage and SW side of Court
Trench	TR	23	2011	Cappadocia Gate, NE of Rear Section
Trench	TR	24	2011	Cappadocia Gate, SW of Rear Section
Trench	TR	25	2009, 2010	Cappadocia Gate, Glacis and East Tower
Trench	TR	26	2009	Cappadocia Gate, NE of Gate
Trench	TR	27	2010	“Temple”
Trench	TR	28	2010	“Temple”
Trench	TR	29	2011	North End Urban block
Trench	TR	30	2011	Cappadocia Gate, NW of Gate

## APPENDIX 4

## UNITS OF EXCAVATION BY TRENCH

Excavation at the Palatial Complex was in Clearance Trenches (CTs), Test Trenches (TTs), and, once a full excavation permit had been issued, Trenches (TRs). Each trench was excavated in Units numbered consecutively from 01. Lists of units together with abbreviated descriptions are provided for ease of reference. Where appropriate Unit numbers are included on the plans and drawn sections as well as in the text and catalogs.

## CLEARANCE TRENCH UNITS

## Clearance Trench CT06

01. Fallen granite in front of glacis

## Clearance Trench CT07

01. Fallen granite in front of glacis
02. Fallen granite with burned debris
03. Gravelly surface

## Clearance Trench CT08

01. Fallen granite in front of glacis
02. Fallen granite with burned debris

## Clearance Trench CT09

01. Fallen granite in front of glacis

## Clearance Trench CT10

01. Fallen granite in front of glacis

## Clearance Trench CT13

## Behind Structure A

01. Fallen stone and soil
02. Glacis
03. Stone collapse against cut glacis

04. Palatial Complex boundary wall
05. Edge of Structure A
06. Burned debris against cut glacis face
07. Palatial Complex boundary wall
08. Burned debris
09. Stone pavement associated with an early (?first) phase of Structure C
10. Patch of stone surface outside Structure C
11. Layers of deposit against inner face of Palatial Complex boundary wall
12. Structure C, north wall

## Clearance Trench CT14

01. Fallen granite in front of glacis, northern side

## Clearance Trench CT15

Structure C, eastern half of northern room; south of CT13

01. Stone and topsoil
02. Destruction debris
03. Deposit on burned floor
04. Deposit on burned floor
05. Deposit on burned floor
06. Structure C, burned floor
07. Structure C, north wall
08. Structure C, east wall

## Clearance Trench CT16

Clearance Trench CT16 was divided into CT16 North, and CT16 South for the purpose of investigating levels below the external surface at the time of the destruction. Indications of the fire amounted to no more than patches of light burning. However, there was no duplication of unit numbers: CT16 N Units 01–09; CT16 S Units 10–20.

**Clearance Trench CT16**

01. Stone and soil
02. Structure C, east wall

**Clearance Trench CT16 N(orth)**

01. Granite stones on surface = U12 and U16
02. Fallen granite and earth = U12 and U16
03. Fallen granite with indications of burning = U11 and U13
04. Clayey leveling fill and lightly burned external surface = U14 and U15
05. Stone rubble core of Structure A
06. Orange clay fill = U04
07. Stone rubble core of Structure A, below U04
08. East-west wall face of Structure A behind glacis
09. Dry stone rubble retaining walls in core of Structure A

**Clearance Trench CT16 S(outh)**

01. Granite rubble and soil = U01, U02, U12, and U16
02. Fallen granite with indications of burning = U03 and U13
03. Granite rubble and soil = U10 and U16
04. Fallen granite with indications of burning = U11
05. Clayey leveling material and external surface = U04 and U15
06. Clayey leveling material = U04 and U14
07. Granite rubble and soil = U02, U10, U12, and U16
08. Compact clayey soil with stone, continuation leveling material below U14 and U16
09. Granite leveling material below U17
10. East wall of Structure C
11. West wall face of Structure A

**Clearance Trench CT17**

01. Rubble fill of Structure A

**Clearance Trench CT18**

Clearance Trench CT18 was divided into North and South; CT18 N was in the eastern half of the southern room in Structure C, while CT18 S was the area between Structures C and D. Again, there was no duplication of unit numbers: CT18 N Units 01–08; CT18 S Units 10–18. Unit number 09 was not used.

**Clearance Trench CT18 N(orth)**

01. Large granite stones on surface
02. Stone rubble and earth
03. Structure C, burned debris on floor of southern room
04. Structure C, burned floor of southern room
05. Structure C, patch of burned debris on floor of southern room
06. Structure C, east wall of southern room
07. Structure C, south wall of southern room
08. Structure C, north wall of southern room

**Clearance Trench CT18 S(outh)**

01. Granite rubble = U13
02. Burned debris with large stones = U14 and U15
03. Structure D, north wall
04. Granite rubble = U01
05. Burned debris with stones = U11 and U15
06. Burned debris with large stones = U11 and U14
07. Pre-destruction, perhaps leveling material with much rubbish
08. Lower part of U16
09. Possible external surface

**Clearance Trench CT19****Structure D****Clearance Trench CT20****Structure B**

01. Hard brown soil and stone, topsoil
02. Hard brown soil and stone, topsoil
03. Hard brown clay with some burned fragments above Structure B
04. Stone pavement
05. Structure B, east outer wall
06. Structure B, south outer wall
07. Structure B, east middle wall
08. Structure B, south middle wall
09. Structure B, south inner wall
10. Structure B, east inner wall
11. Structure B, rubble fill of lower terrace
12. Foundation trench for wall U7
13. Structure B, yellow sandy fill

**Clearance Trench CT22**

01. Small stones and soil

02. North wall of Structure C
03. Stones and soil north of Structure C
04. Stone pavement

### Clearance Trench CT23

01. Medium-sized stones with some charcoal
02. Stones and small stones with ash; much pottery and some bone

### Clearance Trench CT24

01. Fallen granite and soil
02. Rubble and soil above street surface
03. Urban block wall at north side of street
04. Eroded street surface
05. Stone pavement along northern side of street

### Clearance Trench CT27

01. Fallen granite in front of central niche in glaxis

### Clearance Trench CT30

By northeastern corner of North Platform

01. Stones and roots
02. Brown stony earth
03. Platform wall
04. Stony brown soil
05. Reddish-brown soil with burned debris

## TEST TRENCH UNITS

Two Test Trenches were excavated within the Palatial Complex: TT17 at Structure E, and TT22 at the Audience Hall.

### Test Trench TT17

Structure E

01. Topsoil
02. Wall
03. Burned debris
04. Wall
05. Destruction including pile of burned mudbricks
06. Stone pavement
07. Burned debris

08. Burned layer on pavement
09. Outcrop of bedrock
10. Yellowish-brown soil
11. Wall
12. Wall
13. Stone-lined gutter
14. Brown, softish, pebbly soil above U15
15. Destruction debris
16. Trampled earth floor
17. Threshold

### Test Trench TT22

Audience Hall

01. Topsoil in hall, dark brown-gray soil containing medium-sized and small stones
02. Fill of hall, orange burned soil with mudbrick and stone
03. Wall between hall and anteroom
04. Stones in fill of hall
05. Fill associated with U04
06. Dark burned layer above floor of hall, eastern side = U07
07. Dark burned layer above floor of hall, western side = U06
08. Burned clay floor of hall
09. Fill of beam slot in face of north wall
10. North wall of hall
11. Topsoil in anteroom, dark, brown-gray, fine soil
12. Orange burned soil with burned mudbrick and stone
13. Fallen mud wall plaster in anteroom
14. Burned clay along southern edge of anteroom
15. Black burned layer above floor of anteroom
16. North wall of anteroom = U10
17. Topsoil north of north wall
18. Clay floor of anteroom
19. Compact soil in space north of hall, west of wall U20
20. Wall, aligned north-south, north of hall
21. Layer of brown-red burned soil north of hall and east of wall U20
22. Below and contiguous with U19
23. Roof fall, burned clay with reed impressions, in room
24. Ashy layer, black, below U23
25. External stone pavement west of wall U20
26. Possible surface of room below U24



27. Aligned stones on top of wall U20, perhaps part of it
28. Clay subfloor of anteroom

## TRENCH UNITS

### Trench TR01

#### Monumental Entrance

01. Stones and soil above pavement
02. Soil immediately above and between paving stones
03. Stone pavement
04. Stones and soil above street surface
05. Wall forming southeastern limit of trench
06. Collapsed stone, probably disturbed
07. Burned debris (ash, charcoal, and debris, but no stone) on pavement
08. Collapsed sandstone from North Platform with some rubble and loose gray soil; note sandstone idol fragments
09. Disturbed rubble and soil
10. North Platform, east wall face
11. North Platform, sandstone in south wall face
12. Wall of Structure B
13. Wall of Structure B
14. Continuation of U13, wall of Structure B
15. Large stones of first phase of pavement
16. Secondary paving, eastern extension
17. Secondary paving, western extension

### Trench TR02

#### Audience Hall

Trench TR02 was divided into three areas, A, B, and C. A was in the Hall, B in the northeastern corner of the Anteroom, and C in the front doorway.

01. B & C Topsoil, dark brown soil with rocks, roots, and animal holes, in anteroom
02. A Topsoil in hall
03. A Compact fill with ash
04. B & C Soil above floor with burned debris
05. A Part of burned floor in hall
06. A & B Wall between anteroom and hall
07. B North wall
08. B East wall
09. B & C Floor in anteroom
10. A Floor in hall
11. A Sandstone column base fragments

12. A Fill of robber pit associated with column base
13. A Collapsed floor in U12
14. A Fill in doorway
15. A Threshold foundation
16. B & C Burned floor in anteroom
17. C Stone packing below floor U16
18. C Compact soil below U17, fill
19. C Post setting
20. C Stone paving
21. C Foundation of east wall, U08; = U23 639
22. C Mud wall rendering
23. B & C Foundation of east wall, U08; = U21
24. C Floor

### Trench TR05

#### The Ashlar Building

01. Topsoil
02. Room 2, burned debris, some vitrified, with many small- and medium-sized stones, some mudbrick fragments, and a few fragments of burned mud with reed impressions
03. Room 2, patchy black deposit directly above floor
04. Room 2, surface of floor; up to six mud plaster surfaces were observed
05. South wall, granite ashlar
06. Stone rubble foundation of central and south walls
07. Room 1, ashlar blocks in south wall
08. Room 1, burned debris, some vitrified, with many small and medium sized stones, a few fragments of burned mud with reed impressions, small lumps of charcoal, and some mudbrick fragments
09. Room 2, multilayered floor plaster
10. Burned mudbrick near southwestern corner of Room 1
11. Room 1 debris = U08
12. Room 1 debris = U08
13. Room 1, mud plaster floor
14. Room 1, sandstone surround
15. Burned debris above central wall and south wall of Room 2 = U02
16. Central wall
17. Room 2, mud plaster on western face of central wall
18. Room 2, mud plaster on face of southern wall
19. Debris in Room 2 = U02

20. Room 1, mud plaster on eastern face of central wall
21. Debris in central doorway = U02
22. Debris in Room 2 = U02
23. Room 1, foundations of east and south walls
24. Room 1, foundation of east wall, granite stones along east edge
25. Room 1, sandstone threshold
26. Room 1, limestone block in foundation of south wall
27. Stone pavement in front of the building
28. Stone pavement to south of the building
29. Sondage, earthen fill below floor
30. Sondage, stone rubble fill below floor
31. Foundation beneath (absent) wooden threshold in central wall
32. Room 2, granite ashlar in west wall
33. Room 2, south wall, white limestone plugs in top right-hand corners of granite ashlar 21 and 24
34. Rubble upper wall above ashlar in west wall = U02
35. Room 2, mud plaster on face of west wall, 5.5–6 cm thick
36. Room 2, stone rubble foundations of west wall

### Trench TR11

#### Monumental Entrance

14. Mixed
15. Topsoil and pit
16. Robber pit
17. Robber pit
18. Robber pit
19. Robber pit
20. Ashy topsoil
21. Collapse
22. Collapse
23. Bin wall
24. Stone surface
25. Preconstruction terrace fill = U28
26. Vitrified stone block
27. Stone at base of rear façade slot
28. Preconstruction terrace fill = U25
29. Posthole
30. Stone floor of bin.
31. Terrace fill beneath bin 2005
32. Collapse with mudbrick

### Trench TR14

#### Monumental Entrance

00. Cleaning and backfill
01. Topsoil
02. Robber pit upcast
03. Robber pit
04. Mixed
05. Mixed = TR 11 U32
06. Top of destruction
07. Robber pit; = U12
08. Mixed robber pit and destruction
09. Mixed robber pit and destruction
10. Destruction
11. Destruction
12. Robber pit; = U07
13. Destruction
14. Mudbrick on room wall and associated debris
15. Destruction
16. Destruction
17. Burned-earth floor of room = U34
18. Mixed robber pit and destruction
19. Stone pavement
20. Robber pit
21. Collapse on pavement with mudbrick
22. Bin fill
23. Disturbed
24. Posthole
25. Vitrified stone block
26. Stone pavement
27. Terrace fill below pavement
28. Mudbricks on south wall of room
29. Stone footings of south wall of room
30. Threshold stones
31. Mud plaster on southern face of room wall
32. Mud plaster on northern face of room wall
33. White carbonates
34. Burned-earth floor of room
35. Footings of north wall of room
36. Mudbricks on east wall of room
37. Stone footing of east wall of room
38. Two large stones in footing of east wall of room
39. Stone pavement
40. Posthole
41. North wall of platform
42. Four stones, possibly in situ
43. Posthole
44. White carbonates
45. Possible posthole packing
46. Stones at base of posthole

47. Robber trench
48. Robber trench fill

(Note that numbers began with 49 in 2005)

49. Topsoil = U01
50. Disturbed = U02
51. Robber pit = U03
52. Collapse = U04
53. Robber pit = 06
54. Wall = U07

## Trench TR15

### Monumental Entrance

01. Brown soil and stones with mudbrick and burned clay with reed impressions.
02. Red gritty soil and rubble
03. Fill
04. Wall
05. Fill
06. Mudbrick fill
07. Above surface
08. Stones against wall
09. Robber pit
10. Stone pavement
11. Stone slab
12. Vitrified material
13. Red rubble fill

## Trench TR16

### Monumental Entrance

01. Topsoil
02. Destruction collapse
03. Destruction collapse disturbed by later pit
04. Robber pit
05. Robber pit
06. Robber pit
07. Robber pit
08. Robber pit
09. Burial, Byzantine
10. Robber pit
11. Destruction collapse disturbed by later pit
12. Sandstone in north wall of platform, = TR15U04
13. Destruction collapse
14. Robber pit
15. Stone pavement
16. Ash on pavement
17. Platform core = U21
18. Burned collapse

19. Ash on stone column base U20
20. Column base, sandstone
21. Platform core = U17
22. Granite blocks in platform wall

## Trench TR17

### Monumental Entrance

01. Stones and brown topsoil
02. 2004 backfill
03. Heterogeneous fill
04. Topsoil
05. Grayish soil with patches of burning, southwestern corner of trench
06. Black patch, part of U05 and U08
07. Disturbed fill below U03
08. Pit, northwestern corner, very loose stony fill
09. Disturbed destruction
10. Brown soil below U07
11. Pit in northwestern corner
12. Disturbed fill
13. Destruction layer on pavement
14. Undisturbed destruction and collapse
15. Stone pavement
16. Soil between pavers

## Trench TR18

### Monumental Entrance

01. Backfill
02. Topsoil
03. Red soil above pavement
04. Stone pavement
05. Backfill

## Trench TR19

### Monumental Entrance

01. Topsoil
02. Backfill
03. Stone pavement
04. Soil between pavers

## Trench TR20

### Monumental Entrance

01. Topsoil = U05
02. Brown soil and stones above pavement = U06, U08, U11

- 03. Fallen stones = U104
- 04. Stone pavement
- 05. Topsoil = U01
- 06. Brown soil and stones above pavement = U02, U08, U11
- 07. Soil above pit
- 08. Brown soil and stones above pavement = U02, U06
- 09. Robber pit fills
- 10. Robber pit fills
- 11. Red soil above stone pavement = U02; U06, U08
- 12. Rubble, disturbed
- 13. Red soil with large stones; robber upcast

### Trench TR21

#### Monumental Entrance

- 01. Topsoil
- 02. Disturbed collapse
- 03. Disturbed collapse
- 04. Disturbed collapse

- 05. Disturbed collapse
- 06. Disturbed collapse
- 07. Brown soil below disturbed layers = U08
- 08. Brown soil below disturbed layers = U07
- 09. Burned soil between paving stones
- 10. Gold foil between paving stones
- 11. Destruction layer above pavement = U12
- 12. Destruction layer above pavement = U11
- 13. Disturbed collapse and destruction
- 14. Drain in pavement
- 15. Granite aniconic stele
- 16. Sandstone column base, disturbed
- 17. Disturbance around column base
- 18. Square depression in pavement in front of aniconic stele
- 19. Stone pavement = U20, U21
- 20. Stone pavement = U19, U21
- 21. Stone pavement = U19, U20
- 22. Disturbed = U06
- 23. Disturbed
- 24. Disturbed
- 25. Fallen stone



## APPENDIX 5

## PLACE NAMES

## Places

'Ain Dara  
 Alaca Höyük  
 Alişar Höyük  
 Ankara  
 Ankuwa  
 Arslankaya  
 Bahşayış  
 Boğazköy  
 Büyükkale, Boğazköy  
 Çadır Höyük  
 Çalapverdi  
 Carchemish  
 Delikli Taş  
 Delphi  
 Didyma  
 Doryleon  
 Dümrek  
 Eskişehir  
 Eski Smyrna (Old Smyrna)  
 Fort Shalmaneser  
 Gökbahçe  
 Gordion  
 Göllü Dağ  
 Hattusa  
 Kalehisar  
 Kaman Kalehöyük  
 Kastamonu  
 Katapuka  
 Khorsabad  
 Korucutepe  
 Korykeion Andron  
 Korykeion Andron in Delphi  
 Küçük Höyük (Gordion)  
 Kuşaklı (Uşaklı)  
 Lydia  
 Mal Taş  
 Maşat Höyük  
 Midas City  
 Nimrud

Nineveh  
 Old Smyrna (İzmir)  
 Oluz Höyük  
 Pazarlı  
 Persepolis  
 Porsuk  
 Pteria  
 Sakçagözü  
 Sardis  
 Sinop (Sinope)  
 Südburg (Boğazköy)  
 Şahmuratlı Village  
 Şark Höyük (Eskişehir)  
 Sorgun  
 Tarsus  
 Tomb of Alyattes (Sardis)  
 Ugarit  
 Uşak  
 Yaşihöyük (Gordion)  
 Yozgat  
 Zippalanda

## Regions and Territories

ancient Near East  
 Assyria  
 Cilicia  
 East Mediterranean  
 Egypt  
 Ionia  
 Iraq  
 Köhnüş Valley  
 Levant  
 Lydia  
 Mesopotamia  
 North Syria  
 Persia  
 Phrygia  
 Phrygian Highlands  
 Tabal

## Rivers

Halys River

Kızılırmak (Red River; Classical Halys River)

Pactolus (Sart Çayı)

Sakarya River (Classical Sangarios River)

## Mountains

Erciyes Dağı

Göllüdağ

Kerkenes Dağ

Mount Daha (Hittite, probably Kerkenes Dağ)

## Museums

İzmir Museum

Louvre

Museum of Anatolian Civilizations, Ankara

Niğde Museum

Yozgat Museum

## APPENDIX 6

## TECHNICAL ABBREVIATIONS

## Materials

These abbreviations are employed in the Finds Identification Numbers. They can be used to search the Kerkenes archives and the online finds catalog.

arc	architectural stone object or fragment
bon	bone and ivory
cmp	composite object or fragment
gfa	glass, faience, frit, or amber
met	metal
pob	pottery or baked clay object
pot	pottery
skl	skeleton (human)
stn	stone
wdn	wooden (object)

## Photographic Archive

Each photographic archive entry begins with two numbers giving the year, followed by two letters for the medium (slide, digital, etc.), and two further letters that indicate either the category (blimp film, view film, etc.) or the camera with which the photograph was taken. The archive can be searched by year and by medium. Slides and negatives are housed in folders arranged by the same system. All digital photographs are archived by year and by camera. There is not (yet) a full searchable archive by subject (e.g., by area or by trench), but the online finds catalog does include photo archive numbers of the best images of each object.

*Medium*

bw	black-and-white film
dp	digital photograph
sl	slide film

*Category*

bf	blimp film
hb	hot-air balloon
vf	view film





# PLATES



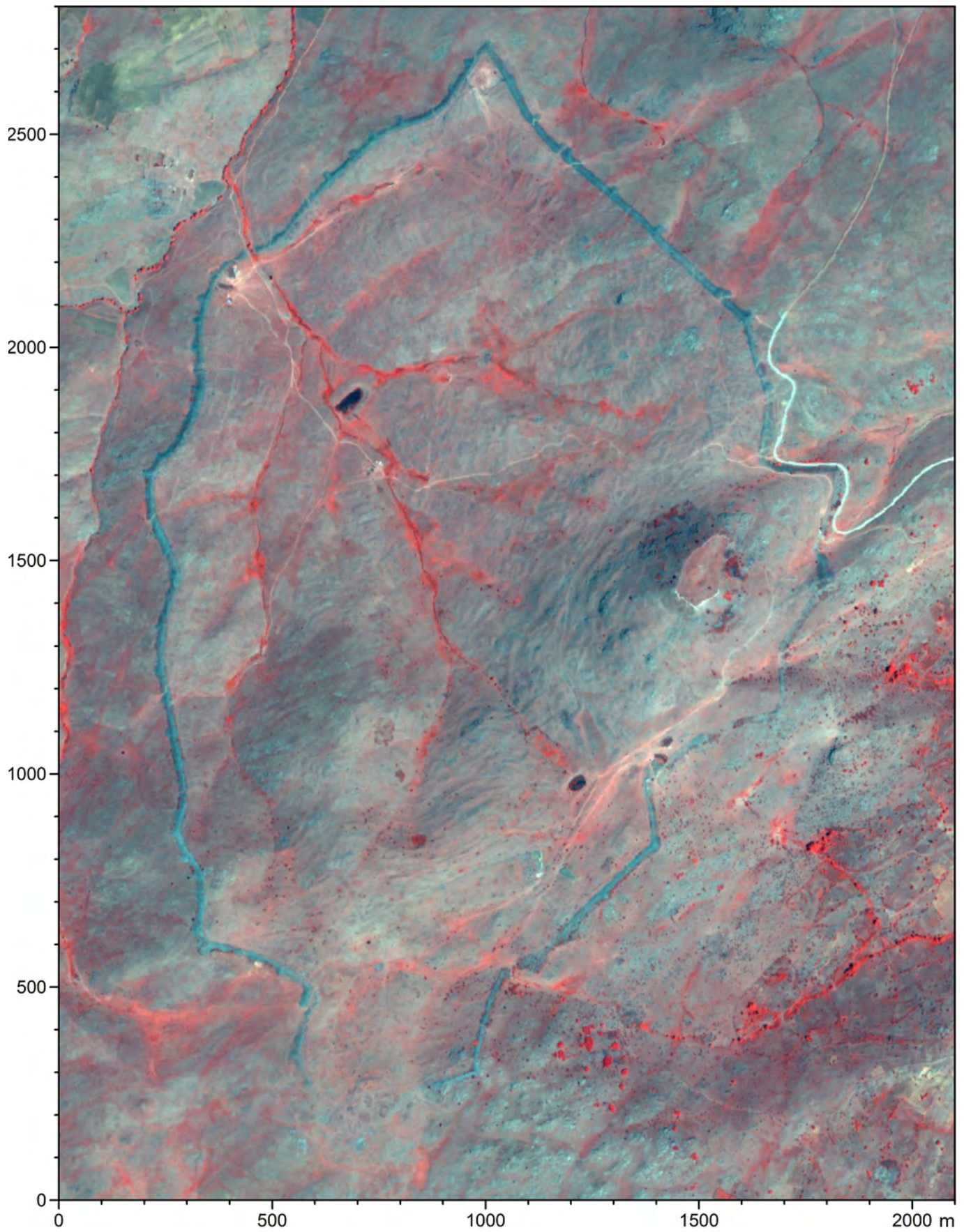


(a) Location of Kerkenes in the center of the Anatolian Plateau |

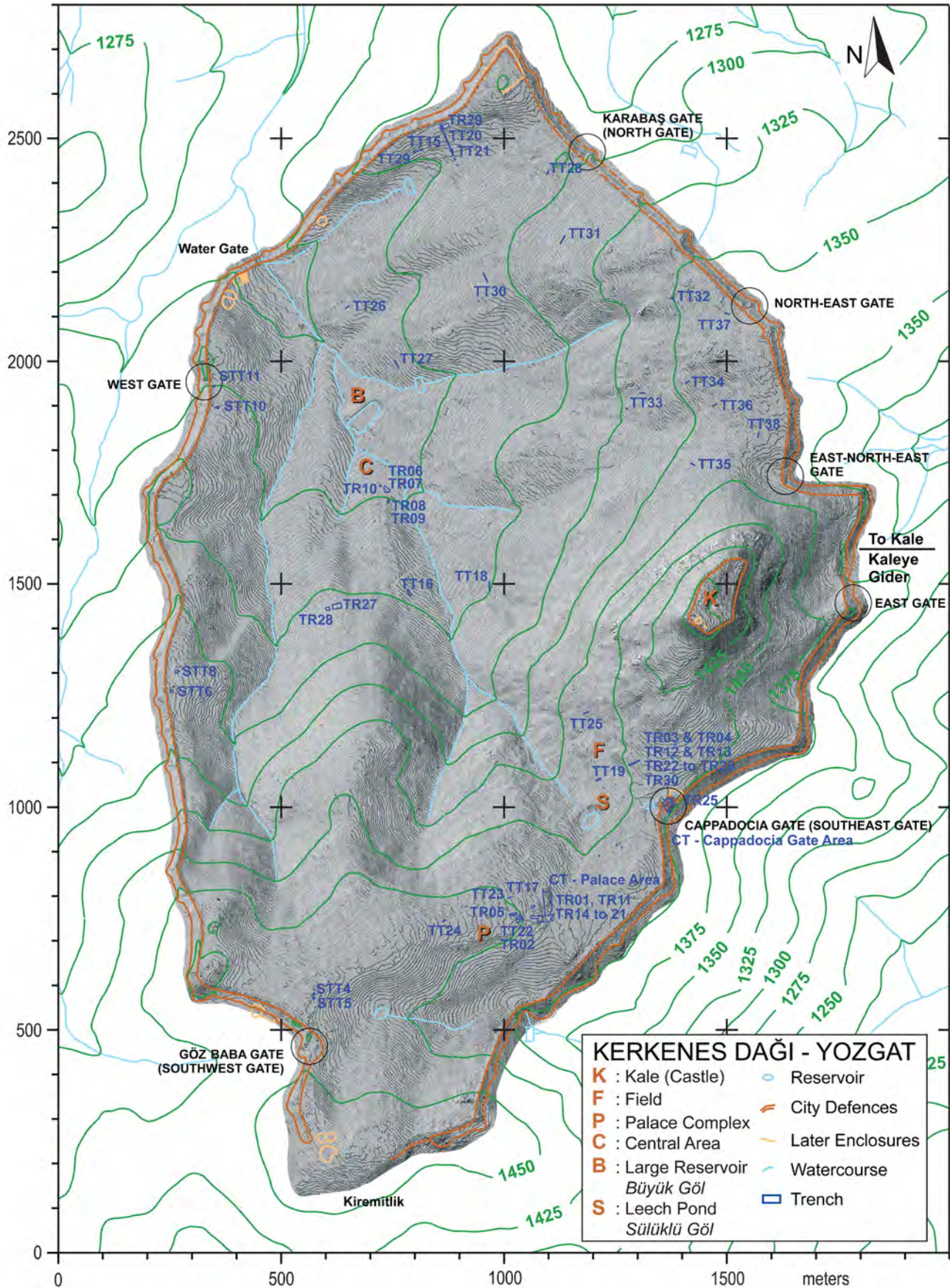


(b) Kerkenes, with Sinop (Sinope) on the Black Sea to the north, the Kızılırmak (Red River), and Mount Erciyes |

PLATE 2 | SATELLITE IMAGE OF KERKENES

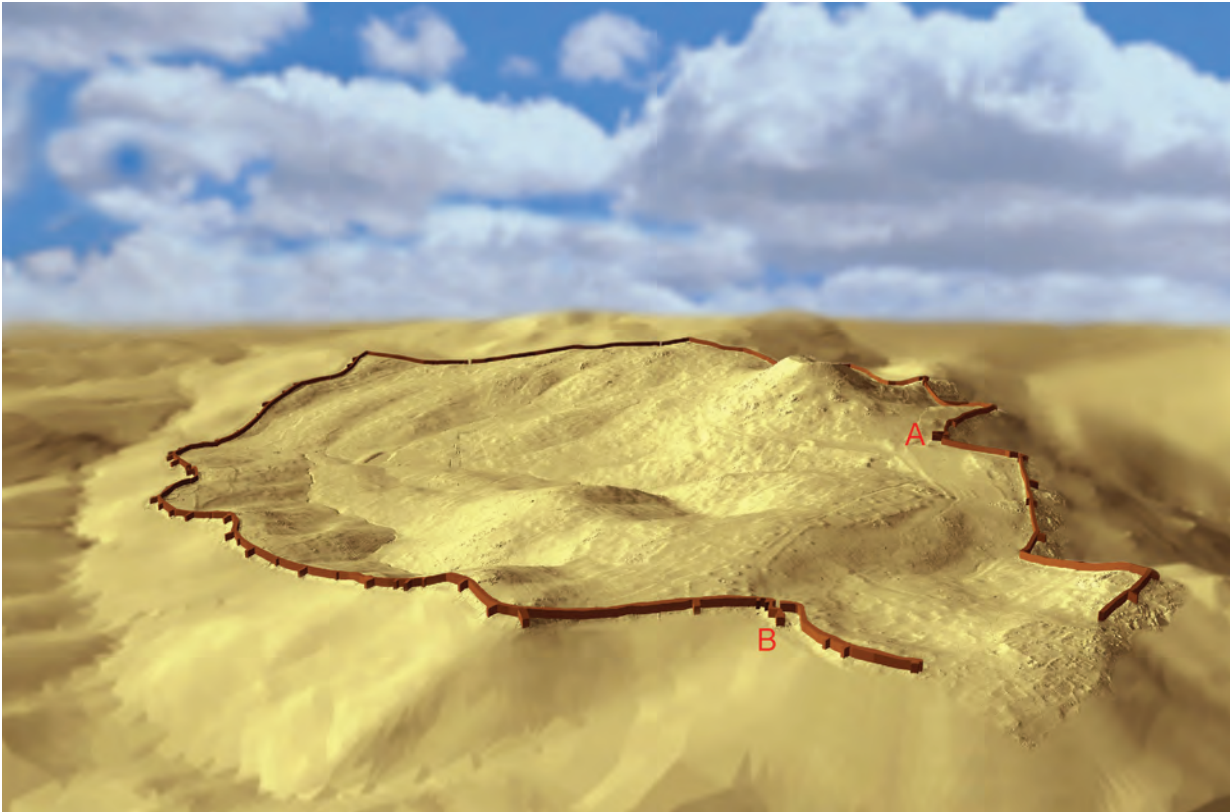


| QuickBird satellite image of the Iron Age capital on the Kerkenes Dağ at a scale of 1:12,500 (Aydın 2004)

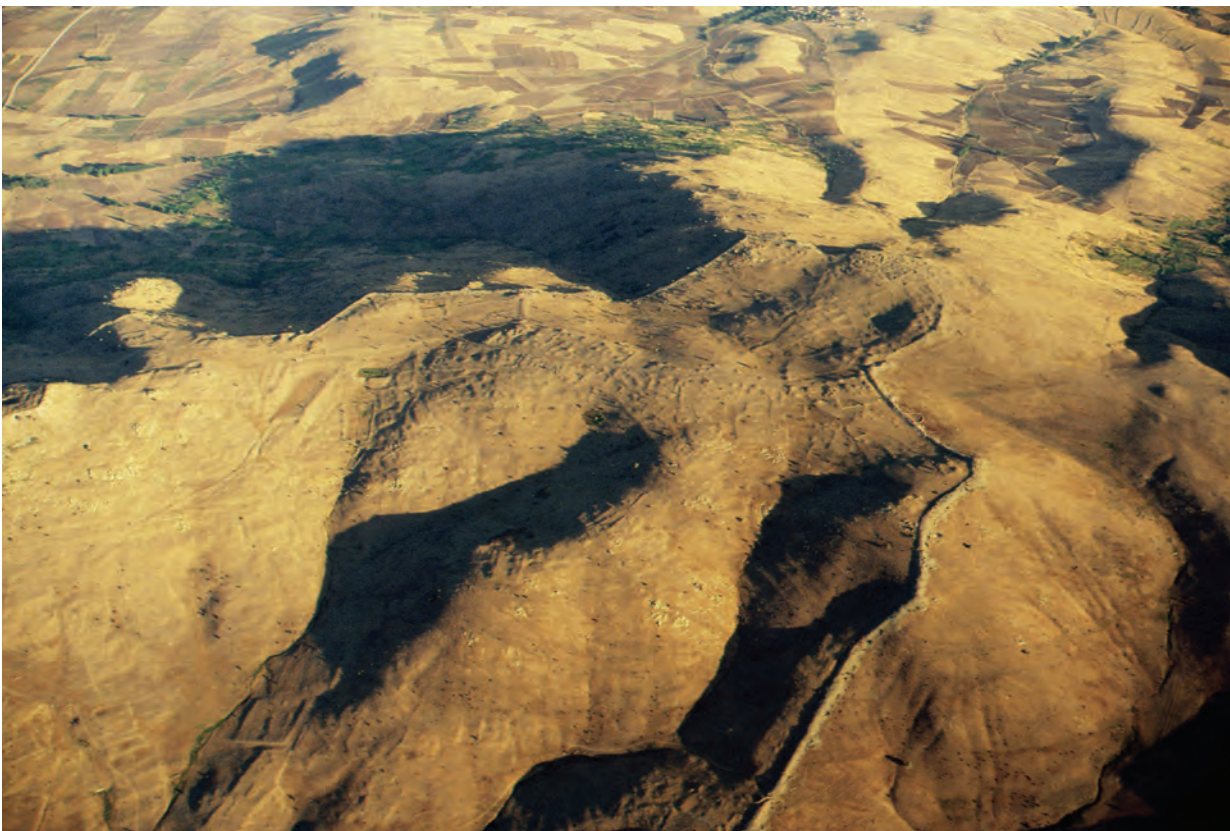


Trench Location : Schmidt test trench : **STT** (1996)  
 Clearance trench : **CT** (1999, 2000) Test trench : **TT** (1996, 1998, 2000)  
 Trench : **TR** (2002, 2003, 2004, 2005, 2009, 2010, 2011) Transportation trench : **TT 23-38** (2004, 2007, 2008)

PLATE 4 | DIGITAL ELEVATION MODEL AND AERIAL VIEW OF KERKENES

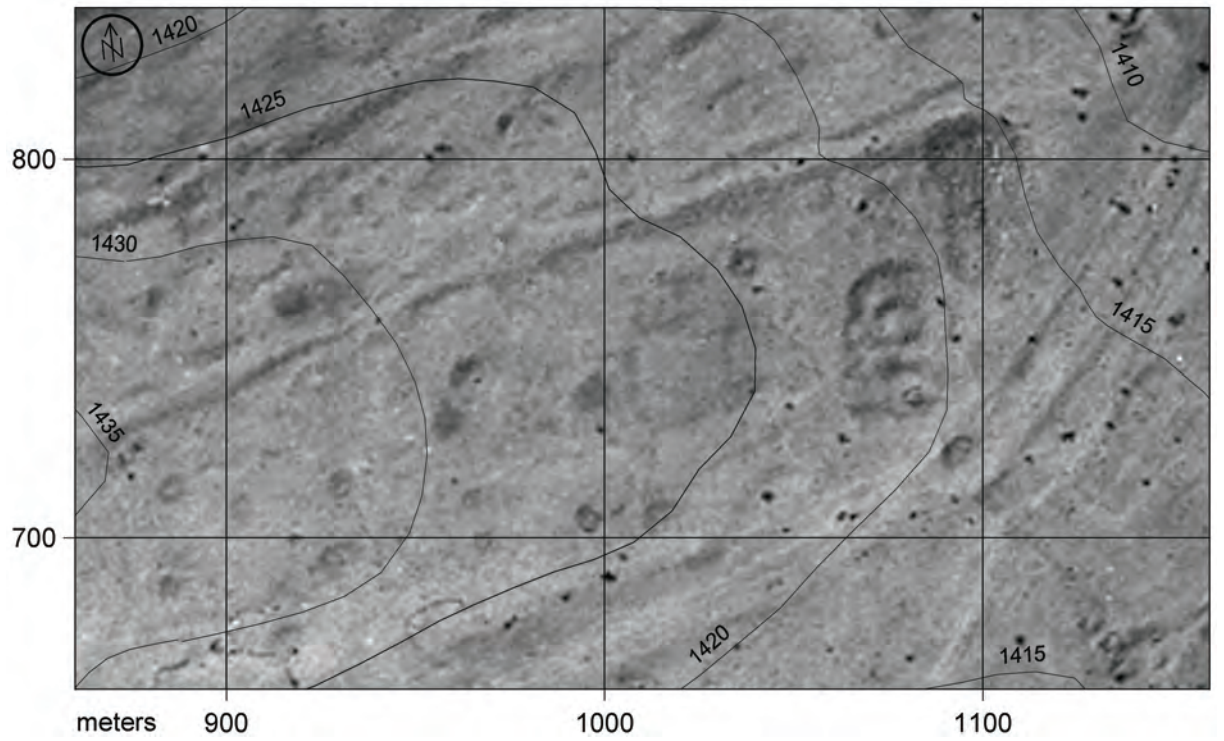
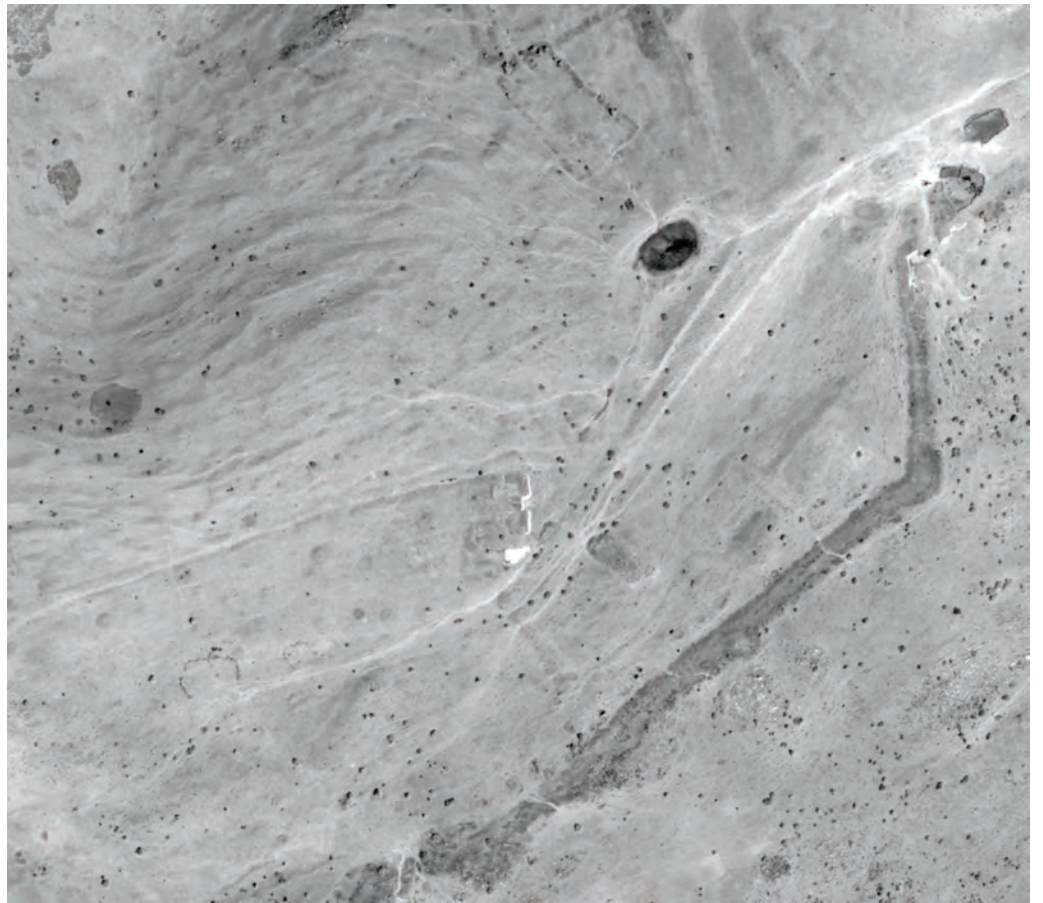


(a) Digital Elevation Model (DEM) of Kerkenes with city defenses modeled. The Kiremitlik is at bottom right; the Palatial Complex is on the southern ridge between the Cappadocia Gate (A) and the Göz Baba Gate (B), linked by a major street.



(b) Southern portion of the city from a hot-air balloon. The Kiremitlik is at top right, the Palatial Complex at center, and the acropolis at center left.

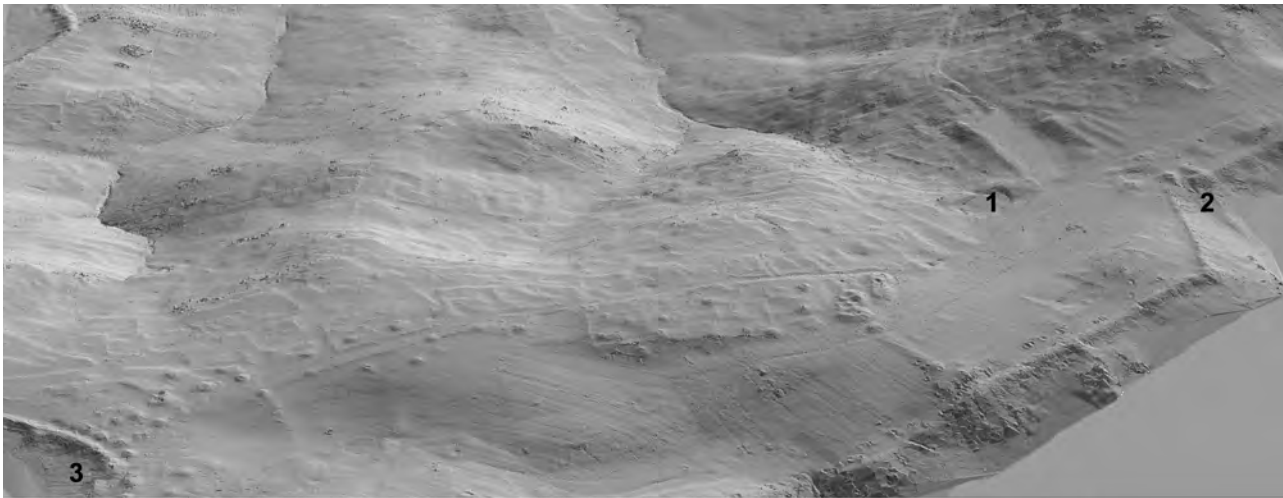
(a) Part of the 2003 QuickBird image showing the Palatial Complex with (at right) the partially excavated Structure A glacis and Monumental Entrance pavement. The Cappadocia Gate is at upper right.



(b) Orthophoto of the Palatial Complex and its environs at a scale of 1:2000 |



PLATE 6 | GPS IMAGERY OF THE PALATIAL COMPLEX

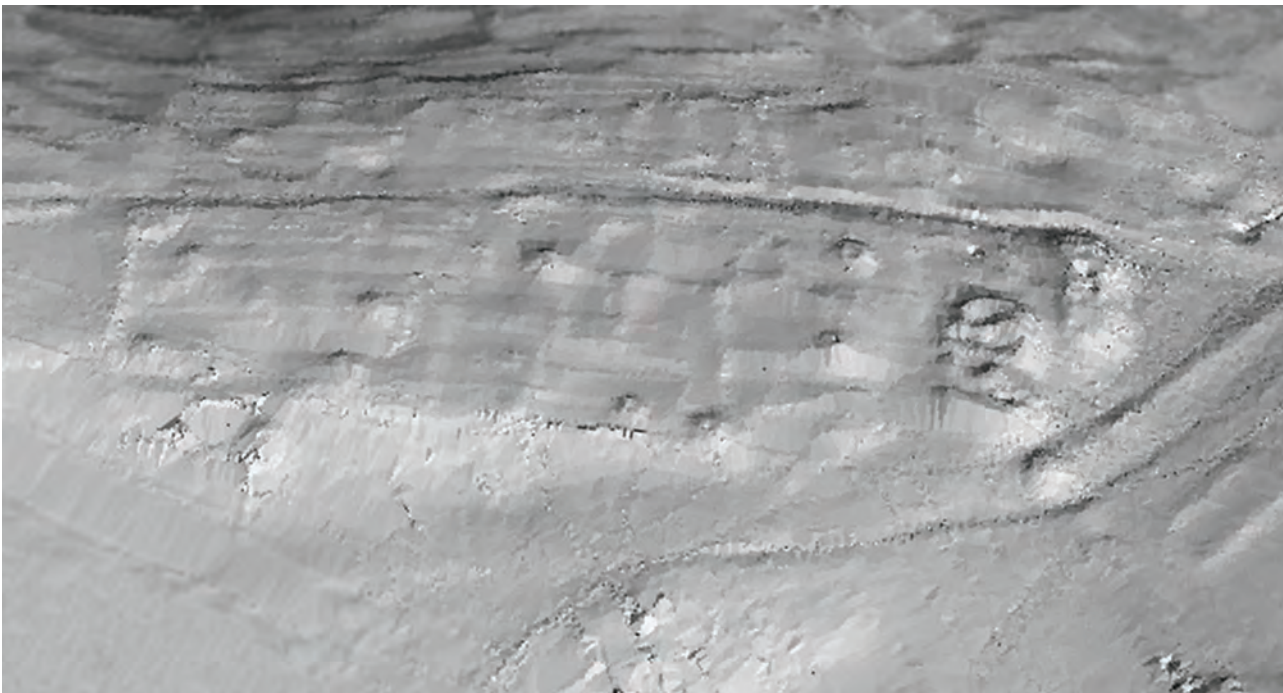


**1: Leech Pond**

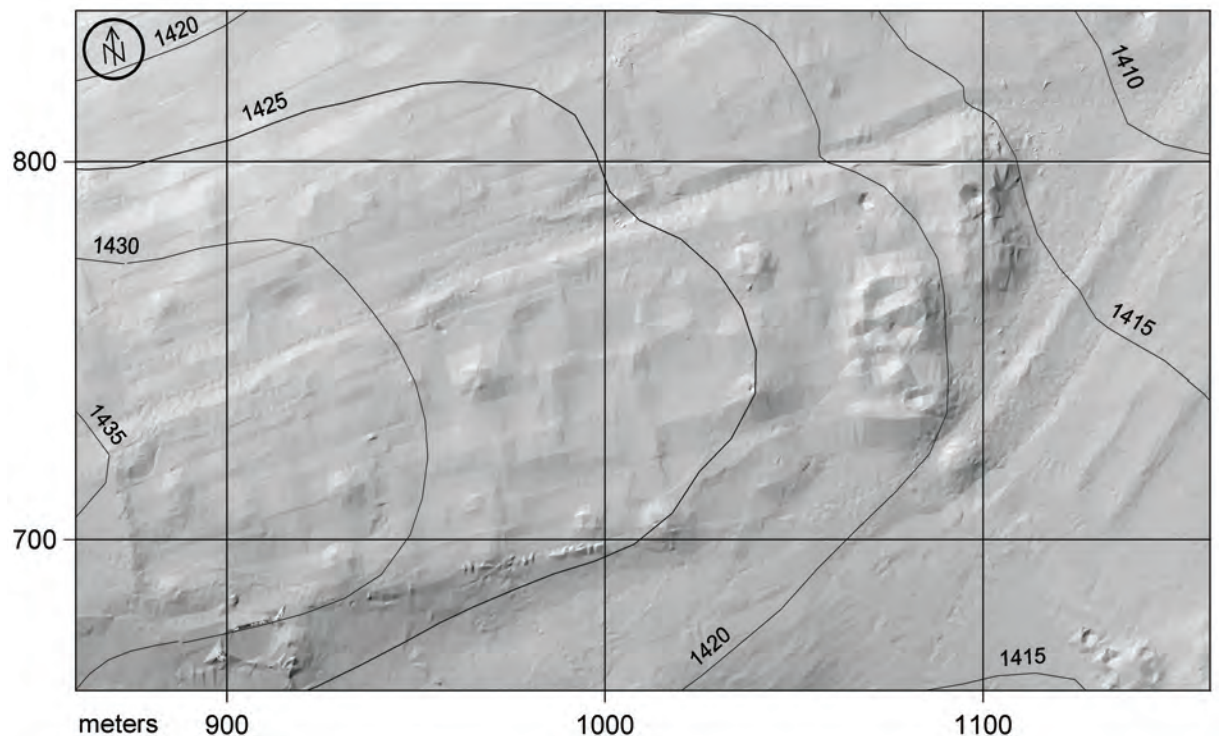
**2: Cappadocia Gate**

**3: Göz Baba Gate**

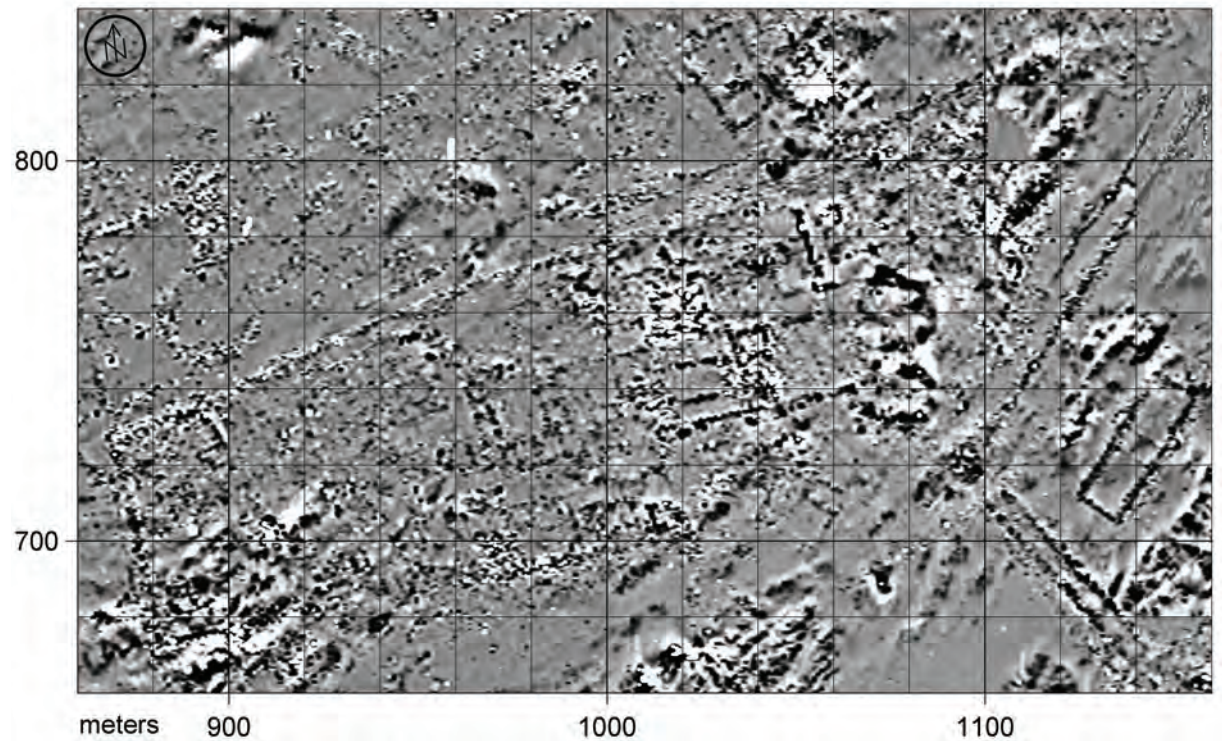
(a) The Palatial Complex and its environs, generated from differential GPS survey data processed in ArcView. The Palatial Complex, well defined by its enclosure wall, eastern glacis, and Monumental Entrance, sits on the southern ridge bounded by the street linking the Cappadocia Gate in the southeastern defenses to the Göz Baba Gate on the southwestern side.



(b) Oblique image of the Palatial Complex generated from differential GPS survey data. North is at top.

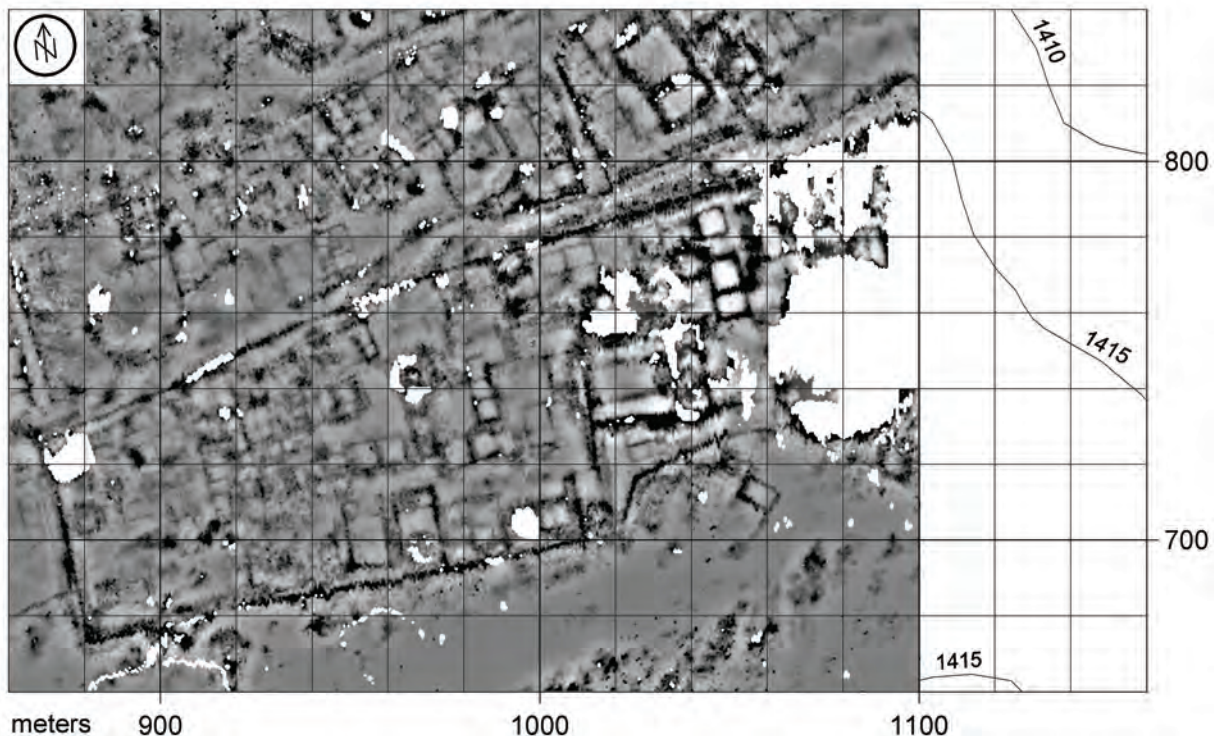


(a) Vertical image of the Palatial Complex generated from differential GPS survey data at a scale of 1:2000 |

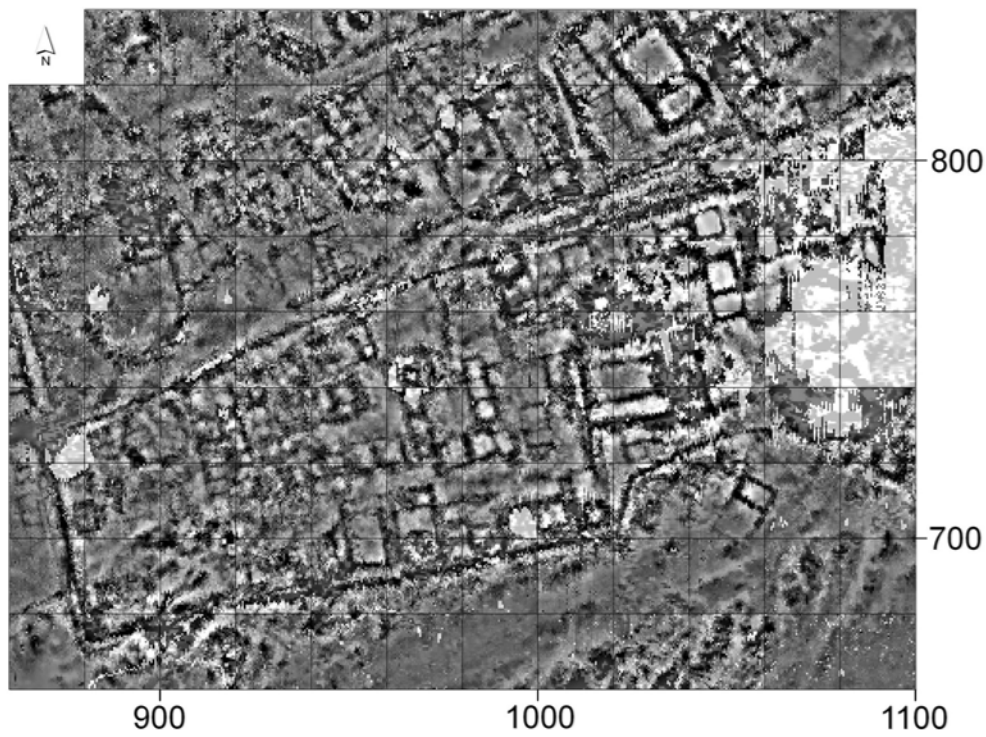


(b) Gradiometer survey of the Palatial Complex and its environs at a scale of 1:2000 |

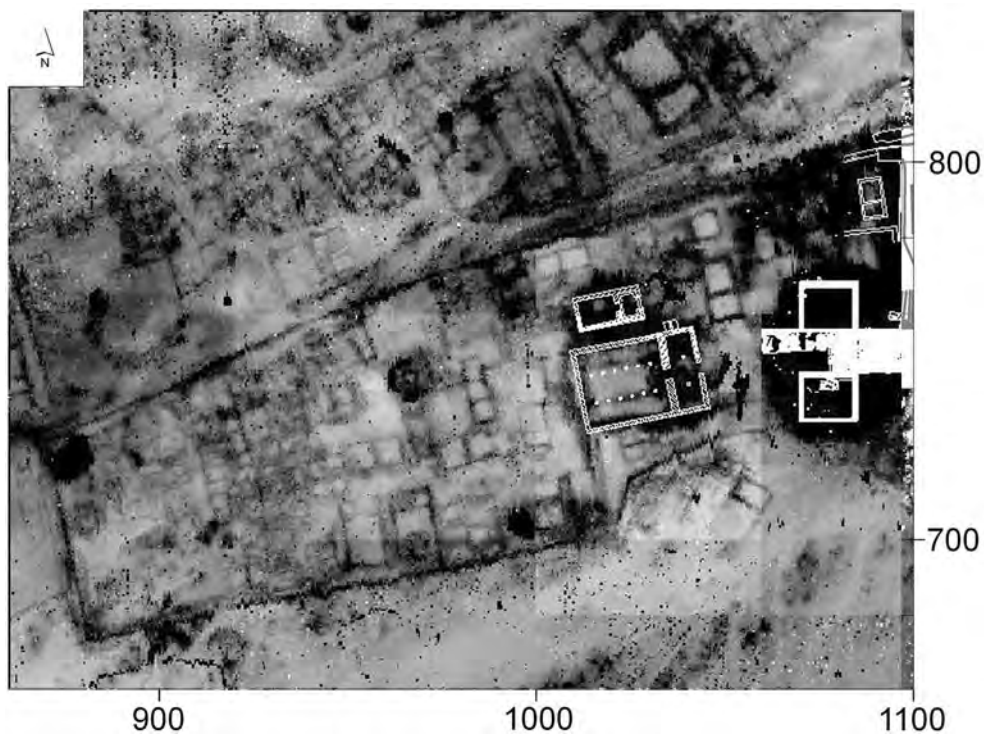
PLATE 8 | GEOPHYSICAL IMAGERY OF THE PALATIAL COMPLEX



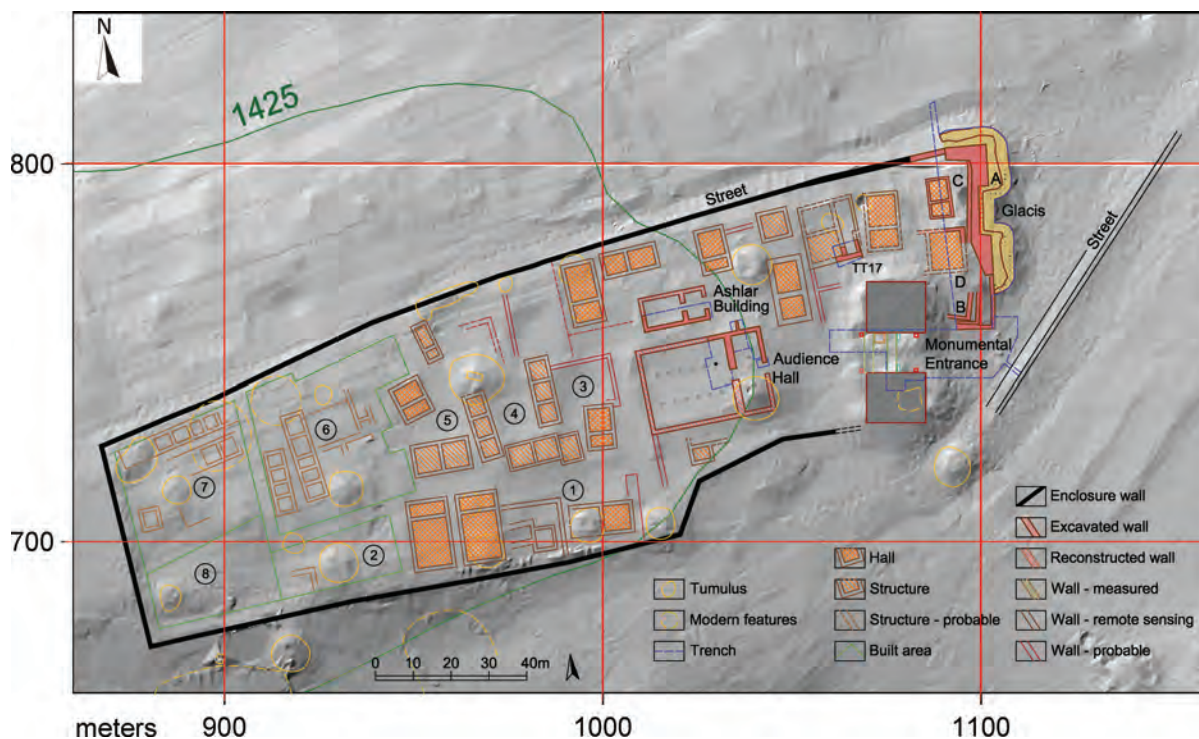
| (a) Resistivity survey of the Palatial Complex and its environs at a scale of 1:2000



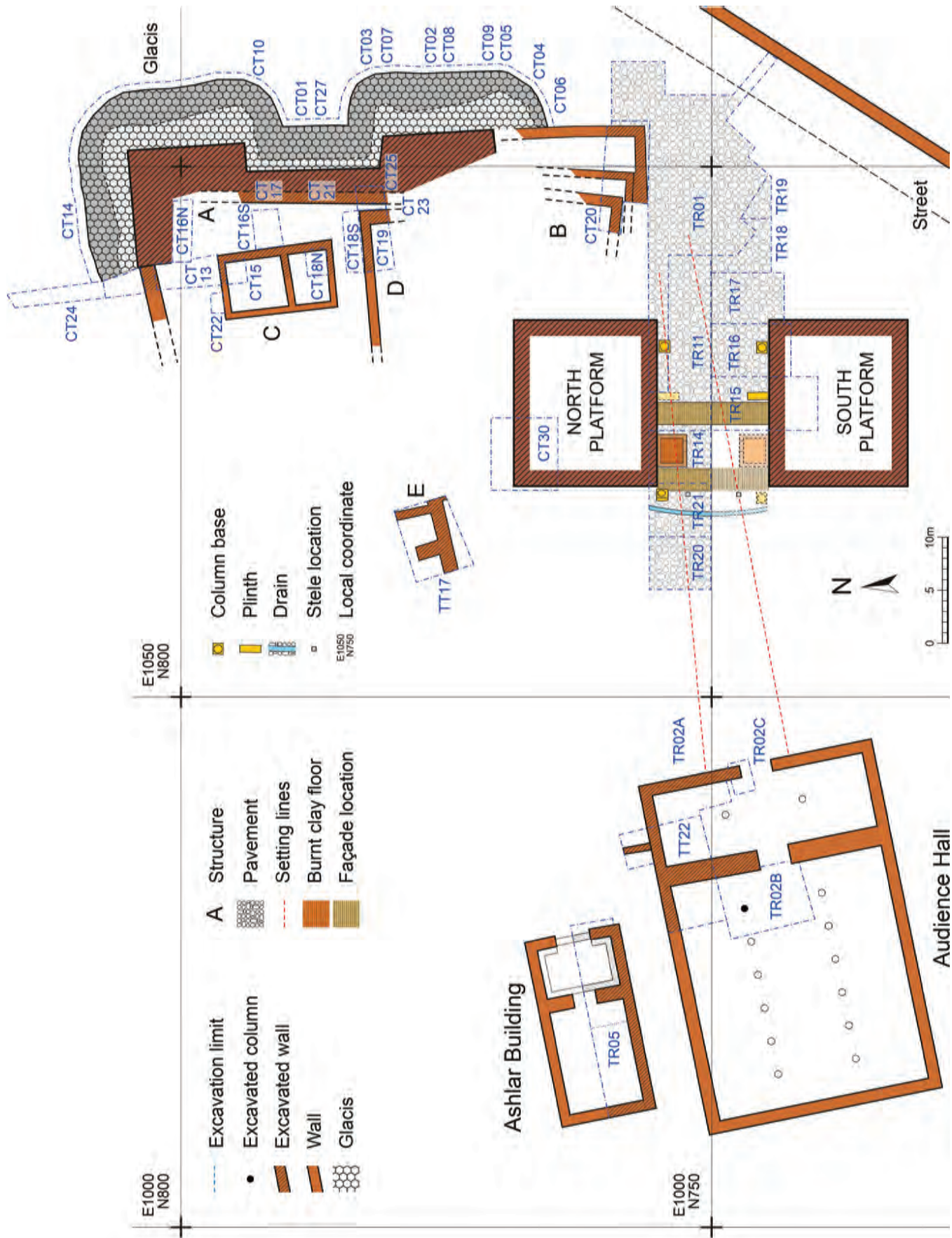
| (b) Resistivity survey image of the Palatial Complex with gradiometer survey image overlaid at 25% opacity in Photoshop at a scale of 1:2000



(a) Resistivity survey raw data of the Palatial Complex with plan of the main structures at the eastern end, overlaid in white, at a scale of 1:2000



(b) Interpretation of all data sets of the Palatial Complex at a scale of 1:2000



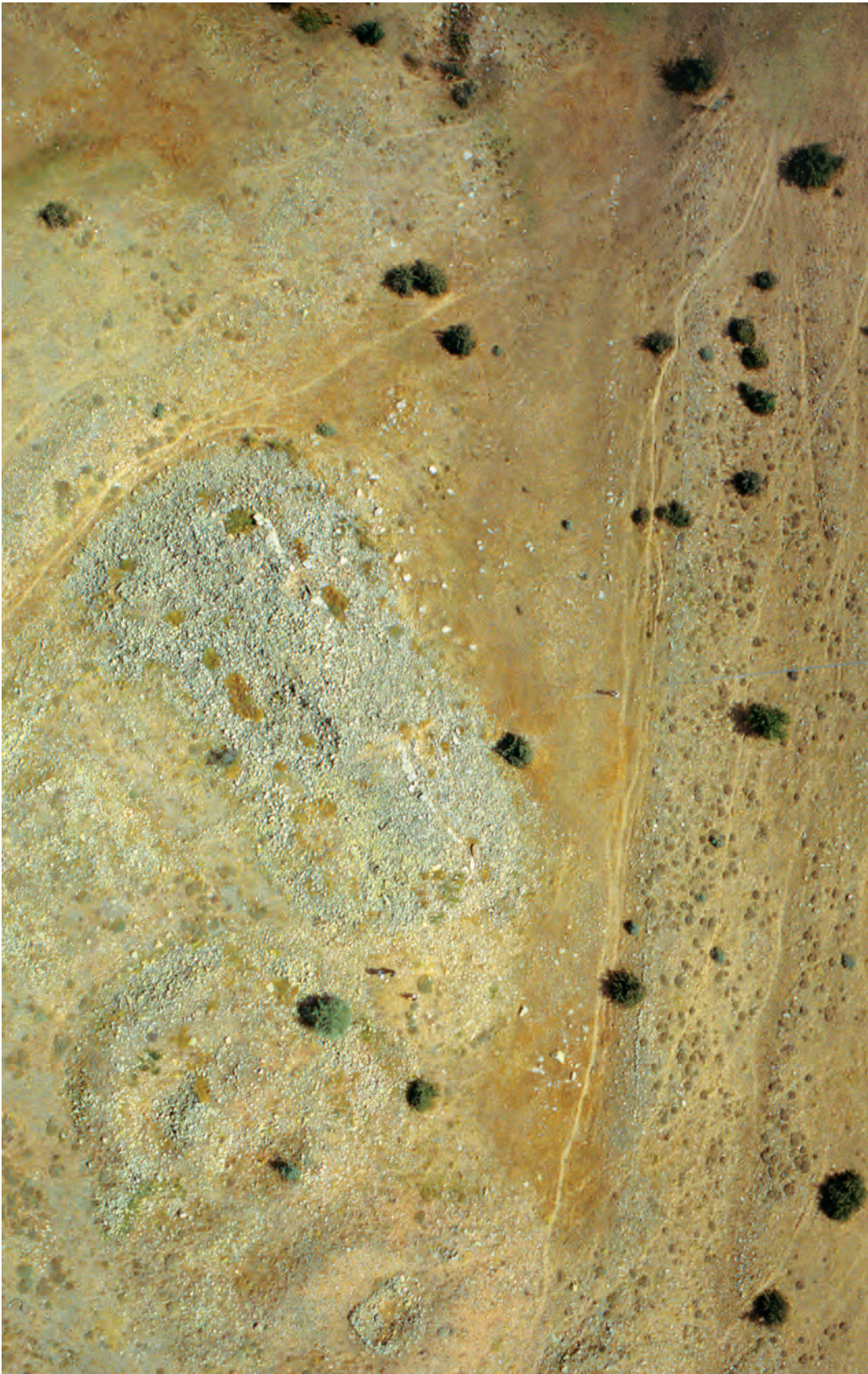
| Plan of the Palatial Complex with trenches at a scale of 1:500



(a) The Palatial Complex from the east before the start of clearance |



(b) Eastern end of the Palatial Complex with part of the glacis face visible before the start of clearance |



Photograph from a blimp before commencement of clearance. The exposed top of the Structure A stone glaci is visible above the fallen stone. A recent shepherd's structure in the robber pit on top of the South Platform of the Monumental Entrance is at center bottom.

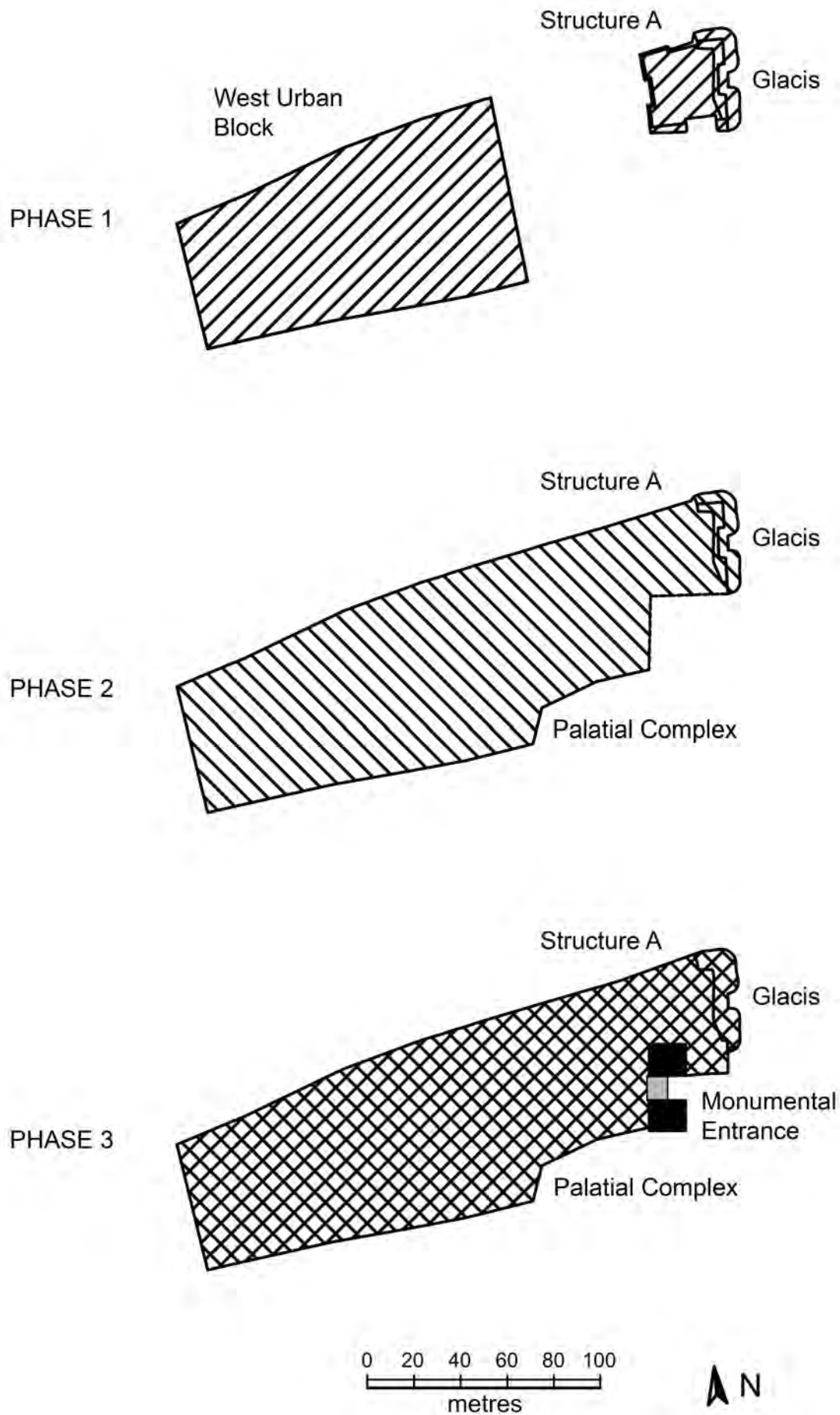
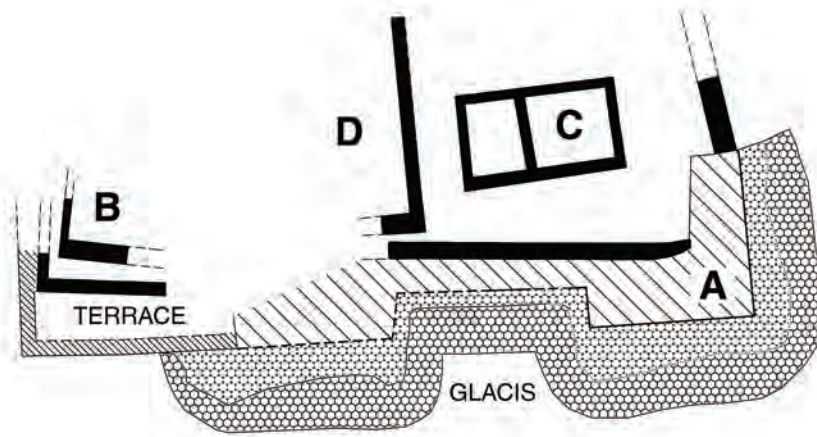
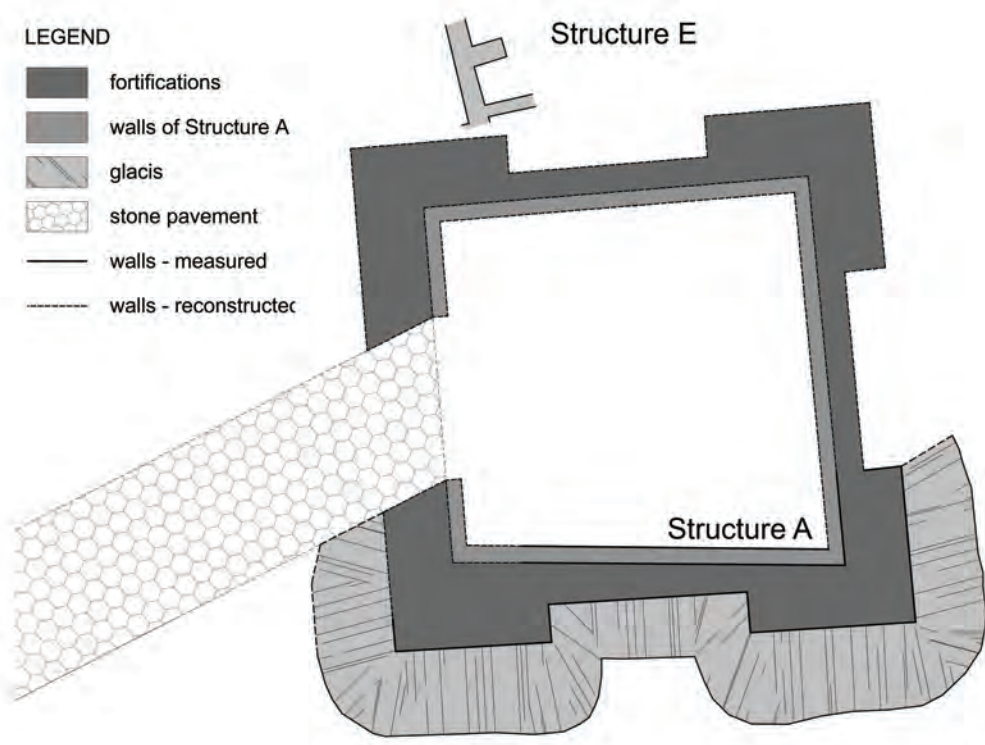




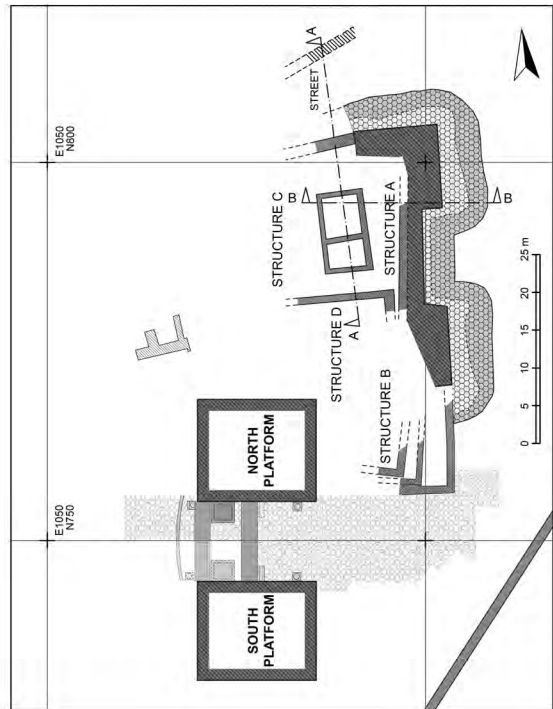
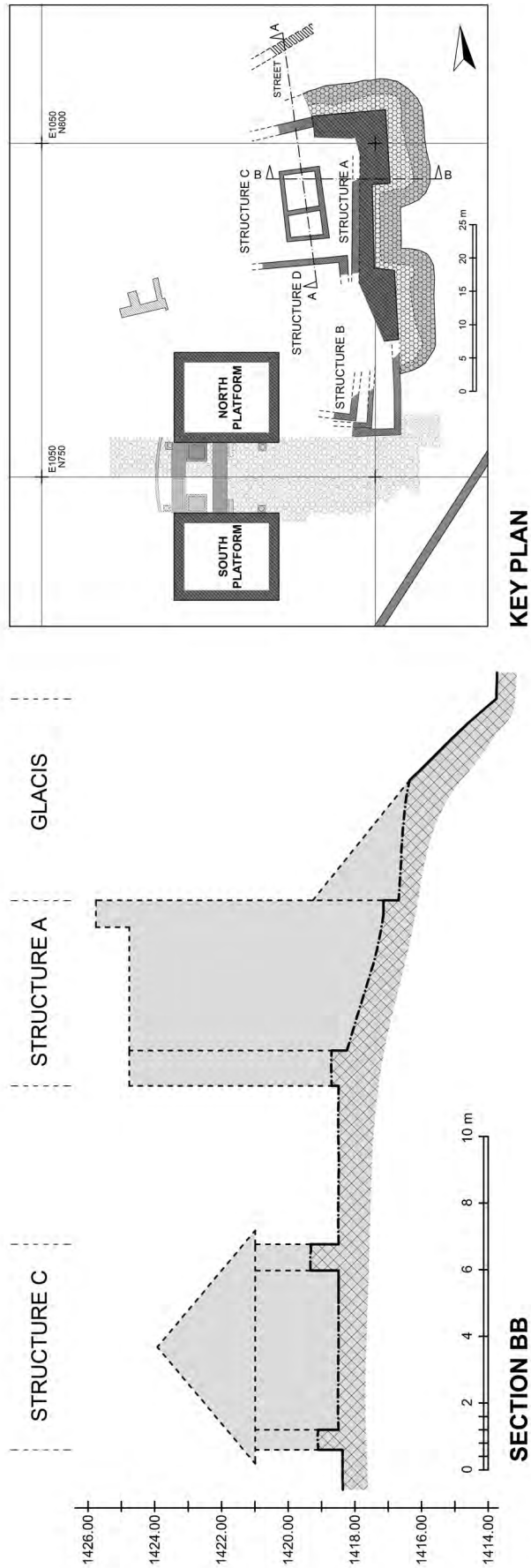
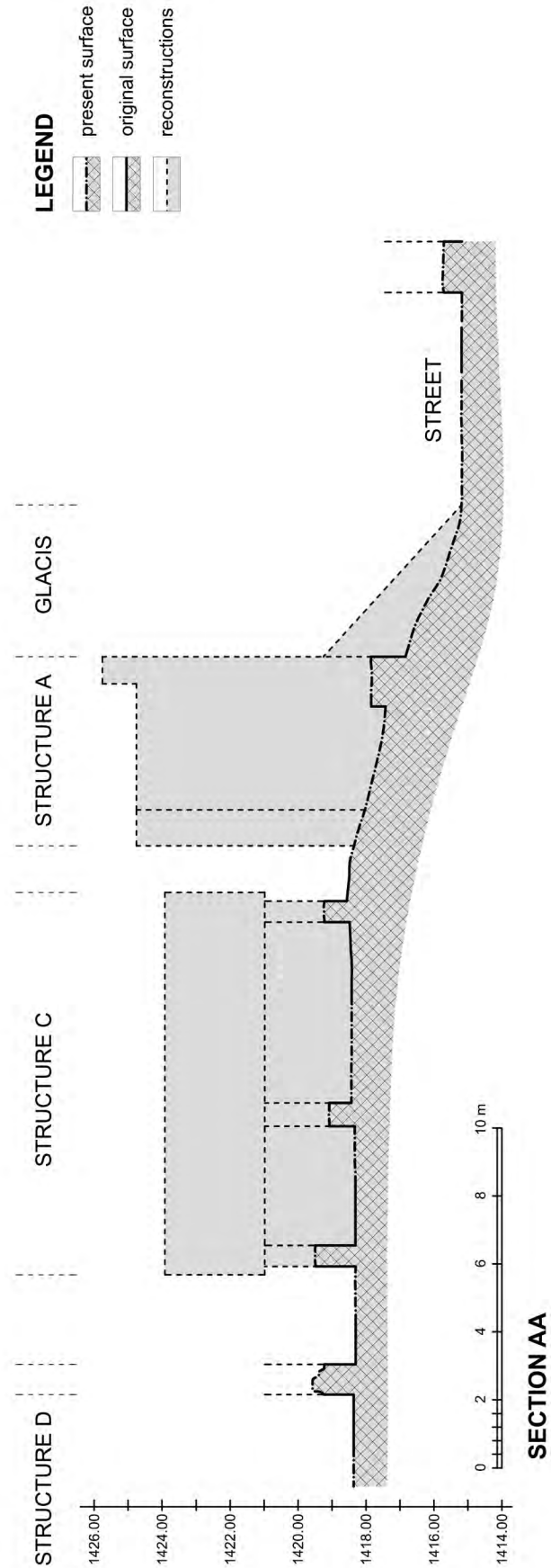
PLATE 14 | PLANS OF STRUCTURE A



(a) Plan of the fortified Structure A, with Structures B, C, and D at eastern end of the Palatial Complex, at a scale of 1:500



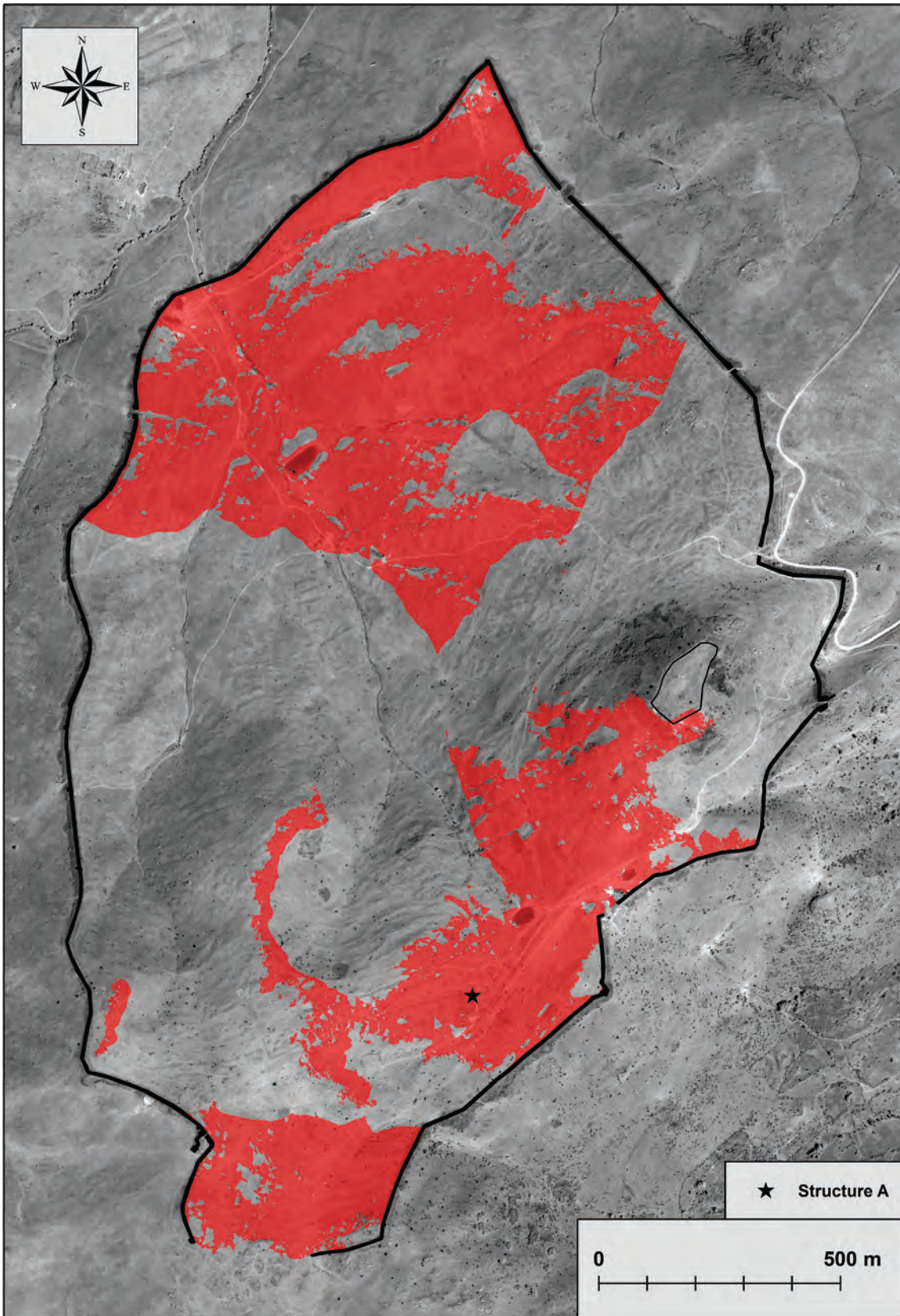
(b) Structure A at a scale of 1:500 with probable position of the original entrance reconstructed. The location of the later Structure E is indicated.



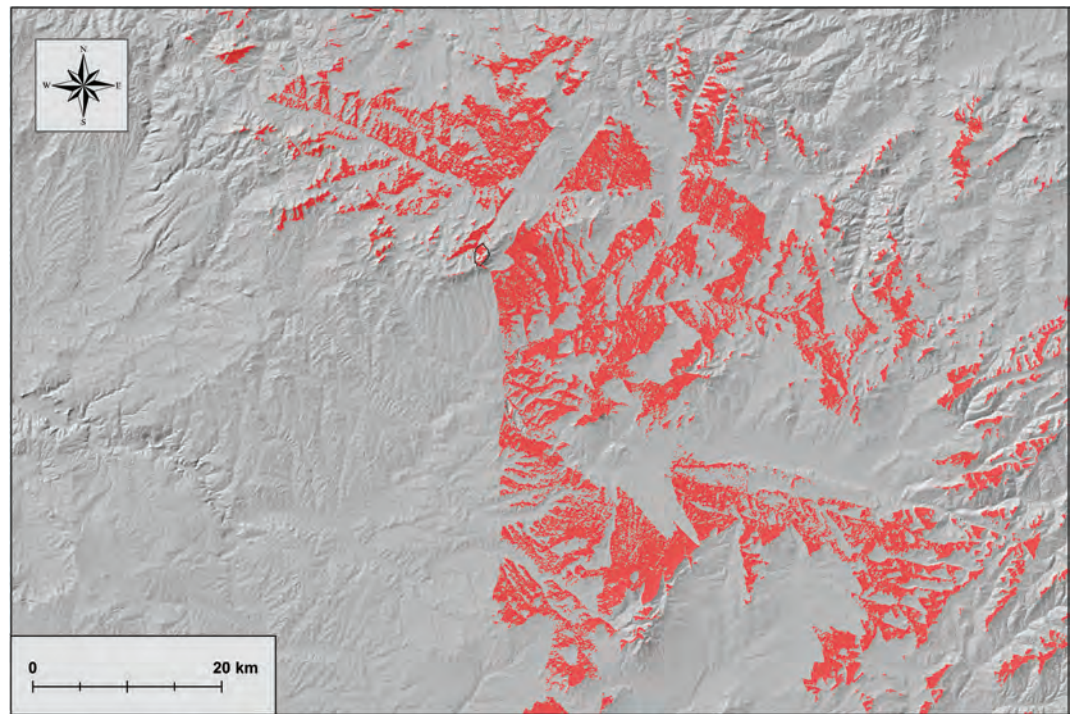
Top to bottom: (a) North-south profile across street on northern side of the Palatial Complex with suggested reconstructions of Structure A and Structure C, (b) East-west reconstructed profile with suggested reconstructions of Structure A and Structure C

DRAWINGS by Ahmet Çinici

PLATE 16 | VIEWSHED WITHIN THE CITY WALLS FROM STRUCTURE A



Viewshed within the city walls from Structure A, with the observer at an elevation of 12 m above base of glacis, at a scale of 1:12,500



(a) Viewshed over 50 km from Structure A, with observer at an elevation of 12 m above base of the glacis, at a scale of 1:800,000 |



(b) Structure A from the northeast |

PLATE 18 | STRUCTURE A GLACIS



| (a) Structure A glacis at base of South Tower at the end of the 1999 season



| (b) Structure A glacis at base of South Tower, with the recess at right, at the end of the 2000 season



(a) Structure A glacis in the recess at the end of the 2000 season |



(b) Structure A glacis around southeastern corner of North Tower |

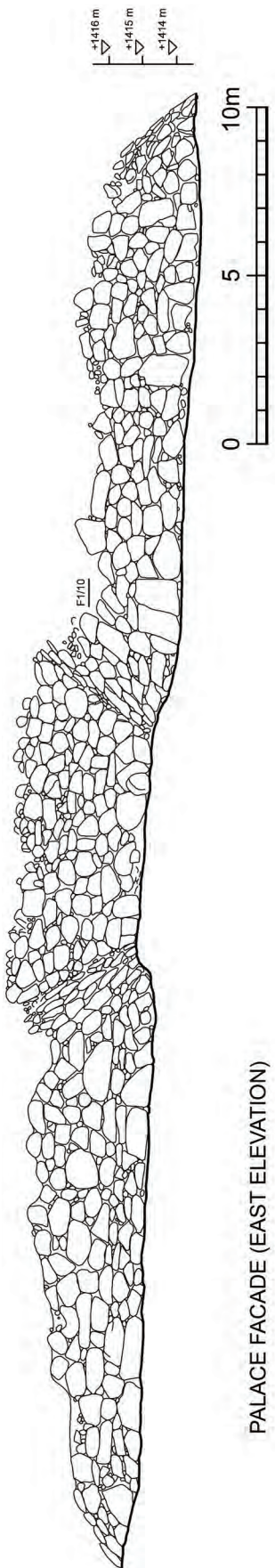
PLATE 20 | STRUCTURE A GLACIS



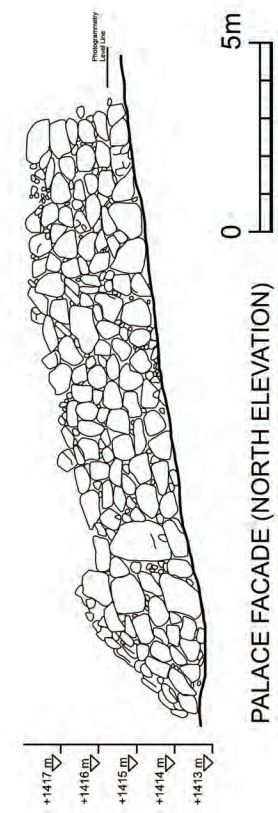
| (a) Structure A glacis around northeastern corner of North Tower



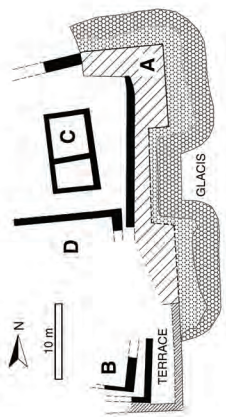
| (b) Structure A glacis around northeastern corner of North Tower, with the ragged cut at its western terminus and the leaning wall of the second phase. The scale rests on the steeply sloped surface with patches of burning from the final destruction.



PALACE FACADE (EAST ELEVATION)



PALACE FACADE (NORTH ELEVATION)



Plan of east end of Palace Complex

| Structure A glacis drawn from pairs of stereo photographs at a scale of 1:200

DRAWING by Kemal Gülcen and prepared by Dominique Langis-Barsetti



PLATE 22 | DETAILS OF STRUCTURE A



(a) Sharp corner of Structure A glacis around South Tower and the recess showing how the face stones are bonded. Hard black mineral accretions on the glacis face can be seen at lower right. The 50 cm scale rests on the clean surface that is probably mud plaster washed down from the wall face.



(b) Structure A, northeastern corner of North Tower, showing the large pillar-like stone that was set on end on the stone rubble fill beneath



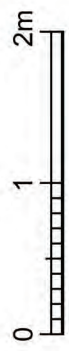
Cut through the base of Structure A glaci, with the secondary eastern wall of Structure B (at left) |



**LEGEND**

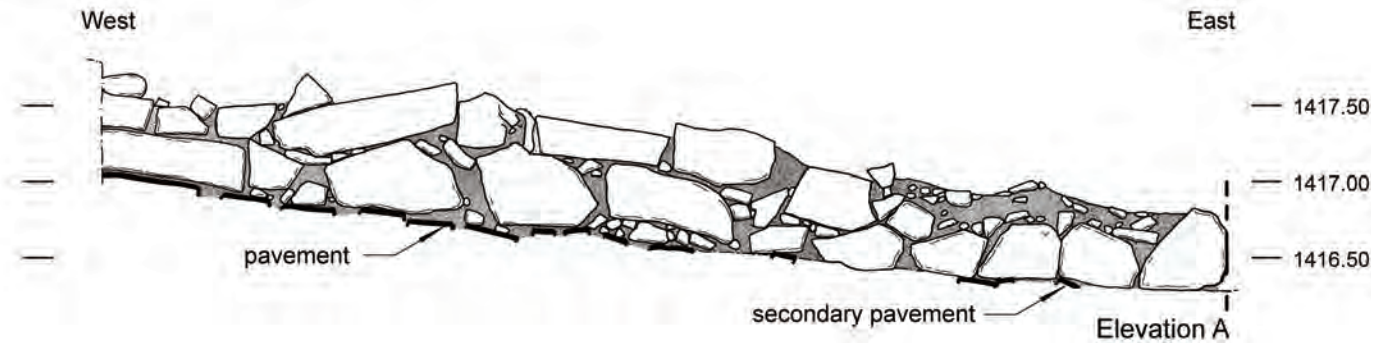
- - - trench line
- CT20 trench name
- 1418.46 height in m
- 1416.79 pavement
- - - pavement line

North



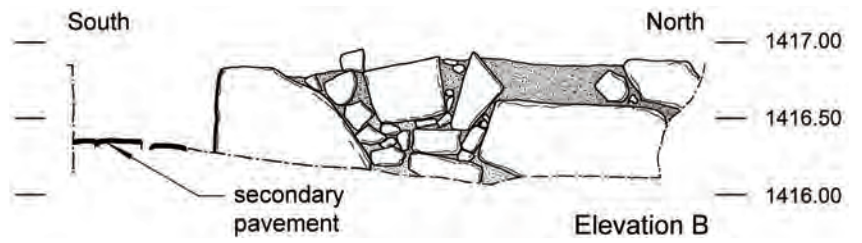
| Plan of Structure B showing pavement running under the wall

DRAWING by Ben Claasz Cookson

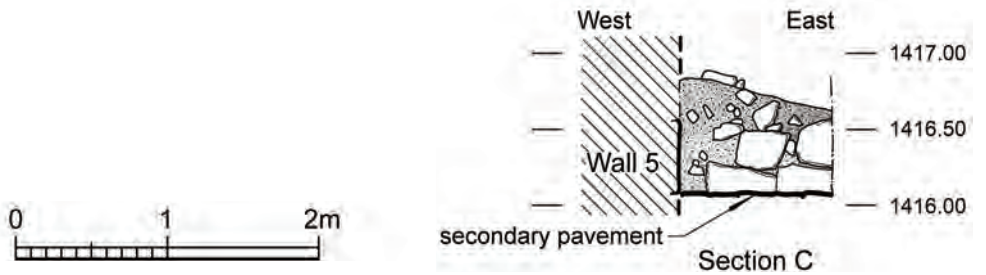


(a) Structure B, Terrace 3, southern elevation (A) of Wall 5, with top of stone paving in CT20 |

(b) Structure B, Terrace 3, eastern elevation (B) of Wall 5 in CT20 |



(c) Structure B, Terrace 3, section (C) against eastern face of Wall 5 at northern end of CT20 showing stones fallen from the wall face |



(d) Corner of Structure B after partial restoration, with edge of the earlier pavement |

PLATE 26 | VIEWS OF STRUCTURE B



| (a) Structure B in the course of excavation from the southeast



| (b) Structure B from the southeast

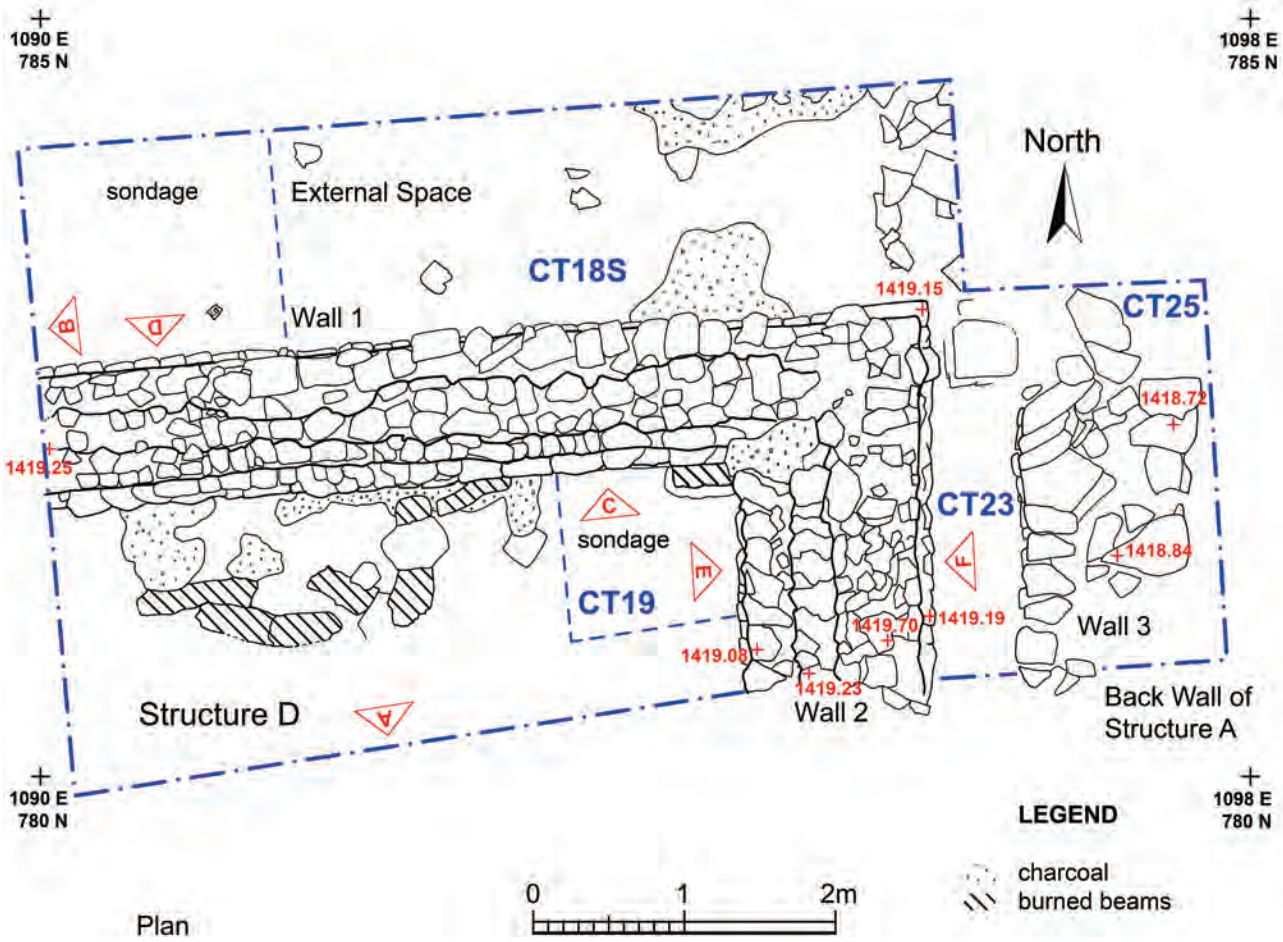


(a) Eastern wall of Structure B (Wall 5) where it was cut through the Structure A glacis |

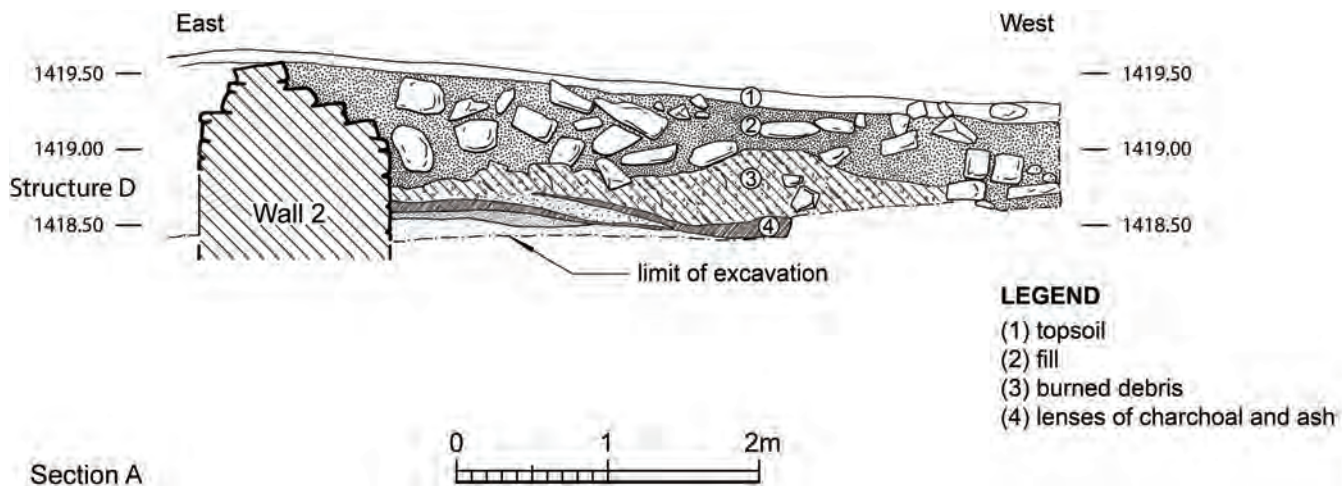


(b) Cornerstone of Terrace 1, Wall 2, resting on rubble fill of Terrace 2 |

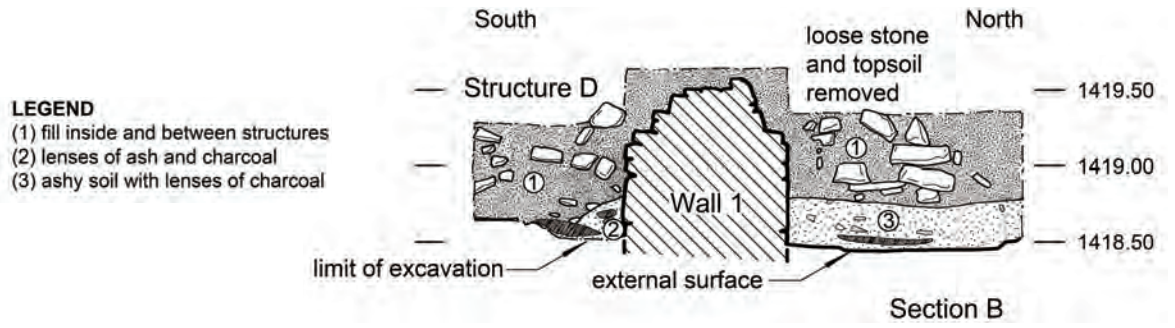
PLATE 28 | PLAN AND SECTION OF STRUCTURE D



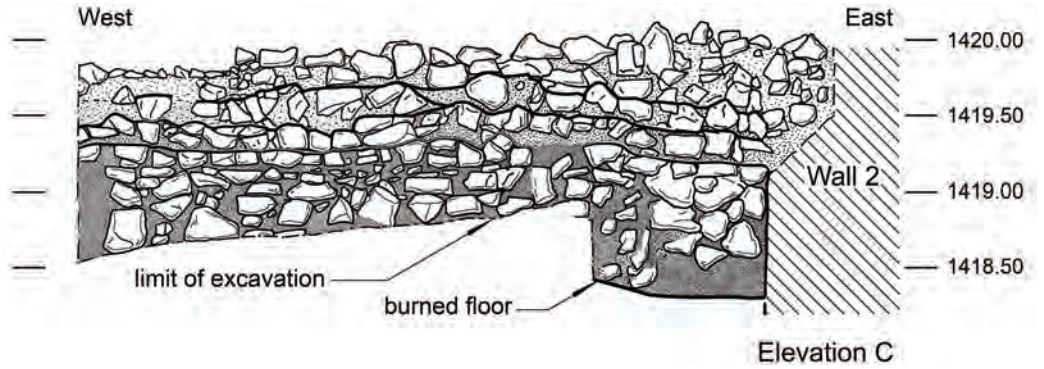
(a) Plan of Structure D with arrows showing locations of sections and elevations



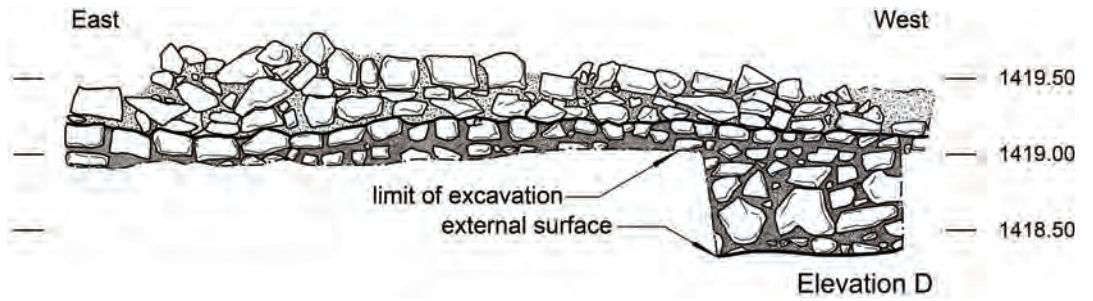
(b) Structure D, south section (A), showing stepped wall top, destruction layer, and limit of excavation



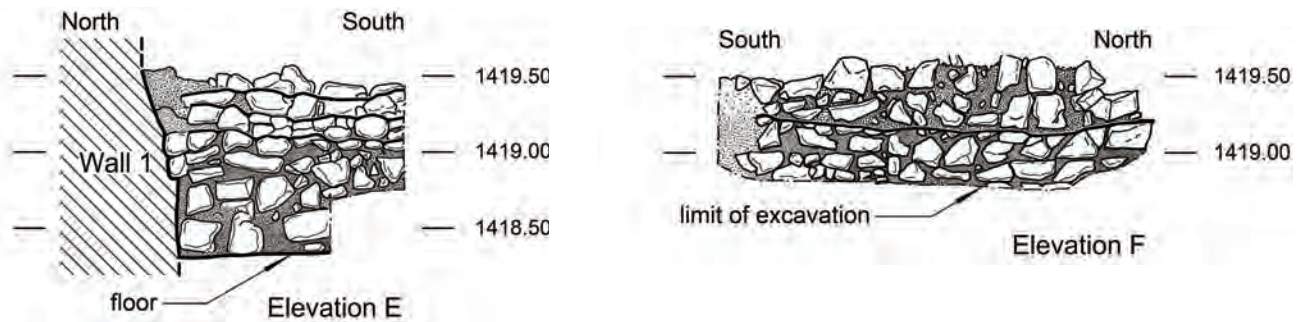
(a) Structure D, section B across northern wall (Wall 1), showing the stepped construction |



(b) Structure D, internal southern face (elevation C) of exposed portion of northern wall (Wall 1), with sondage taken down to burned surface at left |



(c) Structure D, external northern face (elevation D) of exposed portion of northern wall (Wall 1) |



Left to right: (d) Structure D, internal western face (elevation E) of exposed portion of eastern wall (Wall 2), |  
(e) Structure D, external eastern face (elevation F) of exposed portion of eastern wall (Wall 2) |





PLATE 30 | VIEWS OF STRUCTURE D



| (a) Structure D looking east at the point where excavation was halted



| (b) Space between eastern wall of Structure D and western wall of Structure E

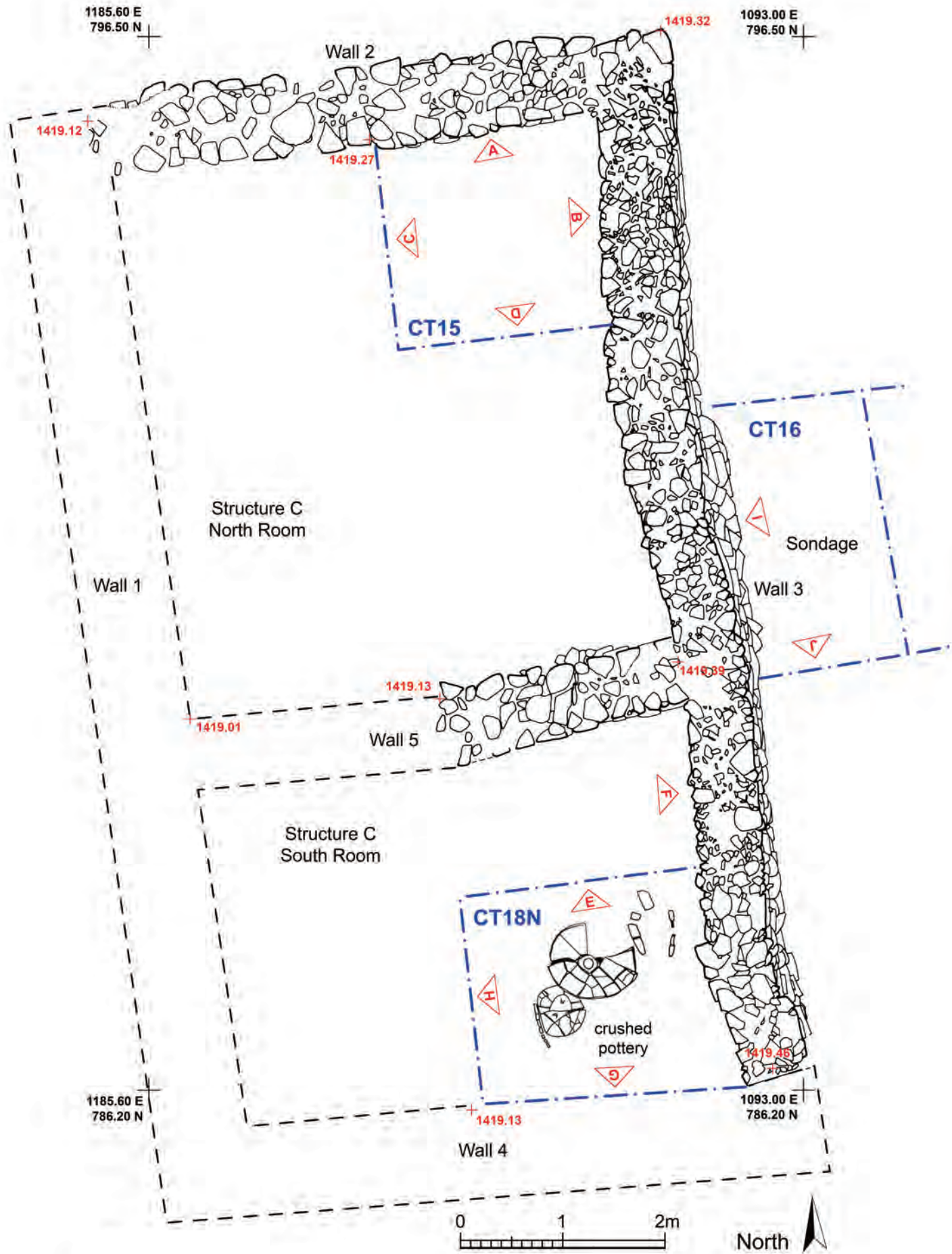


(a) External western face of northern wall of Structure D showing the topmost course of stone tilted out of position |



(b) Charred beams in fill of Structure D |

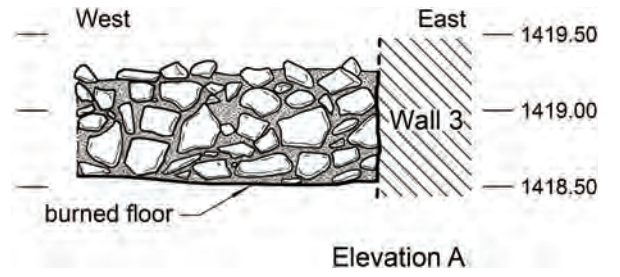
PLATE 32 | PLAN OF STRUCTURE C



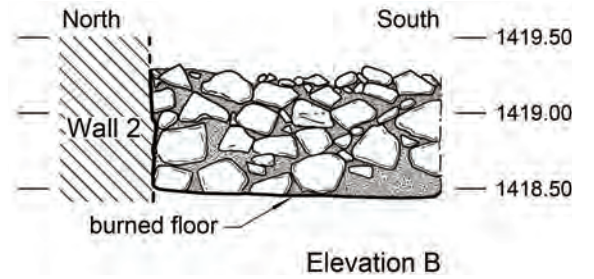
| Plan of Structure C showing position of trenches and crushed pottery

DRAWING by Ben Claasz Cockson

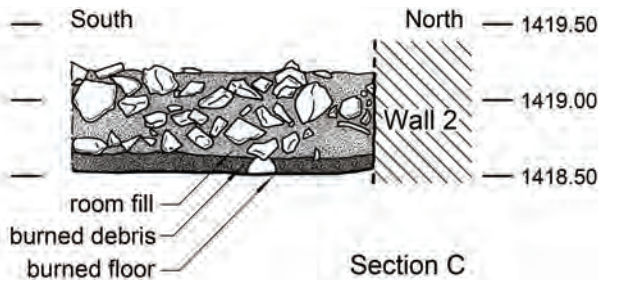
(a) Structure C, northern room, southern elevation (A) of northern wall (Wall 2)



(b) Structure C, northern room, western elevation (B) of eastern wall (Wall 3)



(c) Structure C, northern room, western section (C), showing burned destruction deposit beneath collapse



(d) Structure C, northern room, southern section (D), showing the burned destruction deposit beneath collapse

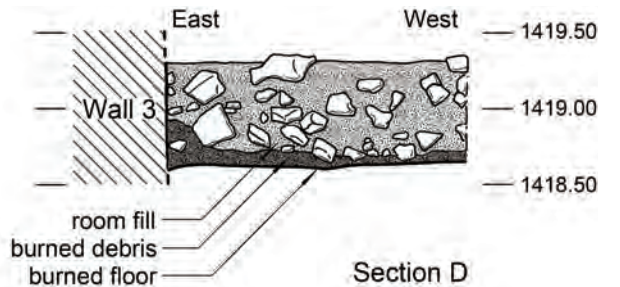
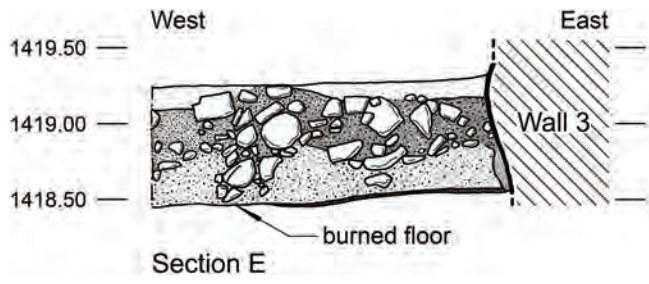
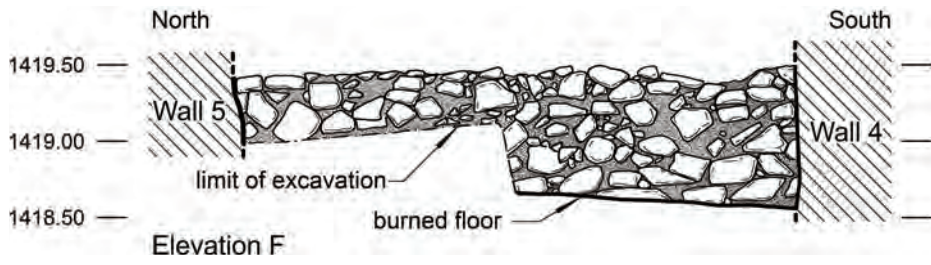


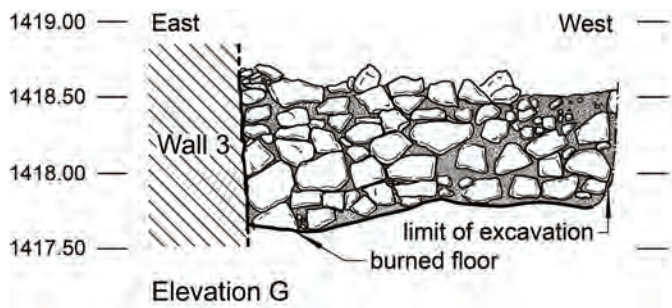
PLATE 34 | SECTIONS AND ELEVATIONS OF STRUCTURE C



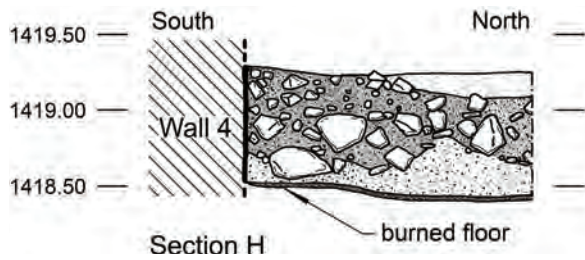
(a) Structure C, southern room, northern section (E), showing burned layer on floor and the collapse



(b) Structure C, southern room, elevation (F) of exposed inner face of eastern wall (Wall 3)

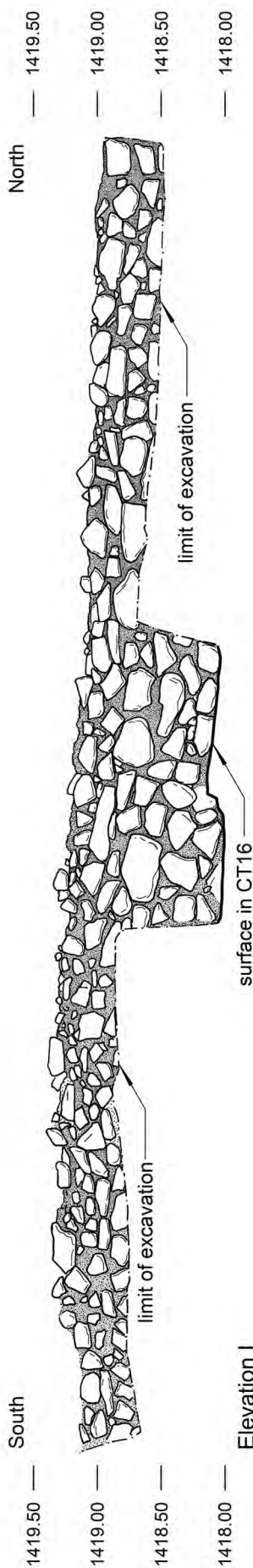


(c) Structure C, southern room, elevation (G) of exposed portion of eastern wall (Wall 3)

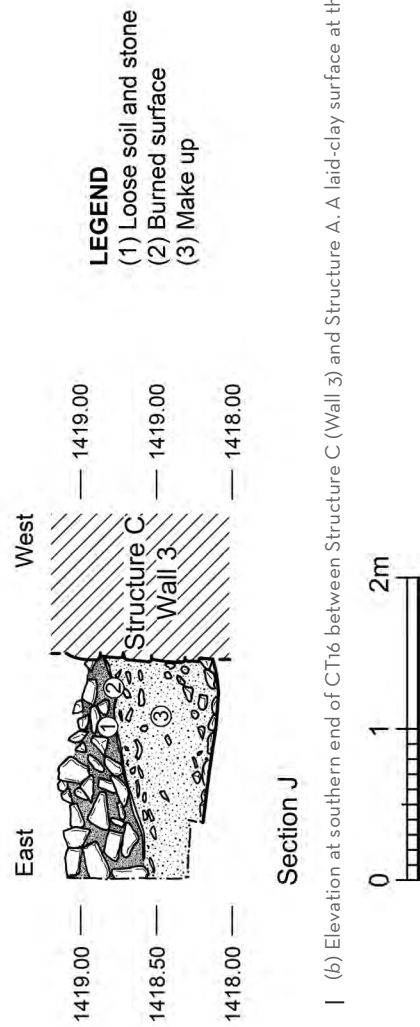


(d) Structure C, southern room, western section (H)





| (a) Structure C, exposed portion of eastern face of eastern wall (Wall 3) in CT16



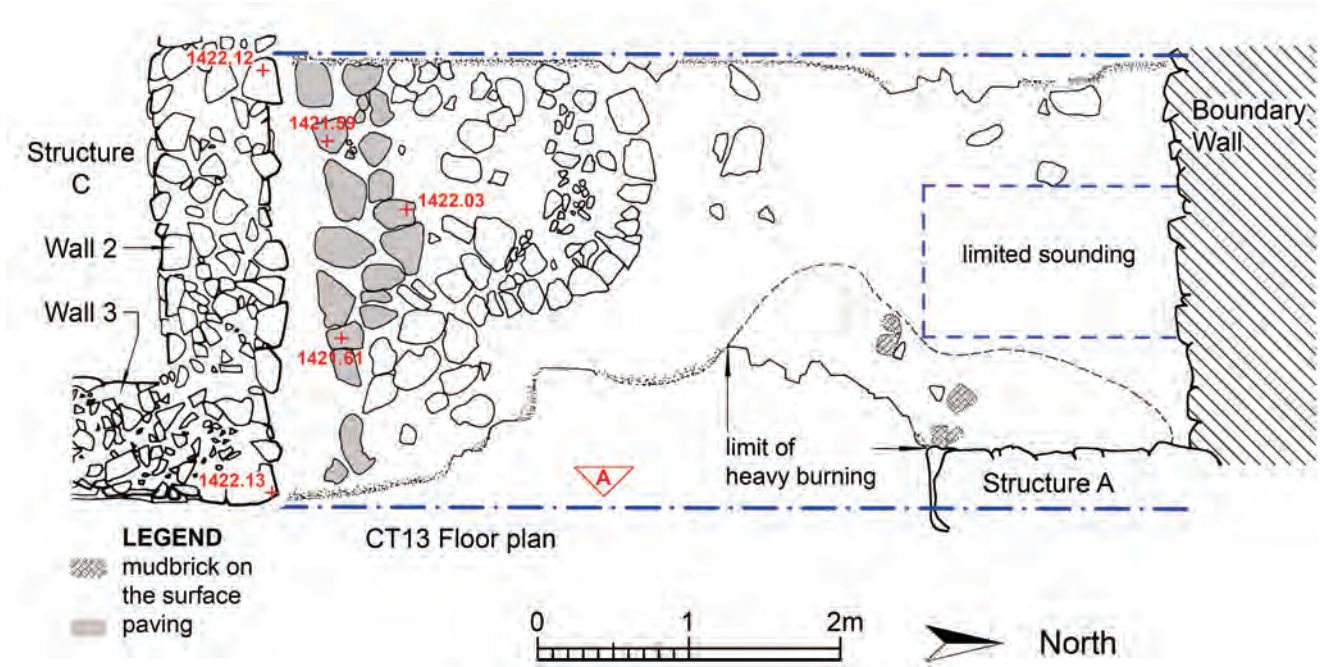
| (b) Elevation at southern end of CT16 between Structure C (Wall 3) and Structure A. A laid-clay surface at the base of the sounding ran beneath the wall of Structure C.



| (a) Structure C, exposed portion of eastern face of eastern wall (Wall 3) in CT16, with burning on external clay surface



| (b) Drop-handled conical bowl and large lids in the burned debris (K00.118, K00.120, K00.119), Structure C, southern room

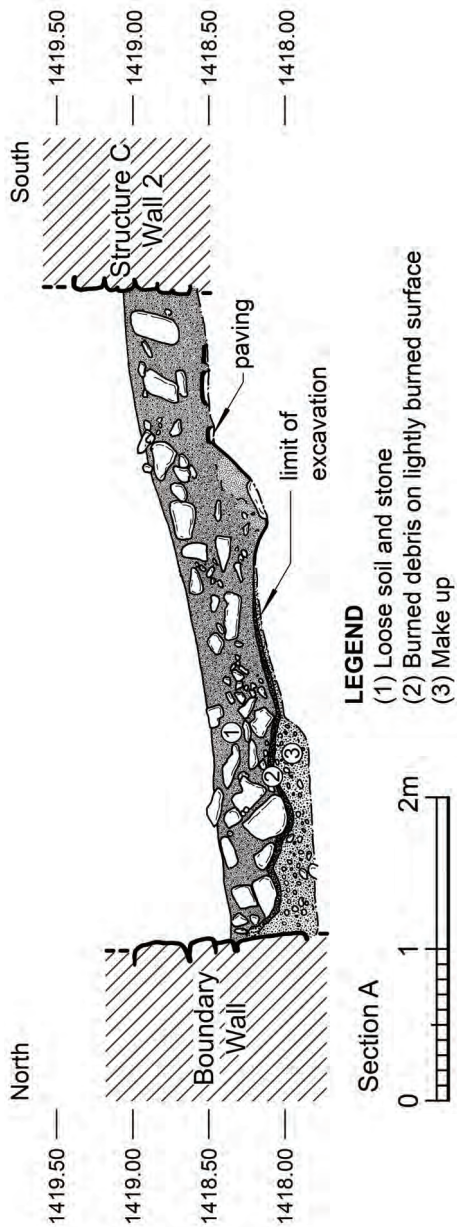
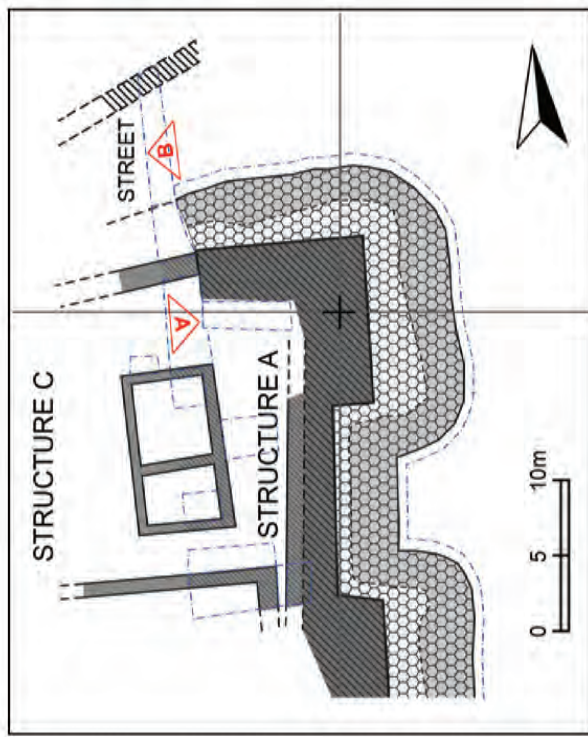


(a) Plan of paving, burned surface, and curved stone feature in CT13 |

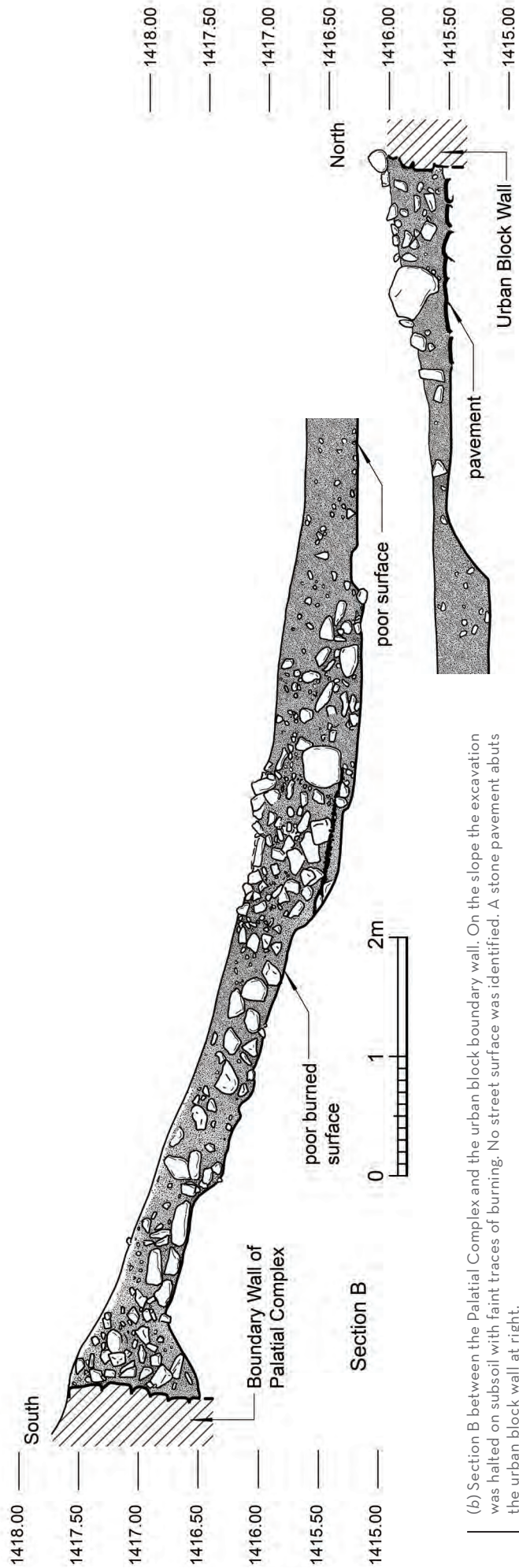


(b) CT13 looking north, with the Palatial Complex boundary wall (at top), the paving, and the curved arrangement of stones |



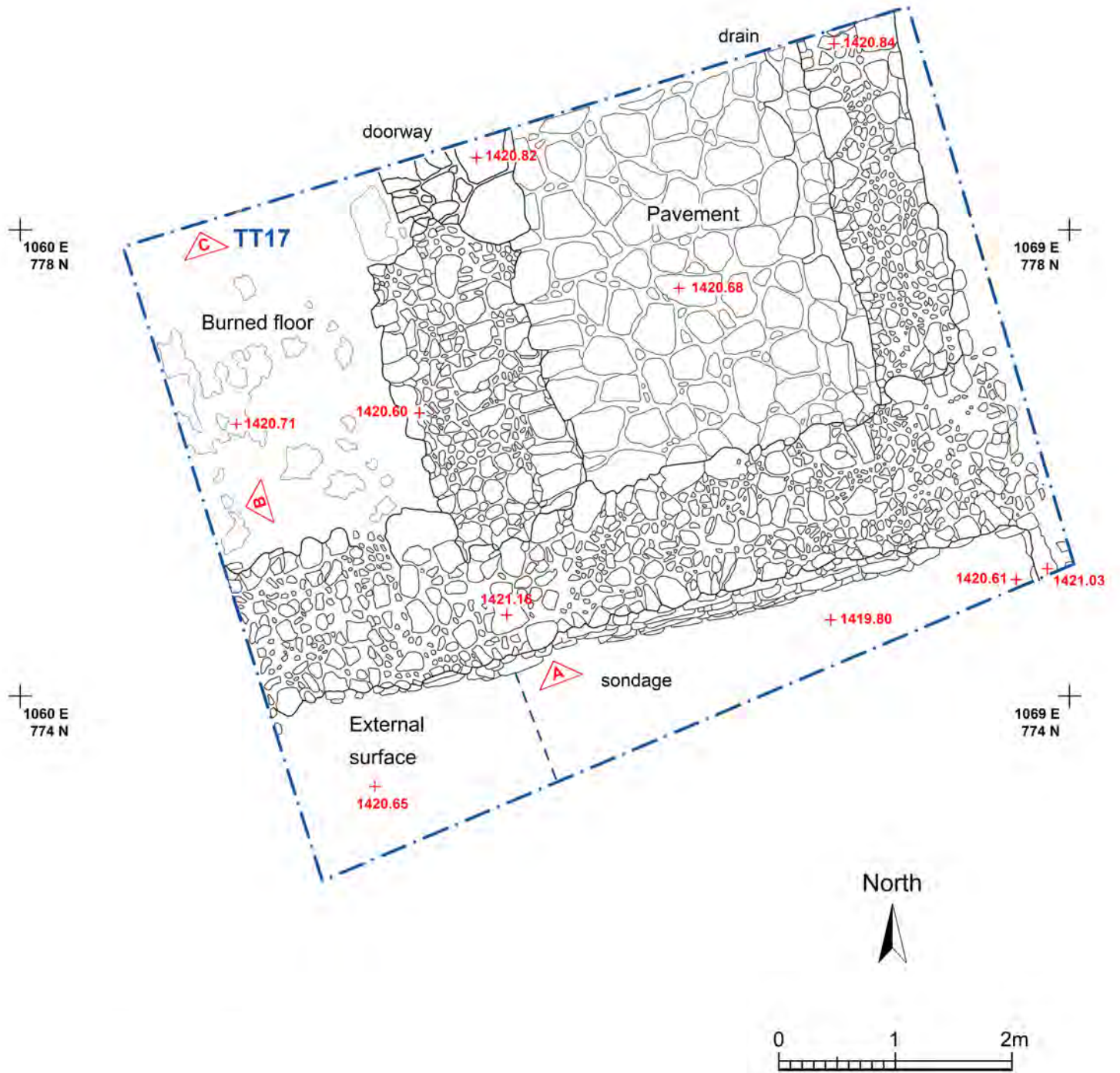


(a) Section A across space between Structure C (at right) and boundary wall (at left)



(b) Section B between the Palatial Complex and the urban block boundary wall. On the slope the excavation was halted on subsoil with faint traces of burning. No street surface was identified. A stone pavement abuts the urban block wall at right.

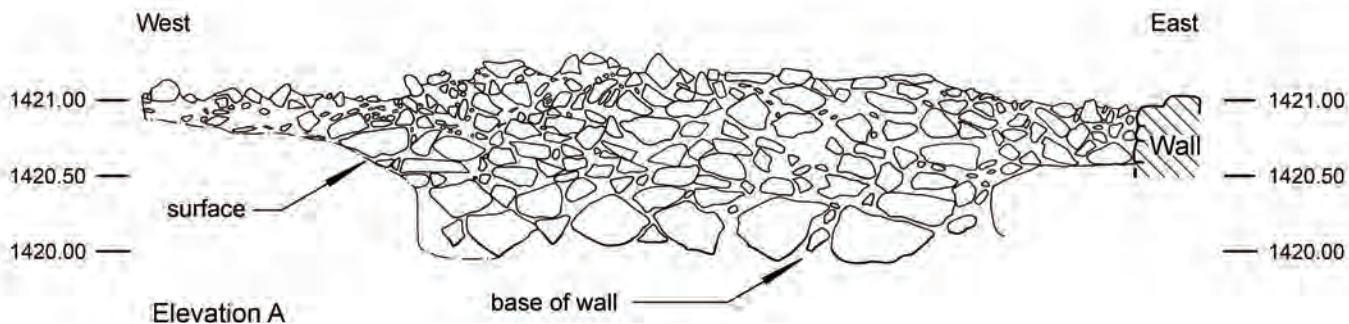
DRAWINGS by Ben Claasz Cockson



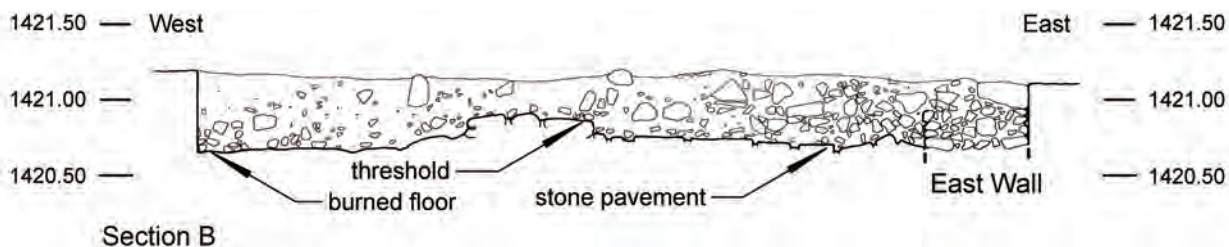
Plan of Structure E as revealed by excavation. The enclosed open space had a stone pavement and drain. The excavated section of the hall has a heavily burned floor.

DRAWING by Ben Claasz Cockson

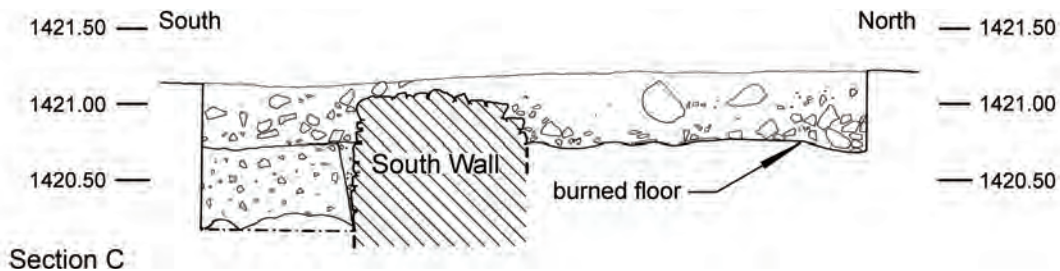
PLATE 40 | ELEVATION AND SECTIONS OF STRUCTURE E



| (a) Structure E, southern elevation of northern wall



| (b) Structure E, northern section of TT17



| (c) Structure E, western section of TT17





(a) Structure E, TT17, looking northeast |



(b) Structure E, TT17, looking northwest |

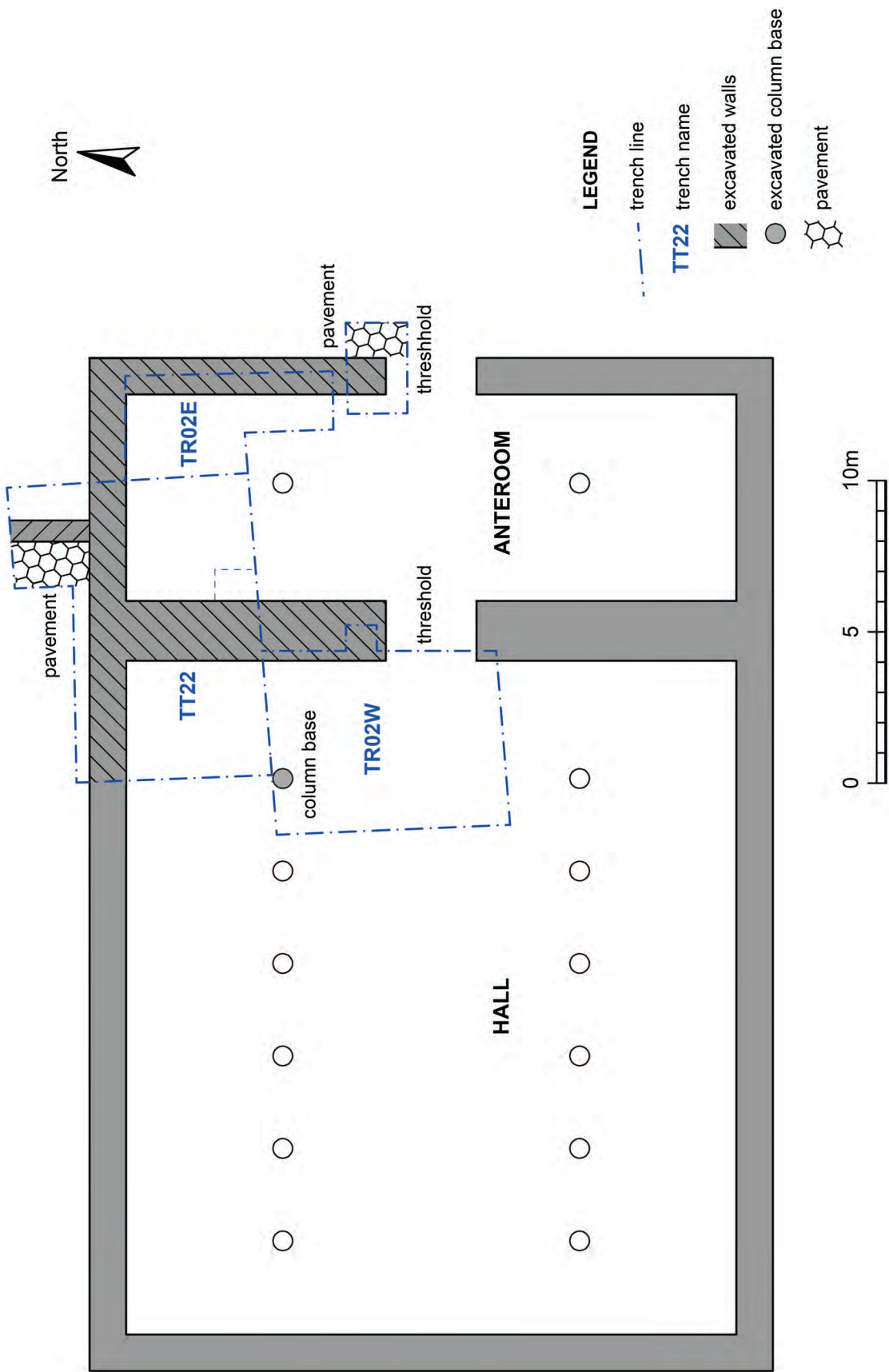
PLATE 42 | DETAILS OF STRUCTURE E



| (a) Structure E stone pavement, with inclined sides and drain along far side, looking southeast

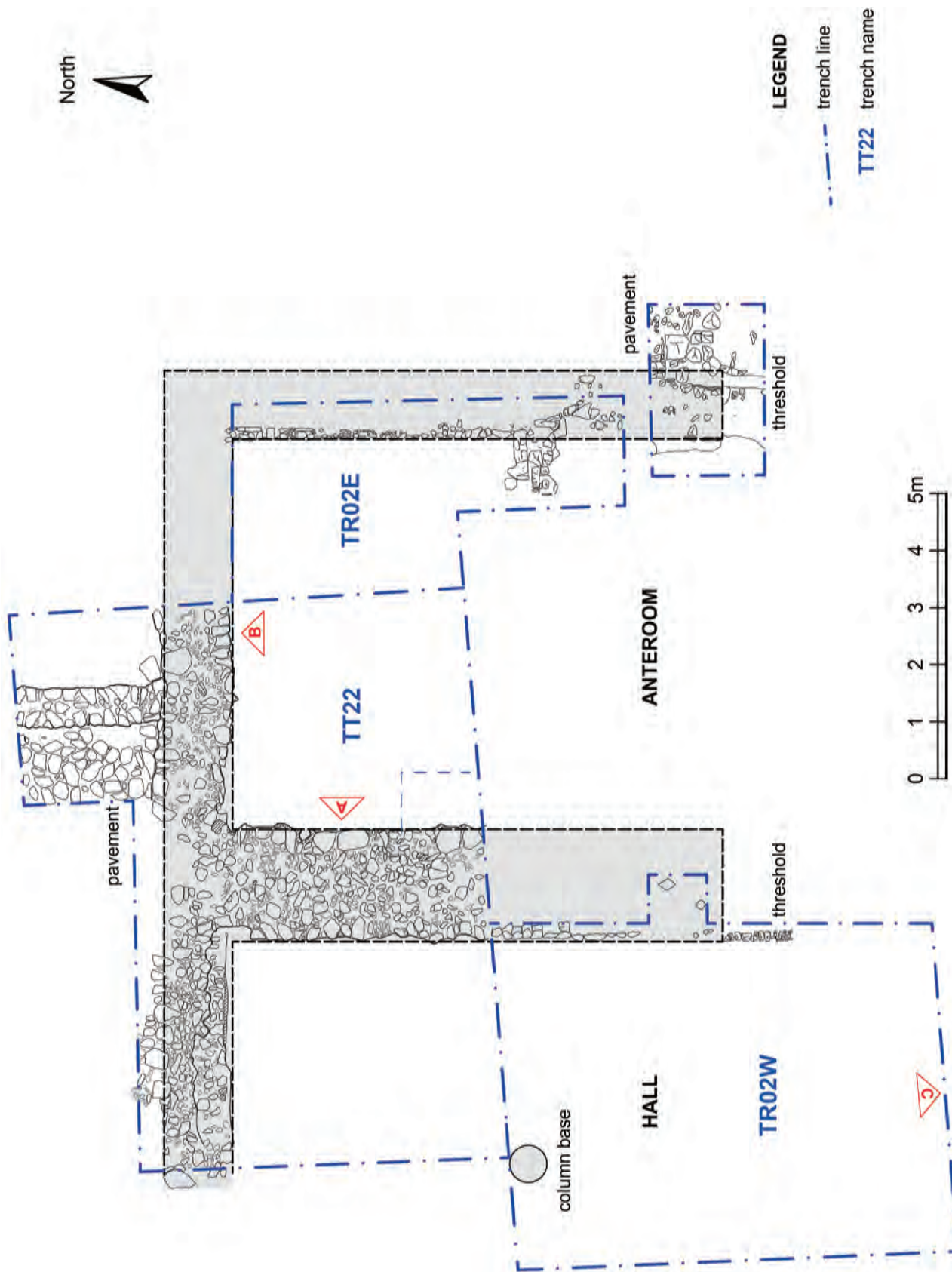


| (b) Structure E stone pavement, with heap of burned mudbrick fragments



| Block plan of the Audience Hall with walls and positions of column bases reconstructed

DRAWING by Ilya Khayrutdinov



| Excavated portion of the Audience Hall with wall lines reconstructed

DRAWING by Ilya Khayrutdinov

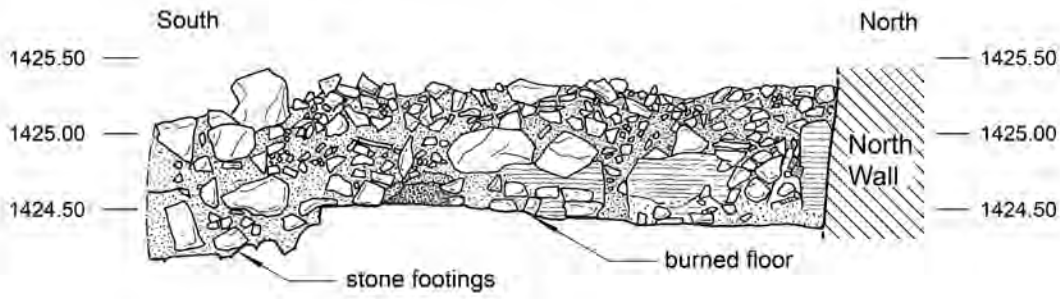


Plan of the Audience Hall showing timber elements in northwestern corner of the anteroom (at right) and northeast corner of the hall (at left)

DRAWING by Ilya Khayrutdinov

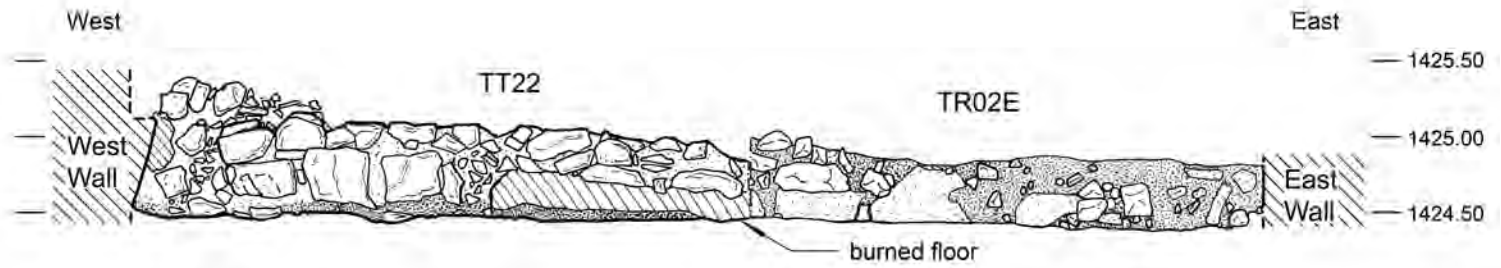


PLATE 46 | ELEVATIONS AND SECTION OF THE AUDIENCE HALL



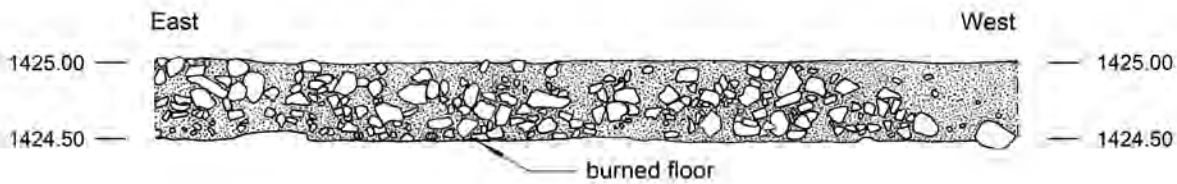
Elevation A

(a) TT22, eastern face of western wall of the anteroom, drawn down to level of burned floor, with top of the broader footings (at left)



Elevation B

(b) TT22 and TR02 East-inner, southern face of northern wall in anteroom, drawn down to burned floor



Section C

(c) Southern section of TR02 showing uniform stony layer above burned clay floor of the hall



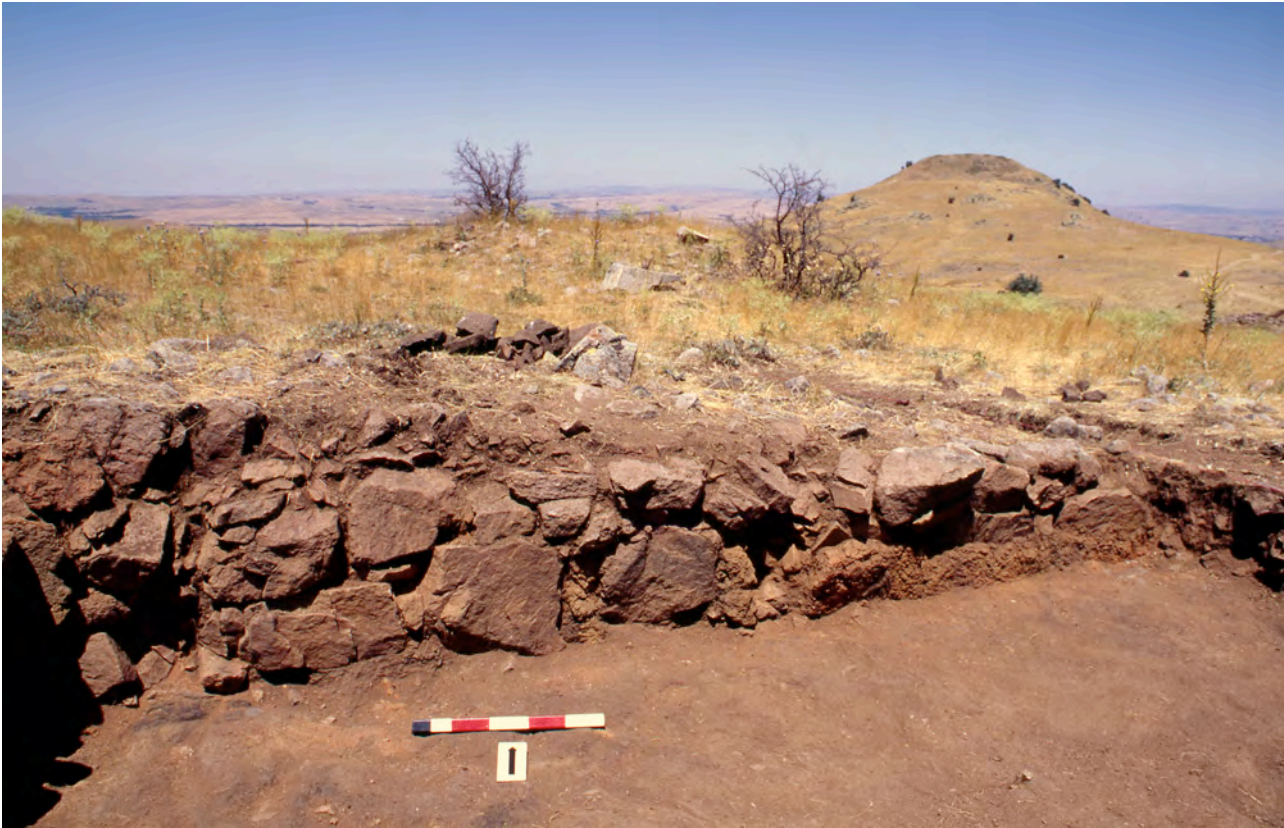


(a) Northeastern corner of the Audience Hall in TT22 showing poor condition of the walling |



(b) Northeastern corner of the Audience Hall in TT22, looking east, excavated down to burned floor after removal of displaced face stones of northern wall |

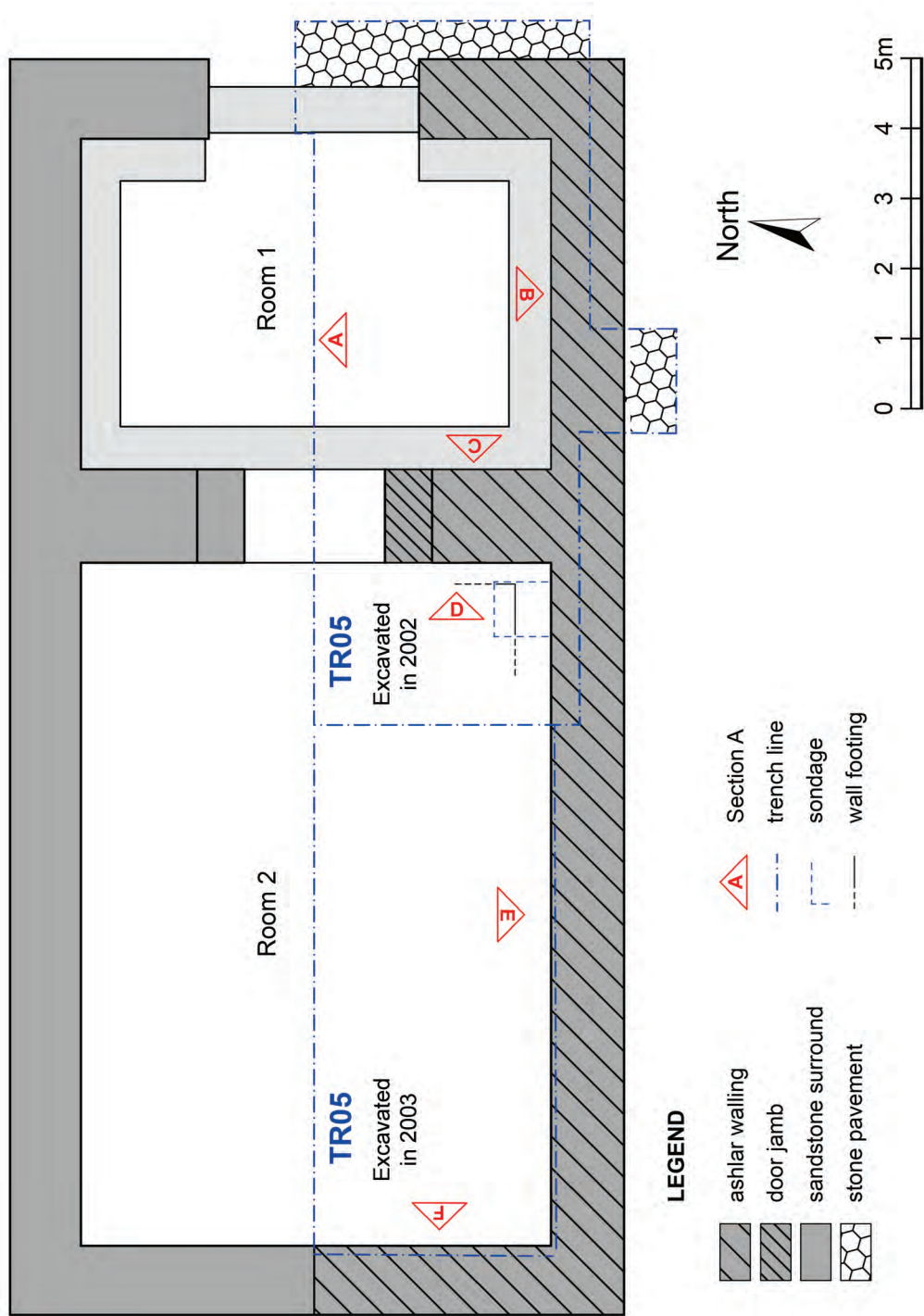
PLATE 48 | DETAILS OF THE AUDIENCE HALL



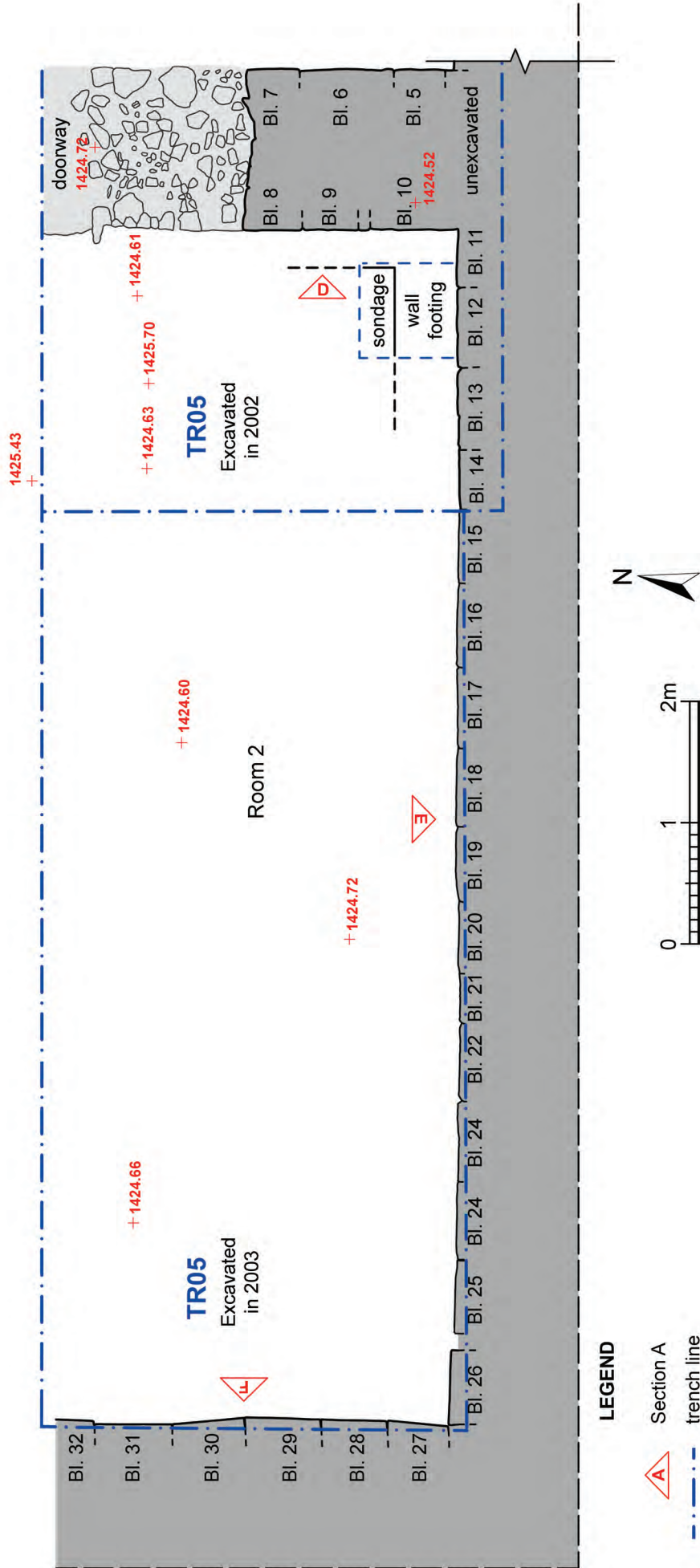
| (a) Northern wall of anteroom, TT22



| (b) Wall, burned floor, and stone pavement to the north of the Audience Hall revealed in TT22

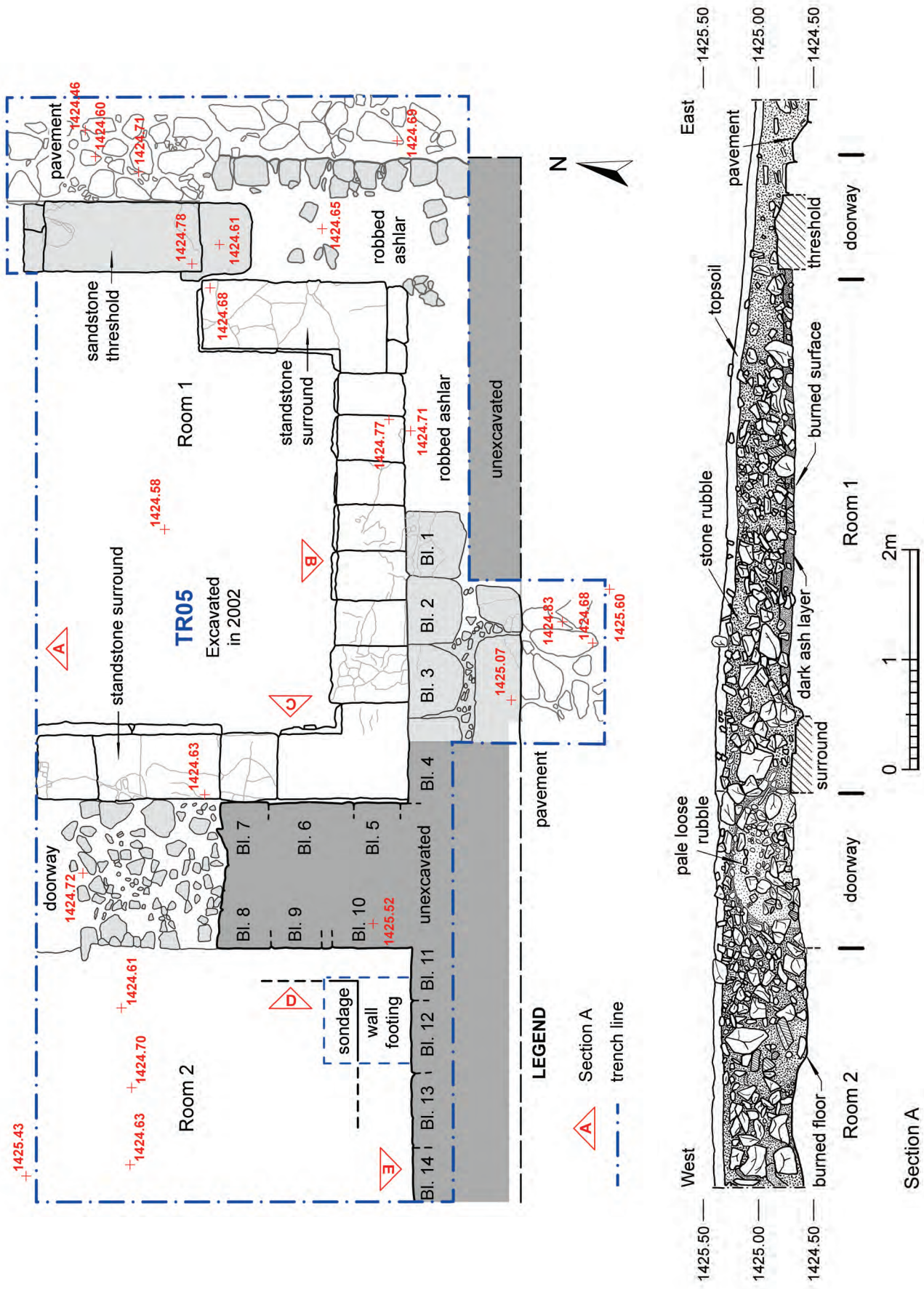


| Block plan of the Ashlar Building with walls reconstructed and drawn elevations and sections indicated



| Plan of the Ashlar Building, Room 2, with ashlar numbers

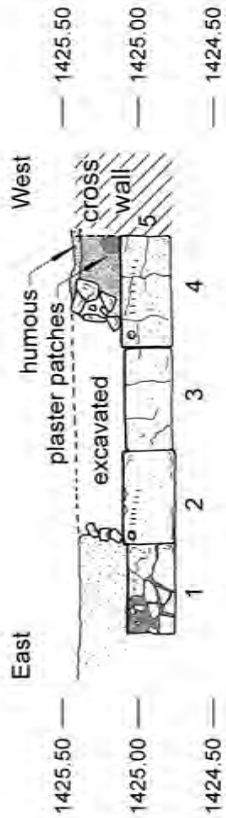
DRAWING by Güzin Eren



Top to bottom: (a) Plan of the Ashlar Building, Room 1, and southeastern corner of Room 2, with ashlar numbers, (b) Ashlar Building section through Room 1 and southeastern corner of Room 2

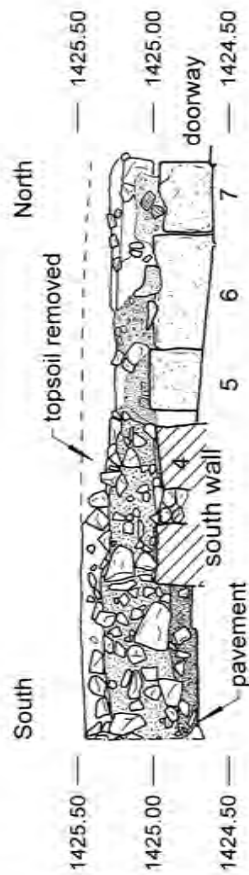
DRAWINGS (a) by Güzin Eren; (b) by Ben Claasz Cooekson

(a) Elevation B, northern face of southern wall in Room 1 (ashlar blocks 1-4)



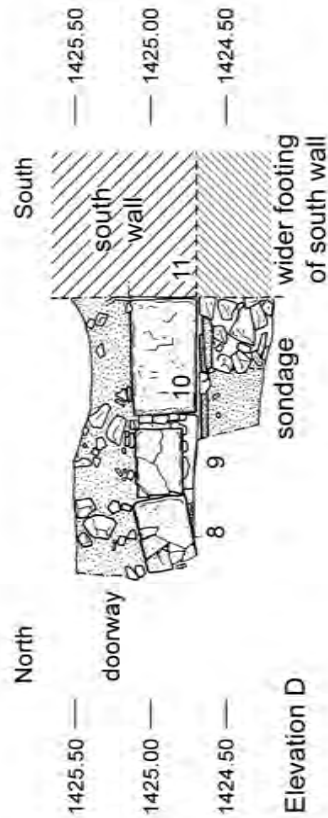
Elevation B

(b) Elevation C, showing eastern face of cross wall between Room 1 and Room 2, with section through southern wall and external pavement at left (ashlar blocks 5-7)

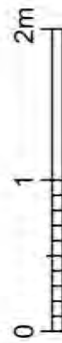


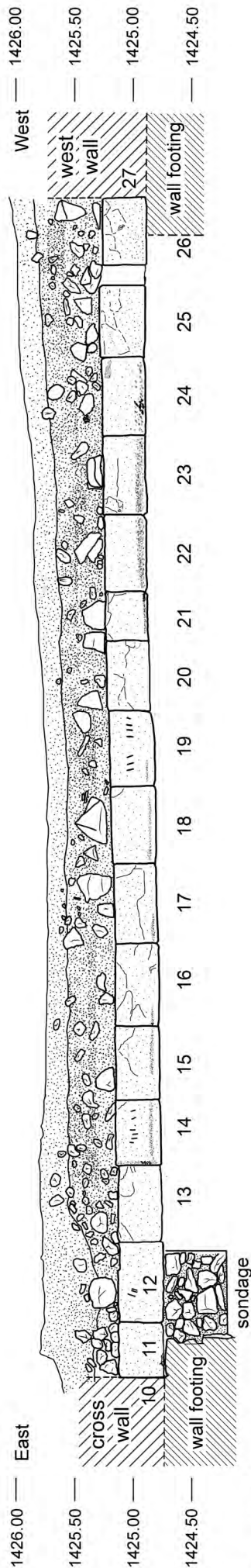
Elevation C

(c) Elevation D, showing western face of cross wall between Room 1 and Room 2, with wall footings revealed by sondage (ashlar blocks 8-10)



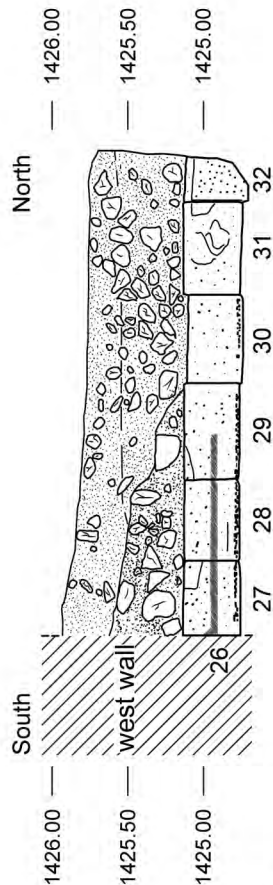
Elevation D





Elevation E

(a) Elevation E, showing northern face of southern wall in Room 2, with face of wall footings revealed by sondage (ashlar blocks 11-2)



Elevation F

(b) Elevation F, showing eastern face of western wall in Room 2 (ashlar blocks 27-32)

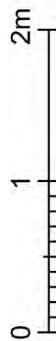




PLATE 54 | VIEWS OF THE ASHLAR BUILDING



(a) Eastern end of the Ashlar Building looking north. Part of the sandstone surround is at left, with a trimmed limestone block in the rubble wall footings partially beneath the sandstone threshold. An inferior stone pavement runs up against the outside edge of the threshold.



(b) The Ashlar Building in 2002 looking southeast



(a) Room 1 of the Ashlar Building in 2002 looking southwest |

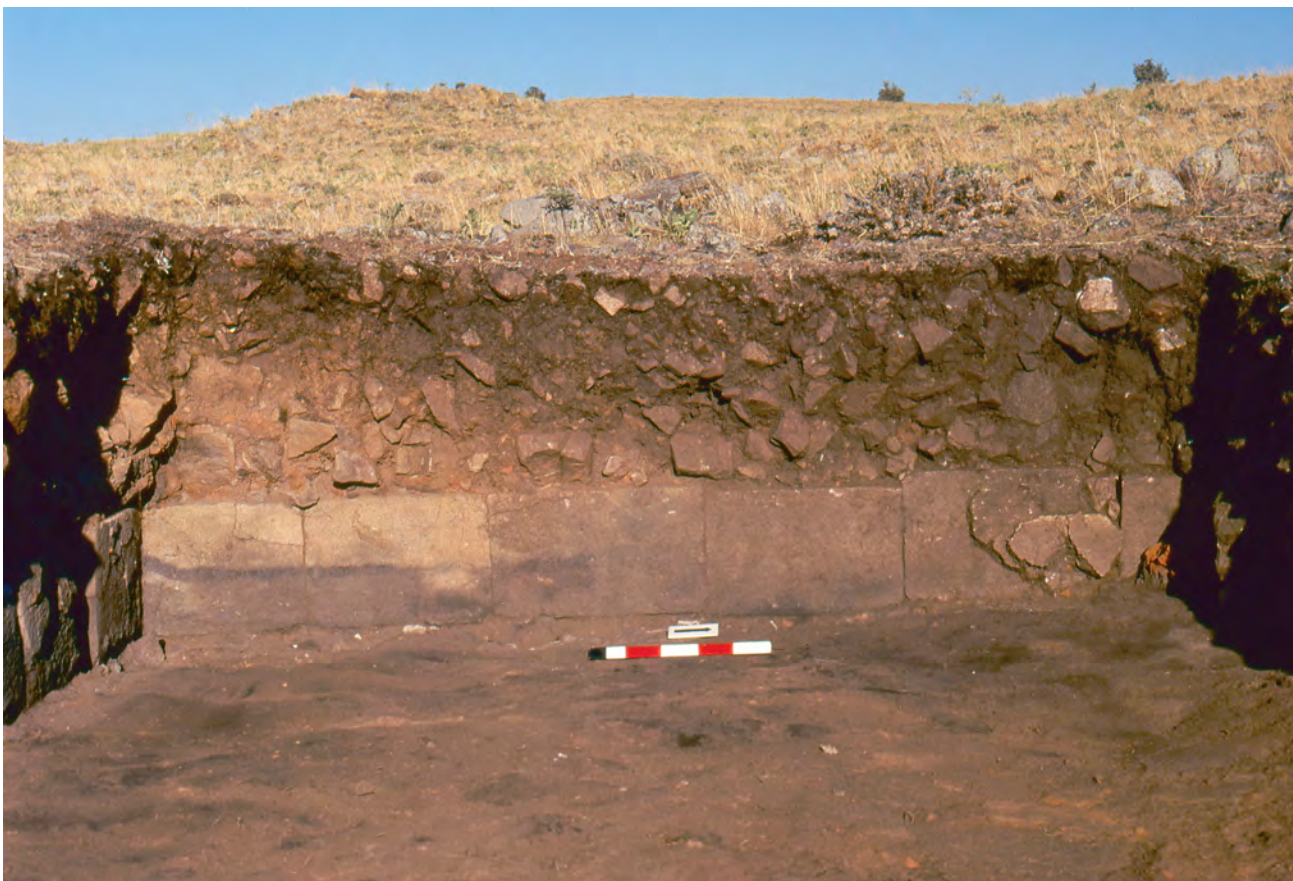


(b) Western end of Room 1 in the Ashlar Building, with the central doorway into Room 2 at right and a gap in the ashlar in the southwestern corner |

PLATE 56 | DETAIL AND WALL FACE OF THE ASHLAR BUILDING



| (a) Extension of TR05 over southern wall of the Ashlar Building in Room 1, with western end of sandstone surround. The tops of the ashlars were trimmed to accommodate horizontal beams.



| (b) Western end of Room 2 in the Ashlar Building showing the burned line on wall in southwestern corner



(a) Ashlars 8-10, with a limestone plug, at eastern end of Room 2. Ashlar 10 (at right) bears an inscribed mark. |



(b) Ashlars 11-13, in southern wall of Room 2. Ashlar 12 (at center) bears an inscribed mark. |



| (a) Ashlars 14-16, in southern wall of Room 2. Ashlar 14 (at left) bears an inscribed mark.



| (b) Ashlars 17-19, in southern wall of Room 2. Ashlar 19 (at right) bears an inscribed mark.



(a) Ashlars 20-22, in southern wall of Room 2 |



(b) Ashlars 23-25, in southern wall of Room 2 |

PLATE 60 | WALL FACES OF THE ASHLAR BUILDING



| (a) Western end of southern wall of Room 2 showing limestone plug at top left corner of ashlar 24 (at left) and gap between ashlars 25 and 26



| (b) Ashlars 27-30, in western wall of the Ashlar Building



(a) Ashlars 30-32, in western wall of the Ashlar Building, with fallen mud plaster adhering to ashlar 31 |



(b) Southwestern corner of Room 1 in the Ashlar Building showing (at left) the step in the sandstone surround that indicates the position of the door |



PLATE 62 | DETAILS OF THE ASHLAR BUILDING



| (a) The limestone block in the foundations of the front wall was trimmed to fit, beneath the sandstone threshold stone



| (b) The sondage in Room 2 of the Ashlar Building revealed the stone footing on which the ashlar blocks were laid



(a) Flange on the sandstone paver in front of the threshold in the central wall, with the step indicating the position of the door |

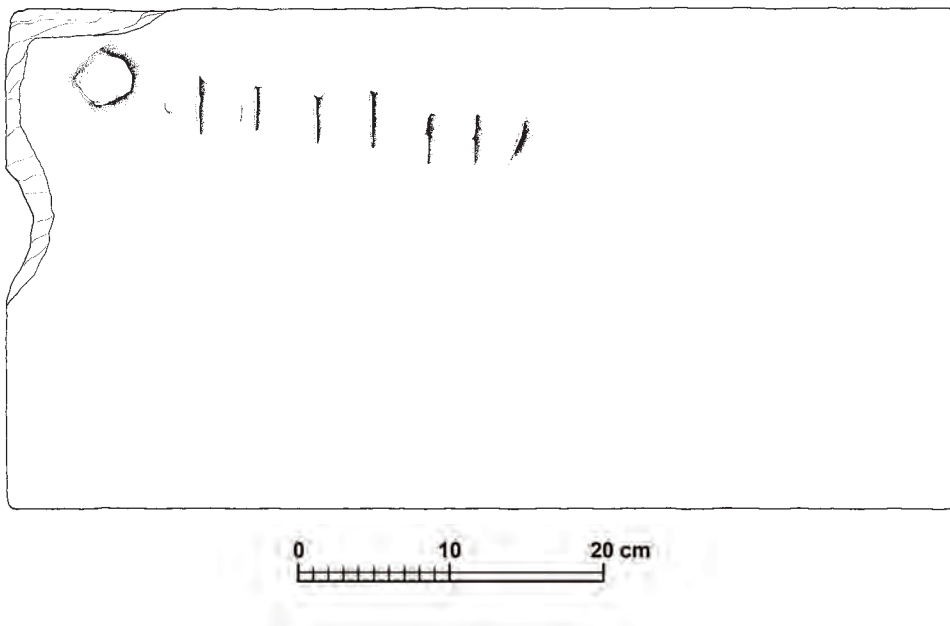


(b) Fallen mudbricks in Room 1 of the Ashlar Building |

PLATE 64 | THE ASHLAR BUILDING INCISED MARKS



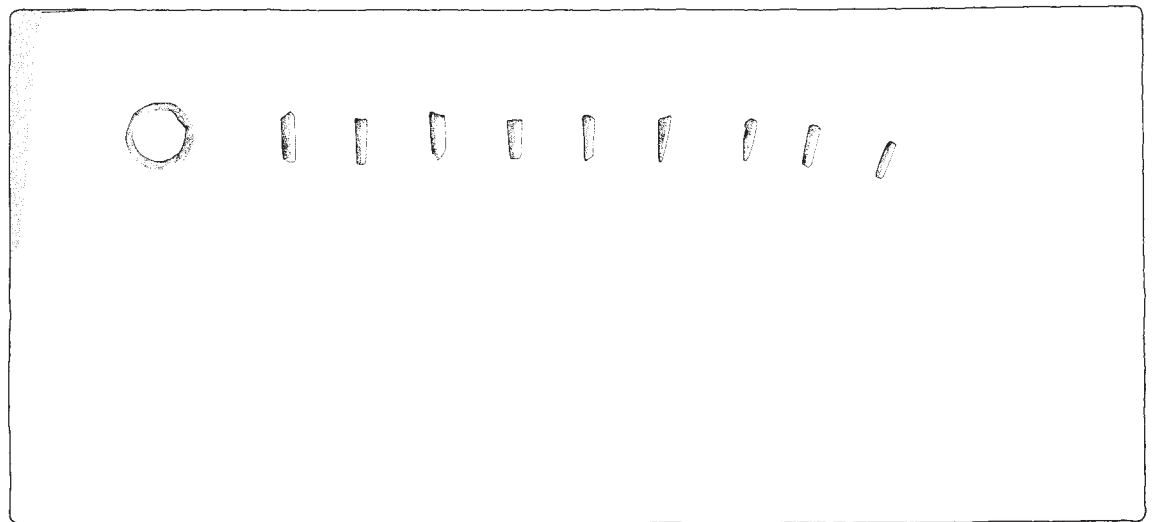
| (a) Row of marks on ashlar 2 in Room 1



| (b) Drawing of incised marks

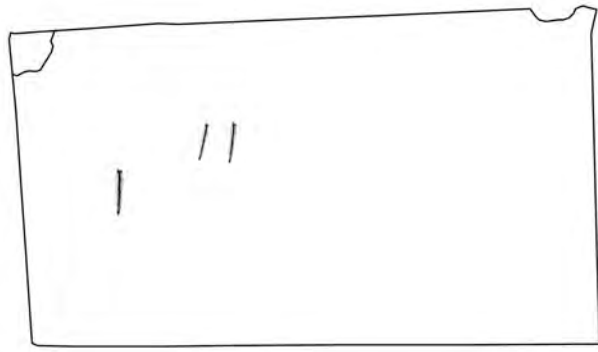


(a) Row of marks on ashlar 4 in Room 1 |

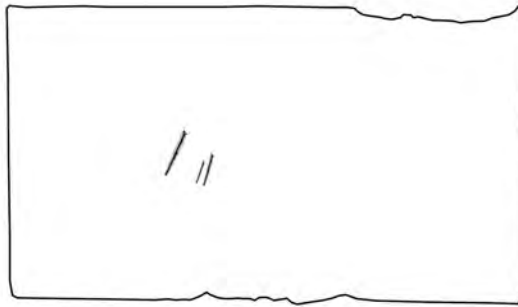
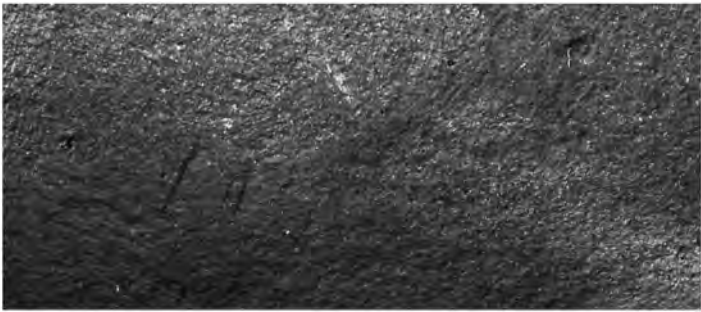


(b) Drawing of incised marks |

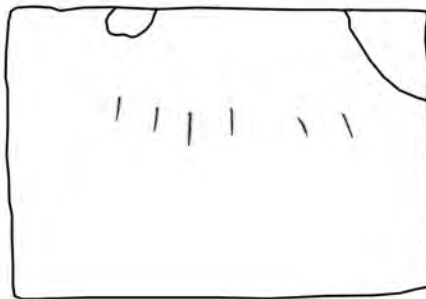
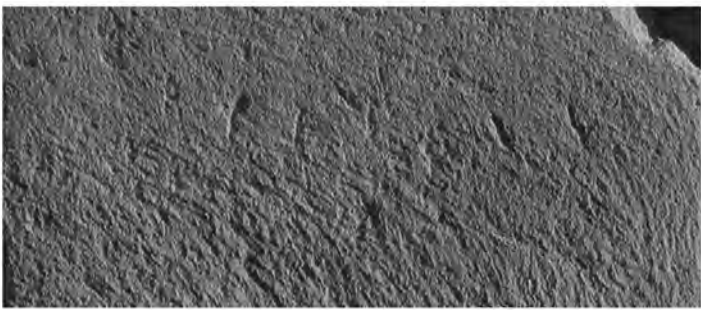
PLATE 66 | THE ASHLAR BUILDING INCISED MARKS



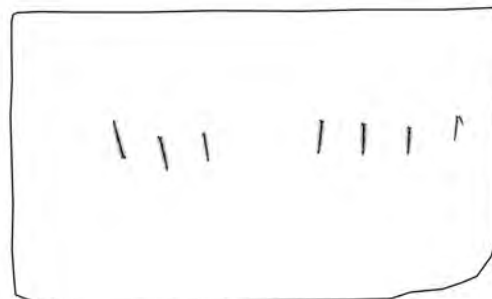
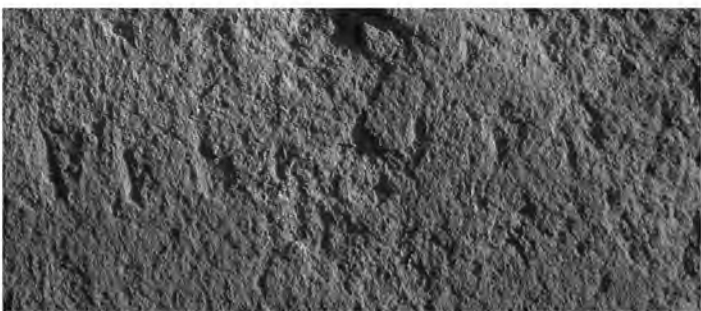
| (a) Photo of incised mark and drawing of ashlar block 10



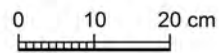
| (b) Photo of incised mark and drawing of ashlar block 12



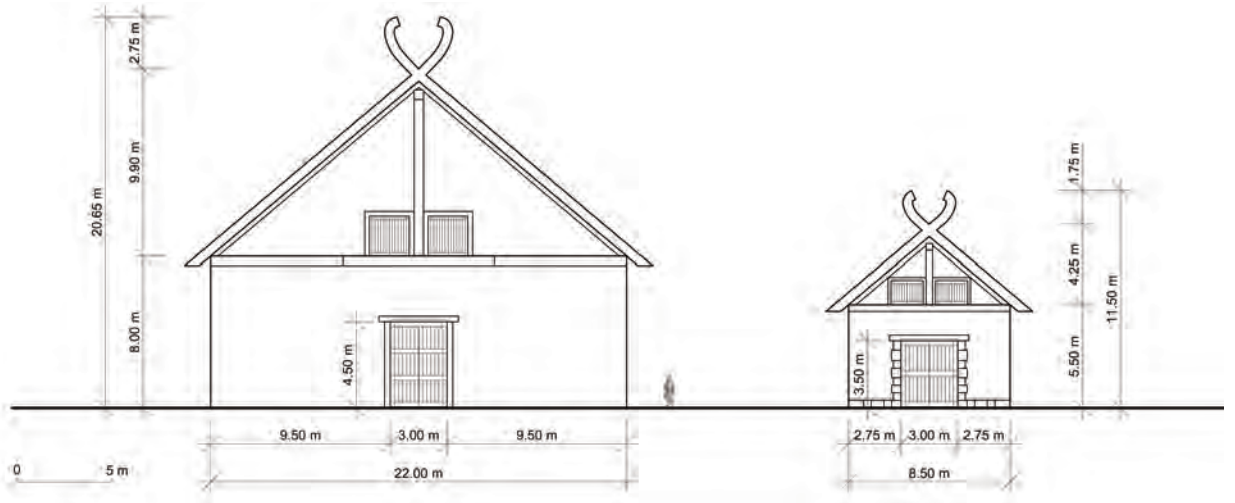
| (c) Photo of incised mark and drawing of ashlar block 14



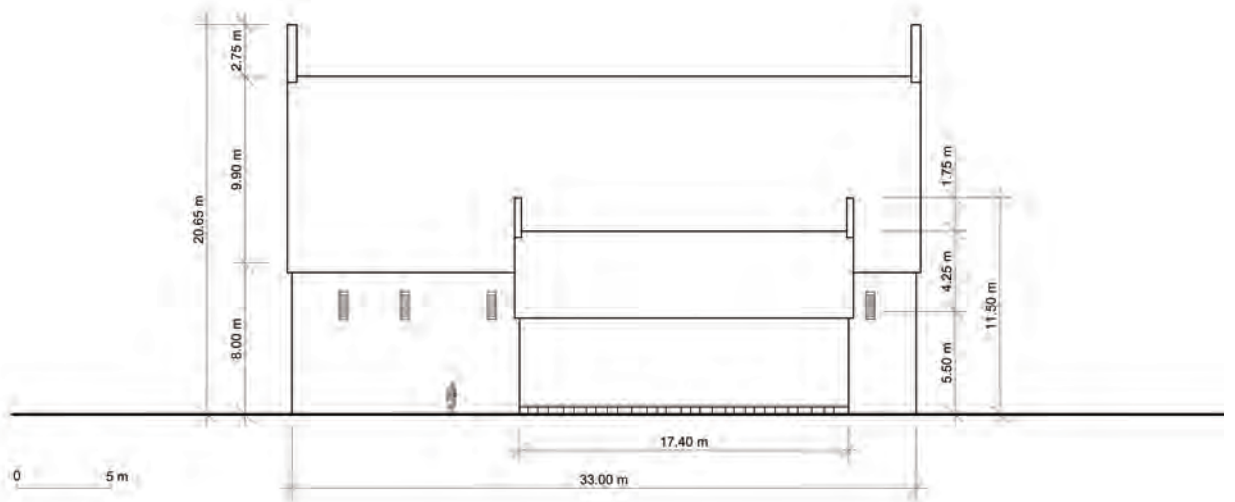
| (d) Photo of incised mark and drawing of ashlar block 19



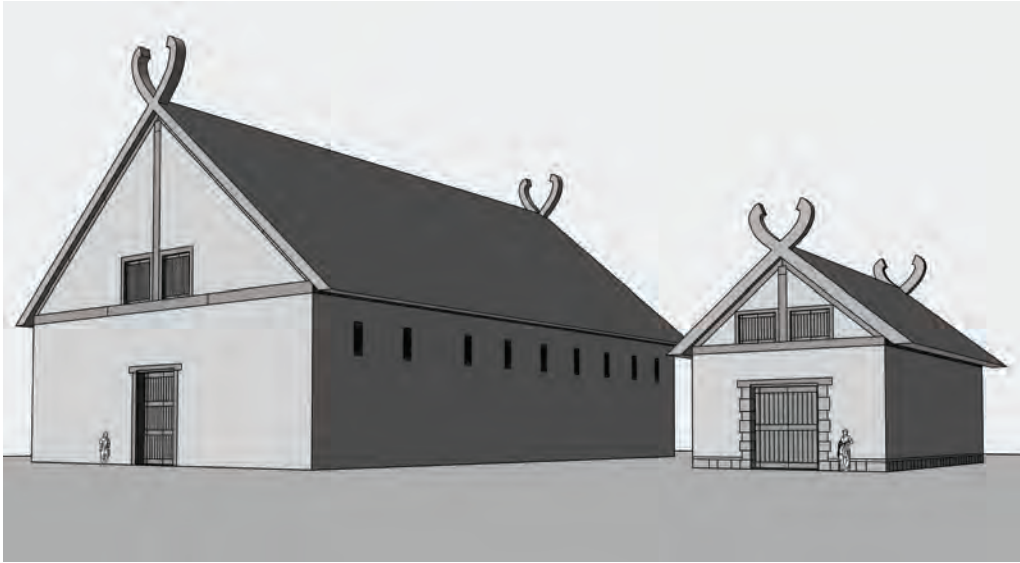
THE AUDIENCE HALL AND ASHLAR BUILDING RECONSTRUCTED ELEVATIONS | PLATE 67



(a) Front (eastern) elevation of the Audience Hall and Ashlar Building |



(b) Side (northern) elevation of the Audience Hall and Ashlar Building |

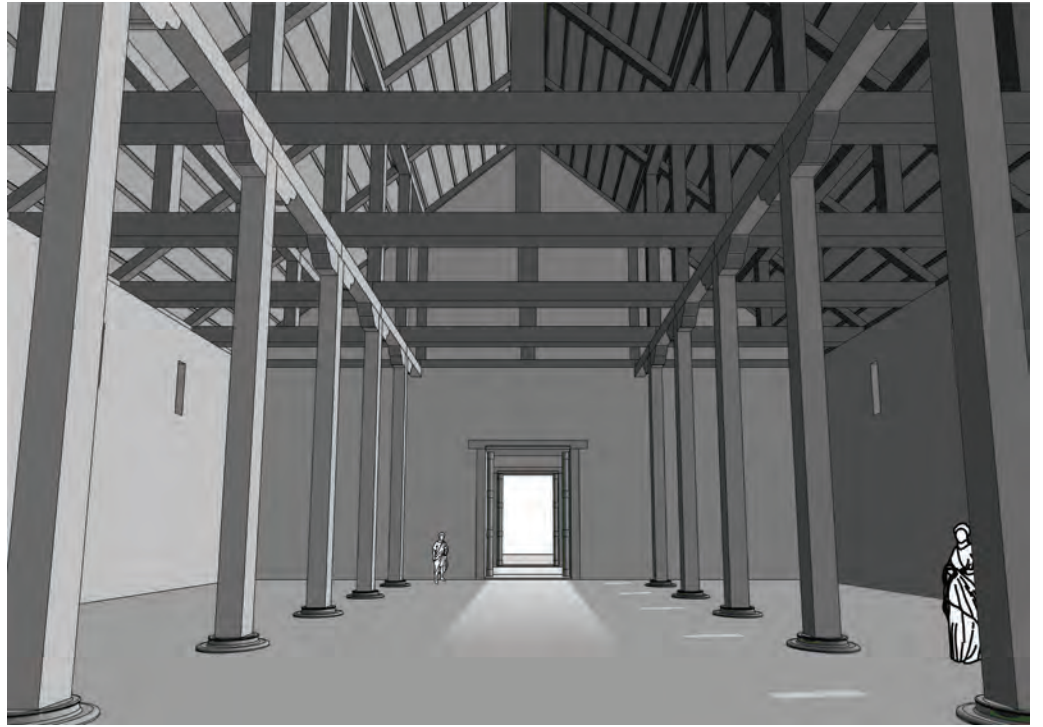


(a) Eye-level perspective of the Audience Hall and Ashlar Building from the northeast

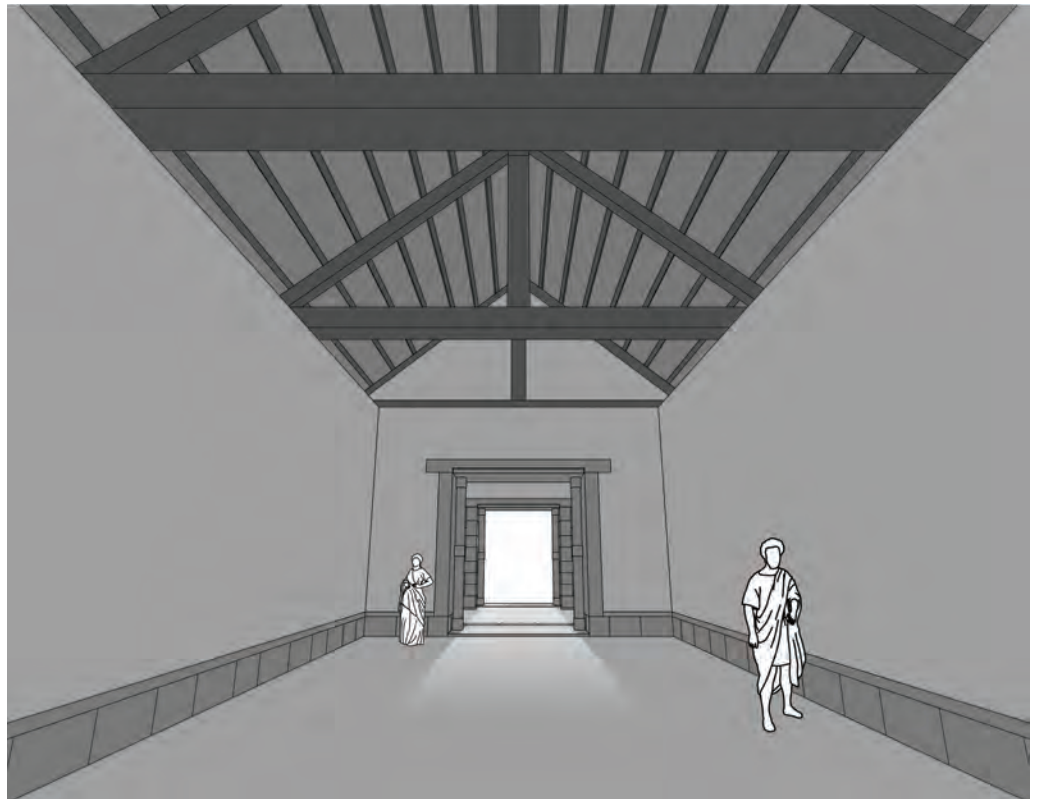


(b) Bird's-eye view perspective of the Audience Hall and Ashlar Building from the east

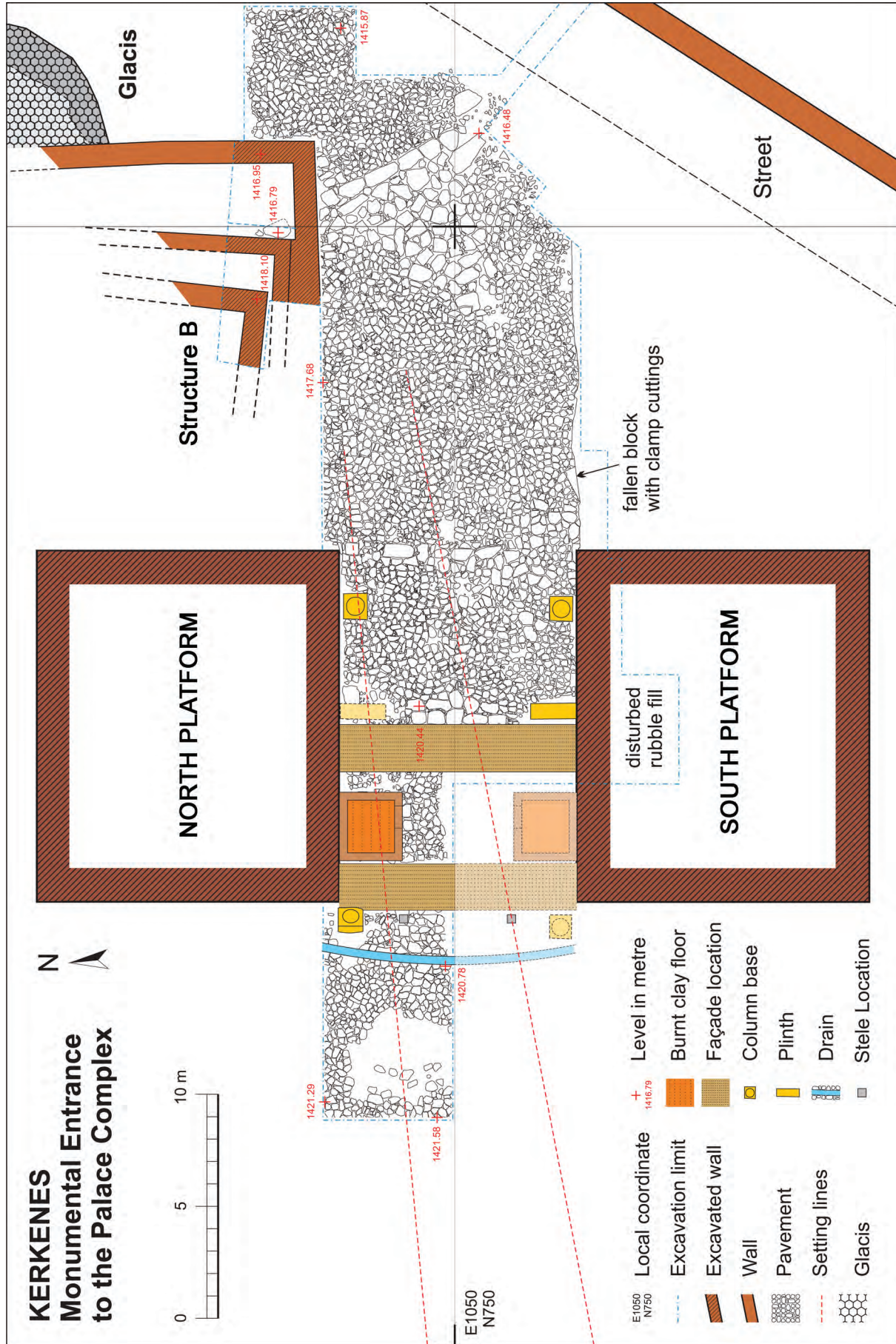
(a) Interior perspective of the Audience Hall



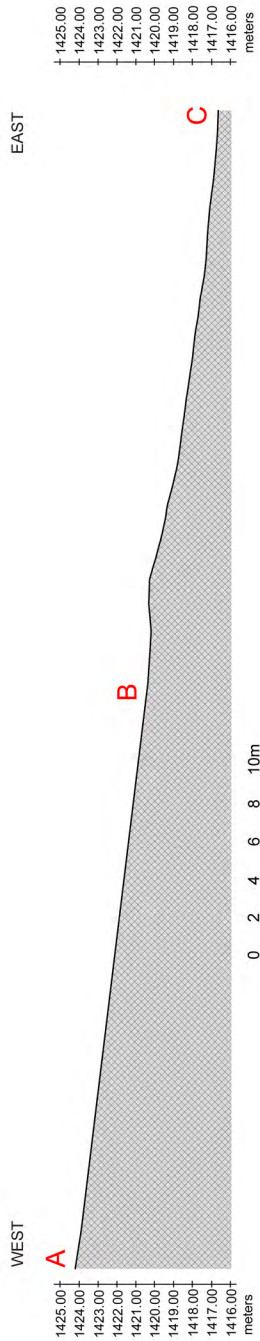
(b) Interior perspective of the Ashlar Building





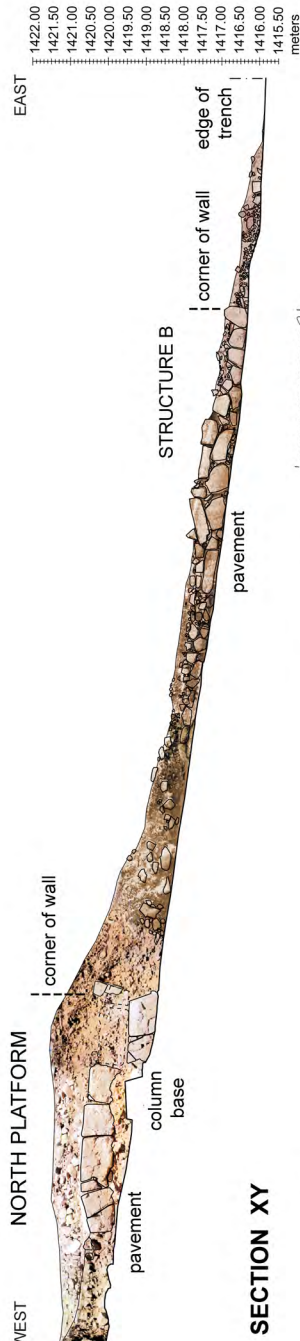


| Plan of the Monumental Entrance to the Palatial Complex at a scale of 1:250



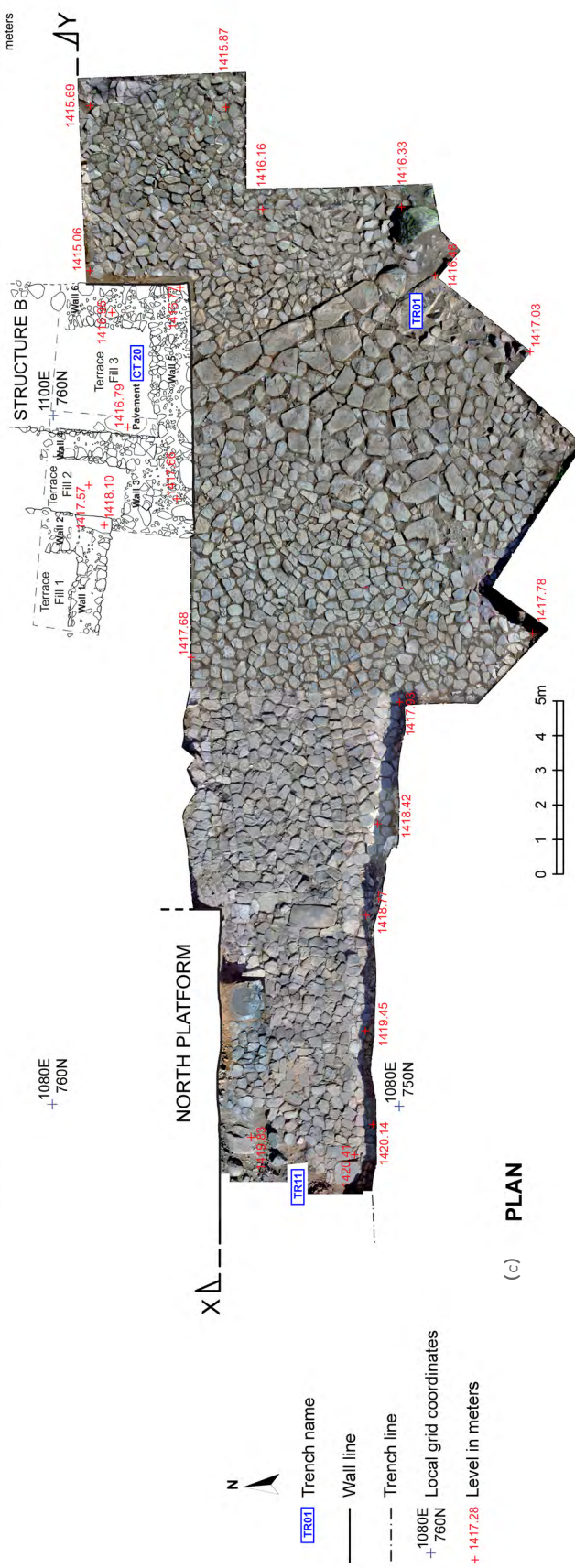
PROFILE AC

(a)



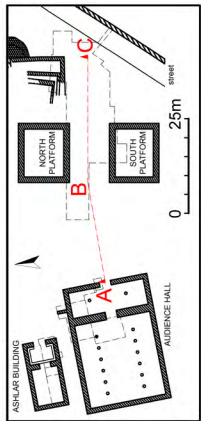
SECTION XY

(b)



PLAN

(c)

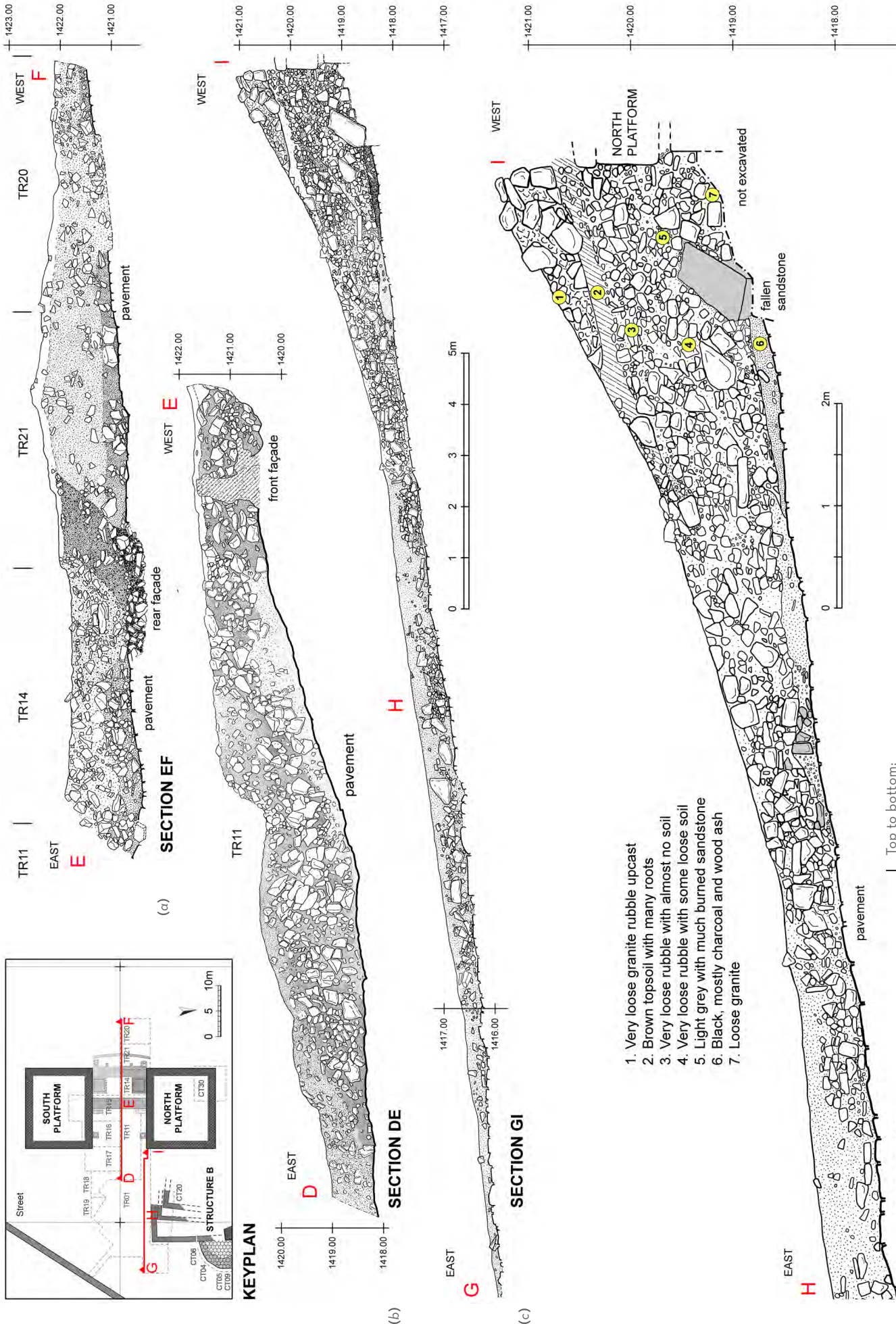


KEYPLAN FOR PROFILE AC

(a)

Top to bottom:  
 (a) Profile AC, showing inclined stone pavement from its eastern limit to the Audience Hall,  
 (b) Section XY, with wall elevations along northern side of the Monumental Entrance,  
 (c) Plan of Structure B and photo mosaic of excavated pavement leading to front façade of the Monumental Entrance

PLATE 72 | SECTIONS THROUGH THE MONUMENTAL ENTRANCE



1. Very loose granite rubble upcast
2. Brown topsoil with many roots
3. Very loose rubble with almost no soil
4. Very loose rubble with some loose soil
5. Light grey with much burned sandstone
6. Black, mostly charcoal and wood ash
7. Loose granite

Top to bottom:

- (a) Section EF, showing disturbed deposits above stone pavements and rear façade,
- (b) Section DE, showing burned remnant of front façade and disturbed deposits above pavement in the Gate Court,
- (c) Section GI, showing collapse from the North Platform and incline of the Gate Court pavement,
- (d) Section HI, western end of plate 72c at a larger scale, showing burned debris and details of the collapse from the North Platform



PLATE 74 | VIEWS OF THE MONUMENTAL ENTRANCE



| (a) The Monumental Entrance from the west. The individual in this photo stands at the center of the front façade threshold.



| (b) Monumental Entrance from the east, with the threshold of the front façade in the foreground



Northern side of the Monumental Entrance looking east from western edge of TR20 |

PLATE 76 | DETAILS OF THE MONUMENTAL ENTRANCE



| (a) Western side of the entrance looking south, with the sandstone plinth and southern column base



| (b) Northern face of the South Platform, with column base and plinth



(a) Looking south across the Gate Court, with the individual in the photo positioned standing by the northeastern corner of the South Platform |



(b) Northern side of the Monumental Entrance looking northeast. The individual in the photo crouches in the disturbed area where there would have been a plinth. |



PLATE 78 | DETAILS OF THE MONUMENTAL ENTRANCE



| (a) Southern side of the entrance looking southwest, with the southern column base



| (b) Central portion of the Monumental Entrance looking north, with pavement at lower center, stone steps at doorway into the room, foundations of façades to each side, and displaced column base at left



(a) Room on northern side of central section of the Monumental Entrance, between the two façades, with stone step at bottom and burned mudbricks on raised stone footing at left |

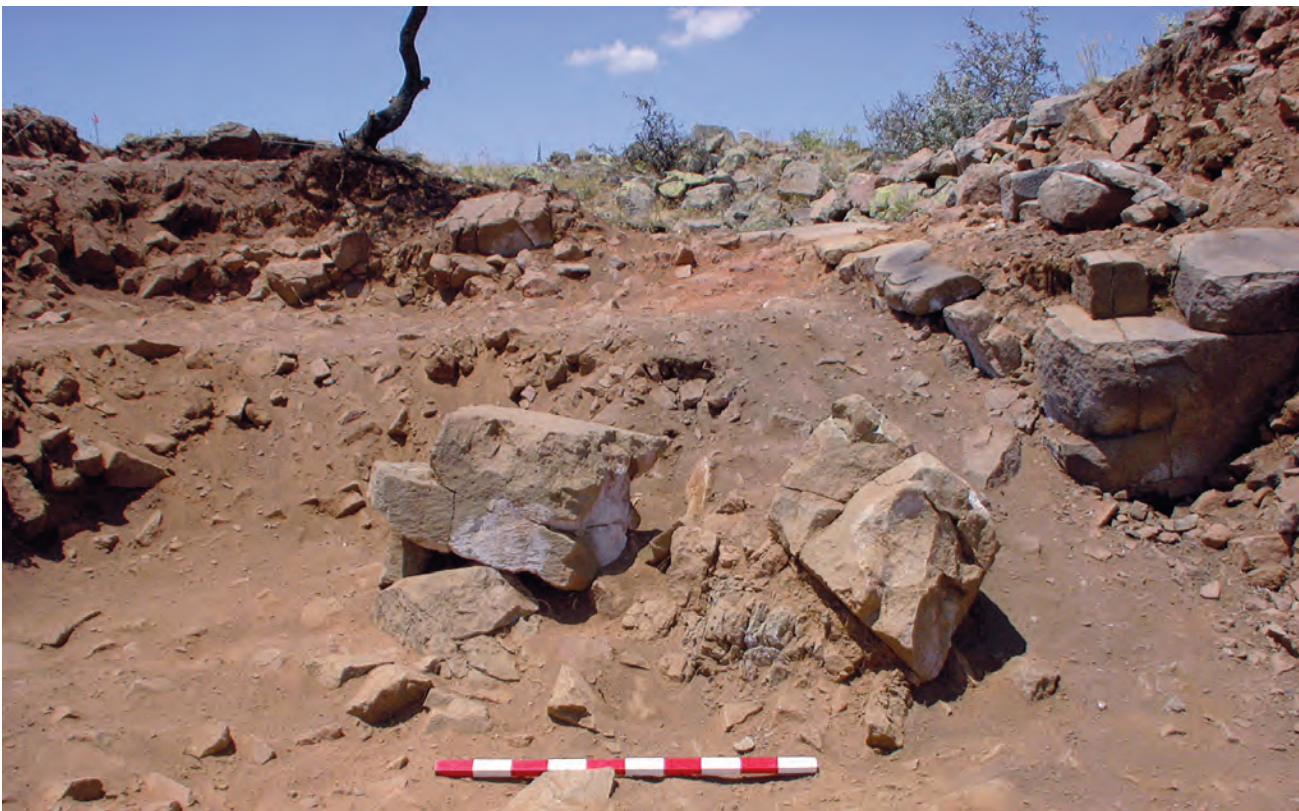


(b) Back of the Monumental Entrance looking northwest, with rubble fill of rear façade, fallen aniconic stele with displaced column base to the right, and drain in the paving |

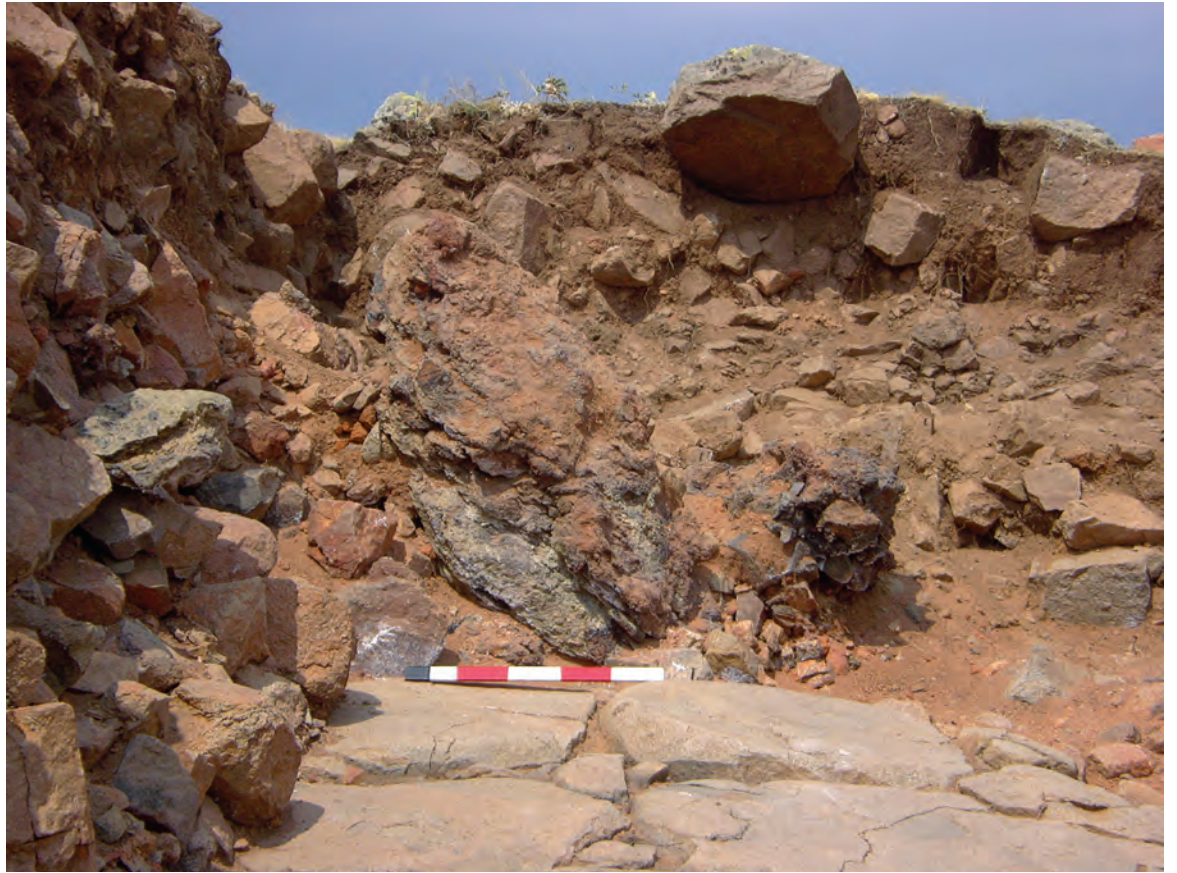
PLATE 80 | DETAILS OF THE MONUMENTAL ENTRANCE



| (a) The Monumental Entrance looking west, at the end of the 2003 season, showing extent of blackening on the pavement



| (b) North Platform, southeastern corner, showing topmost preserved granite blocks in situ and tumbled sandstone blocks disturbed by looters



(a) Mass of burned and fused stone and mud above northern side of threshold in front façade |



(b) North Platform, southeastern corner, after removal of the uppermost preserved stones |



(a) View of collapse from northeastern corner of the South Platform. The face of the topmost preserved granite cornerstone with cuttings for mending clamps has been propped in place; the column base is not yet revealed, while the plinth can be seen at right.



(b) Another view of the collapsed northeastern corner of the South Platform, with topmost preserved cornerstone visible at center. The white is caused by carbonates deposited since the destruction.



(a) Face of the South Platform, with sandstone plinth, part of foundation for front façade, five pavers indicating position and size of doors, and some of the undisturbed burned collapse. Lower blocks in the wall face are granite. Faces of the upper course of sandstone have fallen away and been removed.



(b) South Platform and column base, with collapse to the left

PLATE 84 | DETAILS OF THE MONUMENTAL ENTRANCE



| (a) Southern face of the North Platform



| (b) North Platform, southeastern corner, showing granite blocks in the eastern face



(α) Northern column base, before total removal of burned debris, showing very severe damage caused by fire. The scale is 20 cm. |



(b) Southern column base from the northeast |





| (a) Another view of the southern column base



| (b) Column base, with part of the drain at left, foundation slot of rear façade at right, and fallen aniconic stele



(a) Column base in rear section of the Monumental Entrance, tilted by treasure seekers who burrowed underneath it, with part of damaged drain at right



(b) Another view of the sandstone column base in the rear section of the Monumental Entrance

PLATE 88 | DETAILS OF THE MONUMENTAL ENTRANCE



(a) Aniconic granite stele in the rear section of the Monumental Entrance fallen back into foundation of rear façade before complete removal of fallen rubble. The scale rests on the stone in front of the stele that was set below the level of the paving. The drain runs diagonally across the picture at upper right.



(b) Fallen aniconic stele from the south. Beneath the scale is the stone with the pecked surface that is recessed into the pavement.

(a) Section through center of the Gate Court



(b) Eastern portion of section through center of the Gate Court



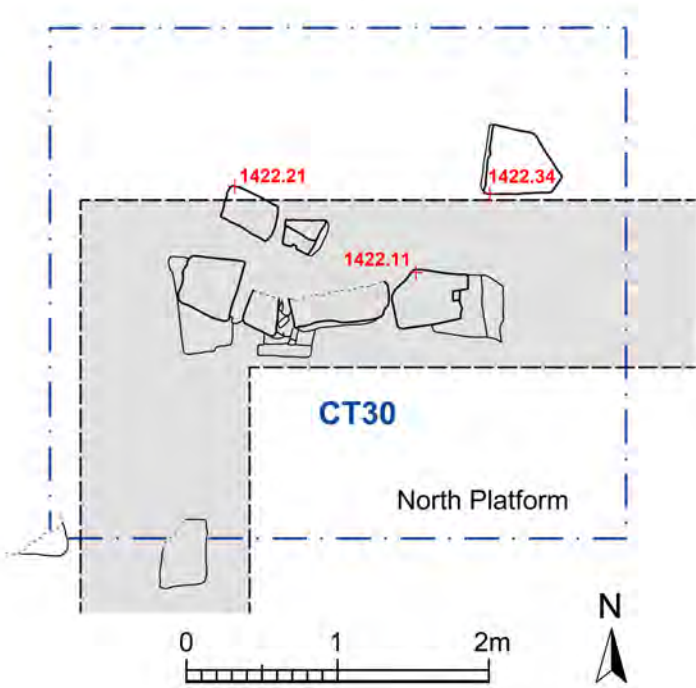
(c) Western portion of section through center of the Gate Court



PLATE 90 | VIEW AND PLAN OF THE NORTH PLATFORM CORNER



| (a) In situ granite blocks of northwestern corner of the North Platform in CT30



| (b) Plan of in situ stone at northwestern corner of the North Platform in CT30



(a) Extension of TR01 across street to the southeast showing poorly paved sidewalk and face of boundary wall |



(b) The first fragment of small-scale relief sculpture was found in disturbed fill of the Gate Court just behind the scale in the upper left quadrant of the photograph |

PLATE 92 | DETAILS OF THE MONUMENTAL ENTRANCE



(a) Close view of first fragment of relief sculpture found, shown with 20 cm scale



(b) Fitted granite in southern wall of the North Platform. The fronts of the stones had broken away as a result of fire. The 25 cm scale is placed where the timber beam would have been.



(c) Detail of fitted granite in southern wall of the North Platform where wall front has broken away



(a) Granite in northern wall of the South Platform, with row of narrow stones above larger, fire-cracked blocks, beam slot above, and part of sandstone column base at left |



(b) Granite, shaped to fit tightly between two large blocks in northern wall of the South Platform, showing fire damage |



PLATE 94 | TOOLMARKS ON MONUMENTAL ENTRANCE MASONRY



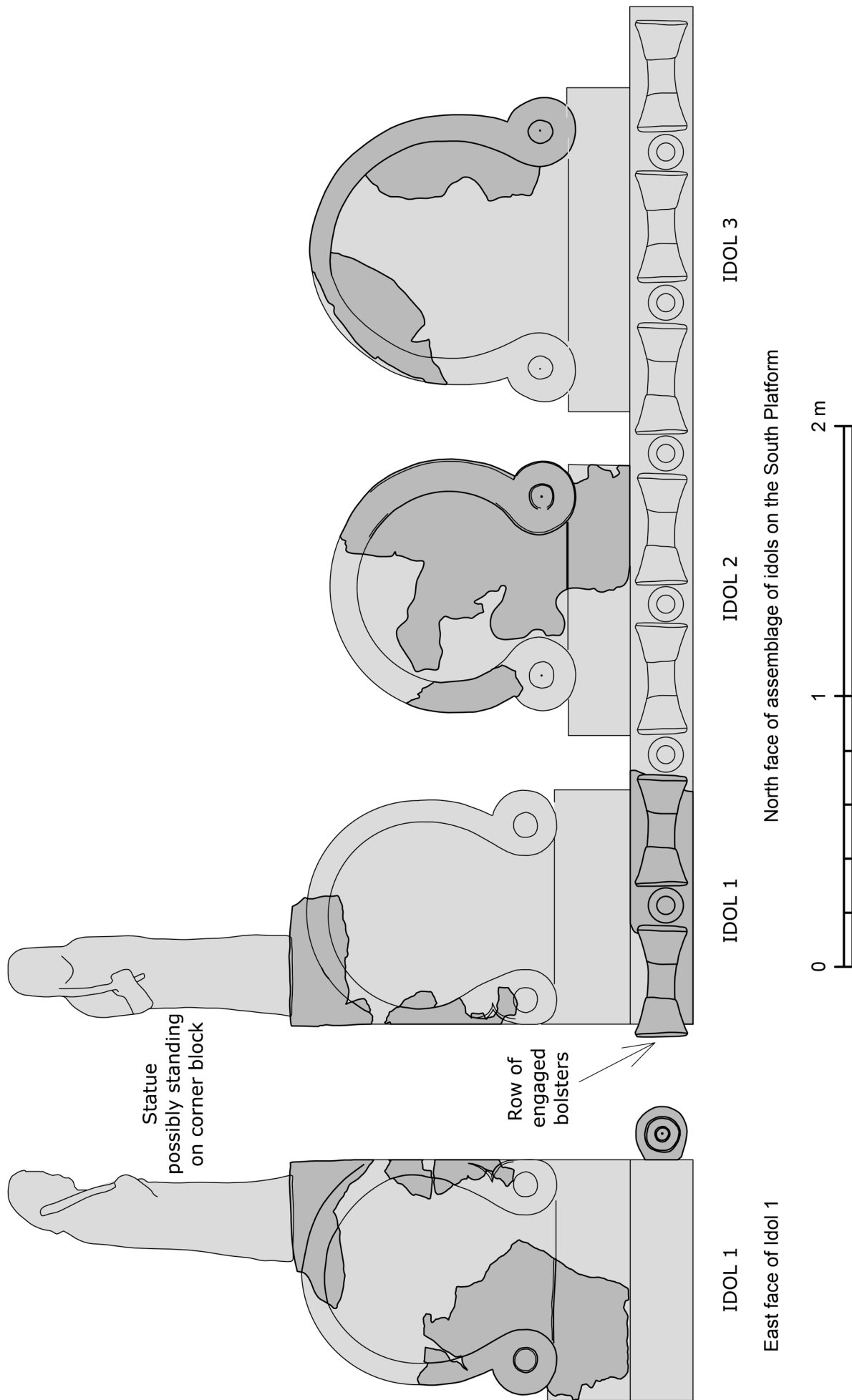
| (a) Faced block of pale-brown sandstone with toolmarks



| (b) Faced block of fine, very pale brown sandstone with toolmarks in different directions

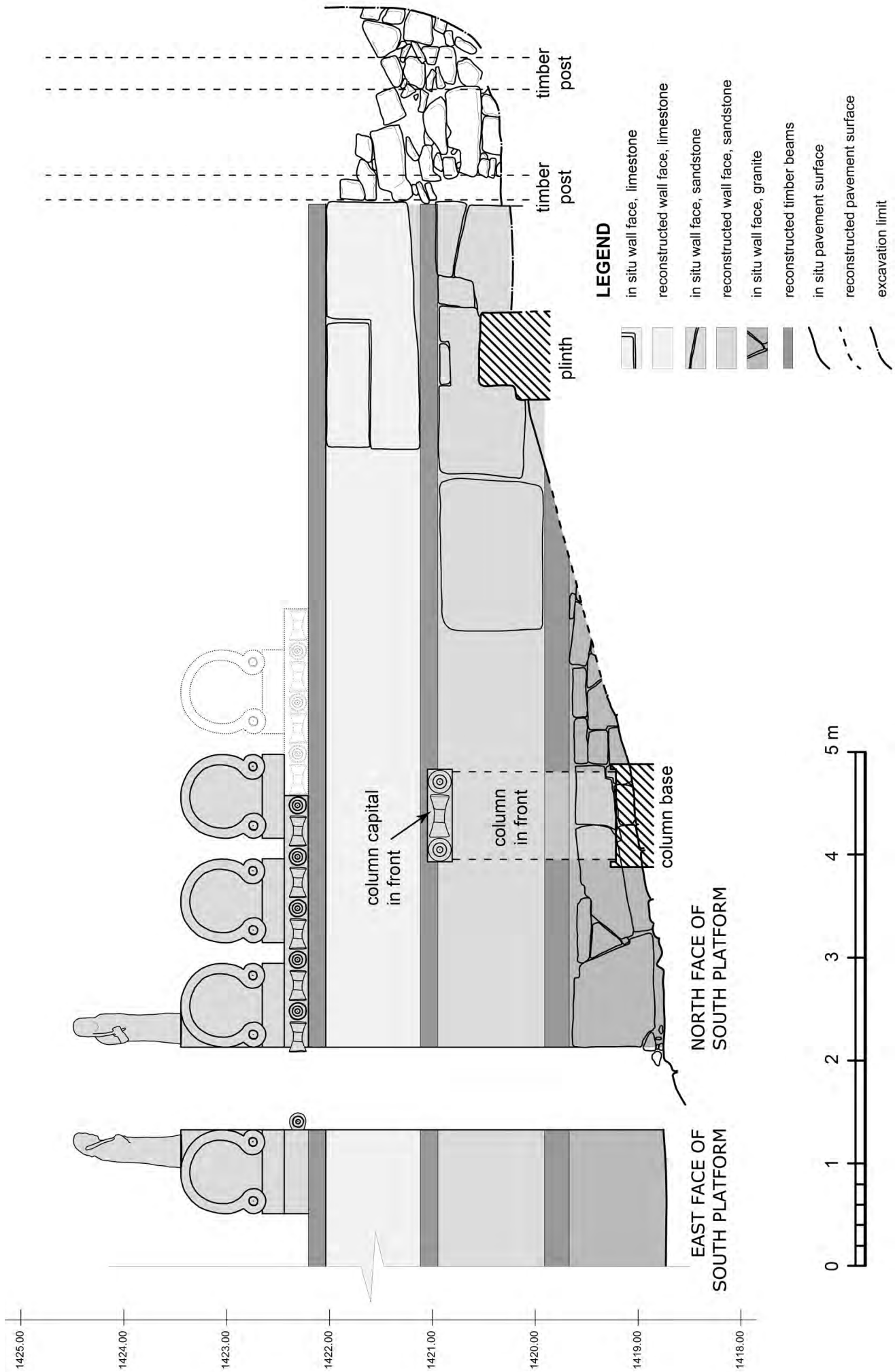


| (c) Coarse toolmarks left by a broad chisel and a point



| Possible reconstruction of placement of medium-sized bolsters, idol blocks, and statue of draped figure

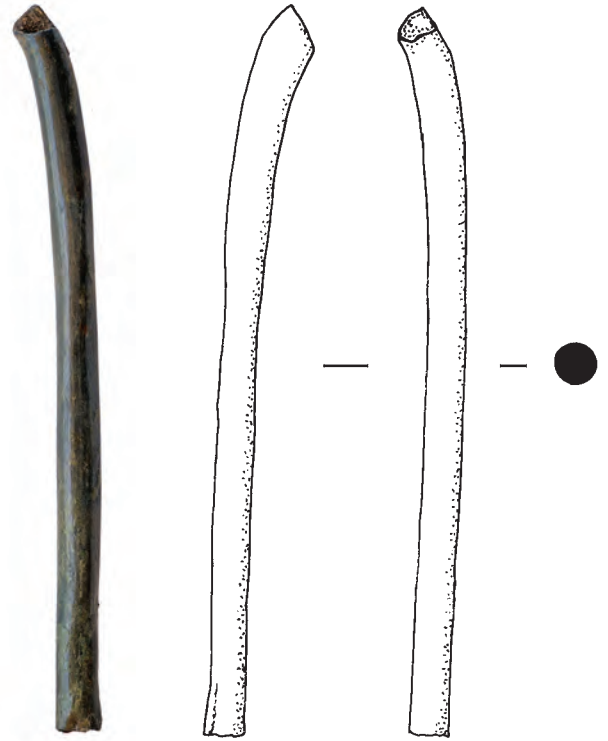
DRAWING by Ahmet Çinici



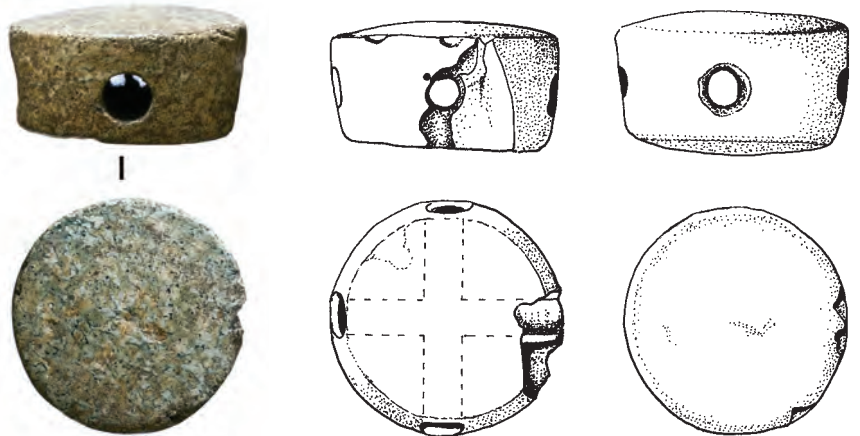
| Reconstruction drawing of the South Platform, Monumental Entrance

DRAWING by Ahmet Çinici

(a) Copper alloy tube, K00.104 |



(b) Stone bridle strap guide, K99.082 |





(a) Sherd from in front of glacis, ooCT27Uo2pot01, with pot mark cat. no. 7



(b) Astragalus from Structure A, 99CT05Uoobon01



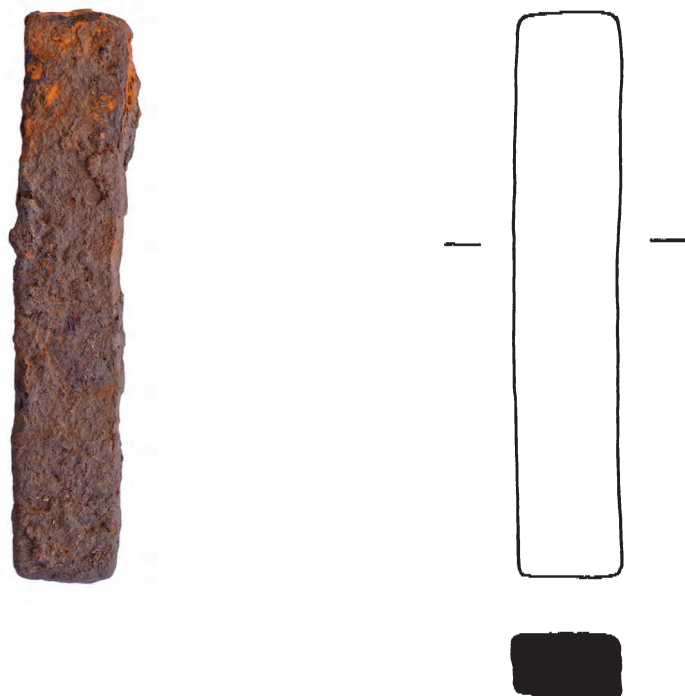
Left to right:  
(c) Needle shank from Structure C, K00.103,  
(d) Copper alloy hairgrip from fill, K00.101



(e) Iron pointed object from fill, K00.106

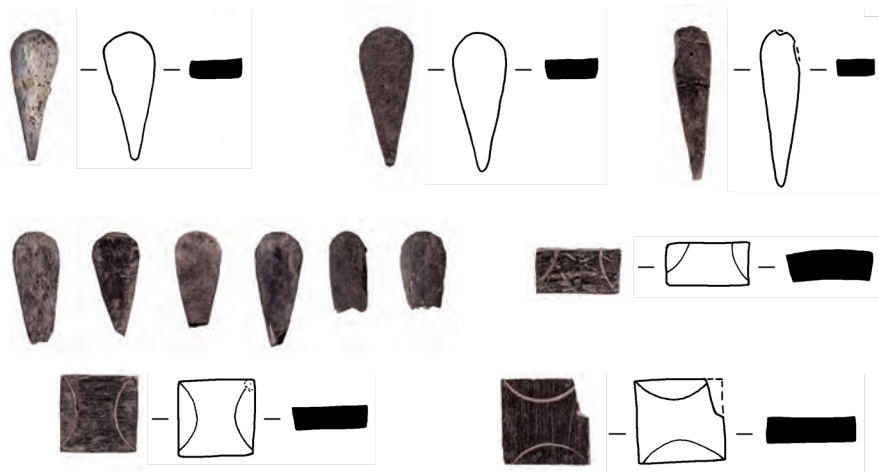


(a) Iron bar, K00.107 |



(b) Ivory fragment, K00.096 |





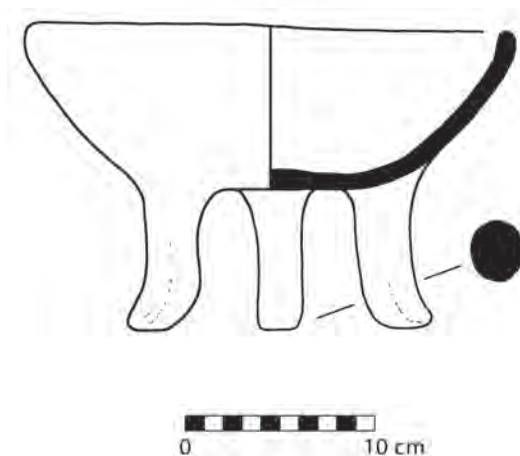
| (a) Antler inlay fragments, K00.097



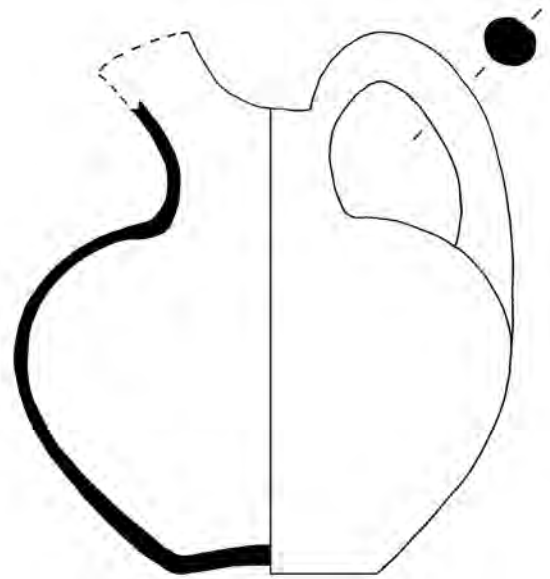
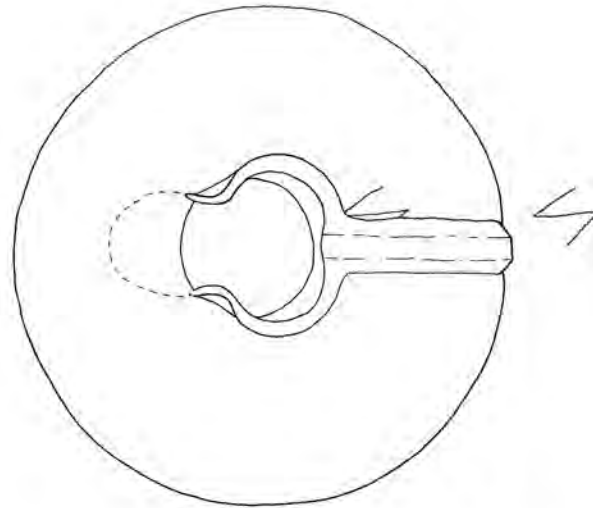
| (b) Astragalus, K00.098



| (c) Tripod bowl, K00.094



(a) Spouted jug,  
restored, KO0.123,  
with pot mark cat. no. 1



(b) Spouted jug fragment,  
ooCT23Uo2pot05,  
with pot mark cat. no. 2

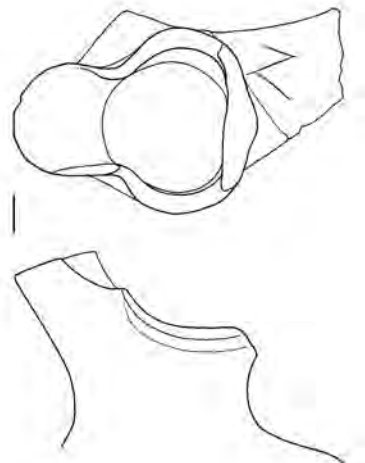
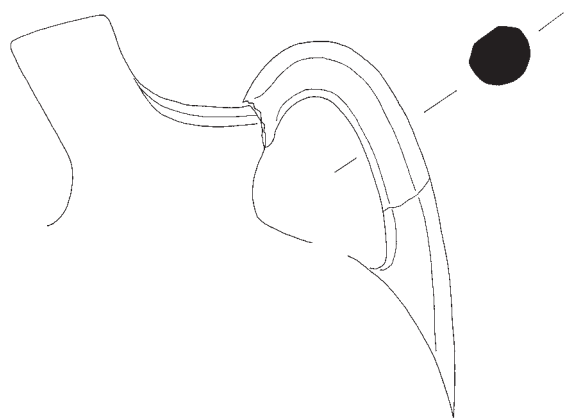
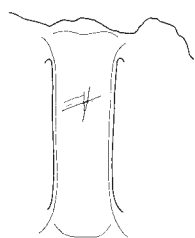




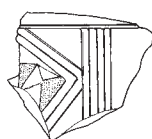
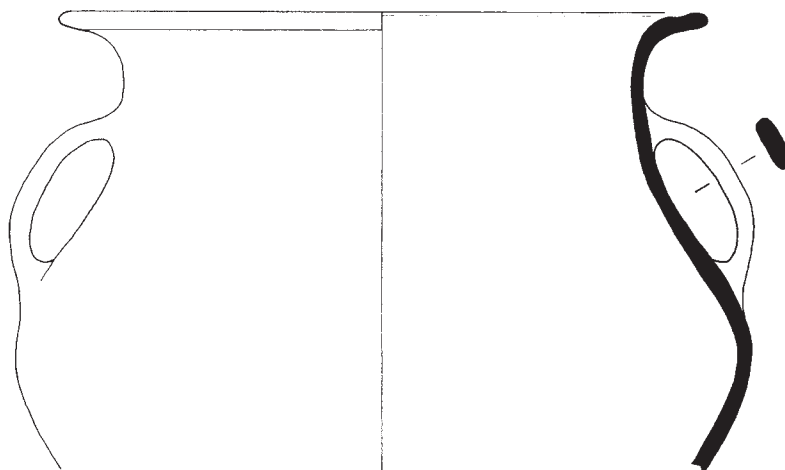
PLATE 102 | POTTERY FROM BEHIND STRUCTURE A



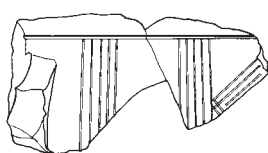
(a) Spouted jug fragment, 00CT23U02pot06, with pot mark cat. no. 3 (drawn on p. 158)  
(b) Krater, 00CT23U02pot03, with pot mark cat. no. 5



(b) Krater, 00CT23U02pot03, with pot mark cat. no. 5



(c) Sherd of faceted ware, 00CT23U02pot07



(d) Sherd of faceted ware, 00CT23U02pot08



(a) Painted sherd, K00.089 |



(b) Trough spout with sieve, K00.090 |



(c) Sherd from a jug, K00.092, with pot mark cat. no. 9 |



(d) Faceted sherd, K00.093 |

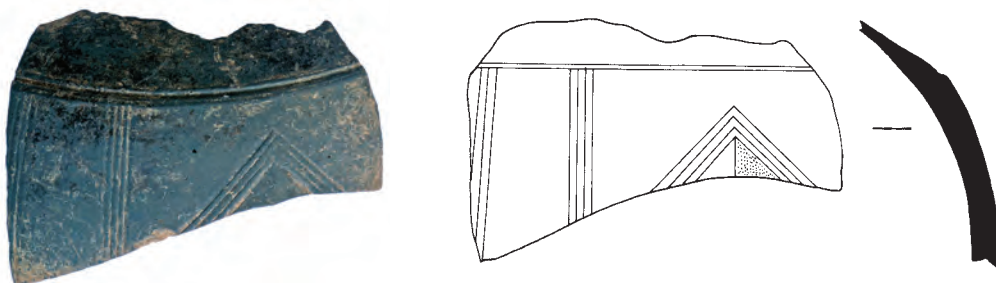
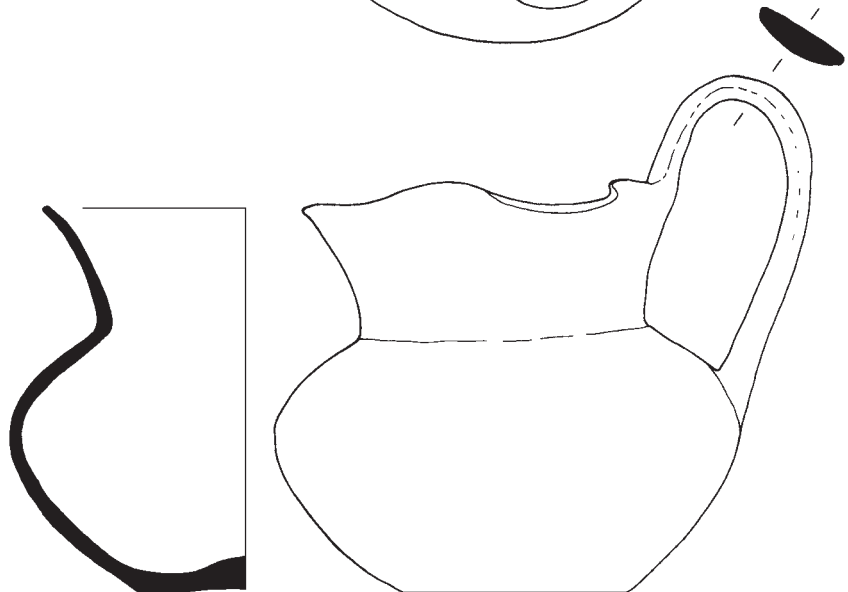
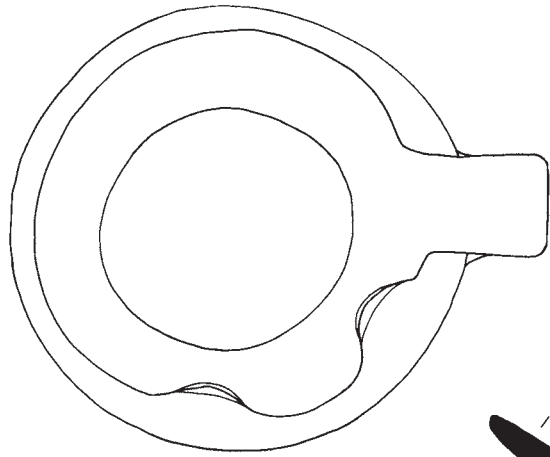
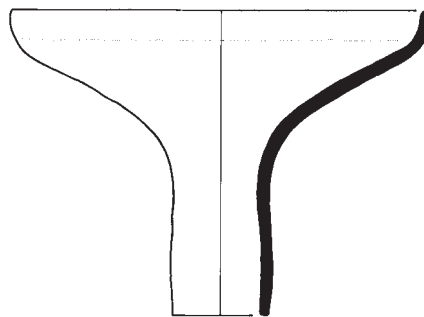
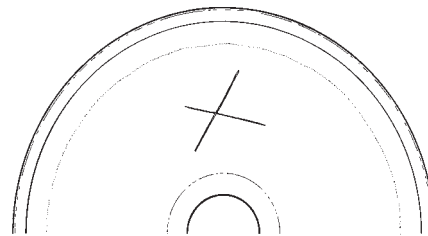


PLATE 104 | POTTERY FROM BEHIND STRUCTURE A AND FROM STRUCTURE C

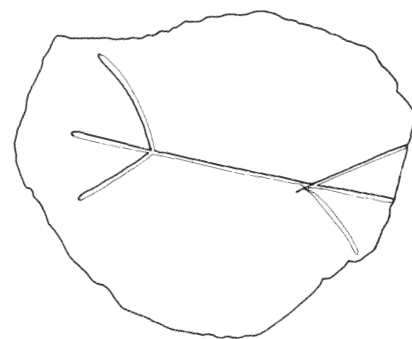
(a) Side-spouted juglet from behind  
Structure A, Koo.086



(b) Funnel from Structure C,  
Koo.088, with pot mark  
cat. no. 8



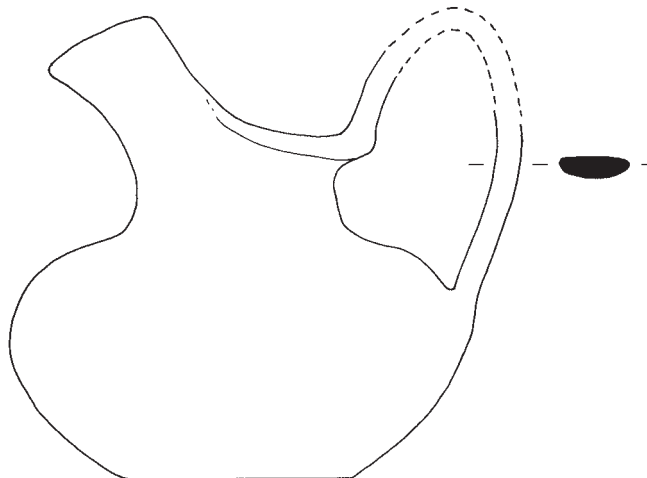
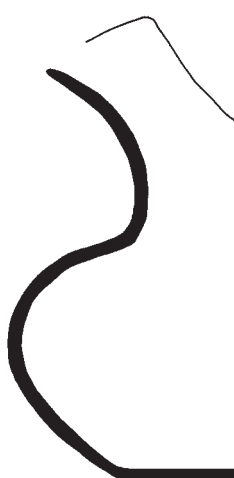
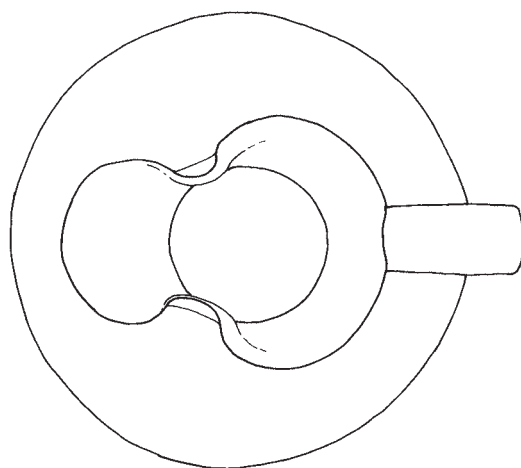
(a) Base sherd, K00.091,  
with pot mark cat. no. 10

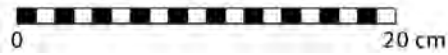
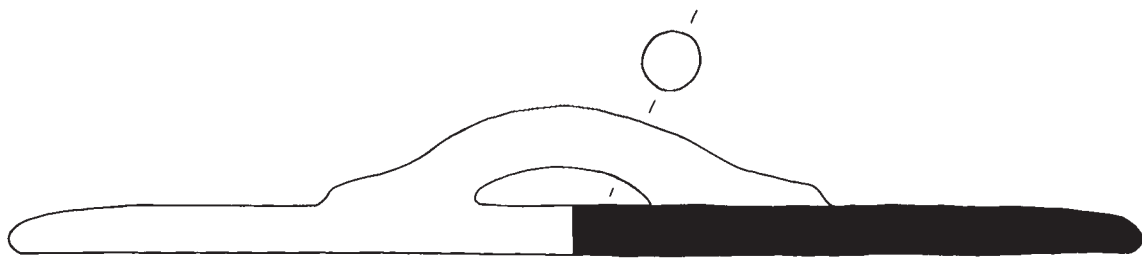


I



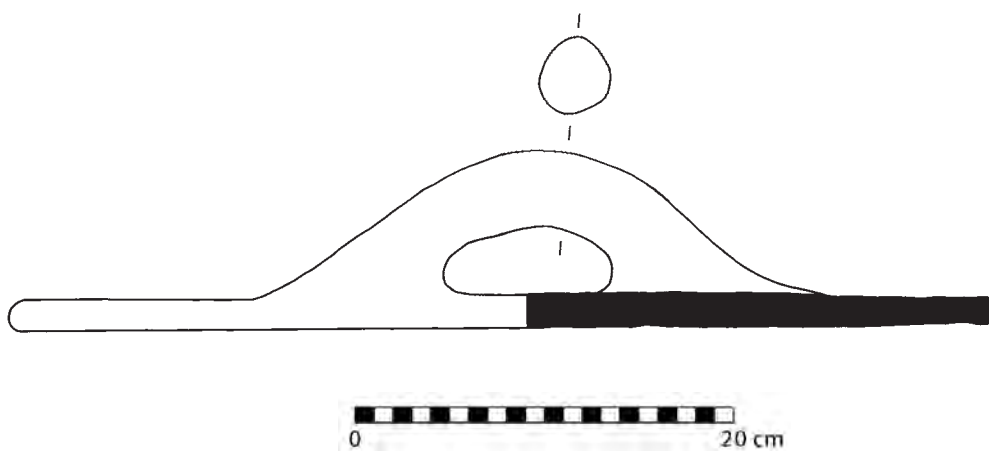
(b) Spouted juglet, K00.087





| Pottery lid, Koo.118

PHOTO o5dpmk1215 by Murat Akar  
DRAWING by Isabelle Ruben

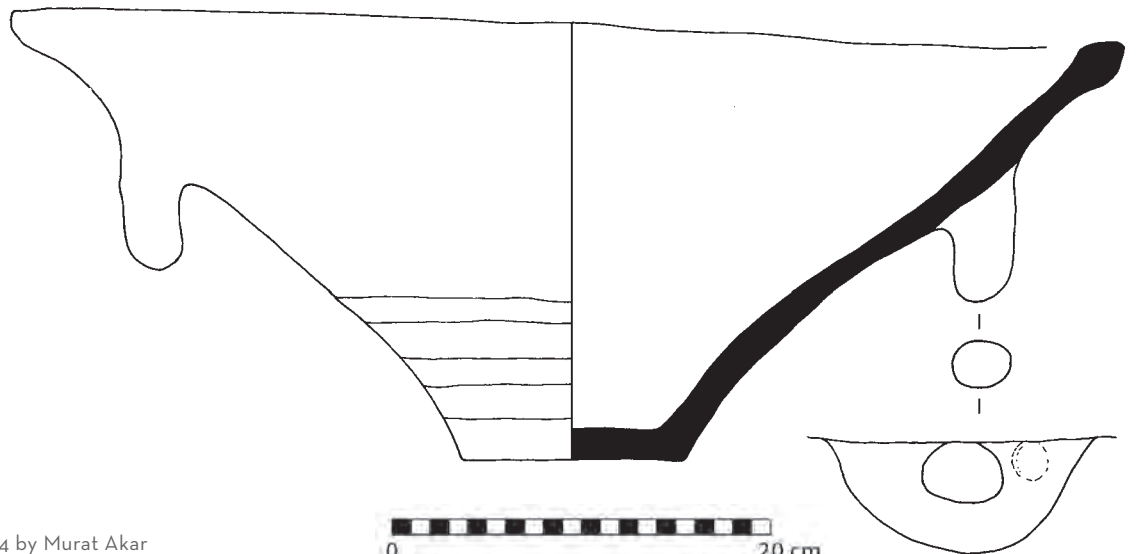


Pottery lid, K00.119 |

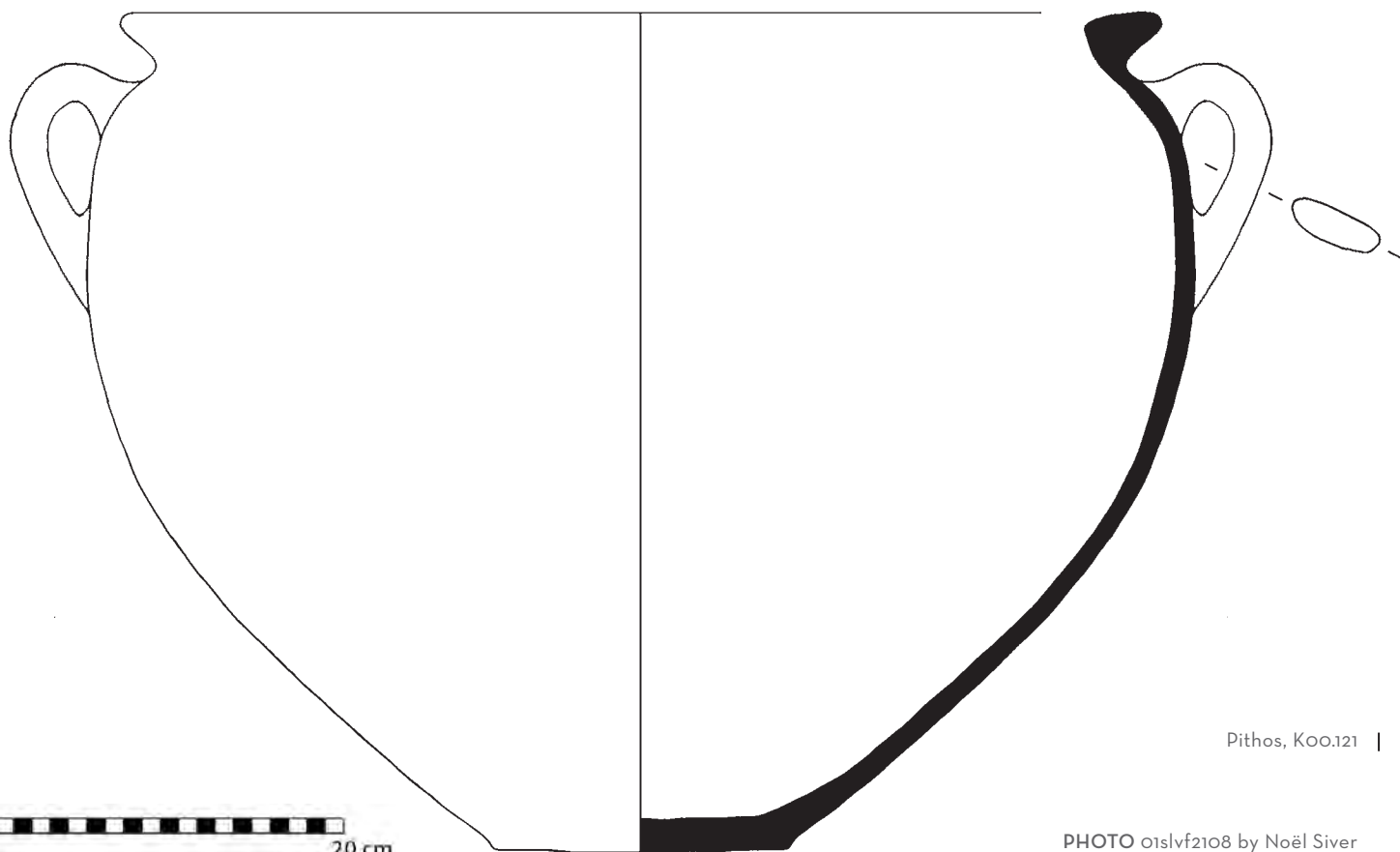
PHOTO 05dpnk1216 by Murat Akar  
DRAWING by Isabelle Ruben



| Large deep bowl with drop handles, K00.120



PHOTOS 05dpnk1213, 05dpnk1214 by Murat Akar  
DRAWING by Isabelle Ruben

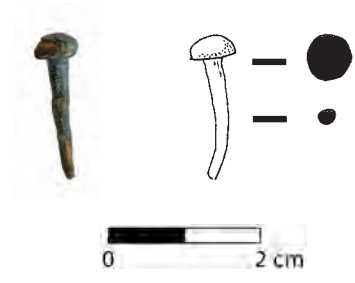
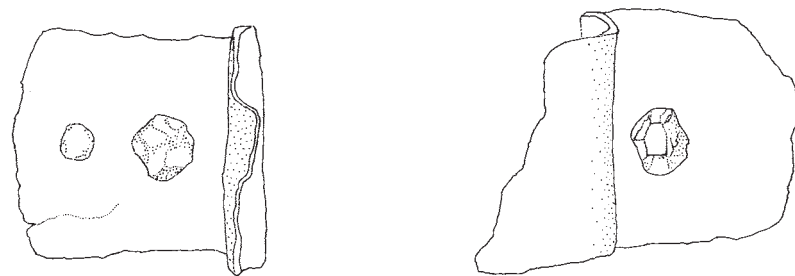
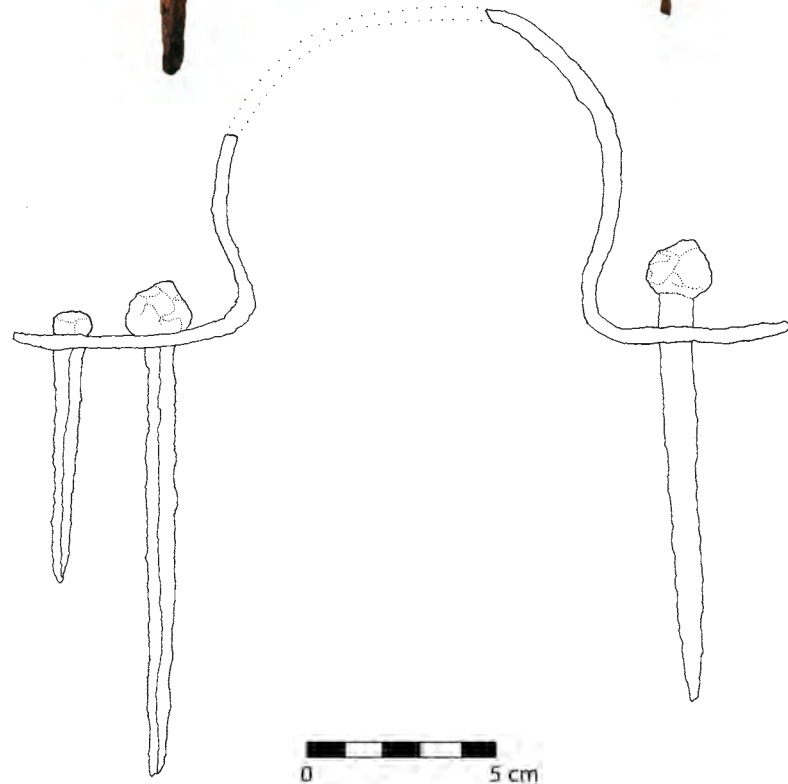


Pithos, K00.121 |

PHOTO 01slvf2108 by Noël Siver  
DRAWING by Isabelle Ruben



PLATE 110 | IRON AND COPPER ALLOY OBJECTS FROM THE AUDIENCE HALL

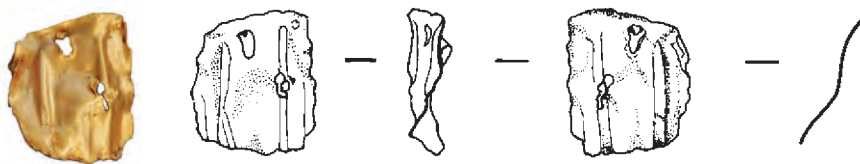


(a) Small copper alloy nail, K96.039

(b) Iron post bracket, K96.045



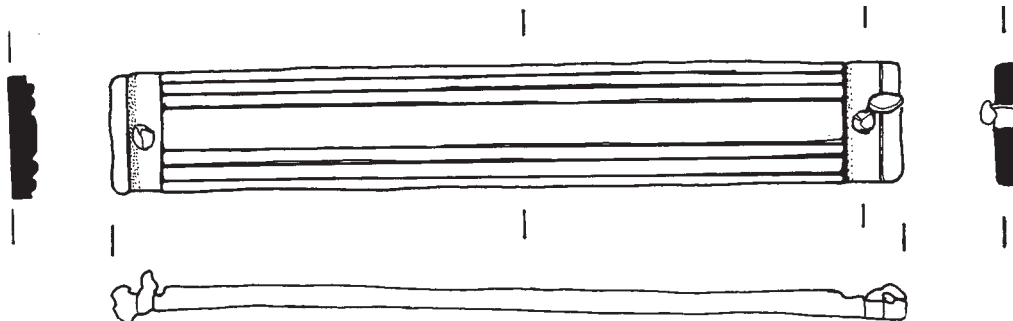
(a) Fragment of gold sheet, KO0.095 |



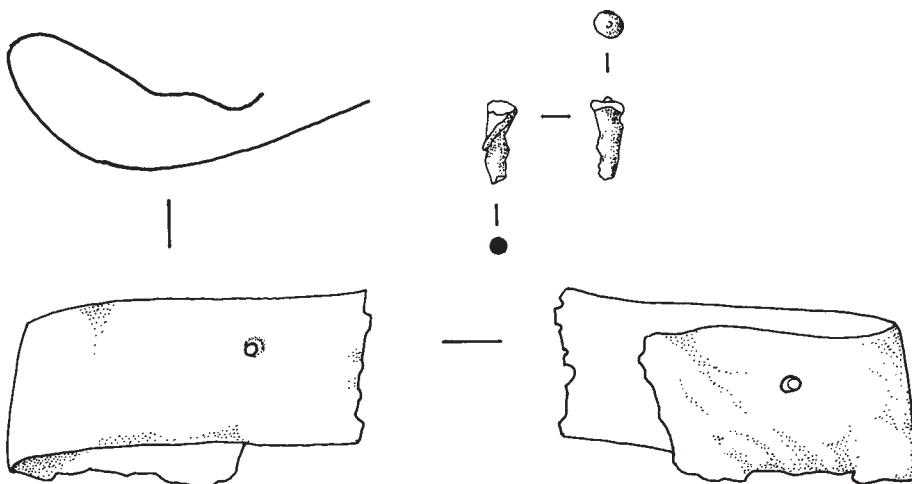
(b) Fragment of gold sheet, KO2.125 |

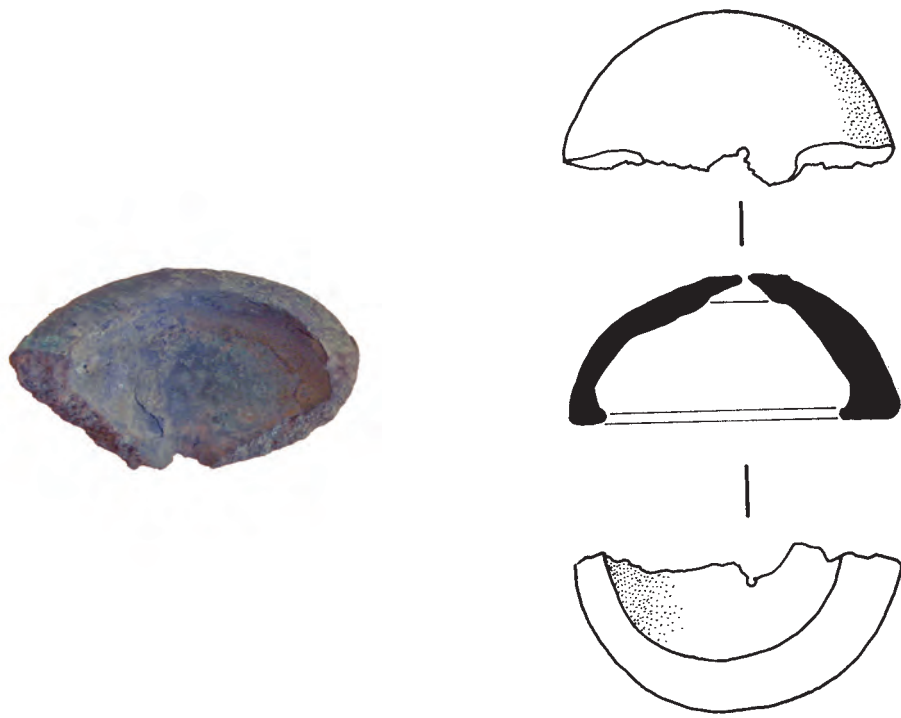


(c) Copper alloy attachment, KO2.128 |

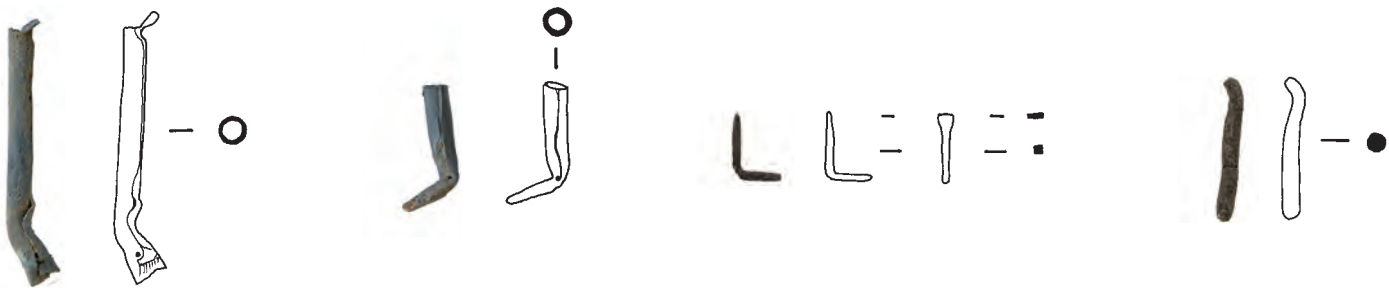


(d) Copper alloy band, O2TRO2U10met11 |





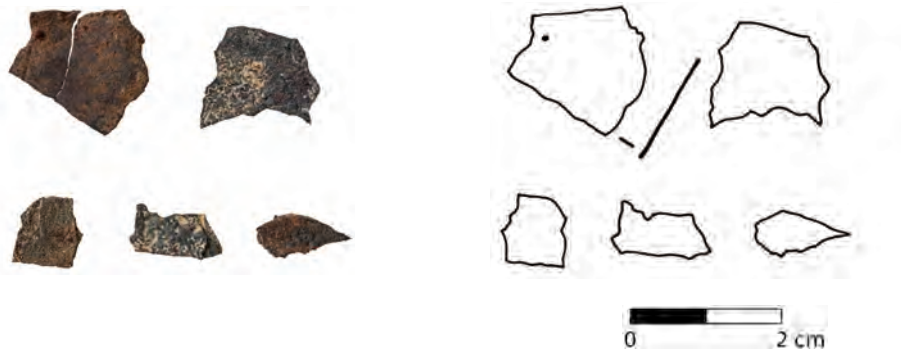
(a) Copper alloy object, o2TRo2Uo3meto1



Left to right: (b) Copper alloy tube fragment, o2TRo2U1ometo1, (c) Copper alloy tube fragment, o2TRo2U1ometo2, (d) Copper alloy rod, o2TRo2U1ometo3, (e) Copper alloy rod, o2TRo2U1ometo5

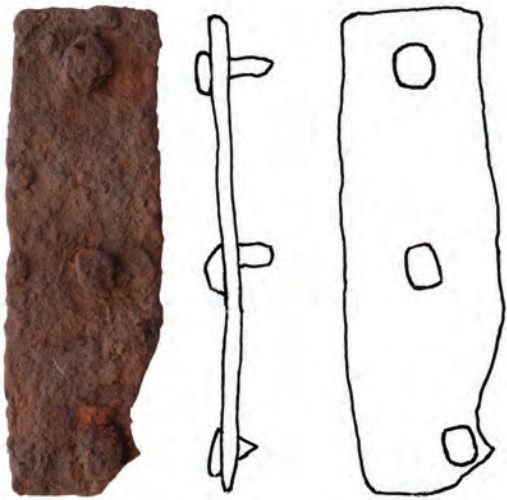


(f) Three copper alloy lunate rings, o2TRo2U1ometo6, o2TRo2U1ometo8, o2TRo2U1ometo9

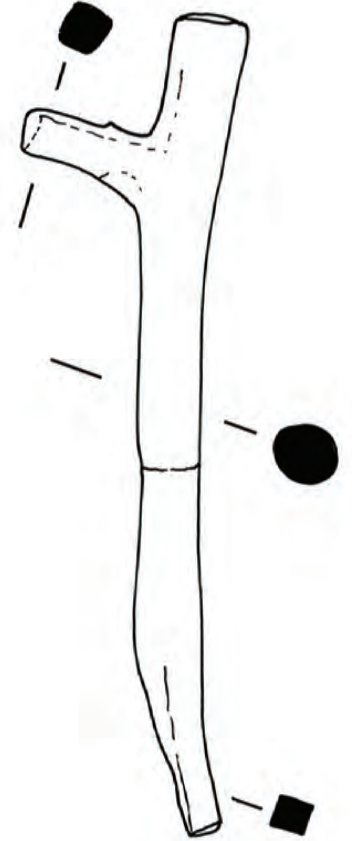


(g) Five copper alloy sheet fragments, o2TRo2U14meto5

PHOTOS (a) o2dpjv4521 by David Stronach; (b) o5dpnk0922 and (c) o5dpnk0921 by Murat Akar; (d) 18dpkc0120 and (e) 18dpkc0119 by Joseph Lehner; (f) o2dpjv2822 by David Stronach; (g) 18dpkc0110 by Joseph Lehner  
DRAWINGS by Judith Sellers



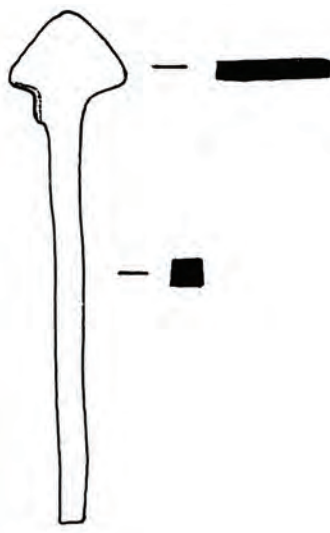
(a) Iron plate with three nails, K00.108 |



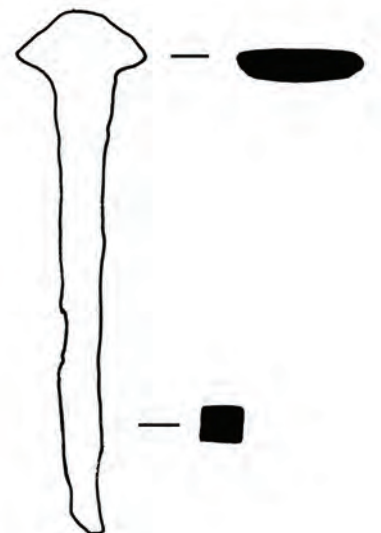
(b) Iron object, K00.112 |



(c) Iron ring, o2TRo2U12meto1 |



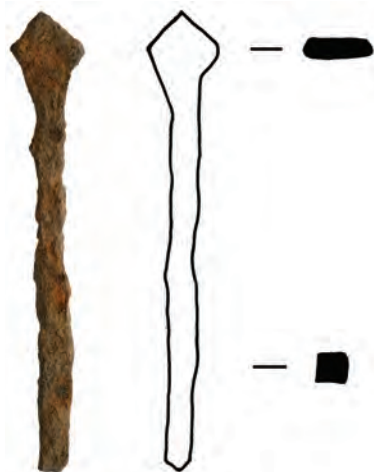
(d) Triangular-headed iron nail, K00.110 |



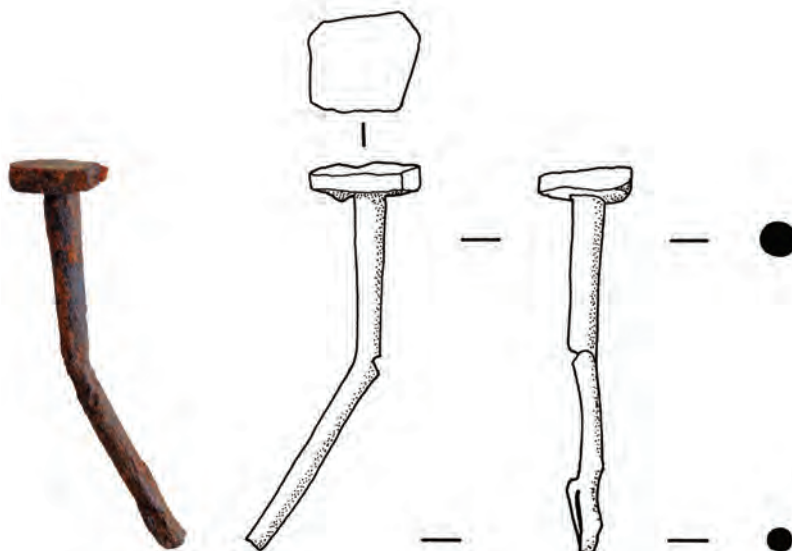
(e) Triangular-headed iron nail, K00.111 |



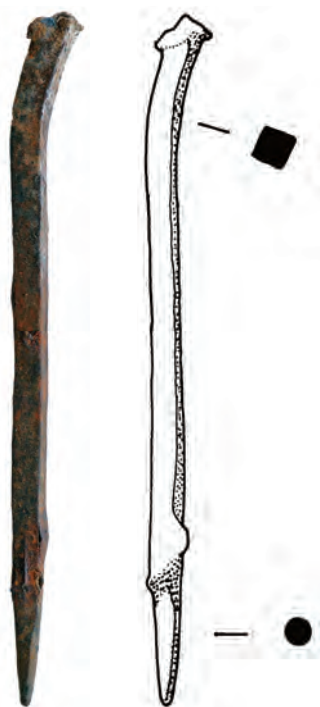
PLATE 114 | IRON OBJECTS FROM THE AUDIENCE HALL



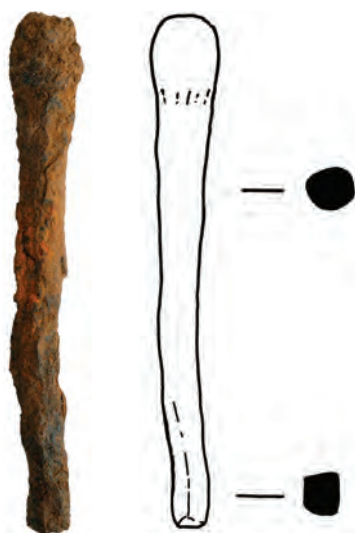
| (a) Triangular-headed iron nail, K00.116



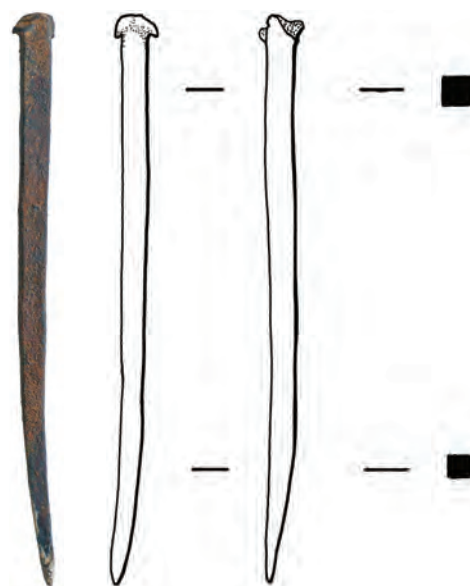
| (b) Square-headed iron nail, K02.138



| (c) Iron nail, K02.139



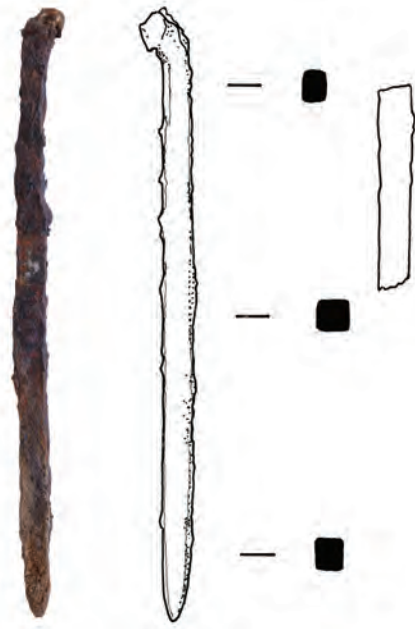
| (d) Iron nail, K00.109



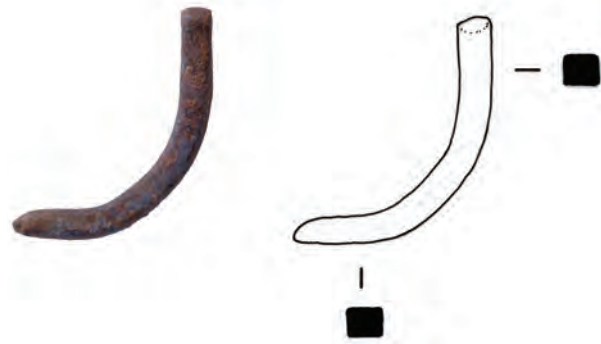
| (e) Iron nail, K02.140



PHOTOS (a) 05dpnk0804, (b) 05dpnk0704, (c) 05dpnk0702, (d) 05dpnk0802, and (e) 05dpnk0703 by Murat Akar  
DRAWINGS (a) by Isabelle Ruben; (b), (c), (d), and (e) by Judith Sellers



(a) Iron nail, o2TRo2U14meto2 |



(b) Iron shank, o2TRo2U14meto3 |



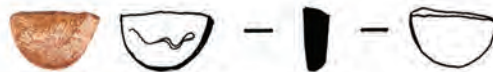
(c) Iron nail, o2TRo2U14meto4 |



(d) Iron nail, o2TRo2U14meto6 |



(e) Iron nail, o2TRo2U14meto7 |

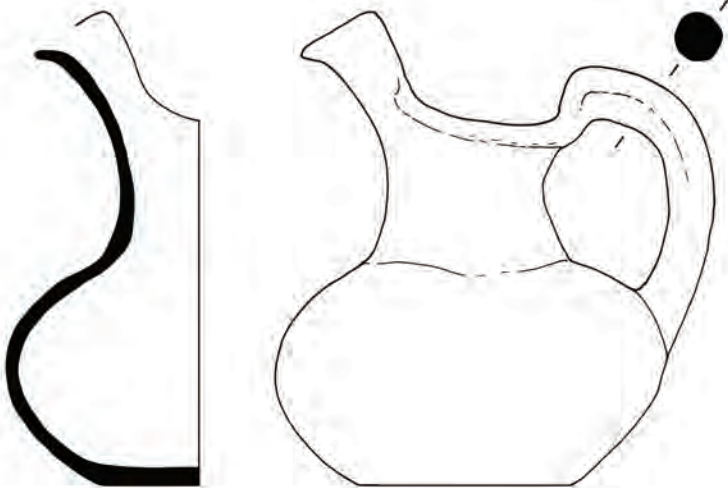
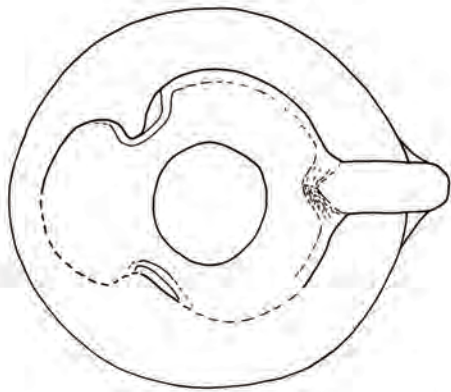


(f) Ivory inlay, o2TRo2Uo1bono1 |

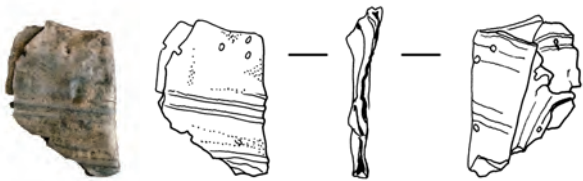




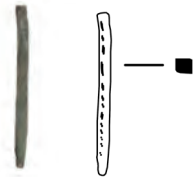
| Juglet with raised spout, K00.085



Clockwise from top left:  
(a) Fragments from upper portion of column base, O2TRO2U11arcO1,  
(b) Fragments from lower portion of column base, O2TRO2U11arcO1,  
(c) Piece from underside of the column base (length 26 cm), O2TRO2U11arcO1



(d) Silver sheet fragment, K02.127 |



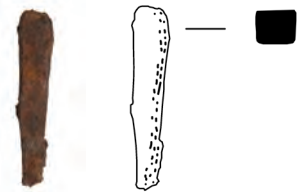
(e) Copper alloy shank fragment, O3TRO5U02meto3 |



(f) Iron arrowhead with tang, O3TRO5U03meto7 |



(g) Iron point, O3TRO5U01meto1 |



(h) Iron point, O3TRO5U02meto2 |



PHOTOS (a) o2slvf1617, (b) o2slvf1618 and (c) o3dpjv1517 by Geoffrey D. Summers; (d) o5dpmk0511 by Murat Akar; (e) 12dpkc1419 by Noël Siver; (f) o5dpmk0609 by Murat Akar; (g) 12dpkc1417 and (h) 12dpkc1418 by Noël Siver  
DRAWINGS (a) by Judith Sellers; (b), (c), (d), and (e) by Ben Claasz Coockson



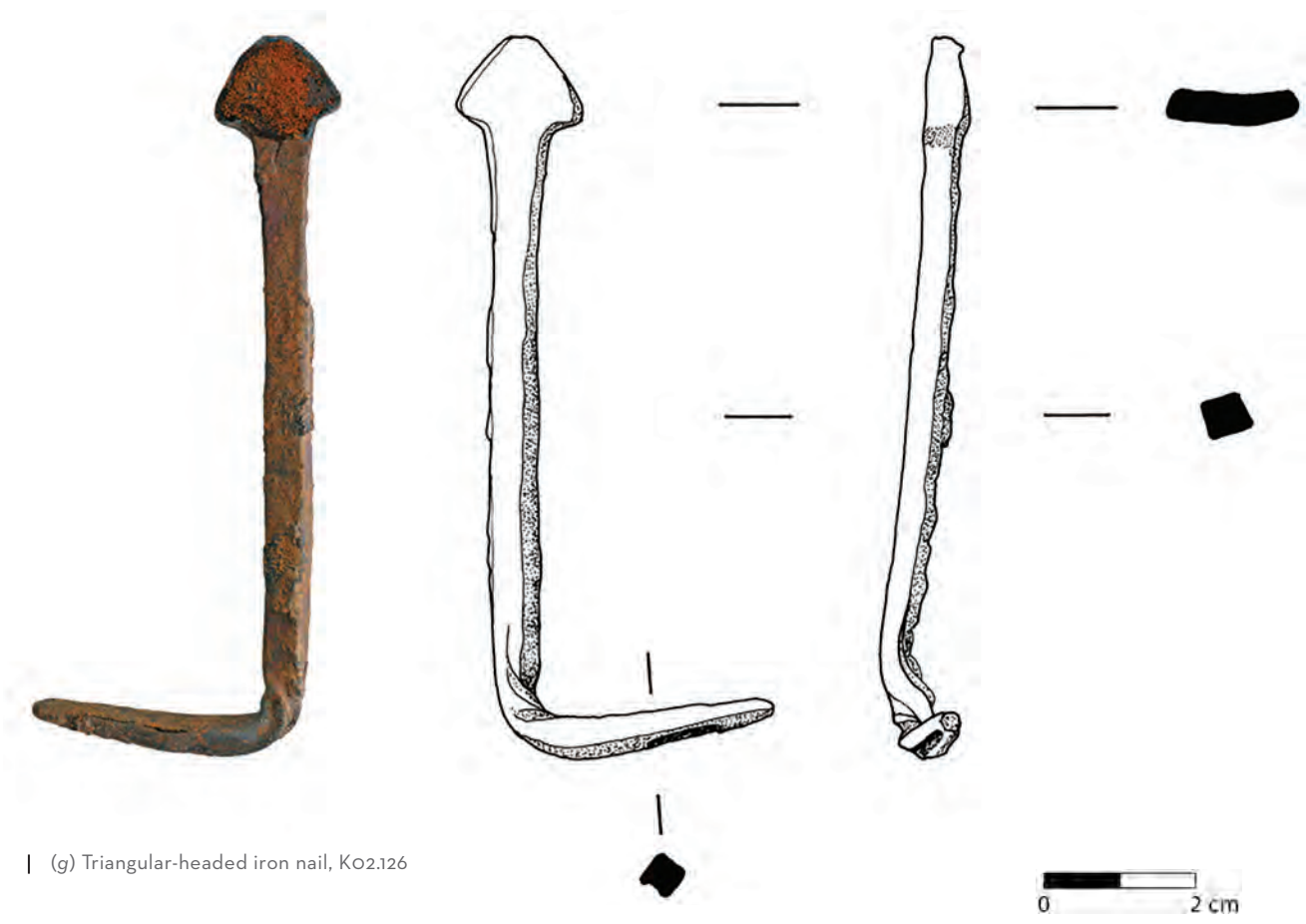
PLATE 118 | IRON OBJECTS FROM THE ASHLAR BUILDING



| Left to right: (a) Iron point, 03TR05U02met05, (b) Iron point, 03TR05U02met06, (c) Iron point, 03TR05U03met08



| Left to right: (d) Iron point, 03TR05U03met09, (e) Iron point, 03TR05U03met10, (f) Iron point, 03TR05U03met11



| (g) Triangular-headed iron nail, KO2.126



(a) Triangular-headed iron nail, KO2.142 |



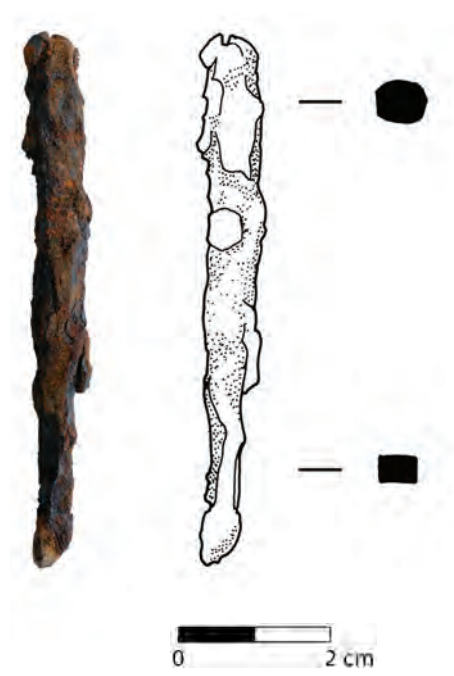
(b) Triangular-headed iron nail, O3TR05U03met05 |



(c) Triangular-headed iron nail, O3TR05U02met04 |



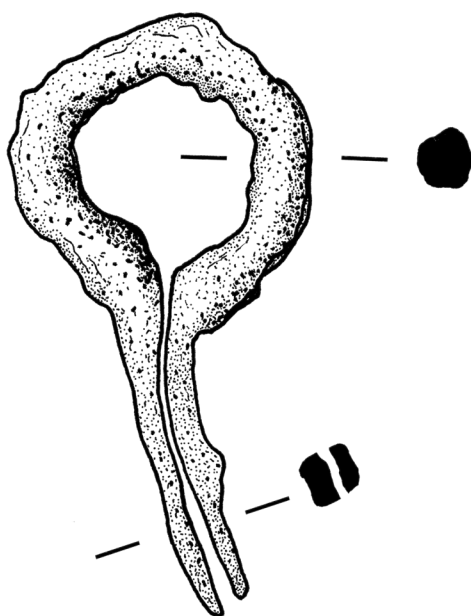
PLATE 120 | IRON OBJECTS FROM THE ASHLAR BUILDING



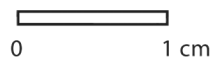
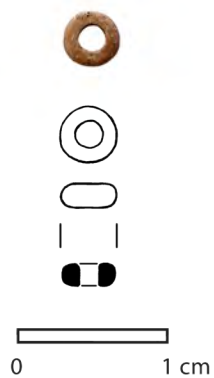
| (a) Iron nail, o2TRo5Uo3meto2



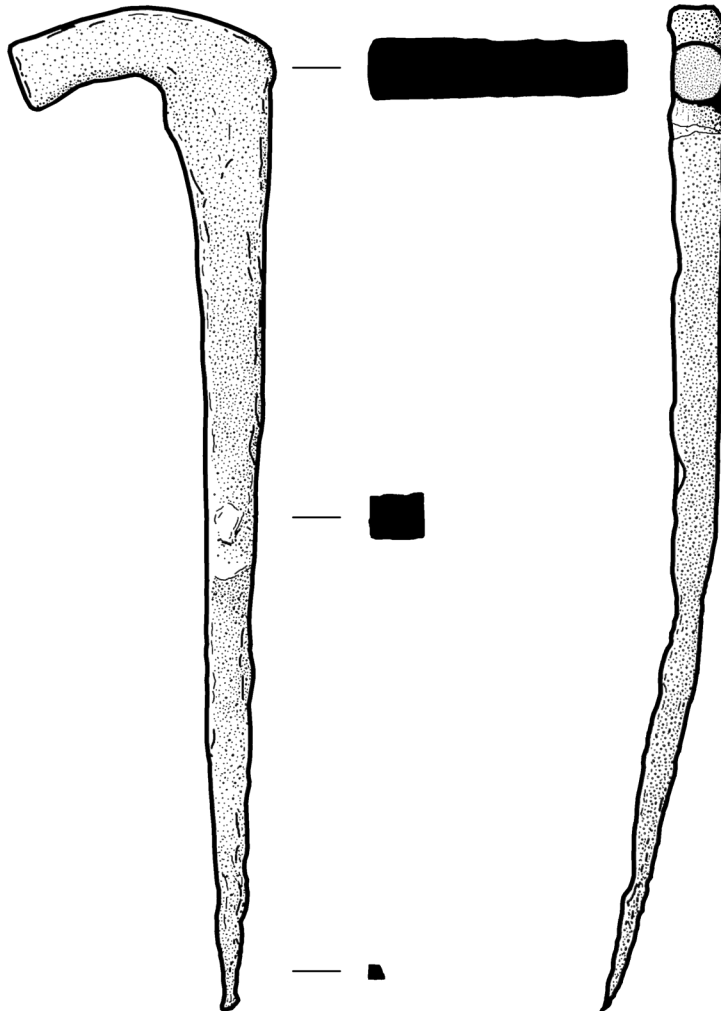
| (b) Iron band fragments with nail fragments, o3TRo5Uo3meto6



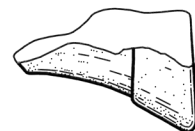
(a)



(c)



(b)



(d)

(a) Iron cotter pin, O3TR05U02met01,  
(b) Iron spike, O3TR05U03met04,  
(c) Frit bead, KO2.143,  
(d) Wooden bolster fragment, KO3.161

PLATE 122 | ASTRAGALI FROM THE ASHLAR BUILDING



(a) Group of six ovicaprid astragali and astragali fragments, medial and lateral views, o2TR05U03bon01



(b) Group of six ovicaprid astragali and astragali fragments, dorsal and ventral views, o2TR05U03bon01



(a) Burned mudbrick in front room of the Ashlar Building, o2TRo5Uo2bldo3



(b) Sandstone plug, o2TRo5U23arc01

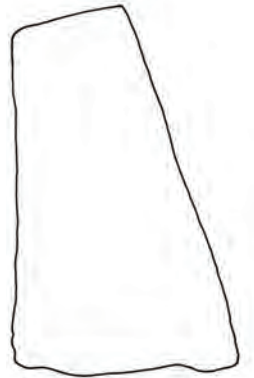
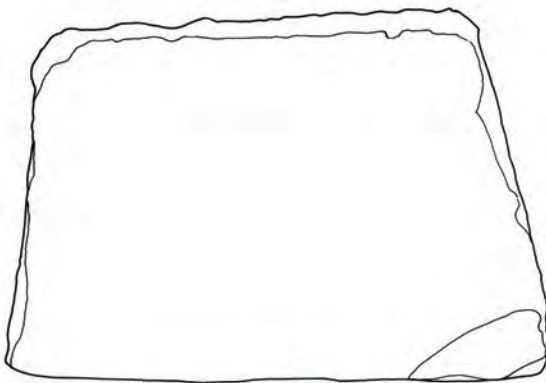
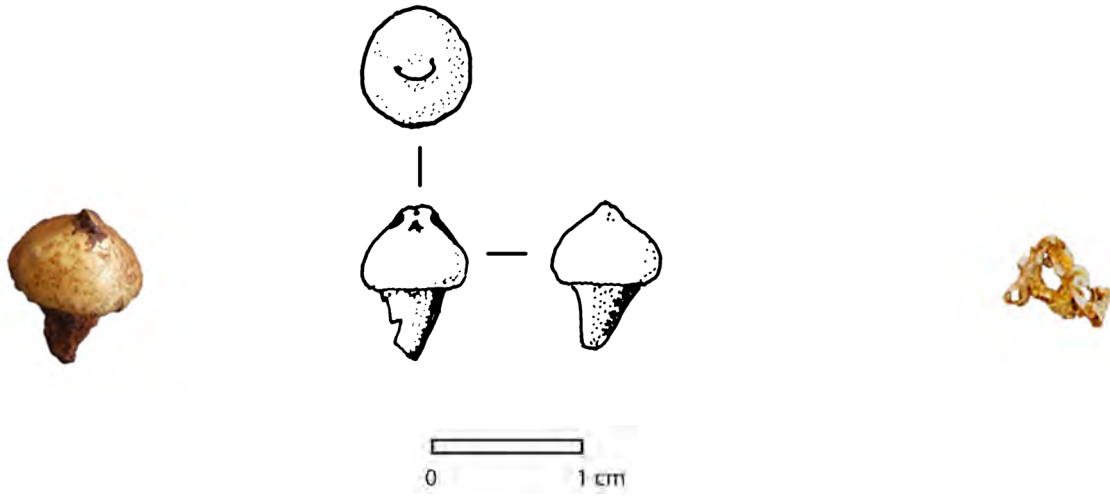


PLATE 124 | GOLD OBJECTS FROM THE MONUMENTAL ENTRANCE



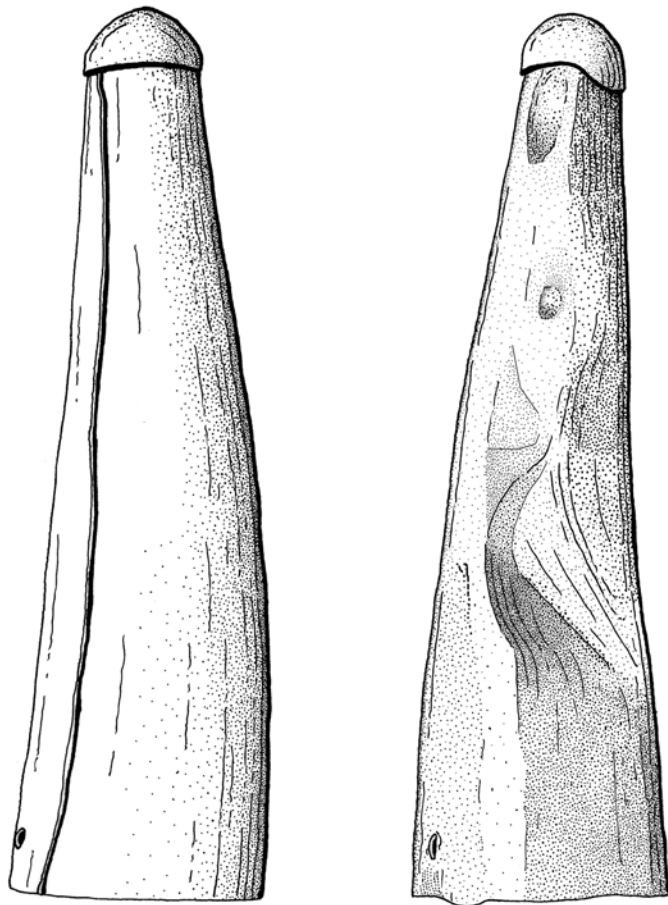
| (a) Nail with gold foil, KO2.145

| (b) Gold foil, KO4.176



| (c) Gold strips, KO5.210

Gold horn, Ko5.215 |



PHOTOS o5dpnc1815, o5dpnc1816, and o5dpnc1817 by Geoffrey D. Summers  
DRAWING by Ben Claasz Cockson



PLATE 126 | MELTED METAL AND SILVER OBJECTS FROM THE MONUMENTAL ENTRANCE

| (a) Melted metal, o5TR15U14meto3



| (b) Silver nail, KO3.162



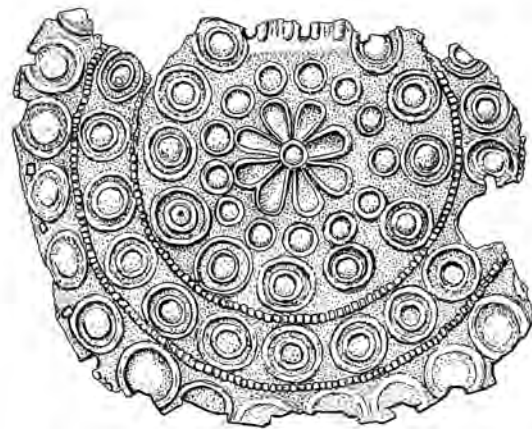
| (c) Silver tack, KO4.174



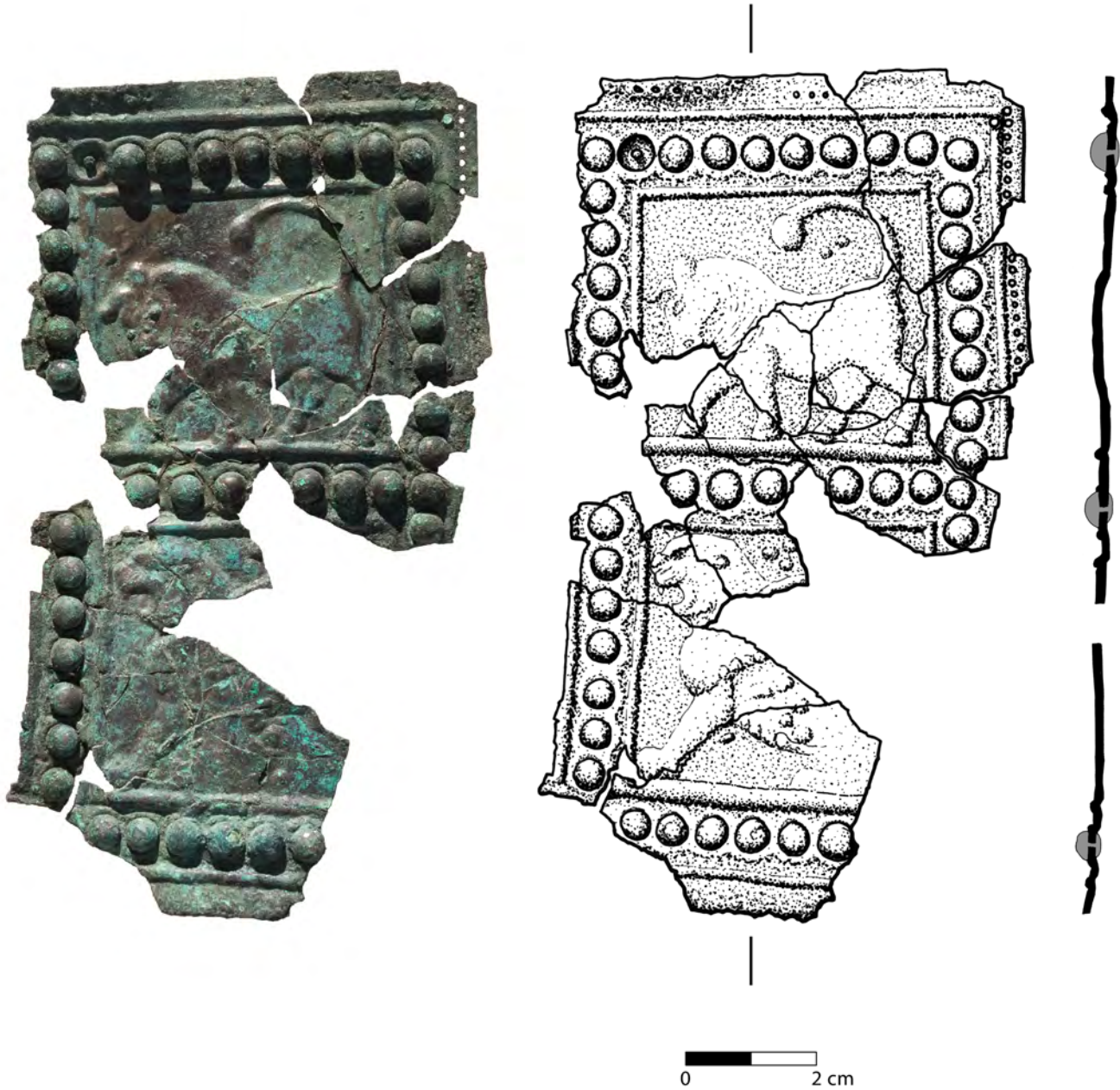
| (d) Silver nail, KO5.211



| (e) Silver appliqué, KO4.175



PHOTOS (a) o5dpnc1848 and o5dpnc1849 by Geoffrey D. Summers; (b) o5dpnk0504 and (c) o5dpnk0501 by Murat Akar; (d) o5dpnc1802 by Geoffrey D. Summers; (e) o4dpcs0924 by Catherine M. Draycott  
DRAWINGS by Ben Claasz Cooekson



Embossed copper alloy sheet, KO5.204 |



| Copper alloy ibex, K02.132

PHOTO 05dpnk1021 by Murat Akar



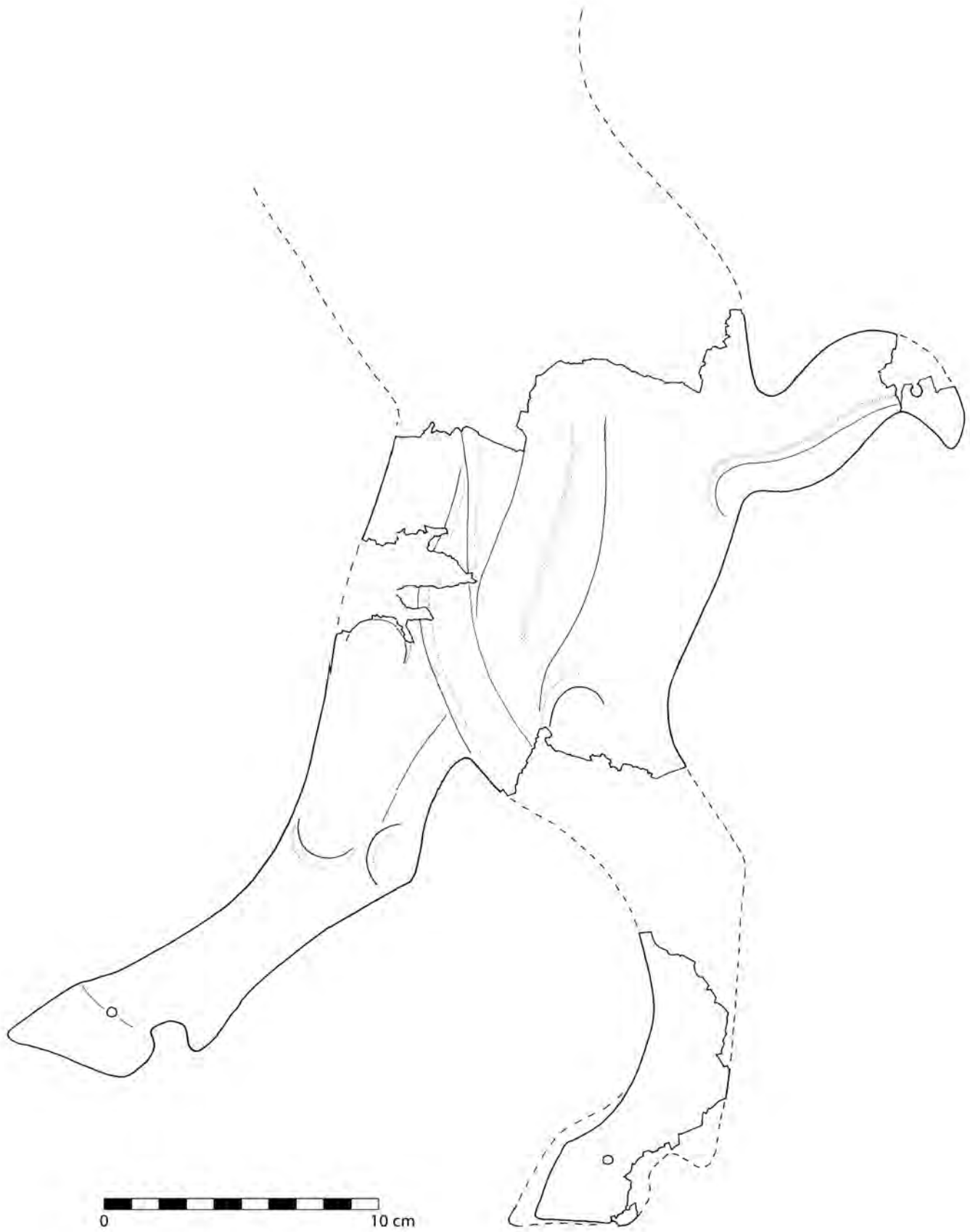
Drawing of copper alloy ibex, KO2.132 |

DRAWING by Judith Sellers



| Copper alloy ibex, K02.132

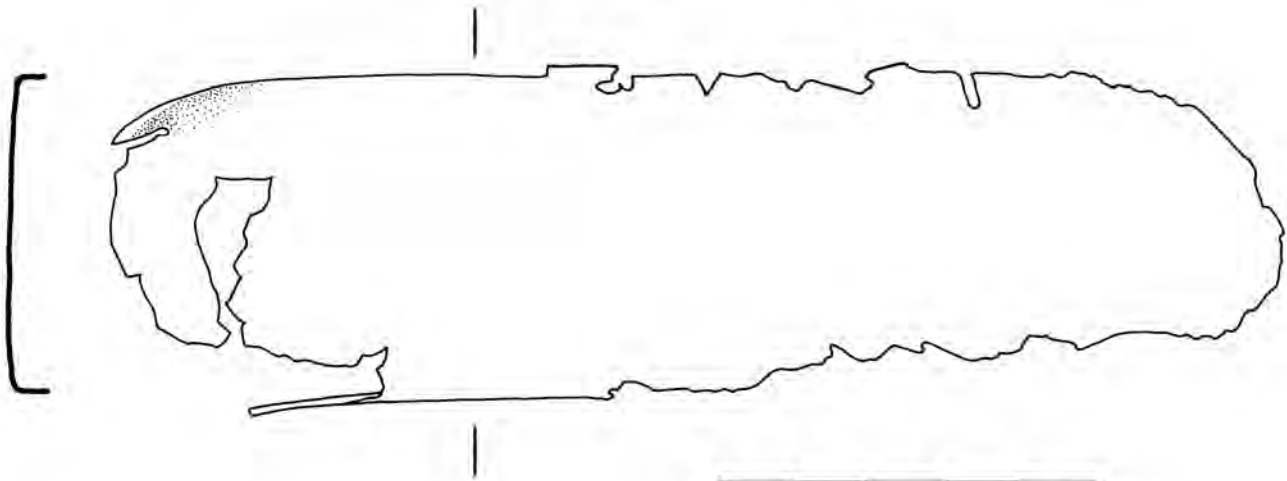
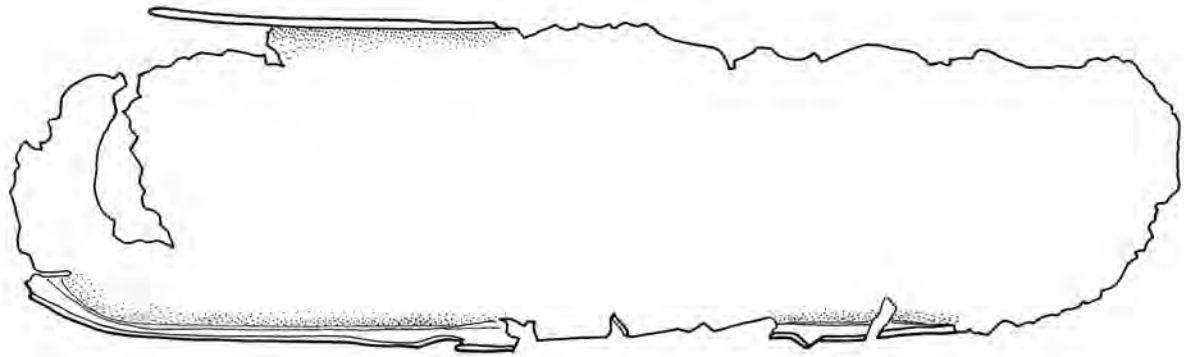
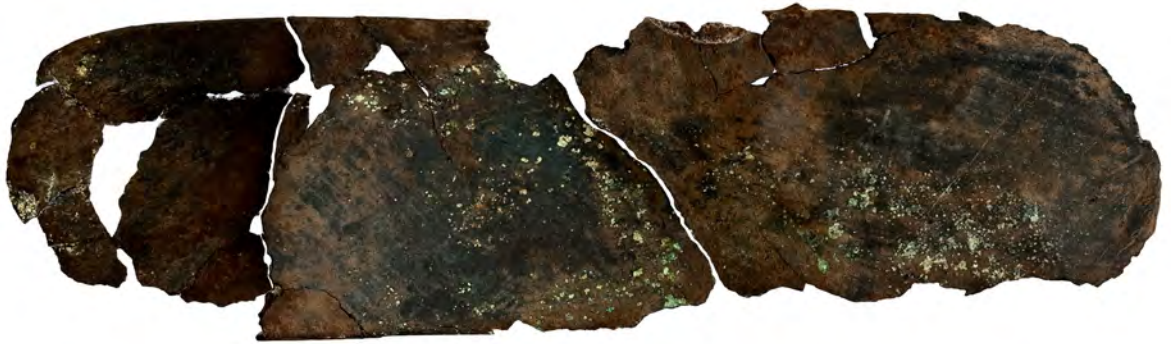
PHOTO 14dpkc0201 by Joseph Lehner



Drawing of copper alloy ibex, KO2.132 |

DRAWING by Judith Sellers

PLATE 132 | COPPER ALLOY OBJECT FROM THE MONUMENTAL ENTRANCE

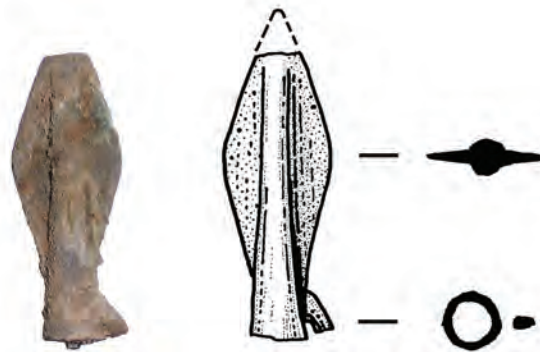


| Copper alloy object, K02.136

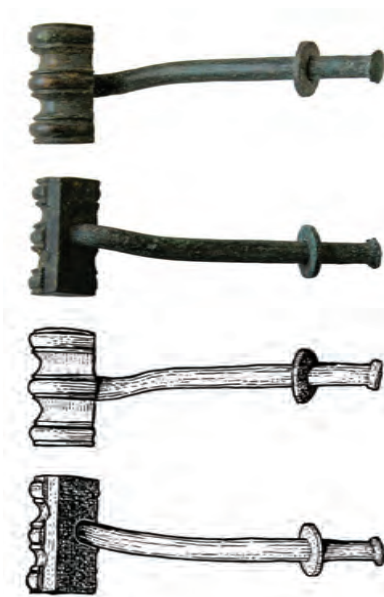
PHOTO 10dpc1270 by Joseph Lehner  
DRAWING by Judith Sellers



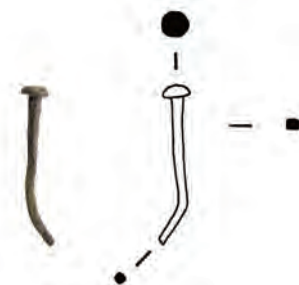
(a) Copper alloy hairgrip, KO5.185 |



(b) Copper alloy arrowhead, KO4.172 |



(c) Copper alloy attachment, KO5.203 |



(d) Copper alloy nail, KO2.137 |



(e) Copper alloy nail, KO5.212 | (f) Small copper alloy nails, KO5.213 |



Left to right:  
(g) Copper alloy rivet or small nail fragment, O5TR21U09meto3,  
(h) Copper alloy wire fragment, O5TR16U17meto2,  
(i) Copper alloy shaft fragment, O5TR16U17meto3,  
(j) Two fragments of copper alloy shaft or wire, O5TR14U03meto1



PHOTOS (a) O5dpnc1503, (c) O5dpnc1548, O5dpnc1549, (e) O5dpnc1803, (f) O5dpnc1806, (g) O5dpnc1842, (h) O5dpnc1843, (i) O5dpnc1844, and (j) O5dpnc1823 by Geoffrey D. Summers; (b) O5dpnk1024 and (d) O5dpnk0915 by Murat Akar  
DRAWINGS (a), (b), and (c) by Ben Claasz Cooekson; (d) by Judith Sellers



PLATE 134 | MELTED LEAD OBJECTS FROM THE MONUMENTAL ENTRANCE



(a) Melted lead, upper side, found on pavement, 05TR16U12met01



(b) Larger melted lead piece from 05TR16U12met02



(a) One of melted lead pieces, o5TR16U12meto2



(b) Three small, melted lead pieces



(c) Melted lead, o5TR17U14meto5



Left to right: (d) Iron hairgrip, KO4.173, (e) Iron pin, o5TR14U03meto2



PLATE 136 | IRON BAND FROM THE MONUMENTAL ENTRANCE

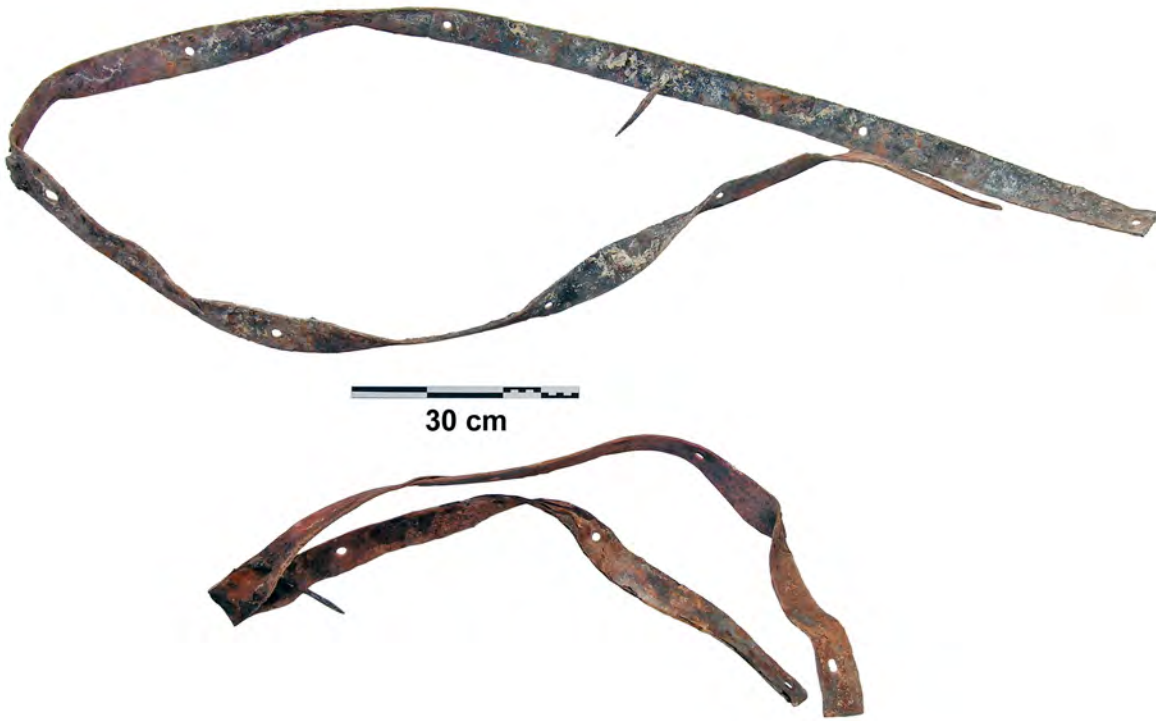


| Iron band, KO5.191



Iron band, KO5.192 |

PLATE 138 | IRON BANDS FROM THE MONUMENTAL ENTRANCE



| (a) Iron bands KO5.191 and KO5.192, showing difference in size



| (b) Nail in position in iron band, KO5.191



(a) Square-cut end and piercing in iron band, KO5.192 |



(b) Square hole and end of iron band, KO5.192 |

PLATE 140 | IRON BAND DETAILS



| Details of iron band, o3TR11Uo8meto1

PHOTOS (a) o3dpjv76o1, (b) o3dpjv76o2, (c) o3dpjv76o3, (d) o3dpjv76o6, and (e) o3dpjv76o8 by Françoise Summers

Plan of two iron bands,  
03TR11U08meto1 (above) and  
03TR11U08meto2 (below), as  
found in TR11

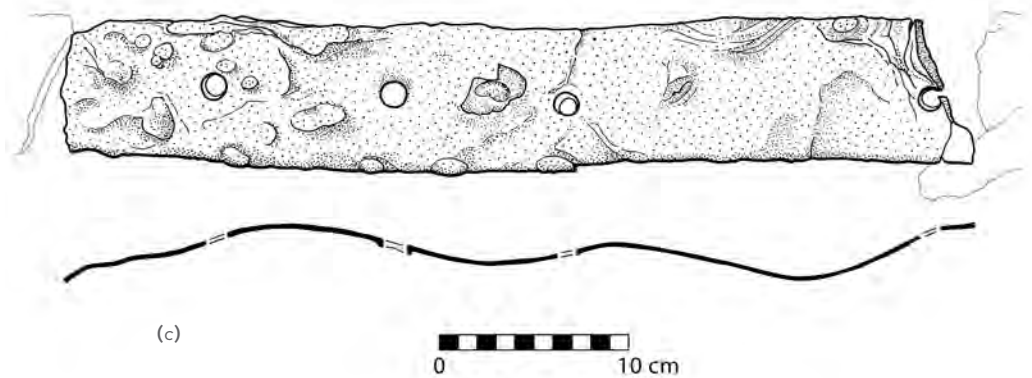
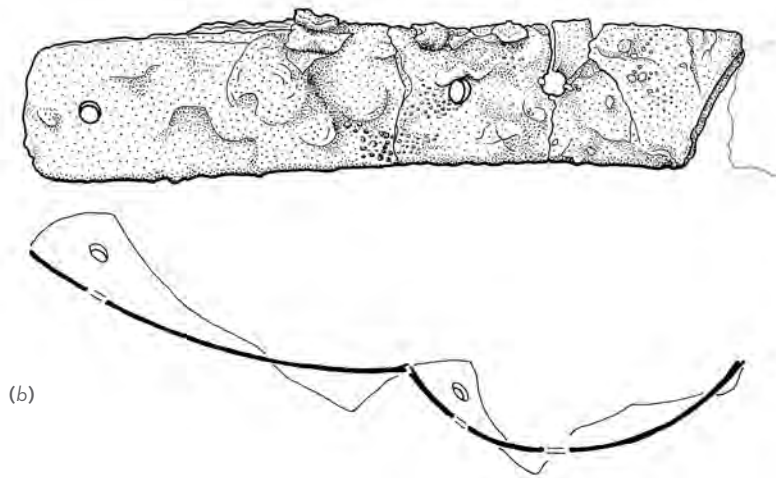
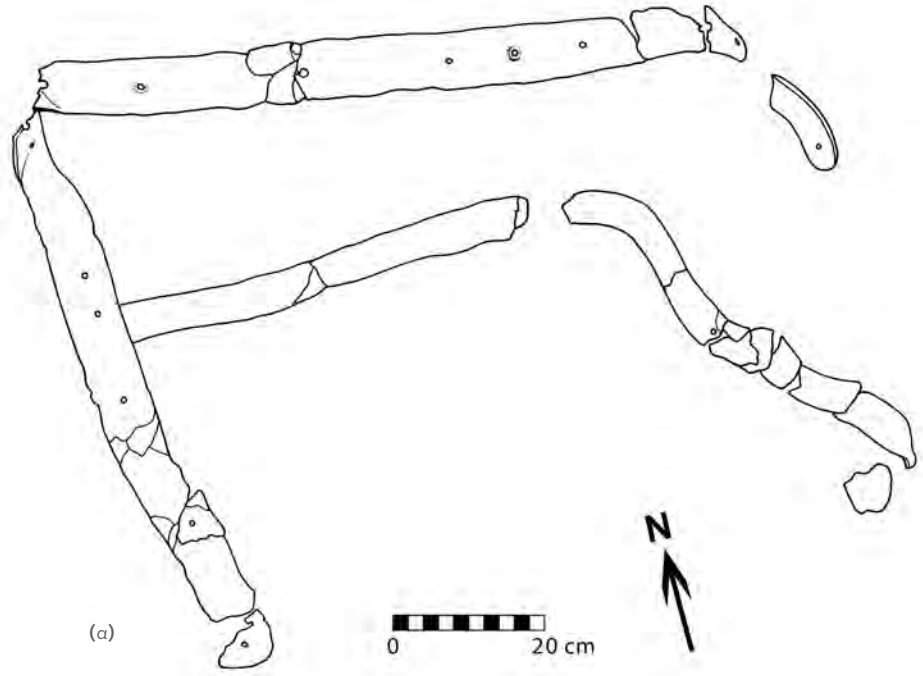
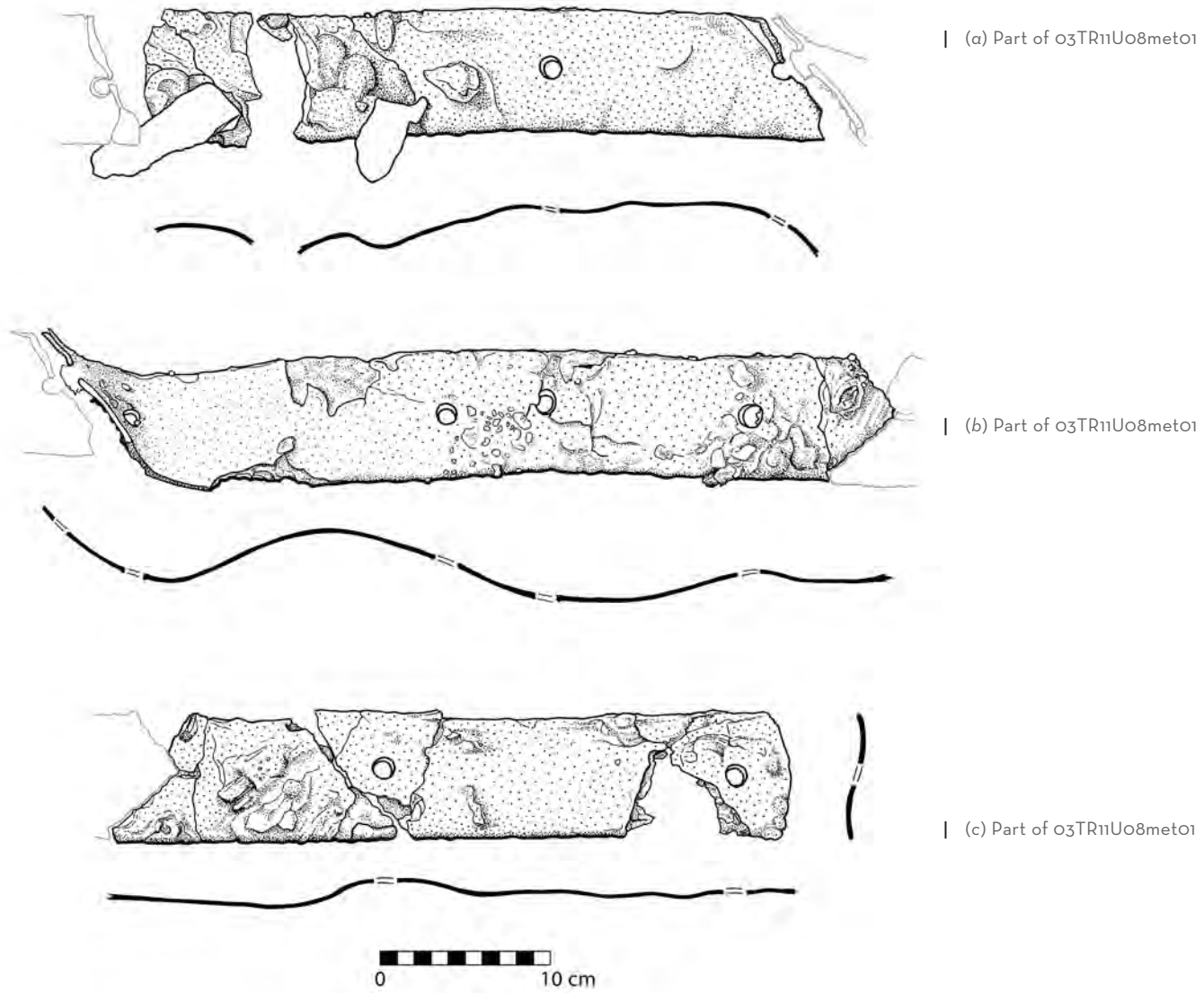
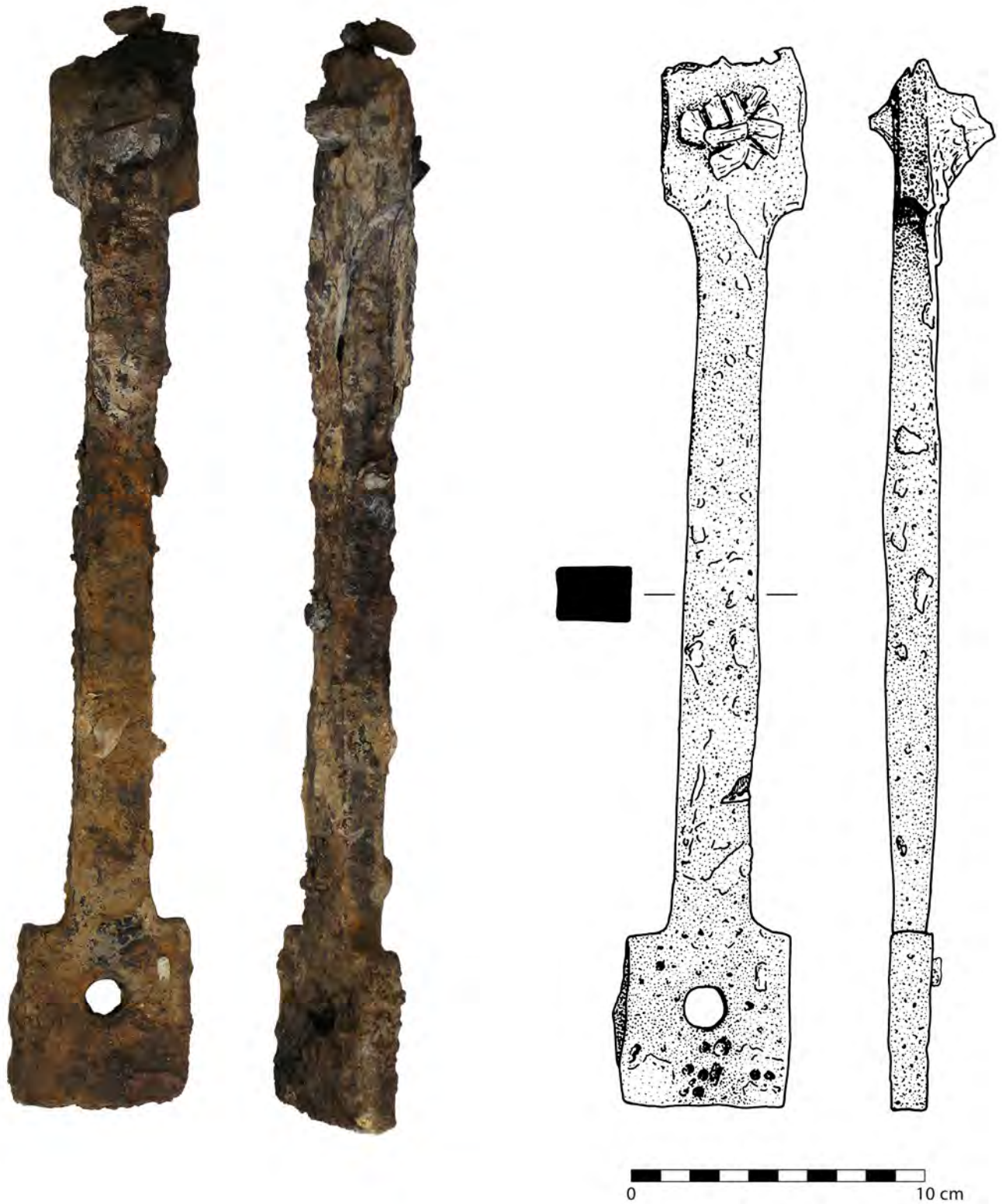




PLATE 142 | IRON BAND FROM THE MONUMENTAL ENTRANCE





Iron bracket, KO5.207 |

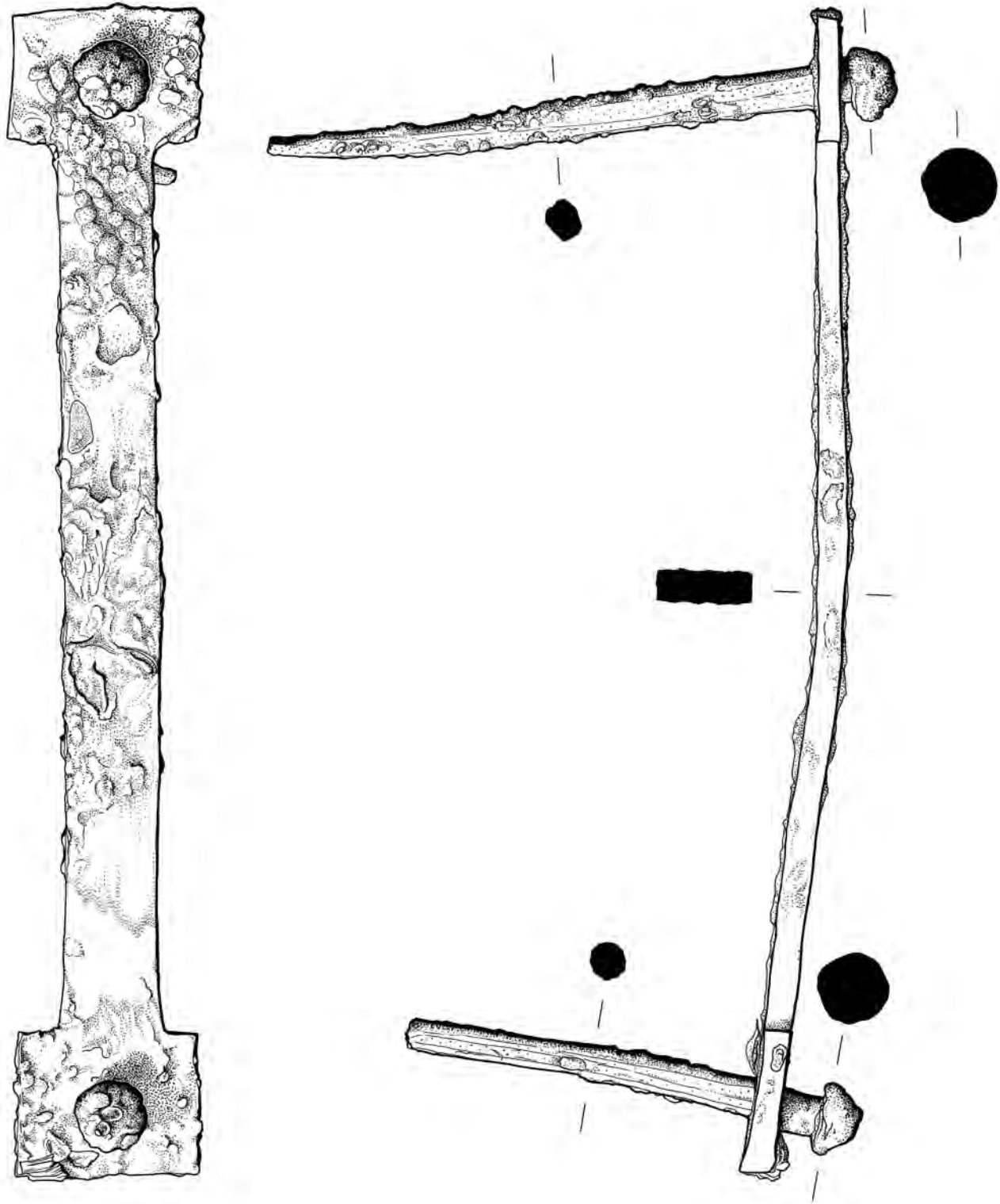
PHOTO 05dpnc1541 and 05dpnc1546 by Geoffrey D. Summers  
DRAWING by Ben Claasz Coockson



| (a) Iron bracket, KO3.163



| (b) Side view of iron bracket, KO3.163



0 10 cm

Iron bracket, KO3.163 |

PLATE 146 | IRON BRACKET AND BRACE FROM THE MONUMENTAL ENTRANCE



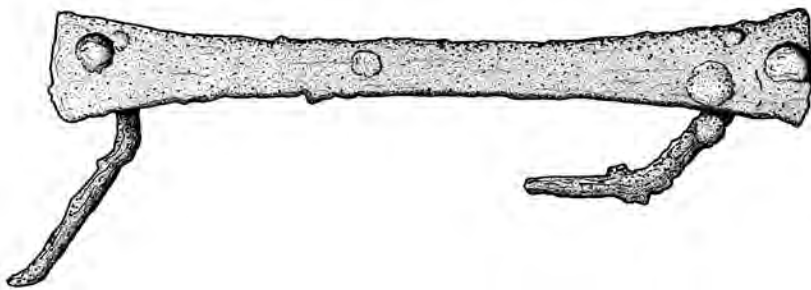
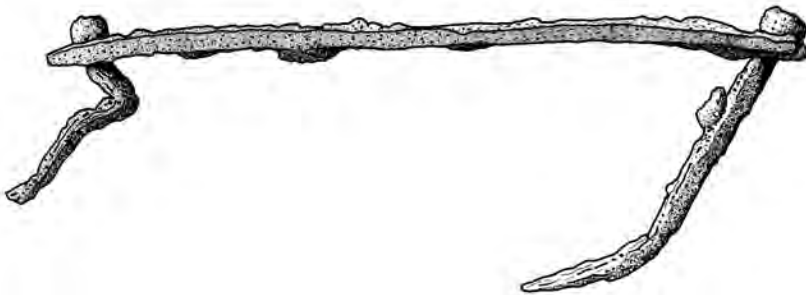
| (a) Iron bracket or clamp,  
o4TR14U20meto1



| (b) Iron bracket or clamp,  
o4TR14U21meto1



| (c) Iron brace, K03.164



Iron brace, 03TR11U12meto6 |

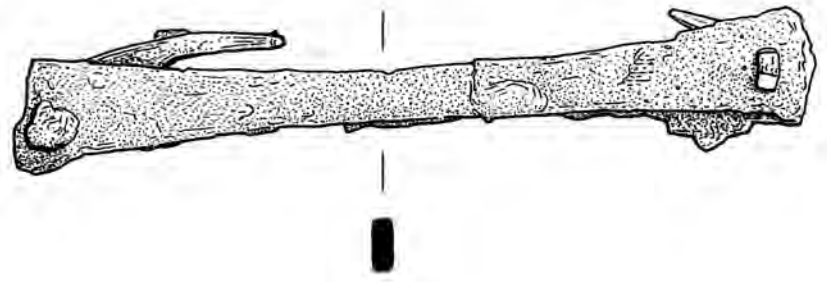
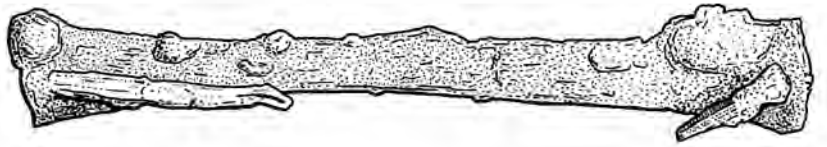
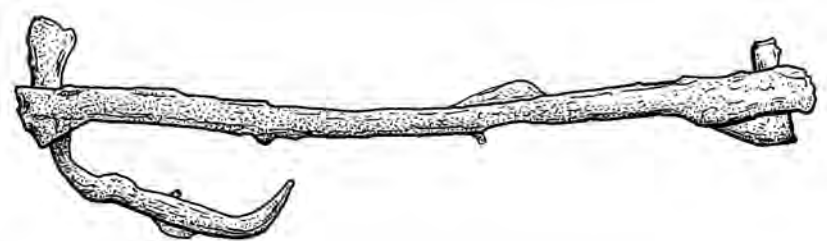


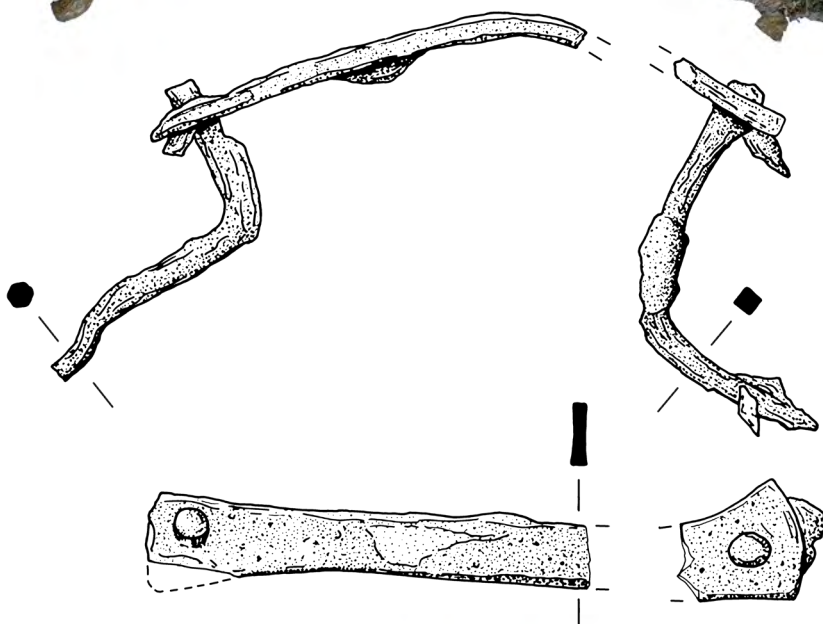
PLATE 148 | IRON BRACES FROM THE MONUMENTAL ENTRANCE



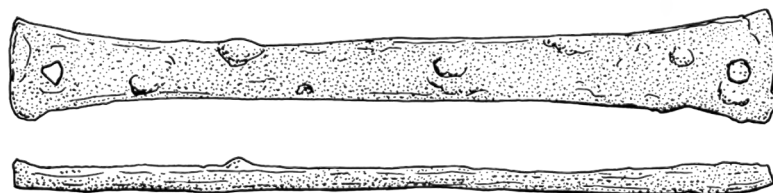
| (a) Iron brace, KO3.165



| (b) Iron brace, KO3.166

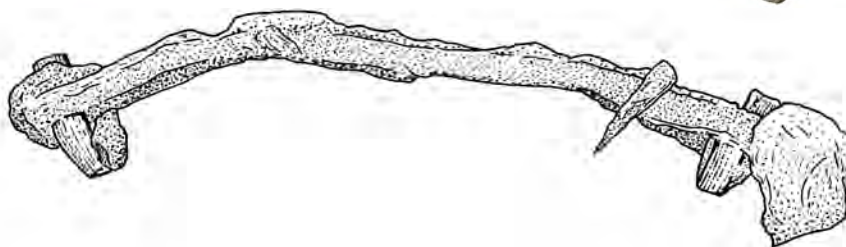
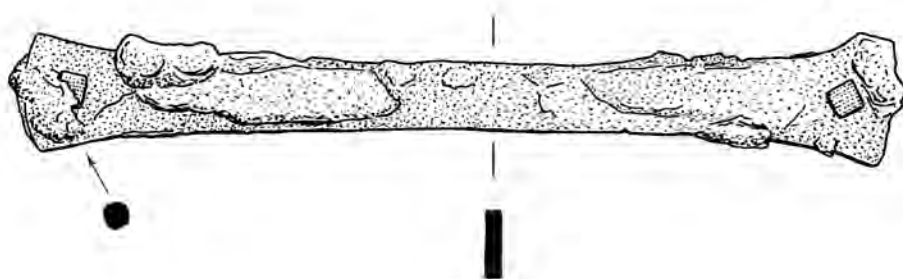
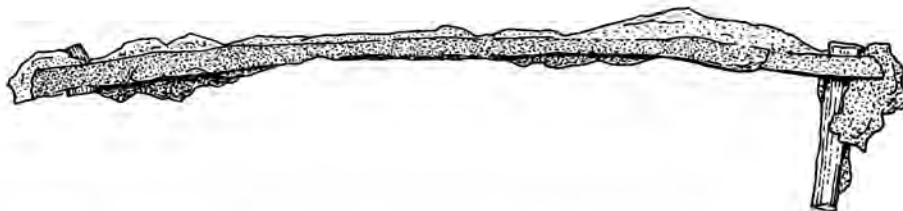


| (c) Iron brace, KO5.184



PHOTOS (a) 05dpnk0616 and (b) 05dpnk0618 by Murat Akar; (c) 05dpnc1501 by Geoffrey D. Summers  
DRAWINGS (b) and (c) by Ben Claasz Cookson

(a) Iron brace, KO5.186 |



(b) Iron brace, KO5.187 |

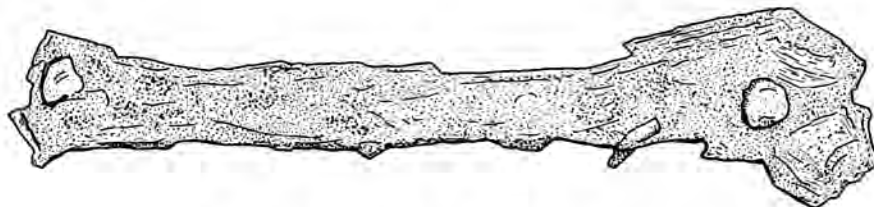
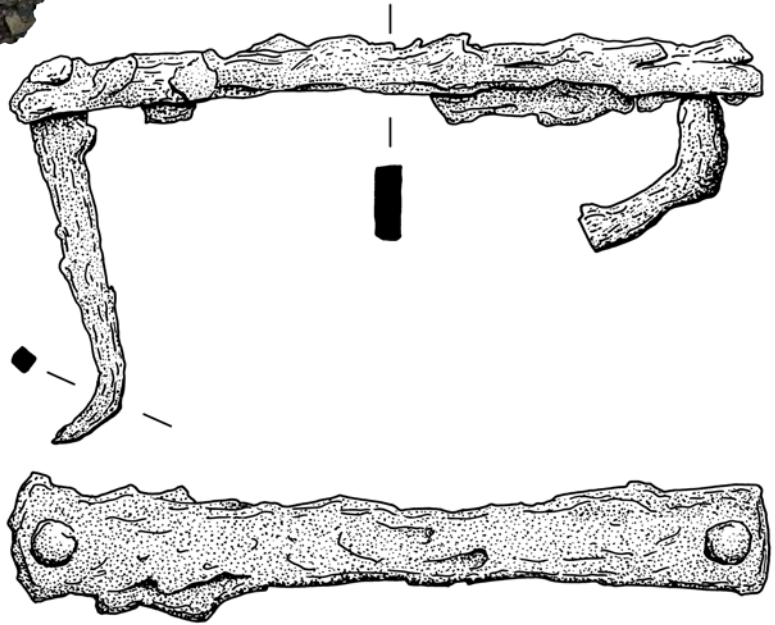




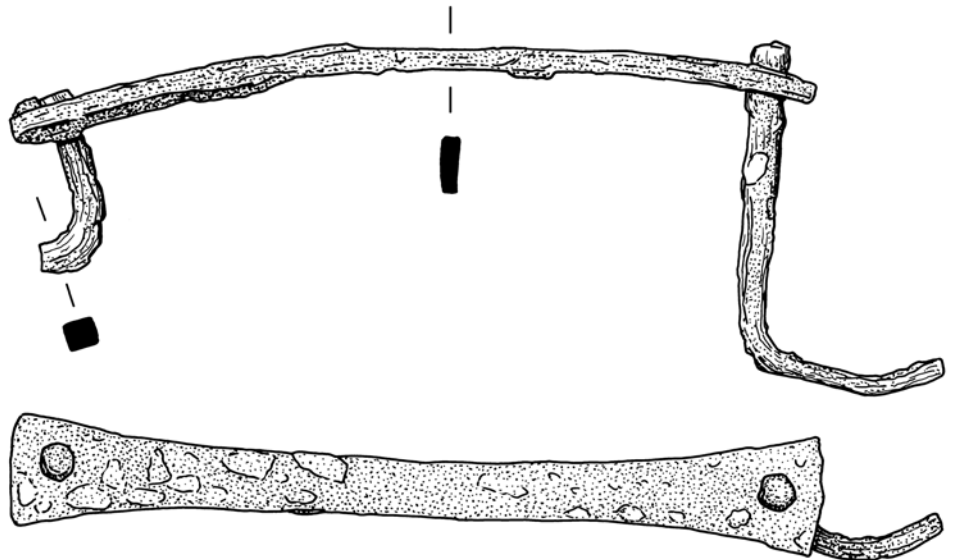
PLATE 150 | IRON BRACES FROM THE MONUMENTAL ENTRANCE

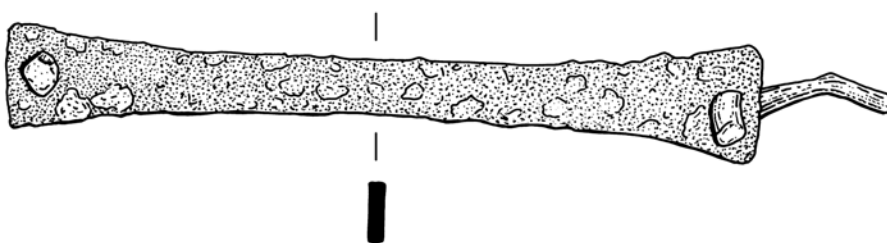


| (a) Iron brace, KO5.188



| (b) Iron brace, KO5.205





Iron brace, K05.206 |

PLATE 152 | IRON BRACE FRAGMENTS FROM THE MONUMENTAL ENTRANCE



(a) Iron brace fragment,  
o5TR16U16met02



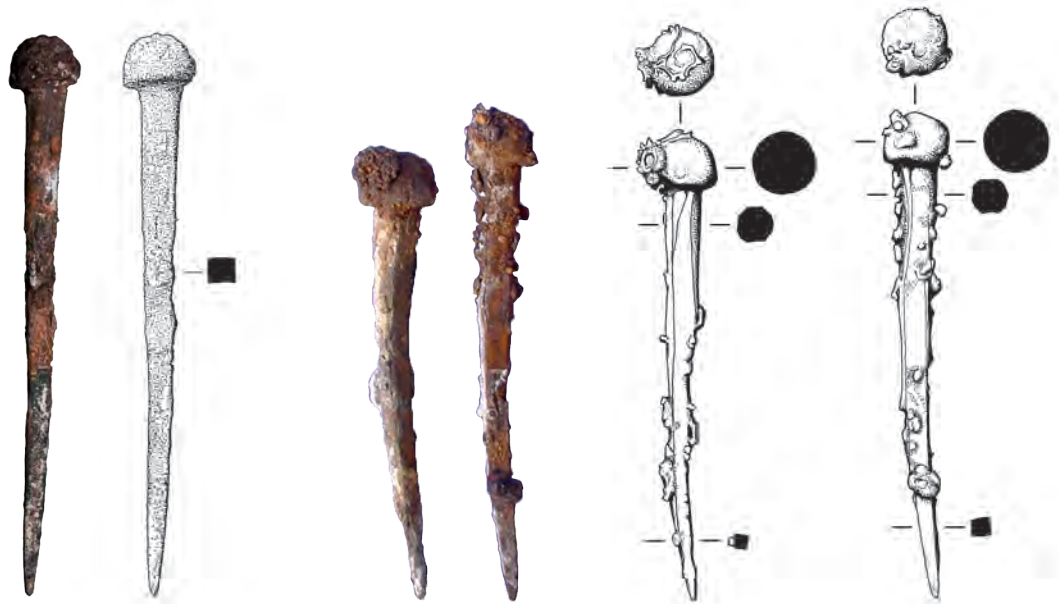
(b) Iron brace fragment,  
o5TR16U18met18



(c) Iron brace fragments,  
o5TR16U18met19

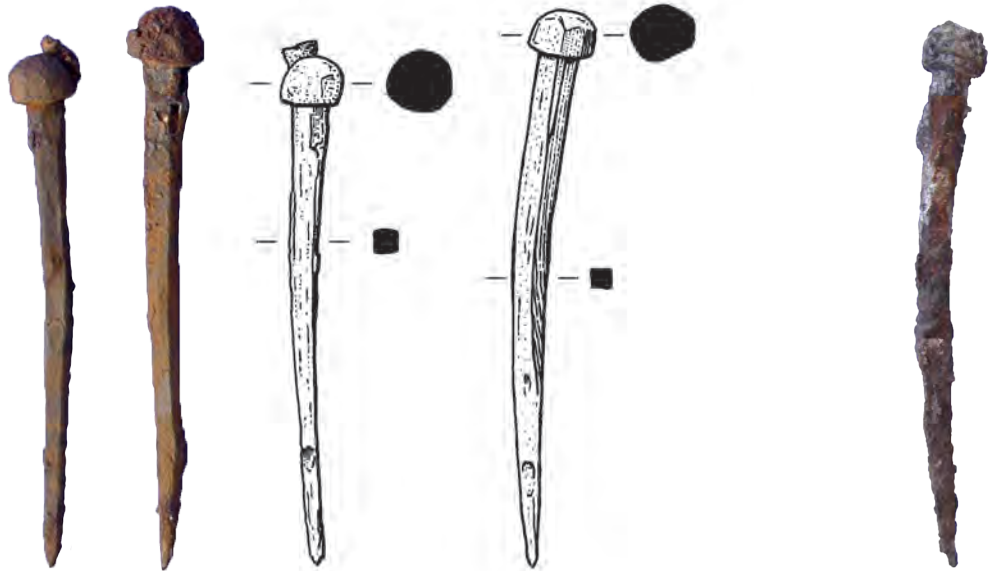


- (a) Dome-headed iron nail, KO5.191,
- (b) Two dome-headed iron nails, O3TR11U08meto1,
- (c) Two dome-headed iron nails, O3TR11U12meto2,
- (d) Dome-headed iron nail, O4TR11U00meto1



(a)

(b)



(c)

(d)



PLATE 154 | IRON NAILS FROM THE MONUMENTAL ENTRANCE



(a)



(b)



(c)

- (a) Dome-headed iron nail, KO5.189,
- (b) Dome-headed iron nail, KO5.190,
- (c) Dome-headed iron nail, KO5.193,
- (d) Dome-headed iron nail, KO5.194,
- (e) Dome-headed iron nail, KO5.195,
- (f) Dome-headed iron nail, KO5.196



(d)



(e)



(f)



- (a) Dome-headed iron nail, K05.197,
- (b) Dome-headed iron nail, K05.198,
- (c) Dome-headed iron nail, K05.199,
- (d) Dome-headed iron nail, K05.200,
- (e) Dome-headed iron nail, K05.201



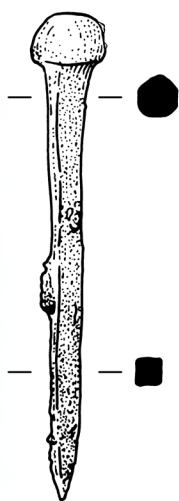
PLATE 156 | IRON NAILS FROM THE MONUMENTAL ENTRANCE



(a)



(b)



(c)

- (a) Dome-headed iron nail, K05.208,
- (b) Dome-headed iron nail, K05.202,
- (c) Blunt-headed iron nail, O4TR14U23met01,
- (d) Blunt-headed iron nail, O4TR11U22met01,
- (e) Iron nail shank fragment, O4TR11U22met02,
- (f) Iron nail or hook fragment, O4TR15U03met01



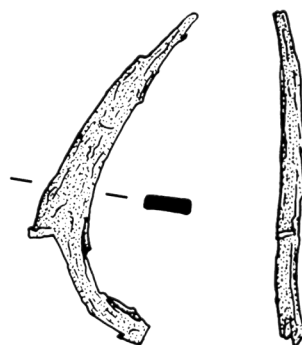
(d)



(e)



(f)



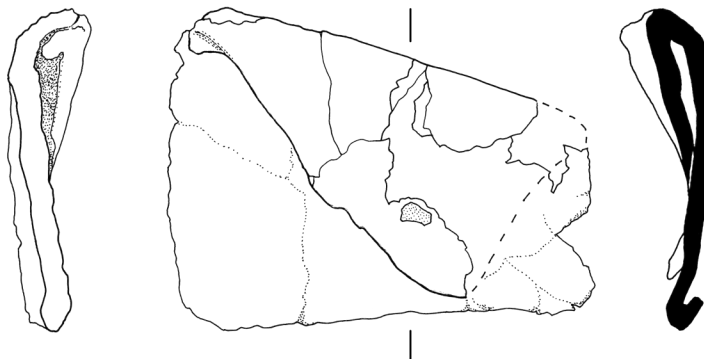
PHOTOS (a) 05dpnc1534 by Natalie Summers; (b) 18dpkc0108 by Joseph Lehner; (c) 04dpcs2003 and (f) 05dpnk0603 by Catherine M. Draycott; (d) 05dpnk0605 and (e) 05dpnk0907 by Murat Akar  
DRAWINGS by Ben Claasz Coockson



(a) Iron nail fragment,  
O5TR15U14met01



(b) Dome-headed iron nail  
fragment, O5TR16U18met15



(c) Folded iron object, with  
drawing of one face unfolded  
(at bottom), KO2.135

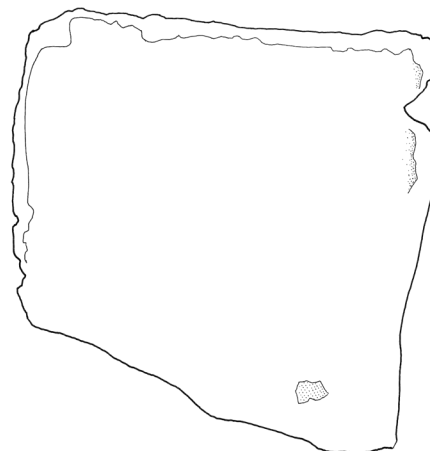
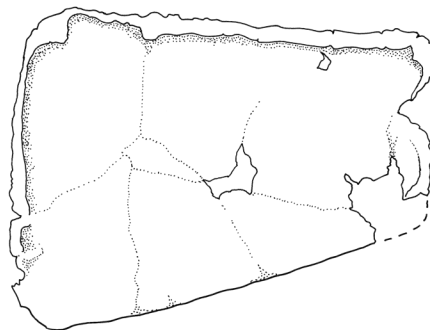


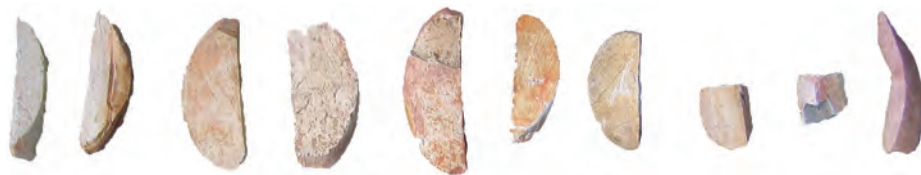


PLATE 158 | IRON, STONE, AND IVORY OBJECTS FROM THE MONUMENTAL ENTRANCE



PHOTOS (a) O5dpnc1808 and (b) O5dpnc1829 by Geoffrey D. Summers; (c) O5dpnk1309 by Murat Akar; (d) O5dpcs0112, (f) O4dpcs1407, and (g) O4dpcs1407 by Catherine M. Draycott; (e) 18dpkc0122 by Joseph Lehner  
 DRAWINGS (a) and (b) by Ben Claasz Cooekson; (c) by Judith Sellers; (e) by Françoise Summers

(a) Curved ivory inlays, KO4.171 |



Left to right: (b) Curved ivory inlay, O5TR15U09bono2,  
(c) Curved ivory inlay, O5TR15U14bono2 |



Left to right: (d) Curved ivory inlay, O4TR11U22bono1,  
(e) Curved ivory inlay, O4TR14U20bono1 |



(f) Curved ivory inlays, O5TR15U14bono1 |



(g) Curved ivory inlays, O5TR15U14bono3 |



(h) Curved ivory inlays, O5TR15U00bono1 |



PLATE 160 | IVORY AND BONE FRAGMENTS FROM THE MONUMENTAL ENTRANCE



| (a) Triangular ivory inlay fragment, 05TR15U14bon04



| (b) Ivory fragment, 04TR14U20bon04



| (c) Ivory scraps, 05TR15U14bon05



| (d) Ivory inlay fragment, 05TR14U00bon01



| (e) Two ivory inlay fragments, 05TR15U09bon01



| (f) Worked bone fragments, possible inlays, 04TR16U13bon01



| (g) Worked bone piece, 04TR15U01bon01

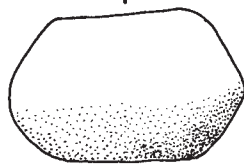
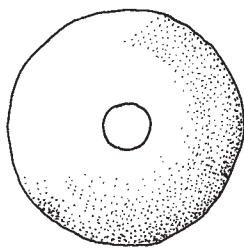




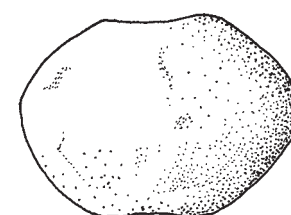
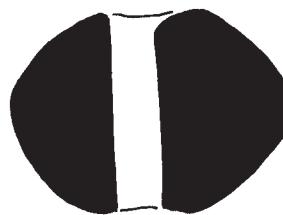
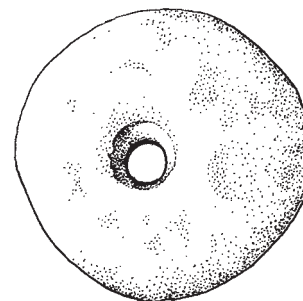
(a) Biconical baked clay bead, O4TR14U1pob01 |



(b) Baked clay sphere, pierced, O4TR15U01pob01 |



(c) Baked clay whorl, KO2.129 |



(d) Drawing of baked clay whorl, K99.084  
(no photo of this object) |





| Bowl, Ko4.179, with alphabetic graffito cat. no. 17



(a) Underside of bowl, KO5.214, with three incised pot marks cat. no. 14 |



(b) Bowl, KO5.214, with three incised pot marks cat. no. 14 |



(c) Bowl base, O4TR15U05pot01, with pot mark cat. no. 13 |

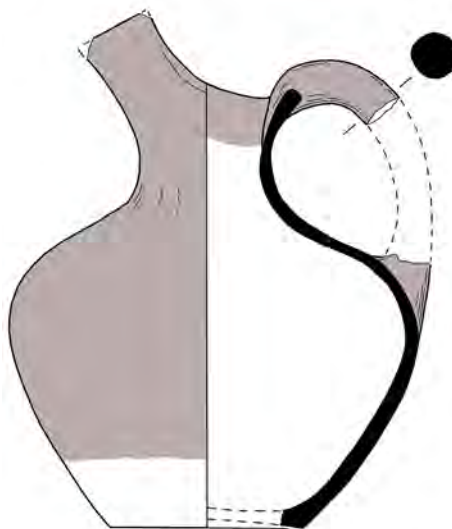


(d) Bowl, KO4.178 |



(e) Sherd with leaf-shaped molding, KO4.180 |





| Jug with cutaway spout, O5TR15U15pot01

(a) Mass of burned and fused debris  
from the Monumental Entrance



(b) Detail of plate 165a showing timber impressions  
in vitrified debris





PLATE 166 | BURNED DEBRIS FROM THE MONUMENTAL ENTRANCE



| (a) Granite, partially vitrified with some mud and wood impressions



| (b) Detail from lower central portion of plate 163a showing timber impressions in vitrified debris



(a) Detail of timber impressions in vitrified debris |



(b) Fragment of burned mud with reed and wood impressions |

(a) Fragment of burned mud with reed impressions



(b) Fragment of burned mud with reed impressions



(a) Fragment of burned mud with reed impressions |



(b) Fragment of burned mud with reed impressions |

PLATE 170 | BURNED DEBRIS FROM THE MONUMENTAL ENTRANCE

| (a) Fragment of burned mud with mat impressions, O4TR14U14bld01



| (b) Fragment of sandstone with thick, vitrified surface

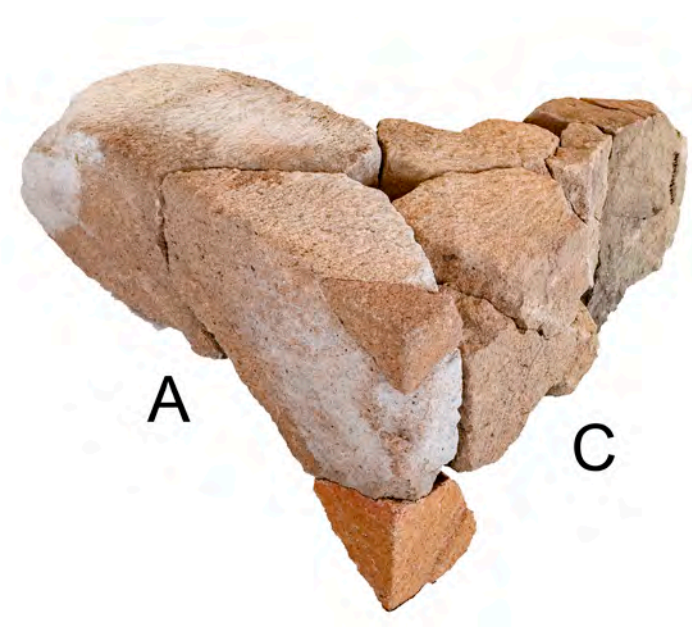
(a) Carbonized reeds, 05TR16U16bot01 |



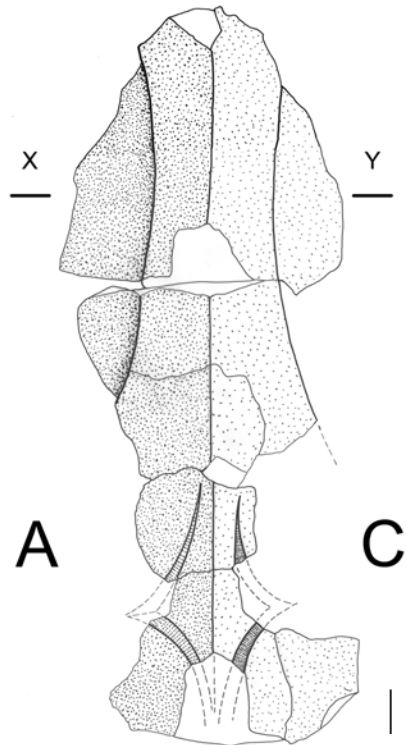
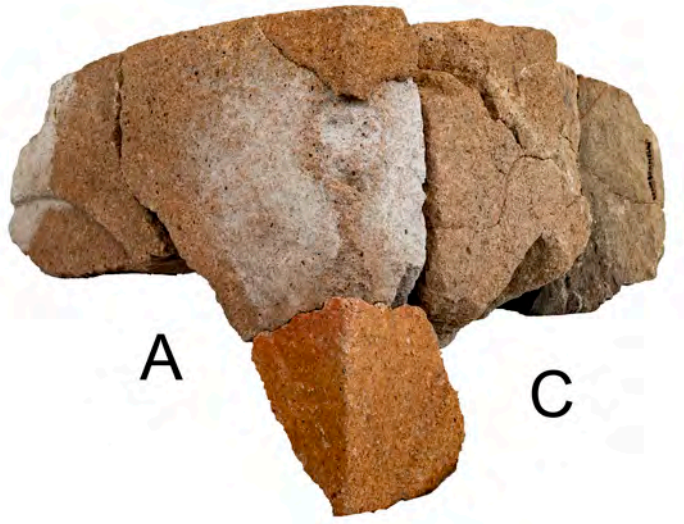
(b) Carbonized reeds, 05TR16U16bot01 |



(c) Top corner portion of Idol Block 1, with Face A at left, Face C at right |



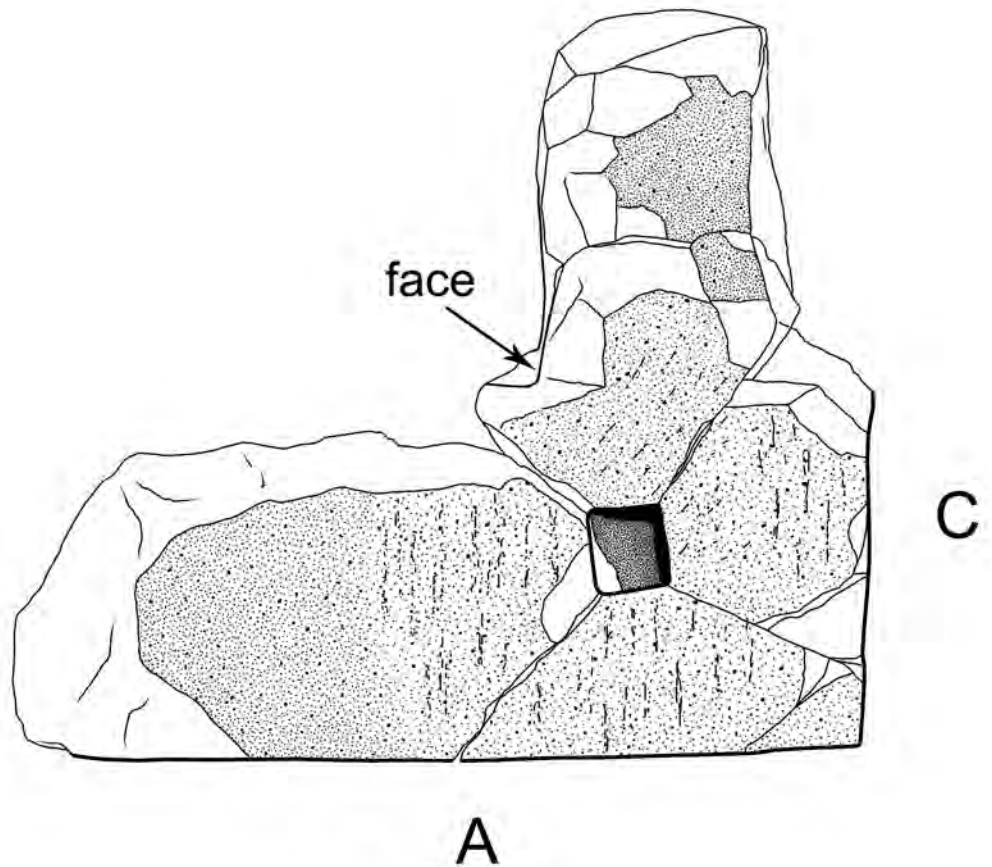
| (a) Corner portion of Idol Block 1, with Face A at left, Face C at right



| (b) Idol Block 1, vertical corner portion with part of Face A at left, Face C at right



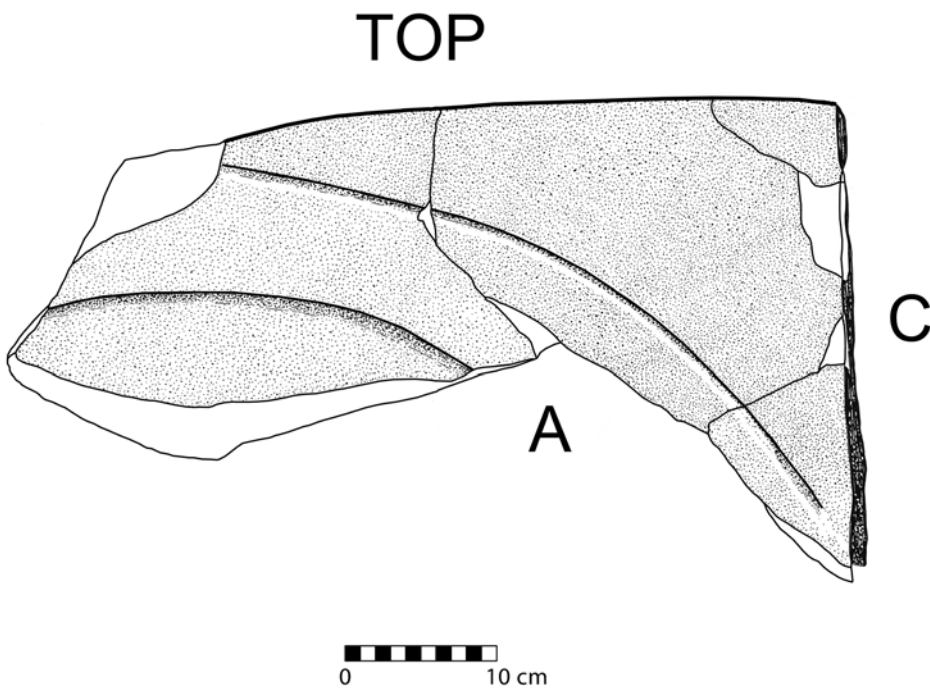
Top corner portion of Idol Block 1, showing square dowel cutting and circular depression around it, with Face A at bottom, Face C at right. Note that the drawing was done after some pieces were added.







Idol Block 1, upper right corner portion of Face A, showing dip in top surface as it meets apex of raised band



Idol Block 1, upper left corner portion of Face C. Note that the drawing was done after some pieces were added.

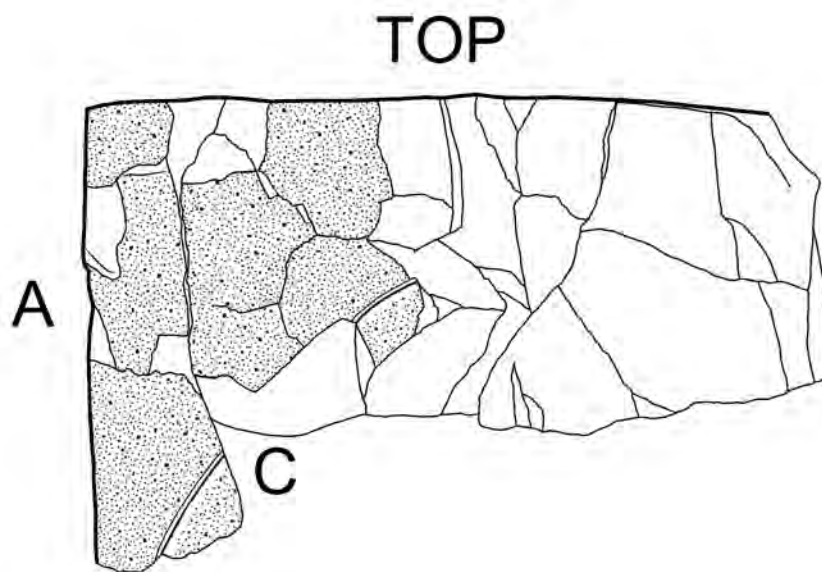
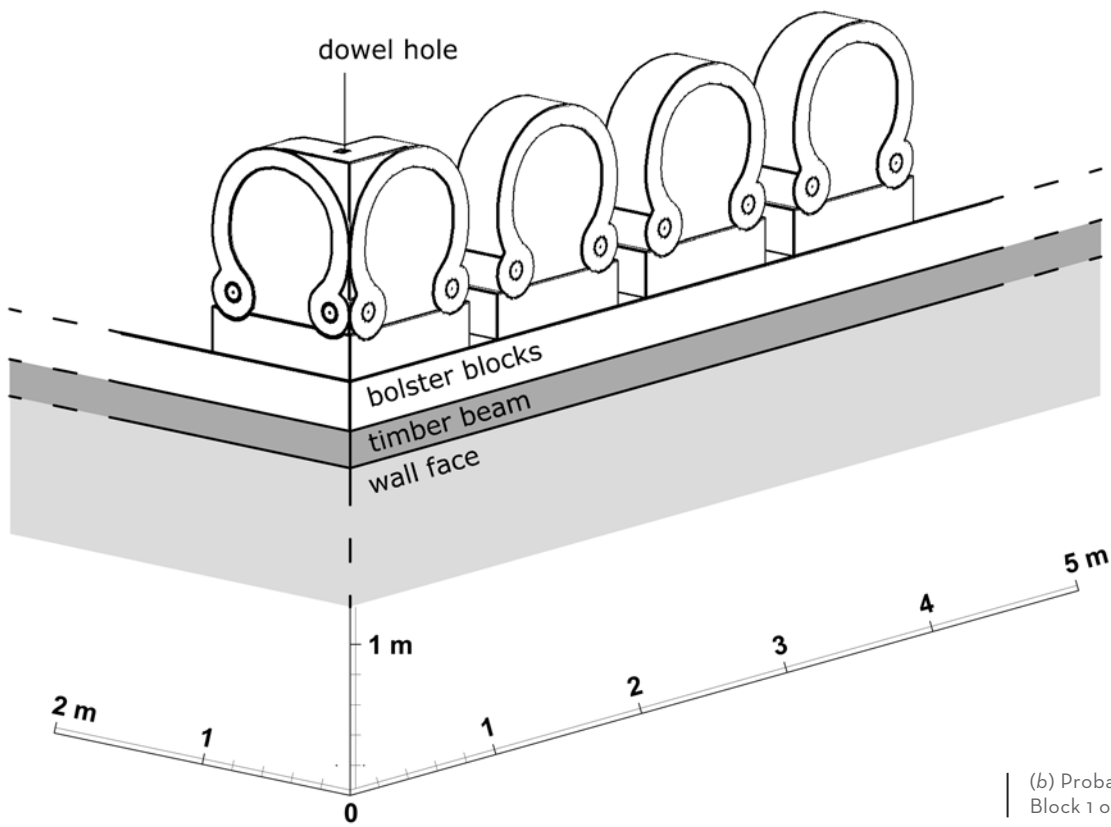


PLATE 176 | IDOL BLOCK 1 FROM THE MONUMENTAL ENTRANCE AND PROBABLE ARRANGEMENT



| (a) Idol Block 1, Face B at the inside corner



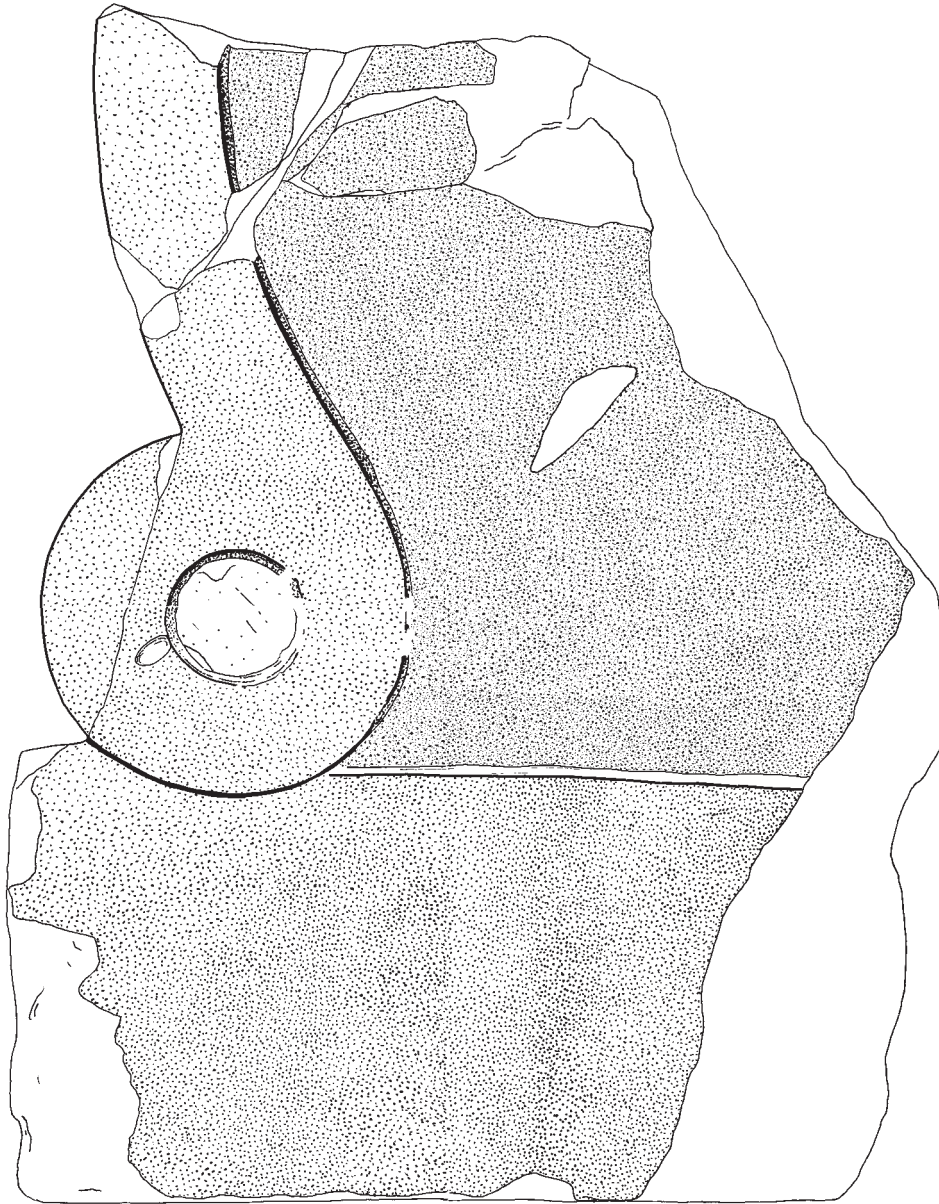
| (b) Probable arrangement of Idol Block 1 on corner of platform



Noël Siver and Alison Whyte restoring Idol Block 2, K05.232, in the Yozgat Museum in 2010 |



| Idol Block 1, left side of Face A



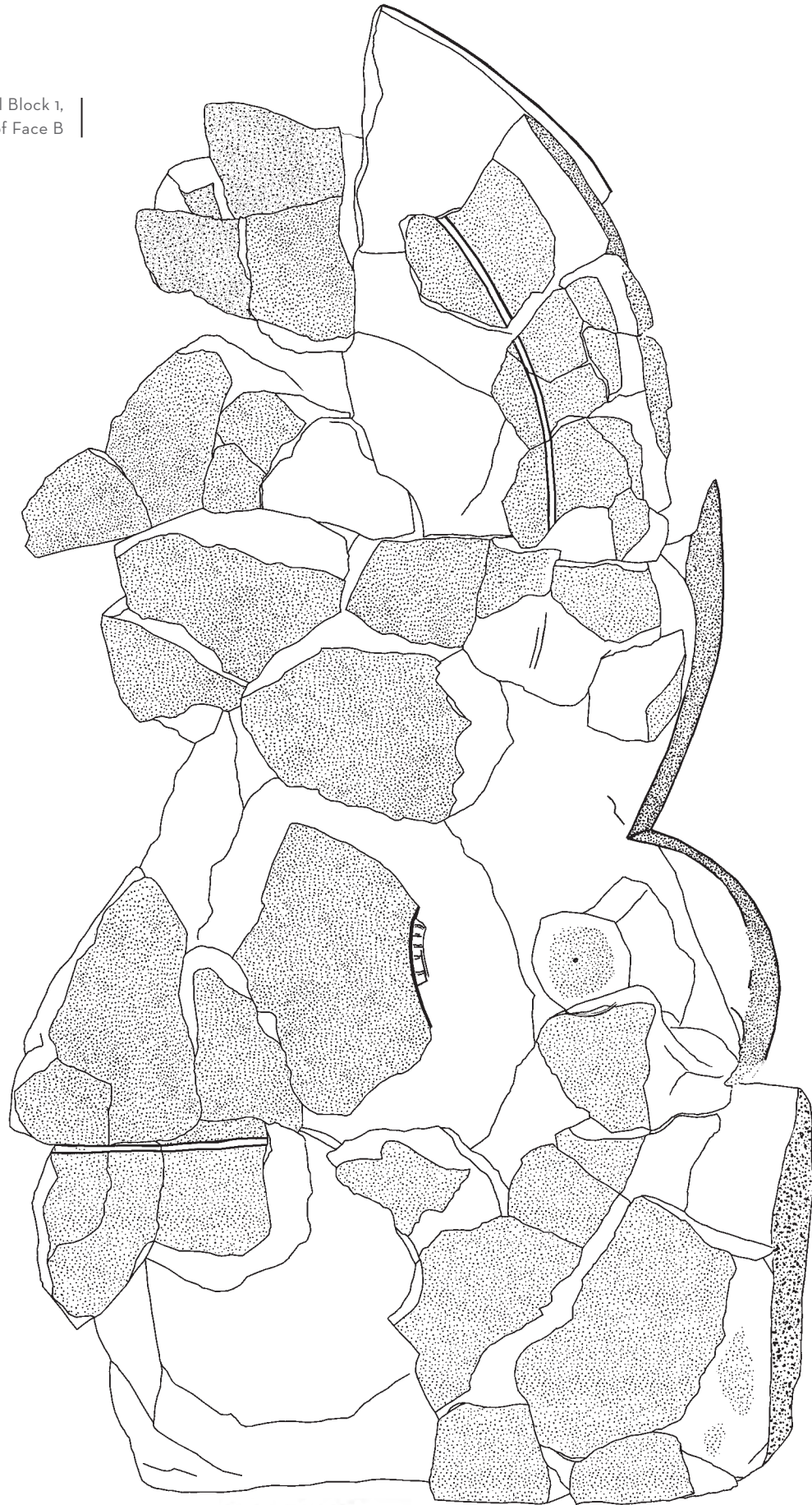
Drawing of Idol Block 1, left side of Face A |



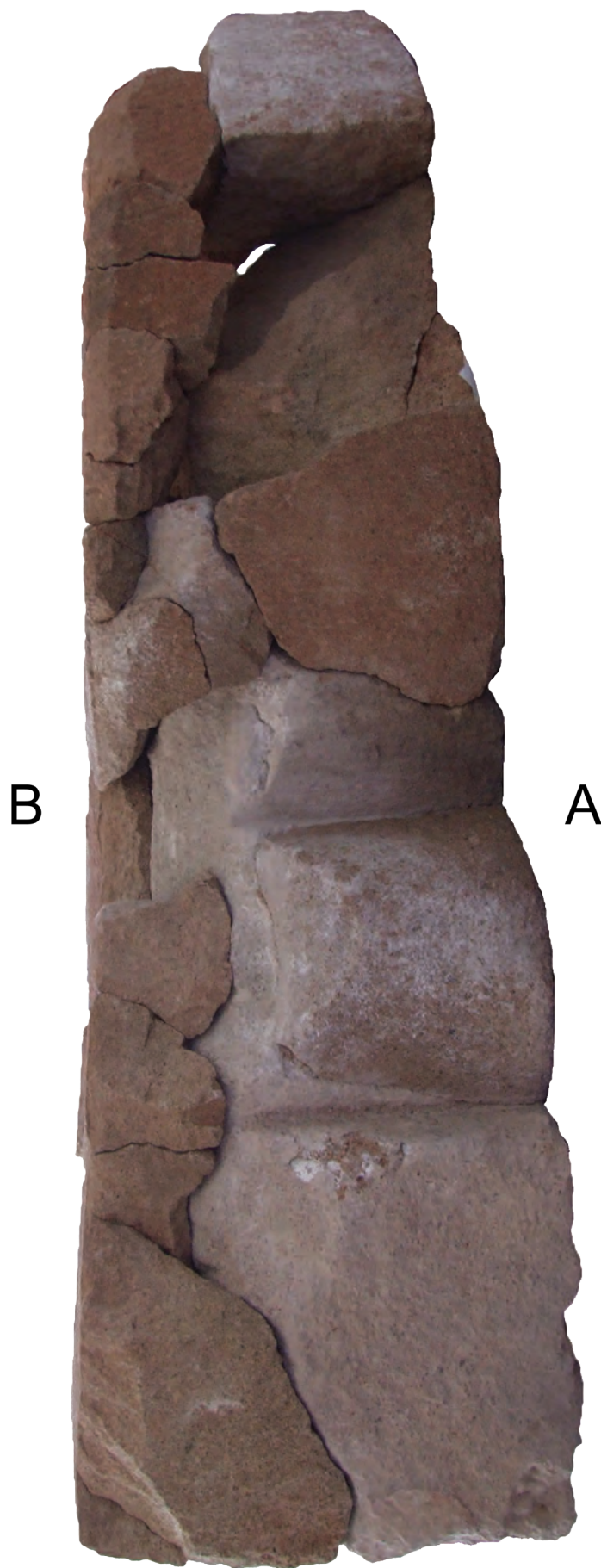
Idol Block 1,  
right side of Face B



Drawing of Idol Block 1,  
right side of Face B







| Idol Block 1, side view with Face A at right, Face B at left



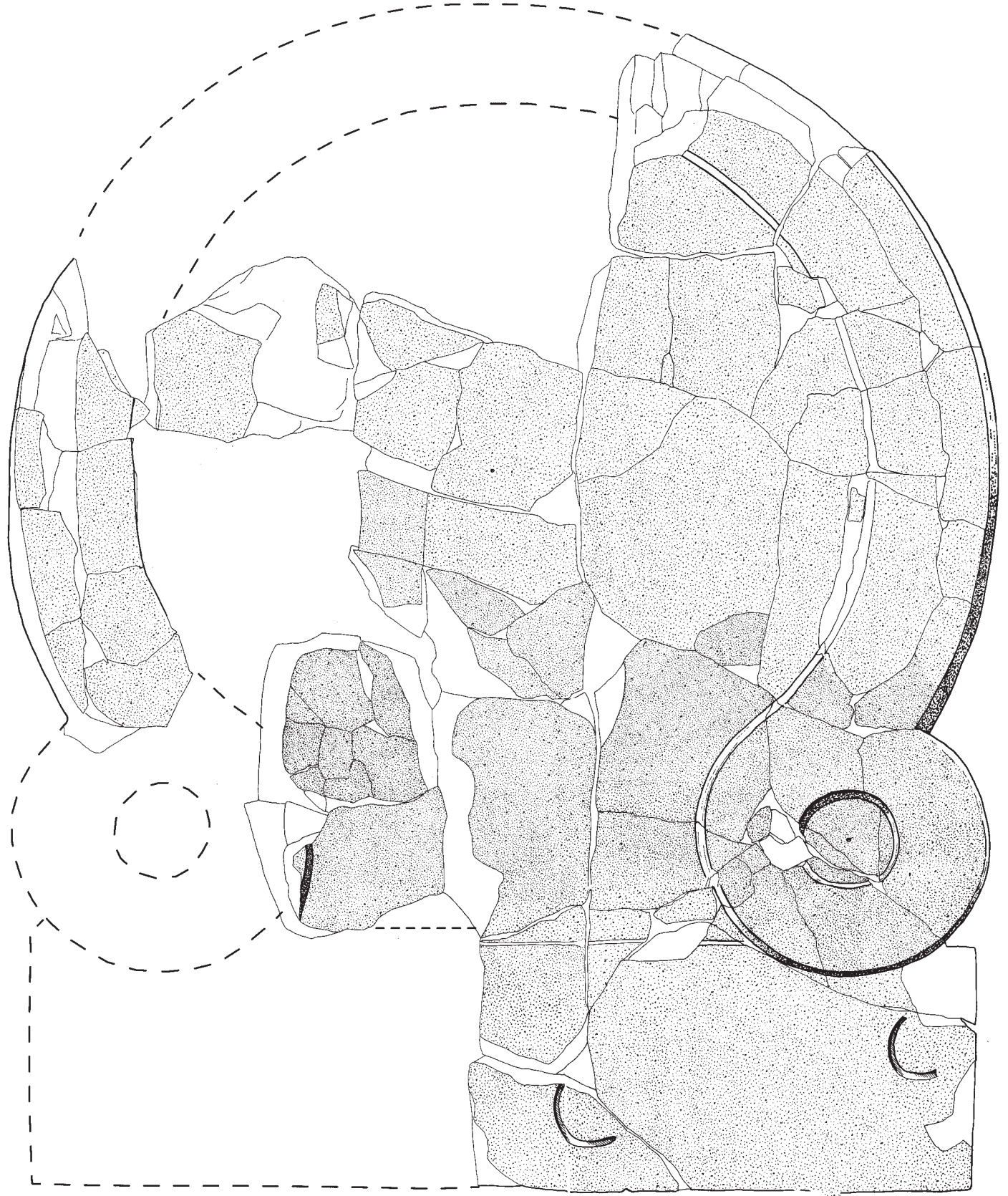
Idol Block 2, K05.232, Face A,  
photographed after restoration





| Idol Block 2, KO5.232, Face A, photographed before restoration

PHOTO 07dpkc1222 by Murat Akar



0 10 cm

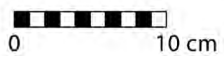
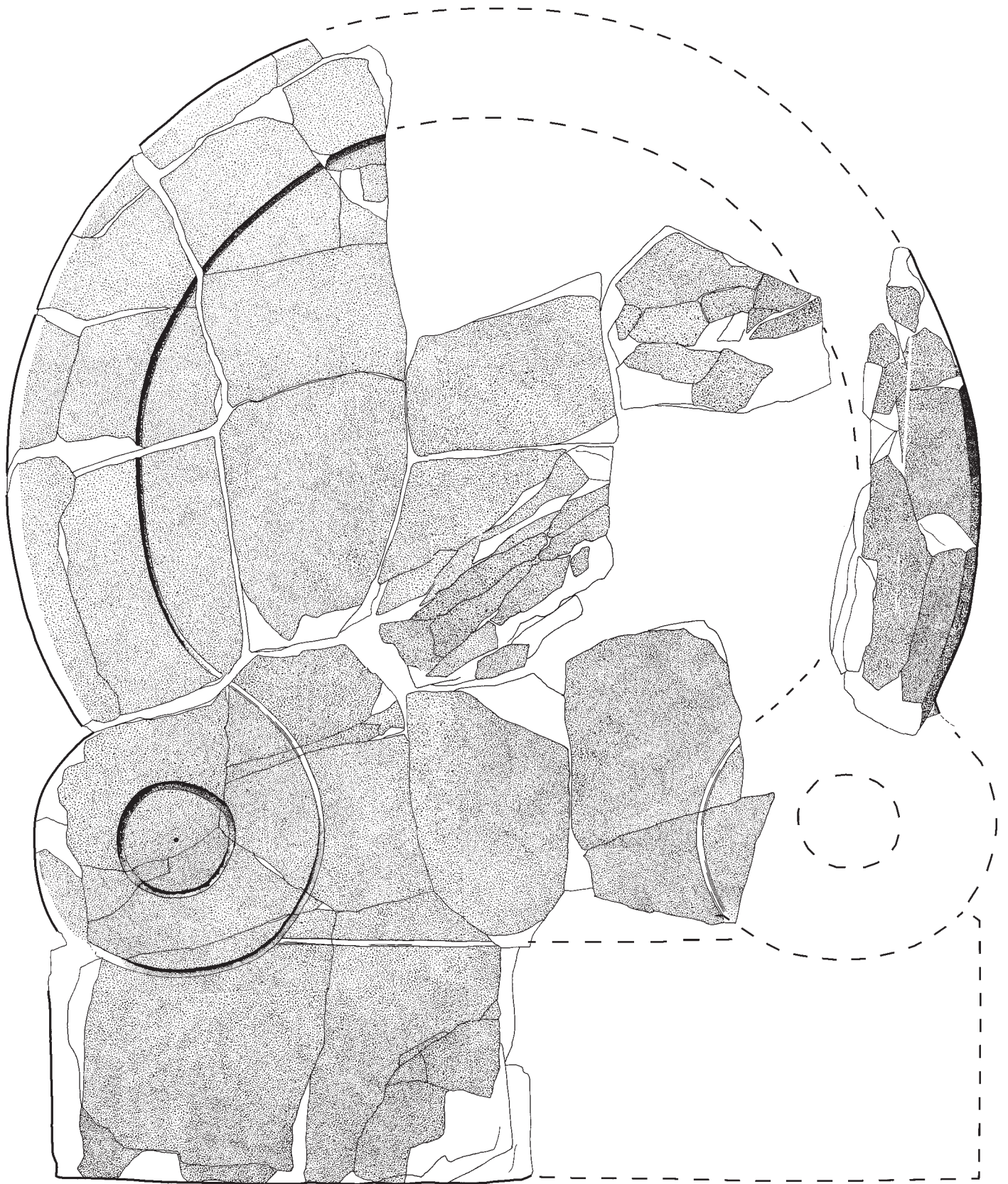
Idol Block 2, KO5.232, Face A, drawn before restoration |

DRAWING by Ben Claasz Coockson



| Idol Block 2, KO5.232, Face B, photographed before restoration

PHOTO 07dpkc1221 by Murat Akar

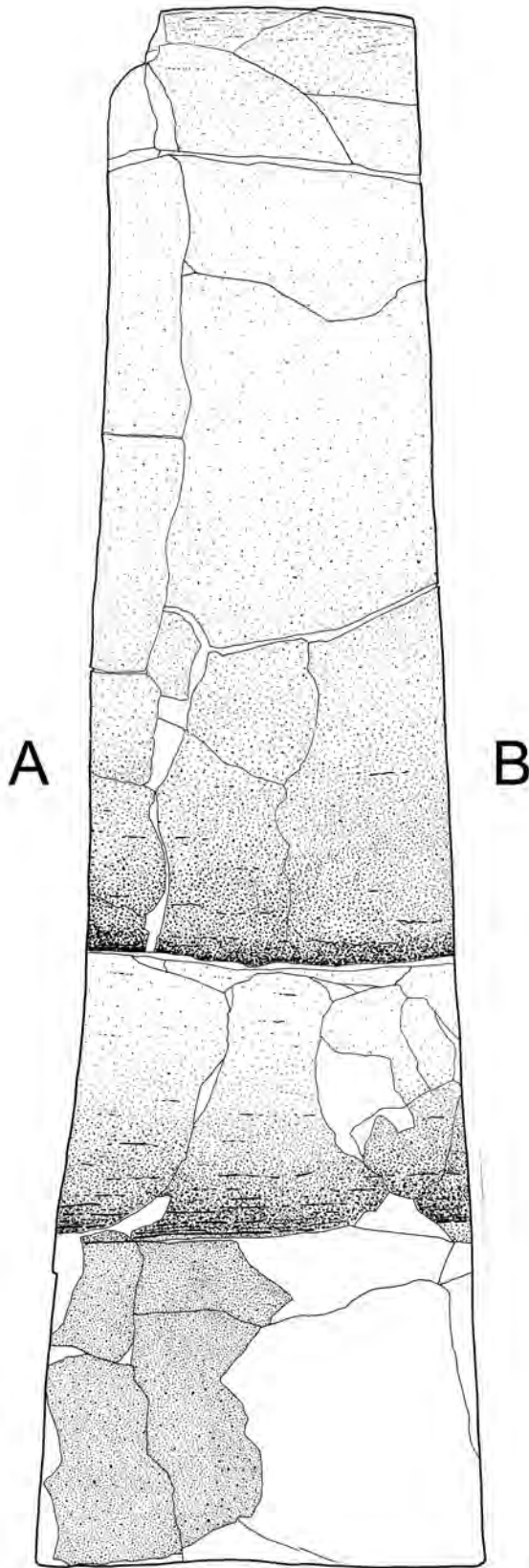


Idol Block 2, KO5.232, Face B, drawn before restoration |

DRAWING by Ben Claasz Coockson



(a) Side view of Idol Block 2, KO5.232, photographed after restoration



(b) Side view of Idol Block 2, KO5.232, drawn before restoration





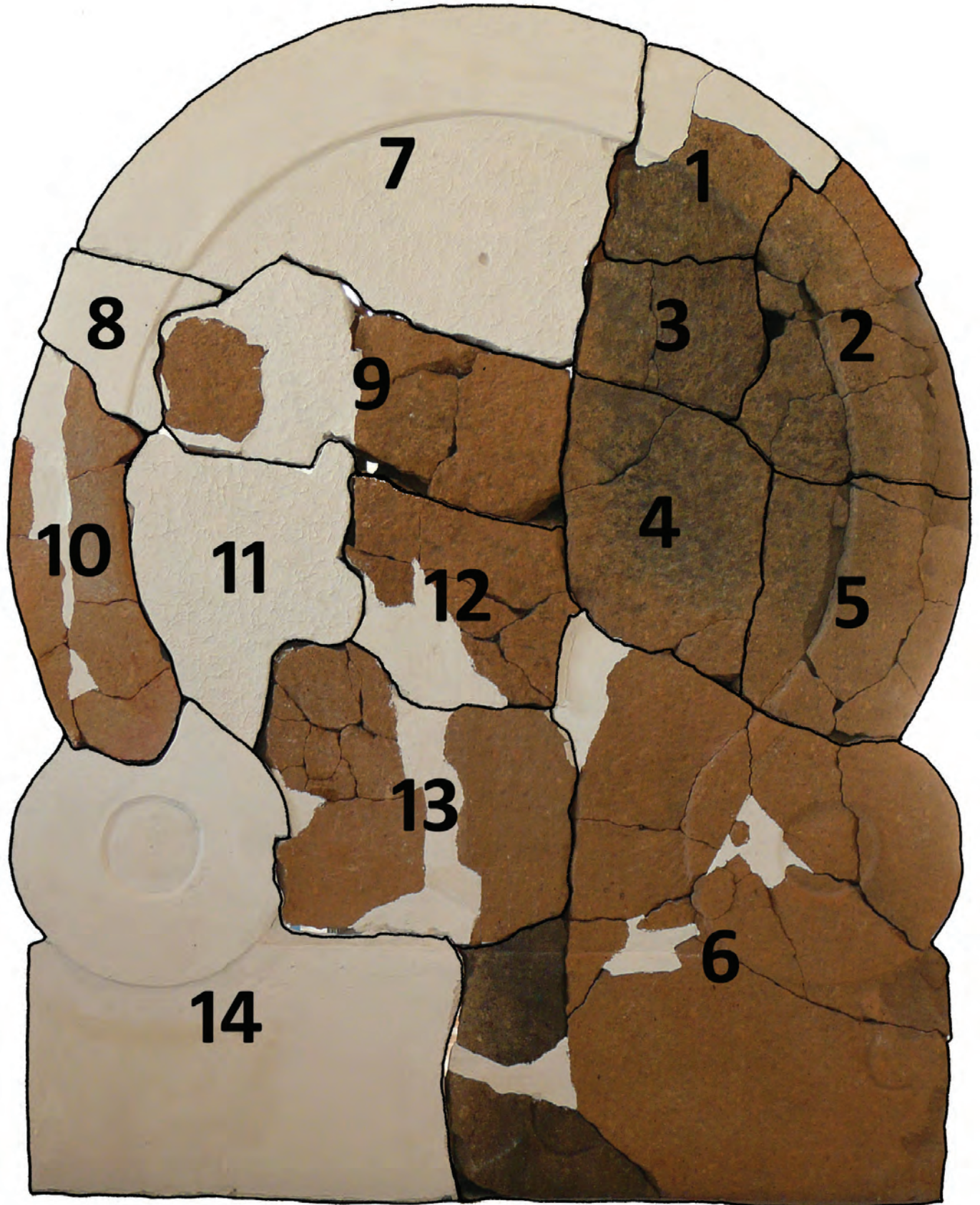
Face A of Idol Block 2, KO5.232, photographed after restoration |





Erik Lindahl restoring Idol Block 2, KO5.232, on balcony of Kerkenes Stone Workshop in 2010. AKG gazbeton (autoclaved aerated concrete blocks) were cut to shape, as seen at top and bottom left, before Polyfilla patching plaster was employed for gapfills.

PHOTO 10dpkc1108 by Scott A. Branting



Idol Block 2, showing the 14 sections in which the block was transported from Kerkenes to Yozgat Museum for final assembly |

ILLUSTRATION prepared by Dominique Langis-Barsetti

PLATE 192 | IDOL BLOCK 3 FROM THE MONUMENTAL ENTRANCE



(a) Head of Idol Block 3 at advanced stage of join-finding and mending of 05TR17U14arc09, 05TR17U14arc12, 05TR17U14arc18



(b) Portion of base of 05TR17U14arc05 that may belong to Idol Block 3 at advanced stage of join-finding and mending. Maximum length 67 cm.

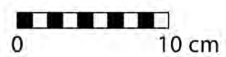
(a) Idol Block 4, 05TR17U14arc14 |



(b) Idol Block 5, one curl and edge of raised base, 05TR17U14arc08 |



(c) Idol Block 5, curl and edge of raised base, 05TR17U14arc08 |





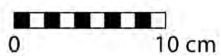
| (a) Idol Block 6, 03TR11U08arc03



| (b) Idol Block 6, 03TR11U08arc03



| (c) Idol block fragments,  
03TR11U00arc05, 04TR11U00arc11





(a) Idol block fragment,  
05TR17U14arc01



(b) Idol block fragment,  
05TR17U14arc13



PLATE 196 | IDOL BLOCK FRAGMENTS FROM THE MONUMENTAL ENTRANCE



| (a) Idol block fragments, 03TR11U08arc02



| (b) Idol fragment, 03TR11U12arc05



| (c) Idol fragment, 03TR11U12arc05



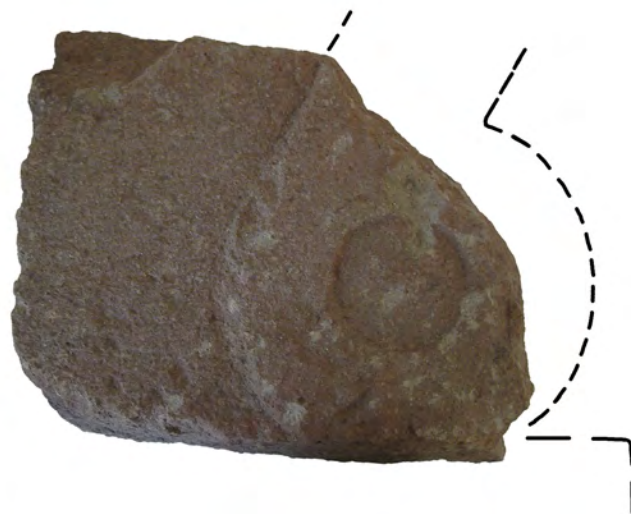
| (d) Idol fragment, 04TR16U08arc06



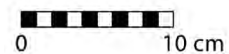
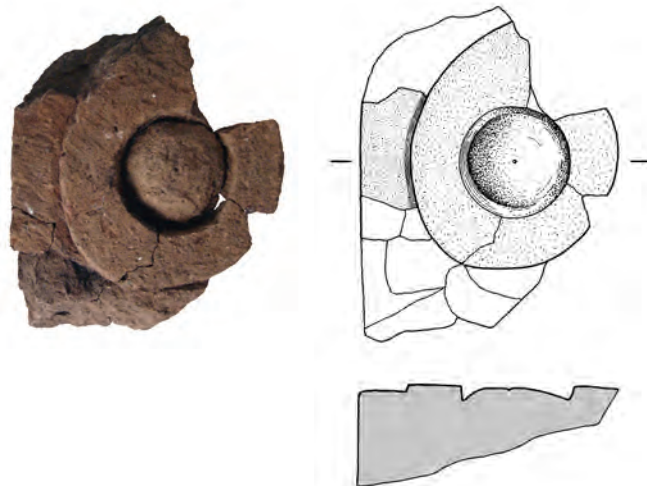
(a) Idol fragment, 05TR17U12arc09 |



(b) Idol fragment with curl, 05TR17U12arc12 |



(c) Idol fragment in relief, 05TR17U14arc20 |





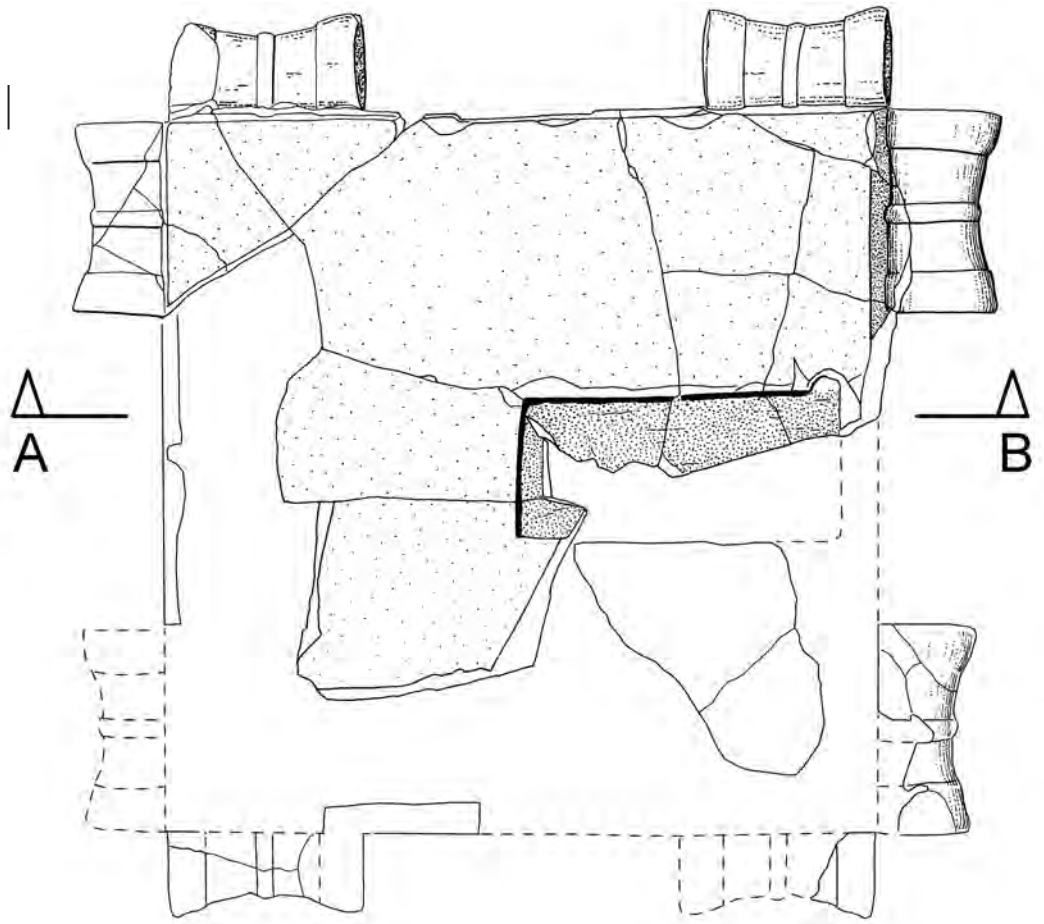
| (a) Bolster slab restored for display at the Yozgat Museum, KO3.167



| (b) Bolster slab, KO3.167



(a) Bolster slab, reconstruction drawing of top, KO3.167



(b) Reconstruction drawing of underside

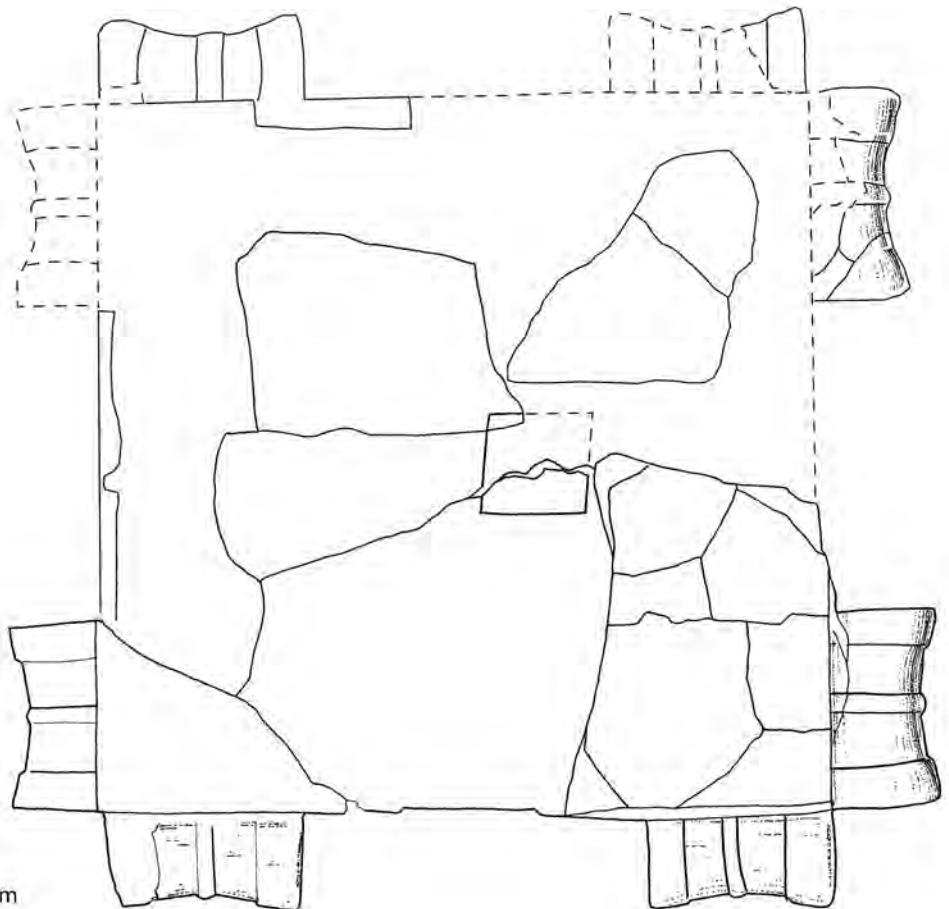
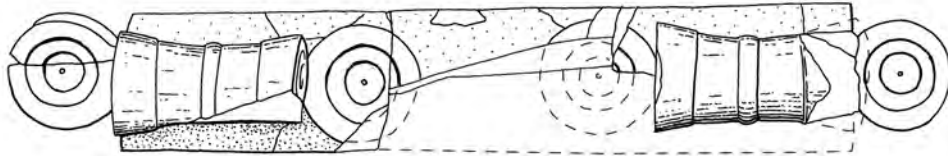


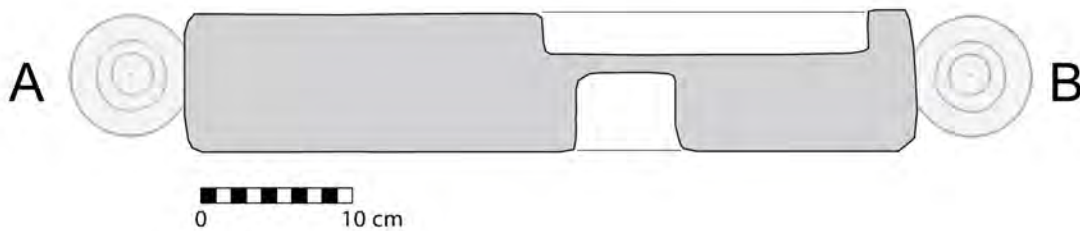
PLATE 200 | BOLSTER SLAB AND BOLSTER BLOCK FROM THE MONUMENTAL ENTRANCE



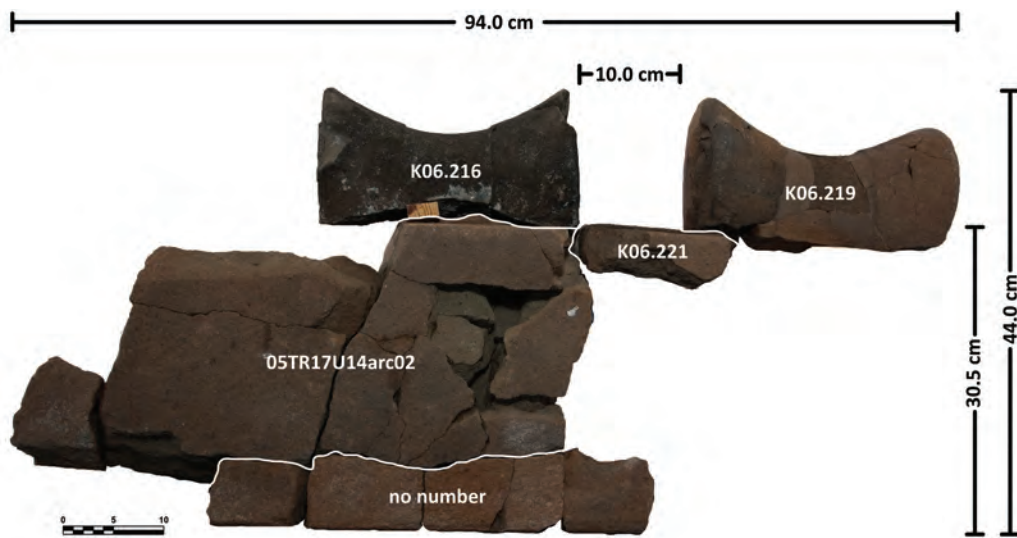
(a) Oblique view of bolster slab, K03.167



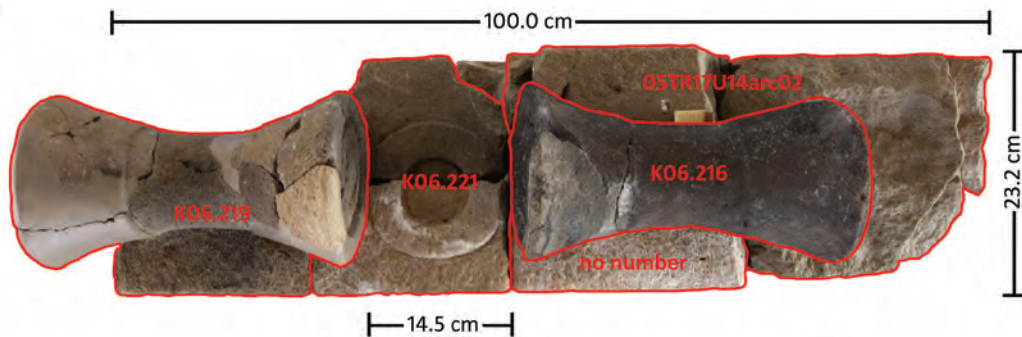
(b) Reconstruction drawing of left side



(c) Section AB



(d) Side view of block with engaged bolsters and bolster ends, with dimensions, inventory numbers, and ID numbers



(e) Top view of the block with engaged bolsters and bolster ends with dimensions, inventory numbers, and ID numbers



| (a) Side of block with engaged bolsters and bolster ends

| (b) Oblique view of block above

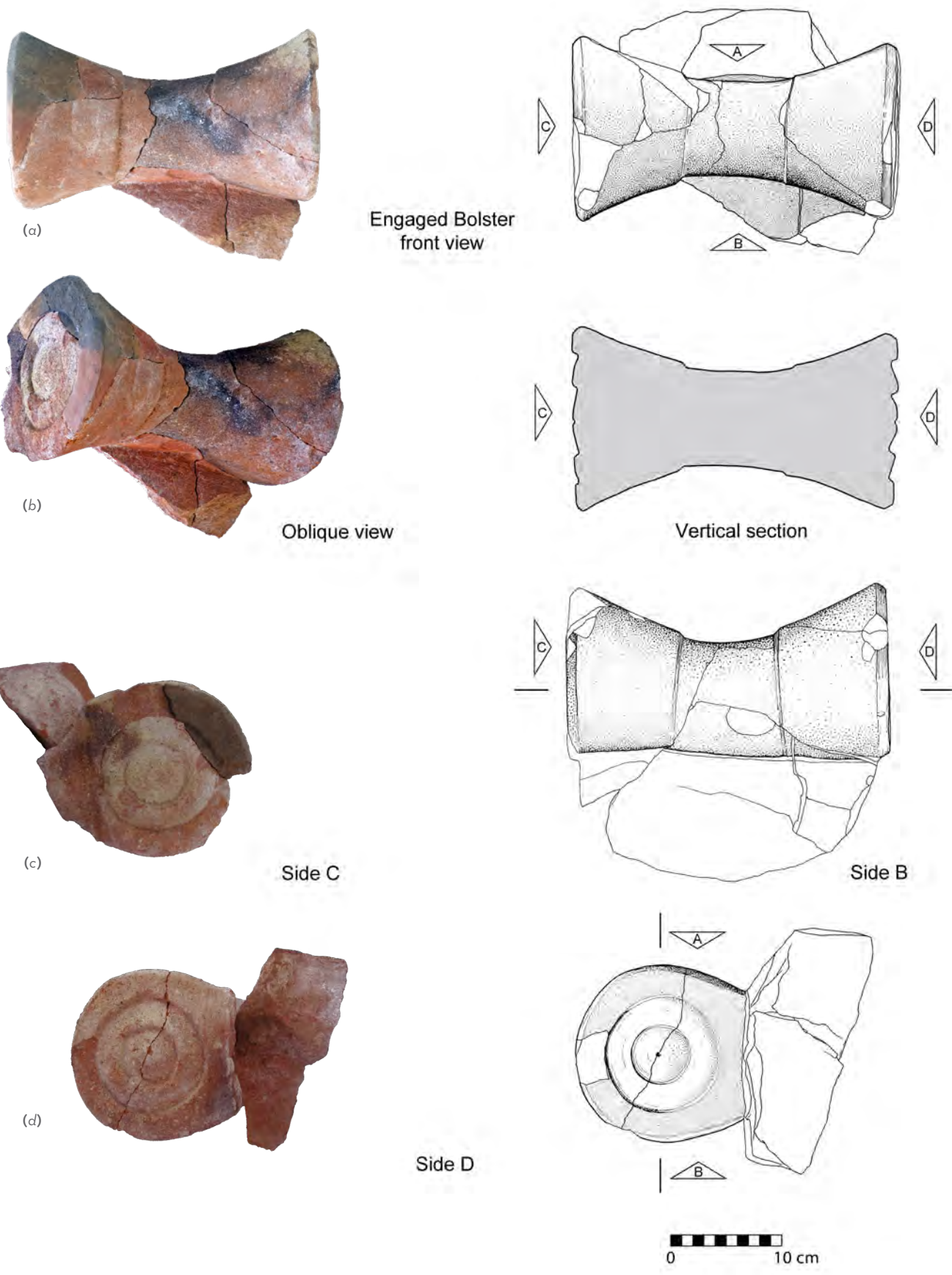
0 10 cm

PHOTOS (a) 10dplkco657 and (b) 10dplkco655 by Joseph Lehner



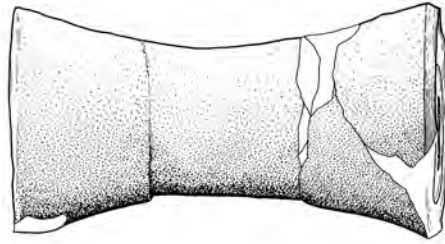
| Top view of block with engaged bolsters and bolster ends

PHOTO 10dpkco658 by Joseph Lehner

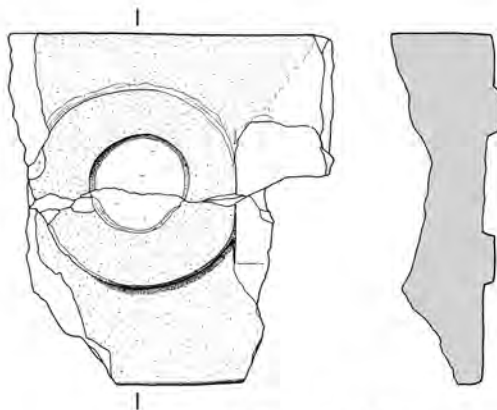
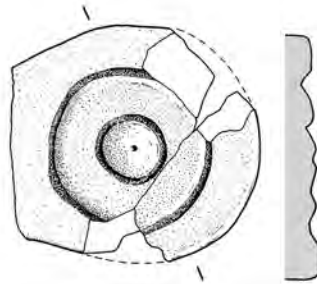
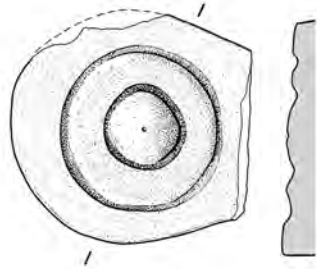


Engaged bolster KO6.222, perhaps part of the block with engaged bolsters (KO6.216 and KO6.219) and bolster end (KO6.221)

PLATE 204 | BOLSTER BLOCK ELEMENTS FROM THE MONUMENTAL ENTRANCE

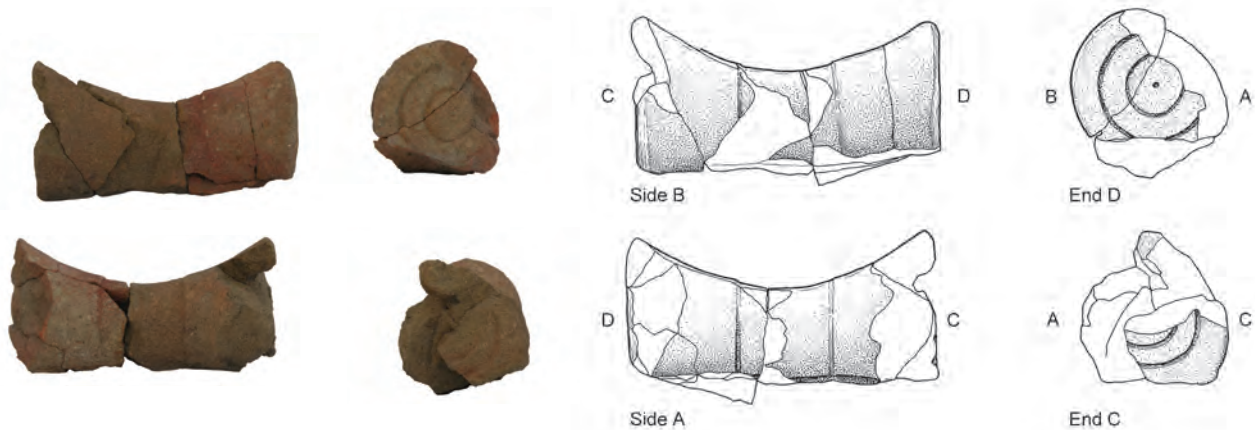


| (a) Engaged bolster, KO6.216



| (b) Bolster end, KO6.221

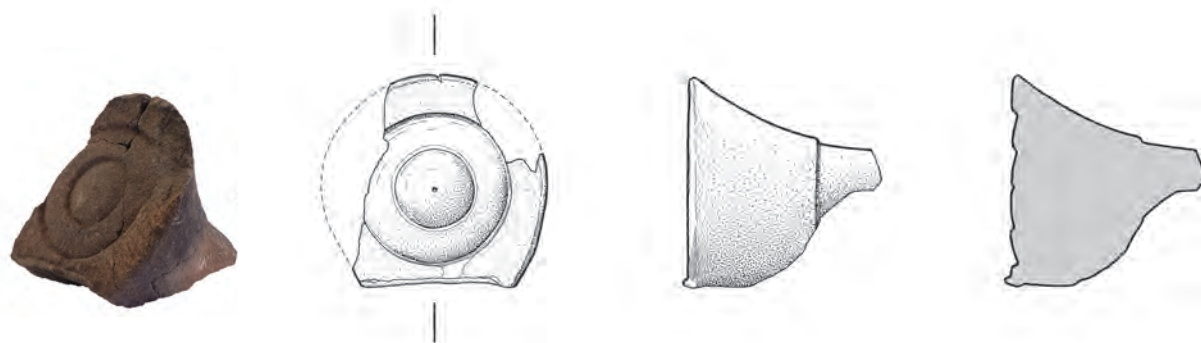




(a) Engaged bolster fragment, Ko6.218 |



(b) Engaged bolster fragment, 03TR11U08arco6 |



(c) Engaged bolster fragment, 03TR11U05arco1 |





PLATE 206 | OTHER BOLSTERS FROM THE MONUMENTAL ENTRANCE



| (a) Engaged bolster fragments, 03TR11U12arc04



| (b) Engaged bolster fragments, 05PALAU00arc02



| (c) Engaged bolster fragments, 05TR17U14arc10



| (d) Engaged bolster fragments, 04TR16U13arc01



| (e) Engaged bolster fragment, 05TR17U11arc02

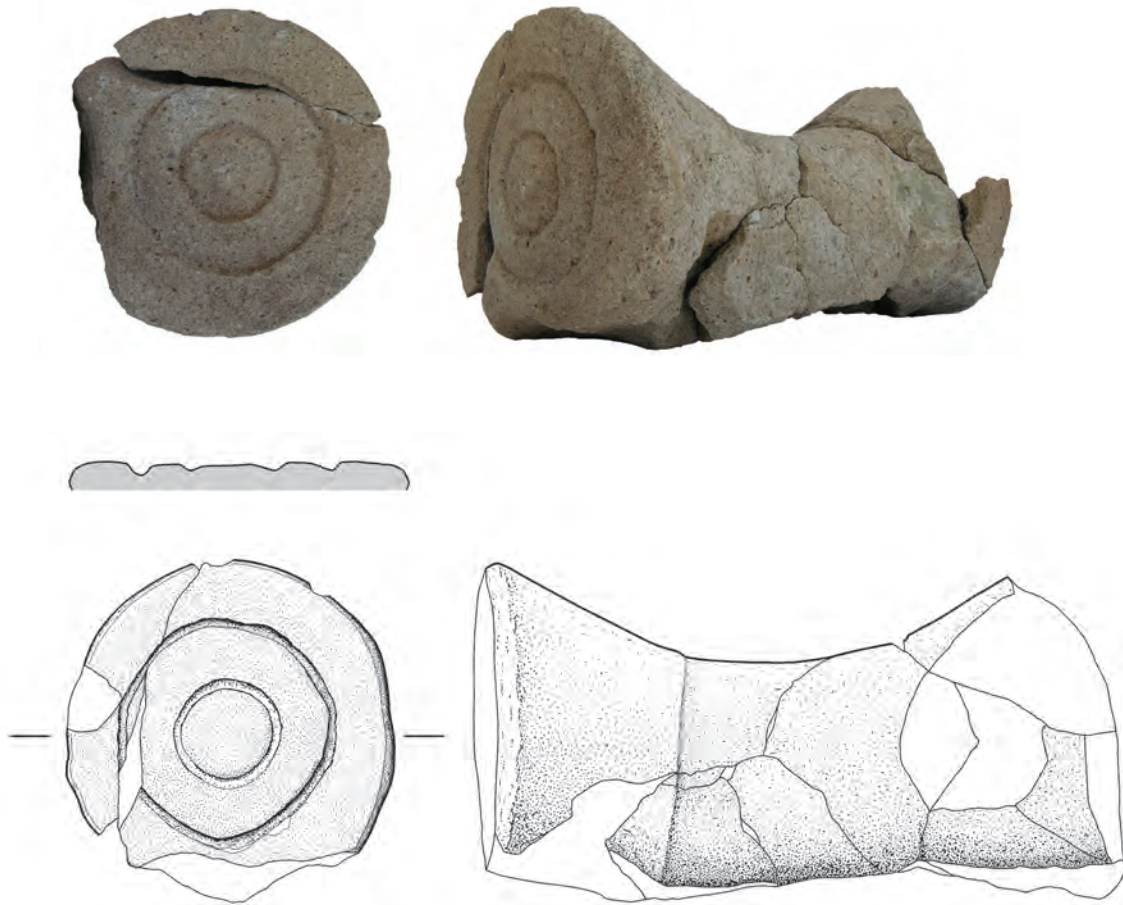


| (f) Engaged bolster fragment, 03TR11U08arc07

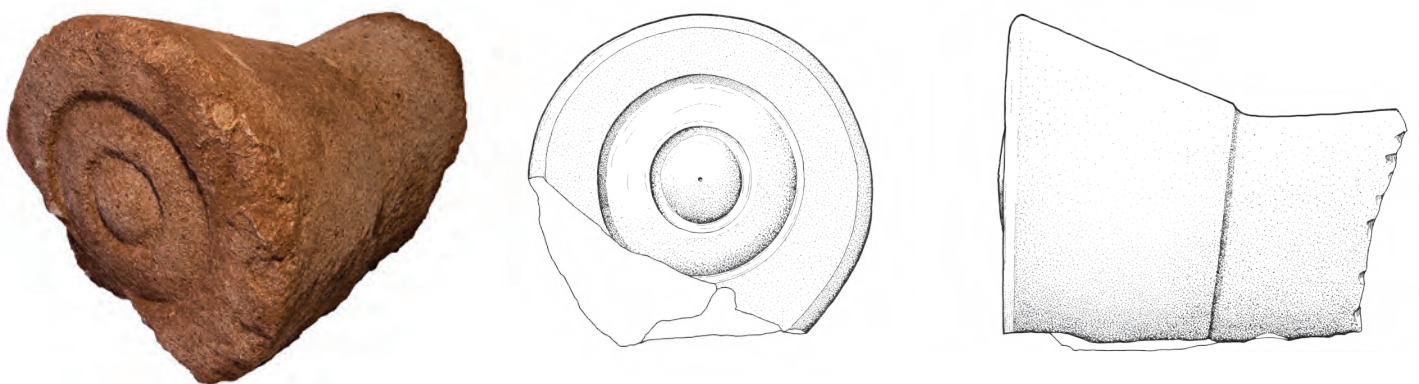


| (g) Bolster end fragment, 03TR11U08arc05





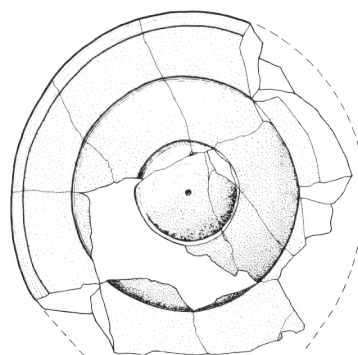
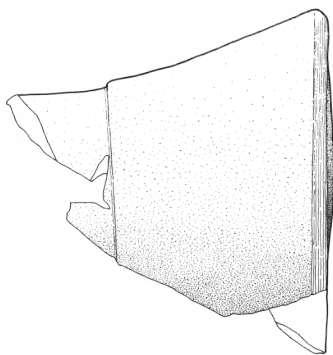
(a) Large engaged bolster, KO6.217 |



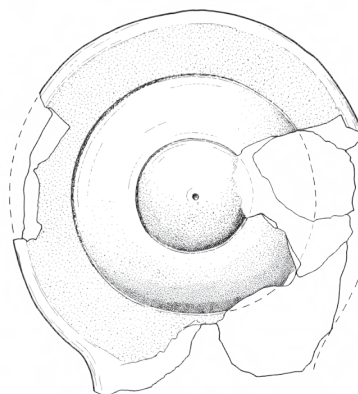
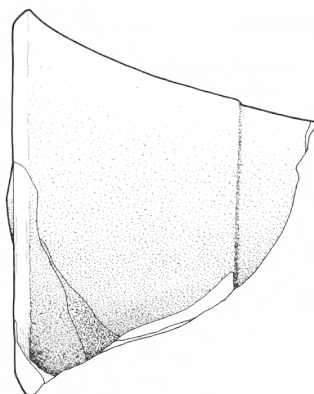
(b) Large engaged bolster, O4TR14UO2arco1 |



PLATE 208 | LARGE BOLSTERS FROM THE MONUMENTAL ENTRANCE



| (a) Large engaged bolster fragments, 03TR11U12arco1



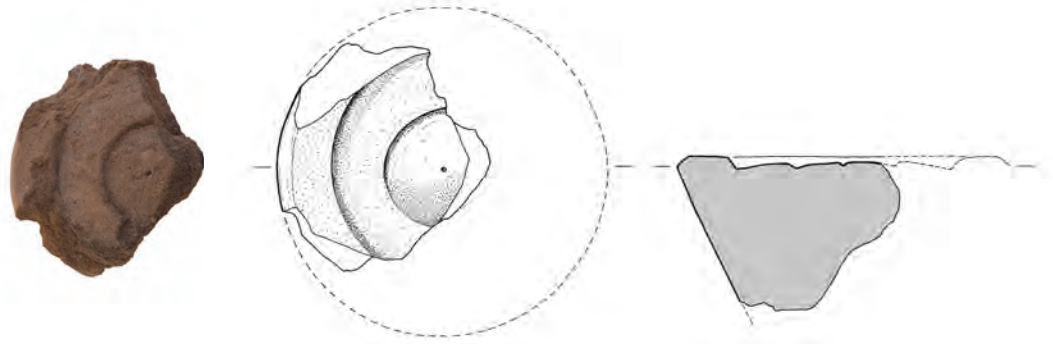
| (b) Large engaged bolster fragments, 03TR11U12arco2



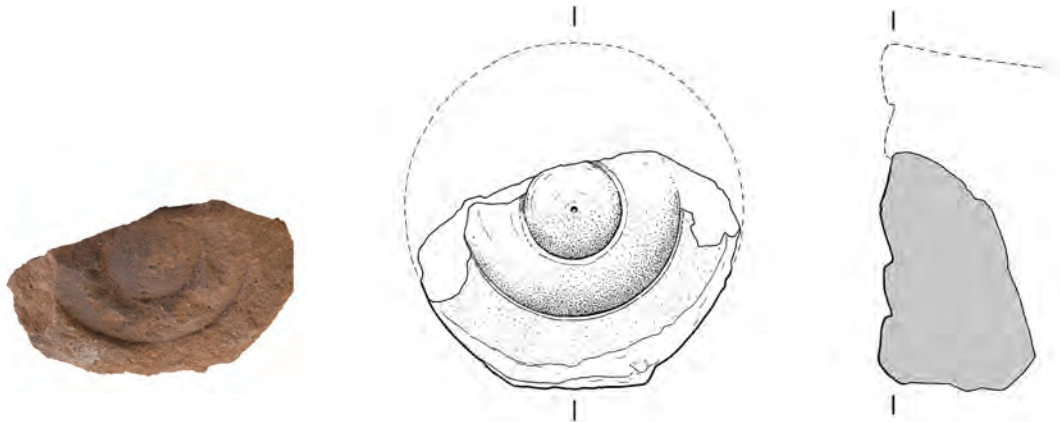
| (c) Large engaged bolster fragments, 05TR17U14arc16



(a) Large engaged bolster fragment,  
o3TR11Uo8arco8



(b) Large engaged bolster fragment,  
o3TR11Uo3arco1



(c) Large engaged bolster fragment,  
o3TR11U12arco3



(d) Large bolster end fragment,  
o3TR11Uo8arco9

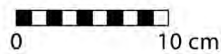
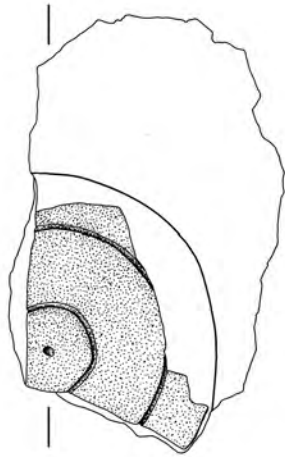


PLATE 210 | LARGE BOLSTER FRAGMENTS FROM THE MONUMENTAL ENTRANCE



(a) Large bolster end fragment, 04TR11U00arc01



(b) Large bolster end fragment, 05TR16U16arc01



(c) Large bolster end fragments, 05TR16U17arc01, 05TR15U15arc01





(a)

(b)

(c)



(d)



(e)

- (a) Large bolster end fragment, 05TR17U05arc01,  
 (b) Large bolster end fragment, 05TR17U05arc02,  
 (c) Large bolster end fragment, 05TR17U07arc02,  
 (d) Large bolster end fragment, 05TR17U12arc10,  
 (e) Large bolster end fragments, 04TR16U14arc01,  
 03TR11U05stn02,  
 (f) Bolster fragment, 05TR21U12arc01,  
 (g) Part of block with engaged bolster, KO6.220



(f)



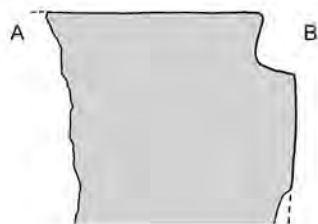
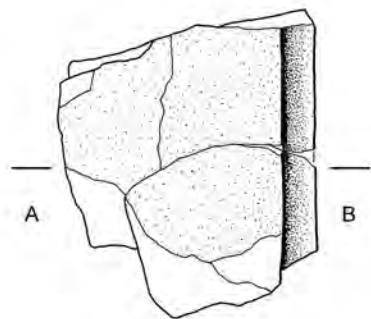
(g)



PLATE 212 | ARCHITECTURAL FRAGMENTS FROM THE MONUMENTAL ENTRANCE



(a)



(a) Granite architectural fragment, 05PALAU00arc03

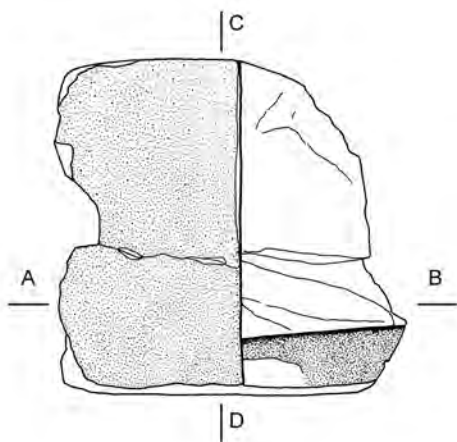


(b)

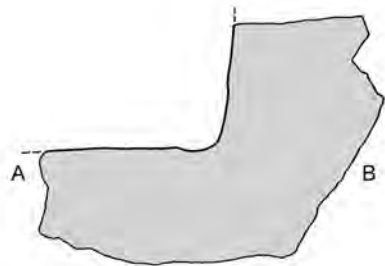
(b) Granite architectural piece, 05PALAU00arc04,  
(c) Top view and drawing of 05PALAU00arc04,  
(d) Side D and section AB,  
(e) Side A and section CD



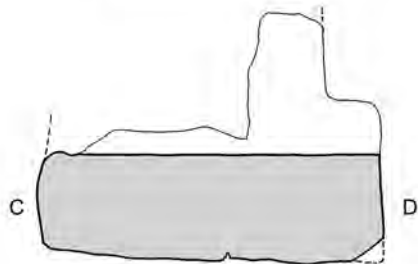
(c)



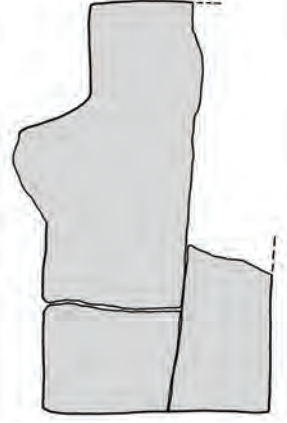
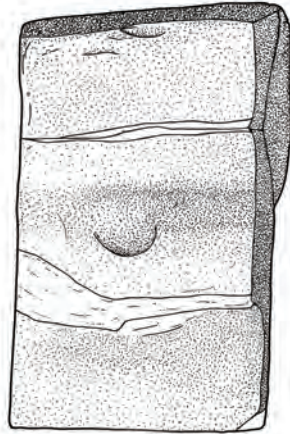
(d)



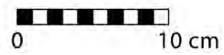
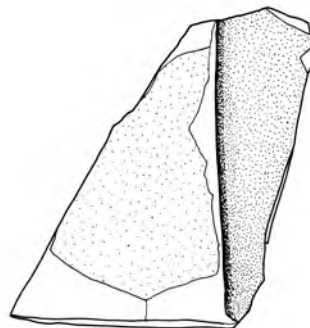
(e)



(a) Sandstone element,  
05PALAU00ar05



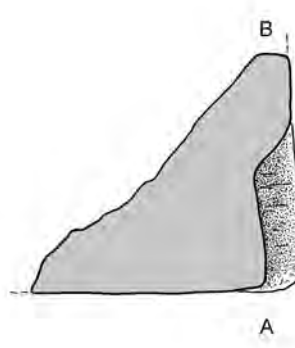
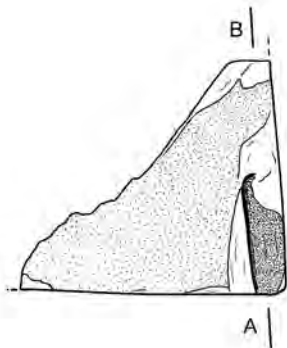
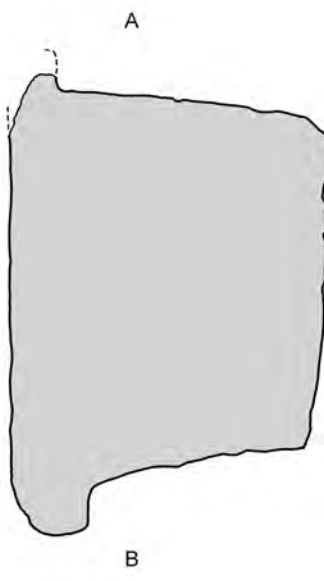
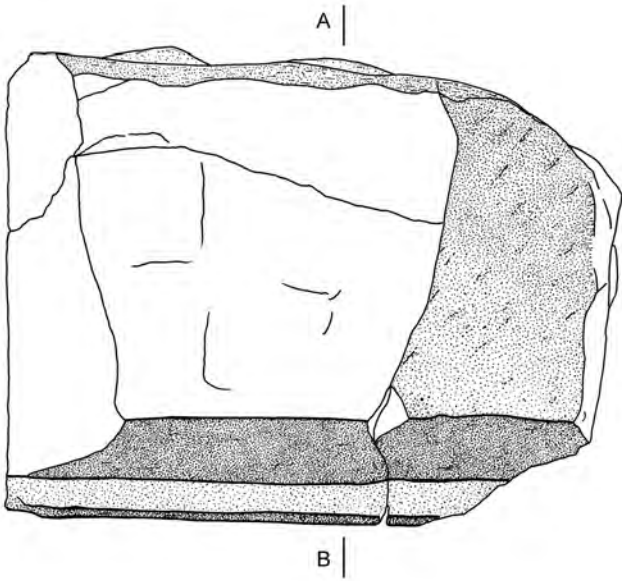
(b) Sandstone fragment,  
05PALAU00ar06







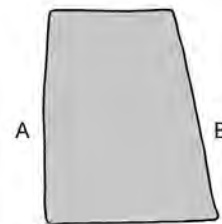
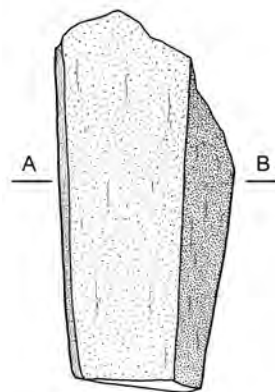
(a) Sandstone fragment,  
05PALAU000arc08



(b) Sandstone corner fragment  
with cutting, 05TR17U12arc04



(a) Large granite plug for repair/  
gapfilling, 05PALAU00ar01



Left to right: (b) Sandstone plug, 04TR15U13stn01, (c) Sandstone plug, 04TR16U08ar01, (d) Sandstone plug, 05TR16U18ar03 |

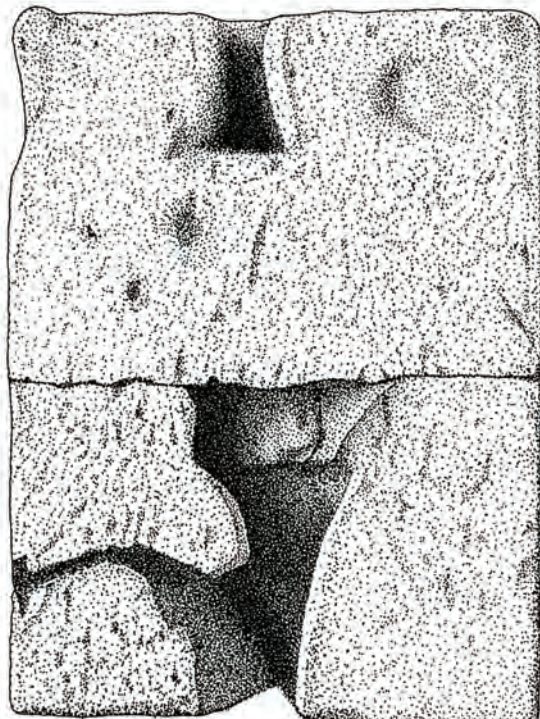
PLATE 216 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE



(a) Clamp cuttings 1-3 in granite block at corner of the South Platform in TR16



(b) Top view of clamp cuttings 1-3



Clamp cuttings 4 and 5, o3TR11U12arco6 |

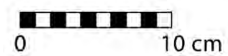


PLATE 218 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE



| (a) Clamp cuttings 6-8 in situ in TR17



| (b) Clamp cuttings 6 and 7 in situ in TR17

(a) Clamp cutting 7 in situ in TR17,  
with carbonized remains of the  
wooden clamp



(b) Clamp cuttings 9 and 10 |

PLATE 220 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE



(a) Clamp cuttings 11 and 12, as found in TR16



(b) Clamp cutting 13 in situ in TR15 on topmost preserved course of the South Platform. The edge of the platform core is at the bottom of the image. The front portion of the block was destroyed.

(a) Clamp cutting 14,  
as found in TR17



(b) Clamp cutting 15, as found in TR16U08. Idol block fragment O4TR16U08arco2, now part of the corner block of Idol Block 1, can be seen at upper right.





| Clamp cuttings 16, at center, with part of 17, at top left, o4TR16Uo8arco4

Clamp cuttings 16, at center,  
and part of 17, at bottom left,  
O4TR16Uo8arco4

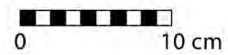
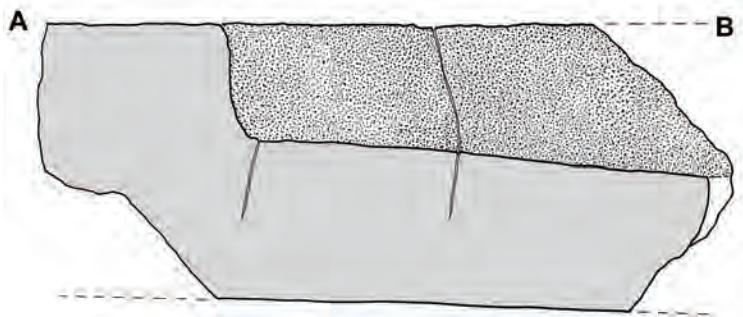
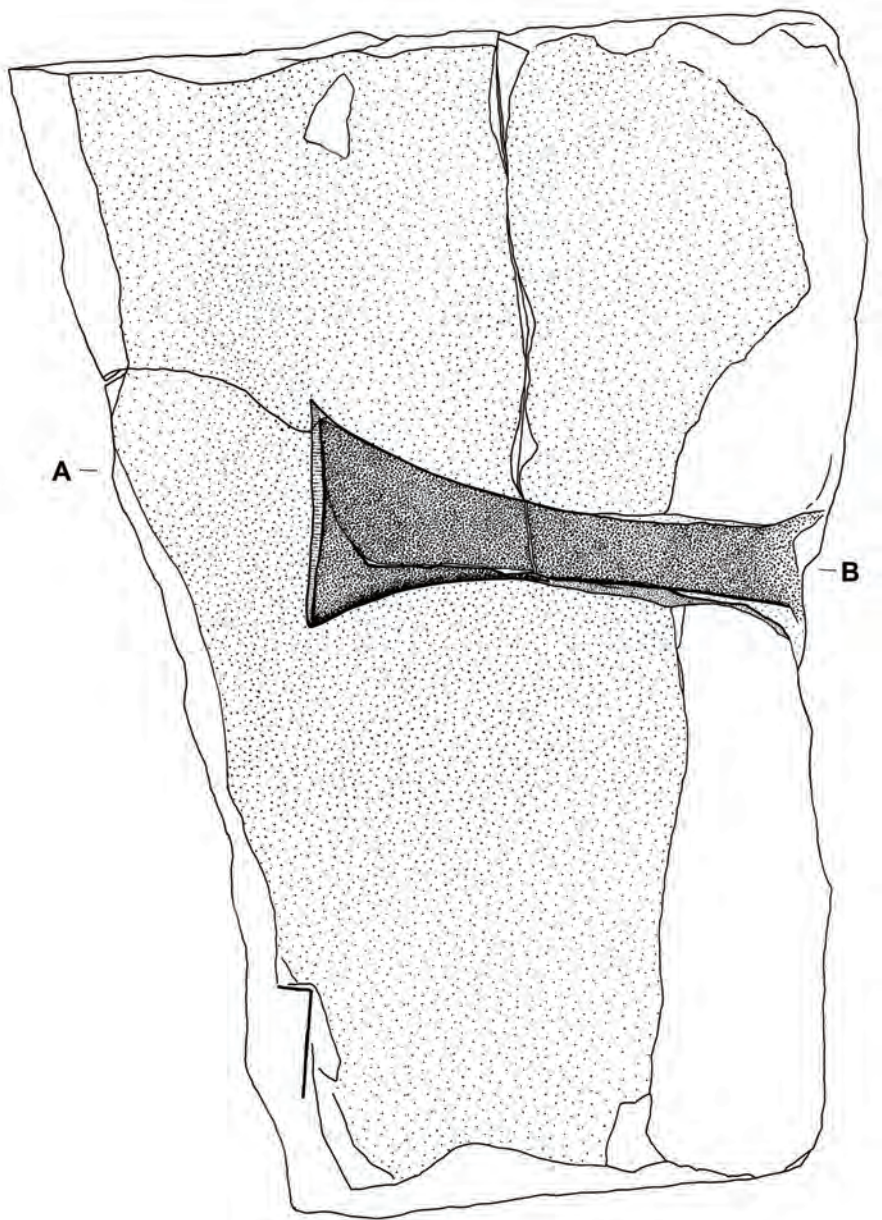
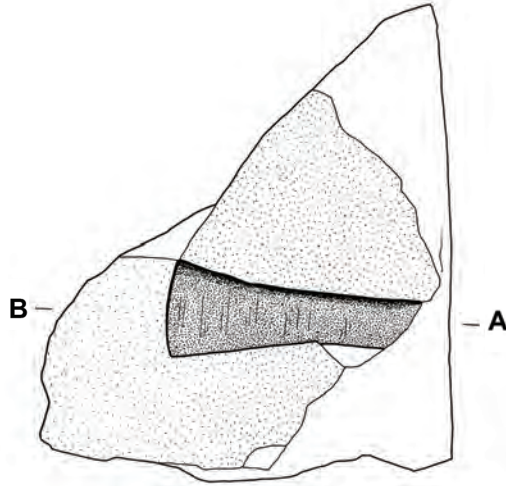
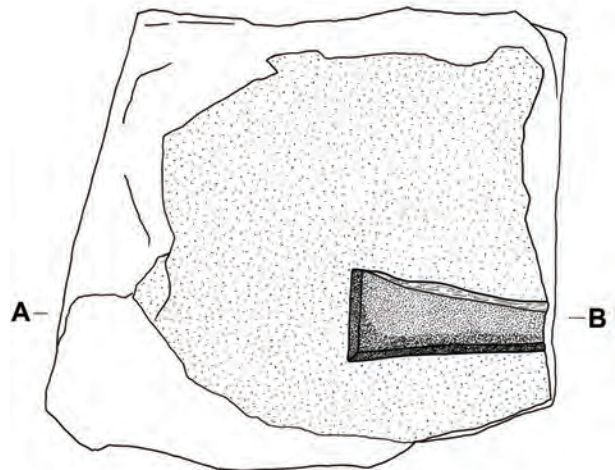
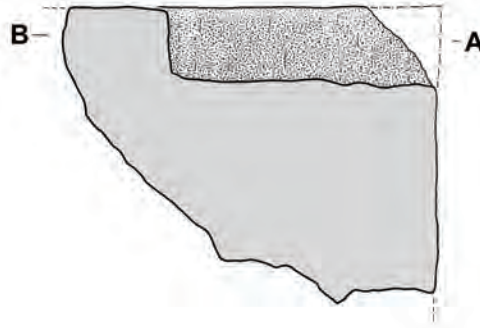


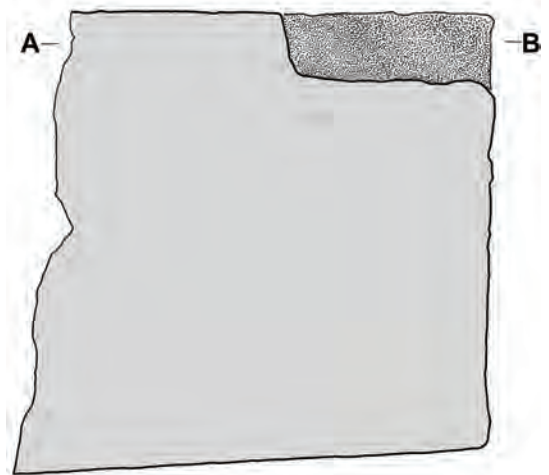
PLATE 224 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE



(a) Clamp cutting 18,  
03TR11U00arc06



(b) Clamp cutting 19,  
03TR11U00arc03



Clamp cutting 20, 03TR11U00arc09 |

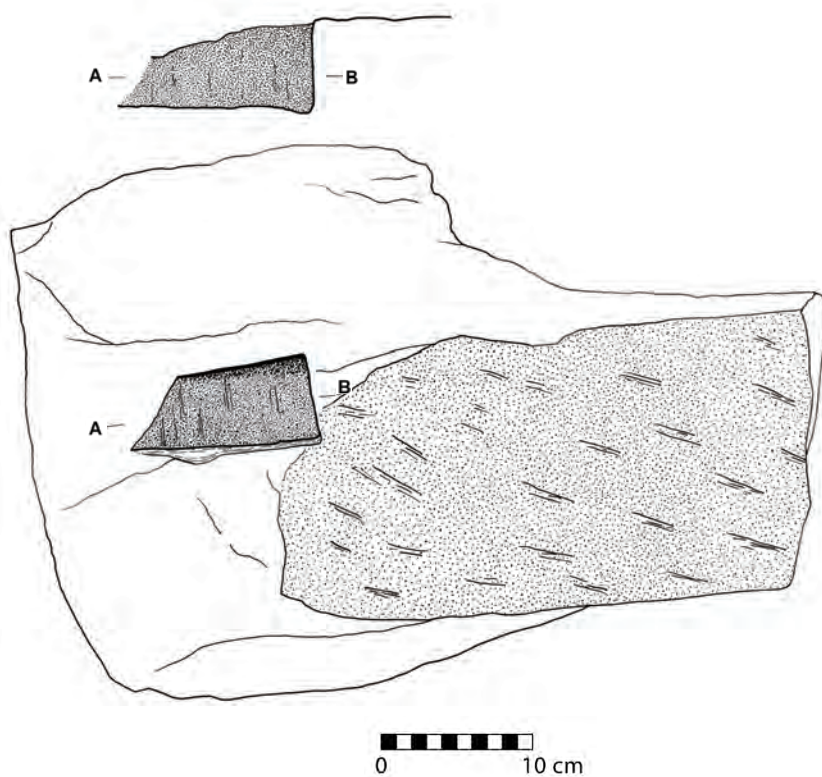
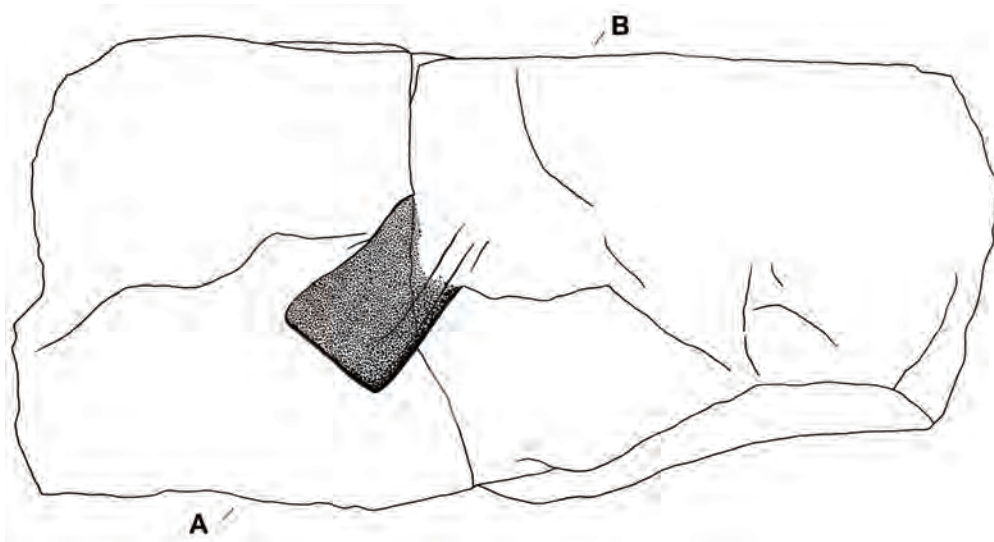
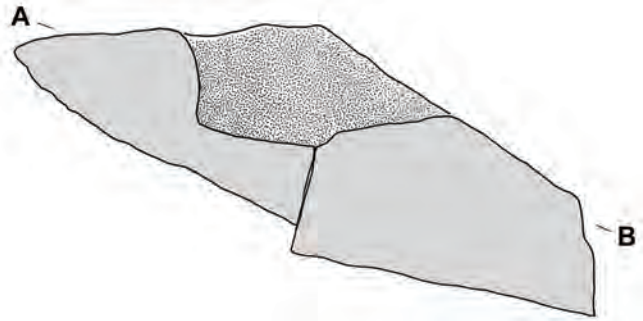


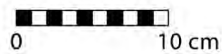
PHOTO 04dpcs0702 by Catherine M. Draycott  
DRAWING by Ben Claasz Coockson

PLATE 226 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE

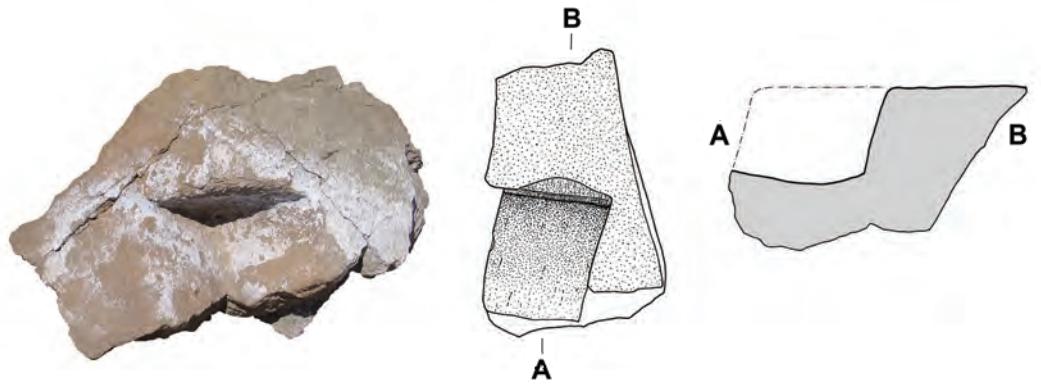
(a) Clamp cuttings 21 and 22,  
o4TR16Uo3arc01



(b) Clamp cutting 23,  
o3TR11Uooarco4



(a) Clamp cutting 24,  
o3TR11Uo0arc07



(b) Clamp cutting 25,  
o3TR11Uo4arc02

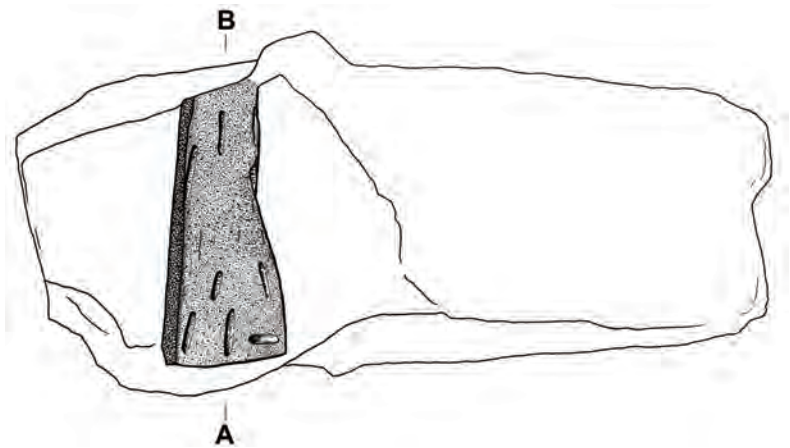
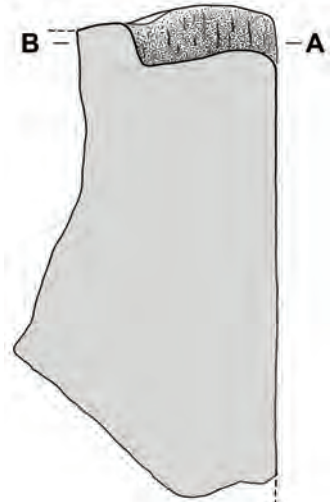
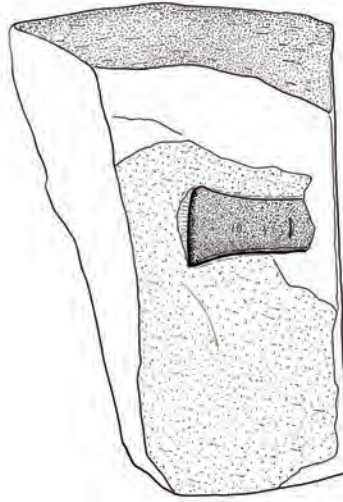


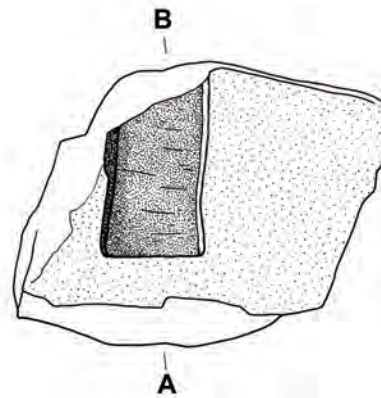
PLATE 228 | CLAMP CUTTINGS FROM THE MONUMENTAL ENTRANCE



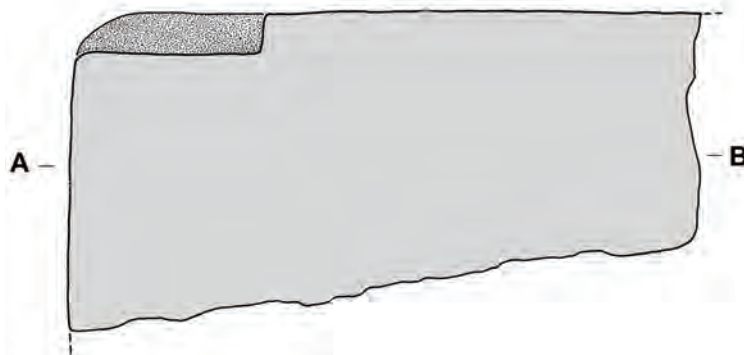
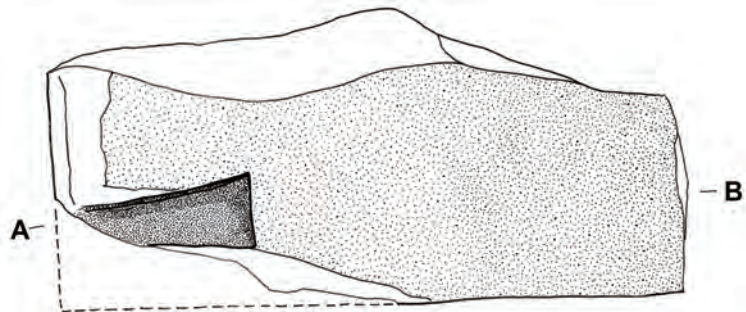
| (a) Clamp cutting 26, 04TR16U11arco1



| (b) Clamp cutting 27, 05PALAU00arco7



| (c) Clamp cutting 28, 05PALAU00arco9



Clamp cutting 29, 05PALAU000arc10 |

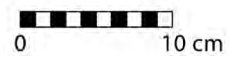
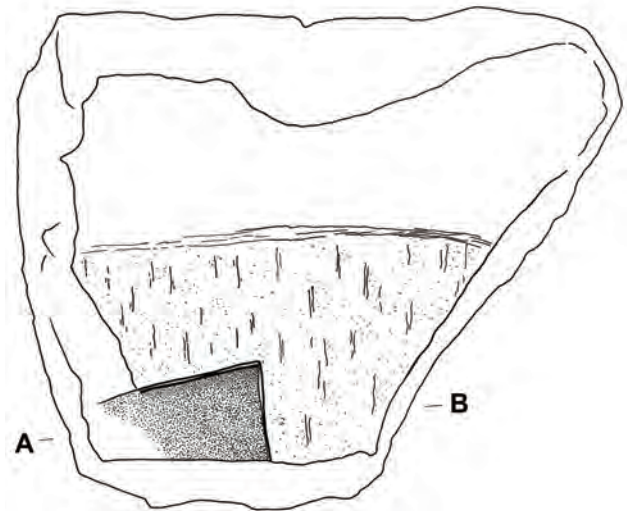




PLATE 230 | DRIP MARKS FROM THE MONUMENTAL ENTRANCE



| (a) Stone with drip mark, o4TR16Uo6stn03



| (b) Sandstone with drip marks, o3TR11Uo8stn11



| (c) Sandstone with drip marks, o3TR11Uo8stn11



| (d) Stone from block corner with drip marks, o3TR11Uo8stn38



(a) Stone from block corner with drip marks, 03TR11Uo8stn39 |



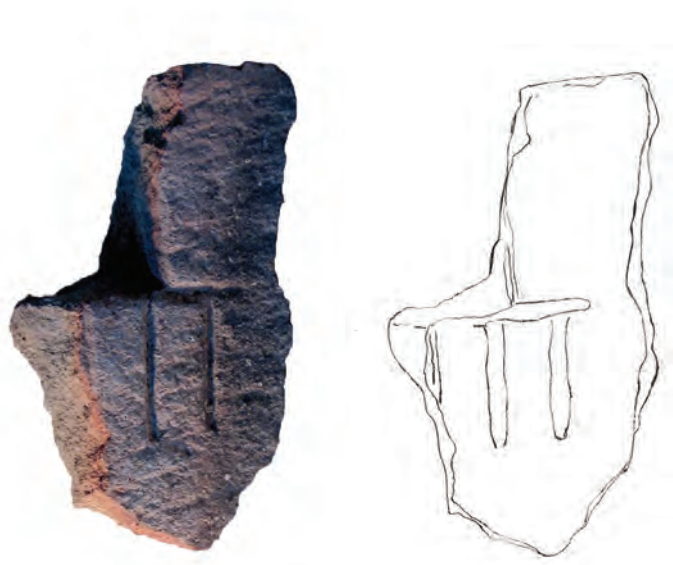
(b) Stone drip marks, perhaps handprints, 03TR11Uo8stn45 |



PLATE 232 | MASONS' MARKS FROM THE MONUMENTAL ENTRANCE



| (a) Mason's mark on back of a sandstone block in northern wall of the South Platform



| (b) Mason's mark, o3TR11Uo8stn26



| (c) Mason's mark, o4TR16Uooarc01





(a) Mason's mark, 04TR16U14arc02 |



(b) Mason's mark, 04TR16U14arc03 |



(c) Mason's mark, 05TR17U11arc03 |



(d) Mason's mark, 05TR17U12arc05 |



PLATE 234 | BYZANTINE AND STRAY OBJECTS



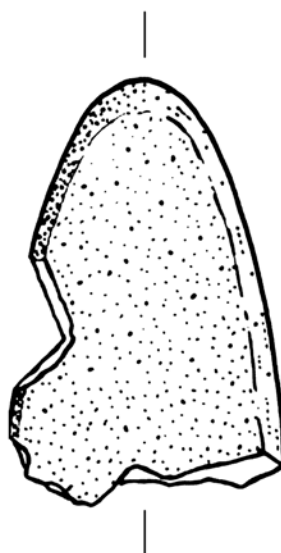
| (a) Coin of Justinian associated with Byzantine-period burial, Ko4.170

| (b) Glass whorl, Ko3.146



| (c) Exotic sherd, 05TR21U01pot01

| (d) Iron arrowhead, K94.042



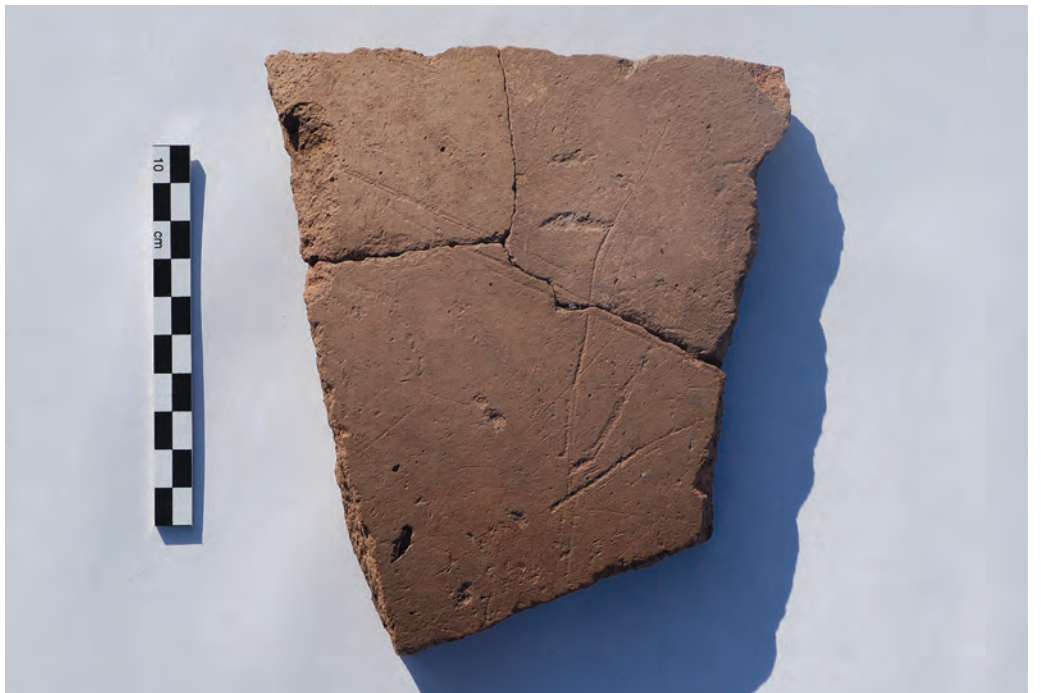
| (e) Tip of iron tool, 05TR20U12meto1



PHOTOS (a) 04dpcs0617, 04dpcs0618, (b) 03dpjv6181, and 03dpjv6183 by Catherine M. Draycott; (c) 17dpkco402 by Hakki Üncü; (d) 05dpnk0823 by Murat Akar; (e) 05dpnc1869 and 05dpnc1868 by Natalie Summers  
DRAWINGS (d) by Simone Korolnik; (e) by Ben Claasz Coockson



(a) Sherd, KO4.177, with alphabetic graffiti cat. no. 11 |



(b) Sherd, O4TR15U01pot02, with pot mark cat. no. 12 |

PLATE 236 | POTTERY SHERDS WITH GRAFFITI



| (a) Underside of base with incised cross, KO5.214, cat. no. 14



| (b) Underside of bowl base with incised cross below the carination, KO5.214, cat. no. 14



(a) Underside of rim sherd of a bowl, KO3.156, with pot mark cat. no. 15 |



(b) Pithos sherd, O4TR15U01pot01, with raised band pot mark cat. no. 16 |



(c) Underside of bowl, KO4.179, with alphabetic graffiti cat. no. 17 |





(a) Boar teeth and tusks found at CT27



(b) Bear teeth found at CT27



(c) Second phalange of sheep/goat with exostosis from CT5



(d) Pig astragalus with pathologic growth of bone from CT5



(a) and (b) Dolphin mandible fragment (buccal and dorsal view)



(c) Detail of dorsal view of alveolar process showing dental alveoli (sockets of tooth roots)



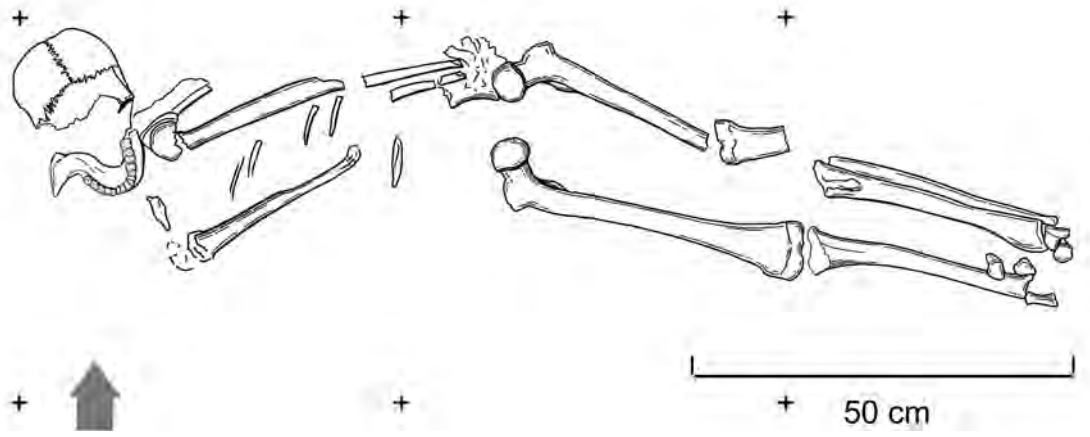
PLATE 240 | BYZANTINE-PERIOD BURIAL



| (a) Byzantine-period skeleton in early stage of excavation, O4TR16U09skl01



| (b) Byzantine-period skeleton, O4TR16U09skl01



(a) Plan of Byzantine-period burial |



(b) Infectious lesions on right tibia of Byzantine skeleton, 04TR16U09skl01 |



(c) Detail of infectious lesions on right tibia of the Byzantine skeleton, 04TR16U09skl01 |

