



FRIENDS OF GORDION

NEWSLETTER



Figure 1: Moving the conserved stones of the Early Phrygian East Gate (9th c. B.C.) back to their original position. Photo by Brian Rose.

The 2018 season at Gordion was an extremely successful one in terms of both conservation and excavation, in that we completed our reconstruction of the Early Phrygian Citadel Gate and investigated three different areas along the central spine of the Citadel Mound. Conservation of the enormous Early Phrygian pebble mosaic (9th c. B.C.), the first of its kind as far as we know,

was also continued, with the assistance of high school history teachers from the neighboring town of Polatlı. The latter project was part of our expanded Gordion Cultural Heritage Educational Program which has been ongoing since 2014, and which seeks to educate both schoolchildren and the general public about the importance of safeguarding the ancient landscape of Gordion.

Our research this summer yielded a new understanding of the Phrygian fortifications of the citadel between the 9th and 4th centuries B.C., as well as new information regarding major changes to the city plan during the same period. This year nearly forty scholars and scientists worked in five different sectors of the site and its environs during June, July, and the first half of August,



Figure 2: The restored South Bastion of the Early Phrygian East Gate, after the last row of conserved stones had been put in place.
Photo by Gebhard Bieg.

and we continued to enjoy a very beneficial relationship with the Museum of Anatolian Civilizations in Ankara.

Architectural Conservation and Restoration

As many of you know, we have had the good fortune of excavating at Gordion since 1950, revealing a wide range of discoveries and monuments that span nearly four millennia. The most prominent of these is the “Early Phrygian Citadel Gate,” which provided access to the citadel’s eastern enclosure. It still stands to a height of 10 m and is the best-preserved gate complex so far known from Iron Age Anatolia (9th c. B.C.; figs. 1-5, 7). Since we have recently excavated a second citadel gate on the mound’s south side (the South Gate in Area 1), we will now refer to the Early Phrygian Citadel Gate as the “East Gate.”

The excavation of this gate in the

1950s revealed a wide corridor with two flanking stone bastions. The central passageway, measuring nearly 9 m in width and 23 m in length, is unusually large by comparison to those of contemporary citadels. Above the battered or inclined stone walls there must have been an additional story of mudbrick, which probably raised the total height of the gate to approximately 16 m. In terms of size, construction technique, and state of preservation, Gordion’s East Citadel Gate is unique among the ancient monuments of Turkey.

After the gate was seriously damaged by an earthquake in 1999, the Turkish Ministry of Culture and Tourism asked us to develop a program for emergency intervention. Supervised by Elisa Del Bono and Angelo Lanza, this five-year project was designed to consolidate the damaged stones of the gate. That meant removing the upper twelve courses of stones that had sustained the greatest damage, 112 blocks in total, and

reinserting them once they had been conserved. This phase of the project was completed this year, and you can see the upper section of the gate’s restored face in fig. 2.

Nearly all of these were the original stones that were lifted during the dismantling process; only nine were new blocks added to replace irreparably damaged originals or missing masonry, especially along the upper rows of the bastion’s northwest corner. The reconstruction was carried out with the aid of a mobile telescopic crane that lifted the blocks from our scaffolding to their original position (fig. 3).

Behind the conserved facing stones we inserted stone rubble embedded in lime mortar, while micro-injections of grout stabilized the fractured blocks left in place. To further improve the stability of the reconstructed stones, 2.5 m long stainless-steel straps were installed to anchor the facing stones to the core of the wall (fig. 4). The final

row of reconstructed stones was lifted into place at the beginning of August, so the lofty bastion once again rises to its original preserved height.

The stones of the East Gate had been laid in discernible courses, but with considerable variation in the height of the stones in each row. Smaller “chinking” stones had been slipped into the resulting interstices to create a smooth face, all of which would have been camouflaged originally by a layer of mud plaster. Many of the smaller stones have fallen in a succession of earthquakes during the last 2800 years, so repointing was an essential component of the conservation project (fig. 5). This will be completed next year, at which time we will place a protective “green” cap with shallow-rooted plants on the restored bastion and remove the scaffolding.

This project has been both difficult and time-consuming, and its successful completion is due to the phenomenal skills and diligence of the architectural conservation team: Elisa Del Bono, Angelo Lanza, Giuseppe Bomba, and Renzo Durante, assisted by Mehmetcan Soyluoğlu, Ali Can Kırcaali, and Emre Uzundağ. We were able to inaugurate the project due to the generous support we received from the J.M. Kaplan Fund, the Merops Foundation, the C.K. Williams II Foundation, the Selz Foundation, and the U.S. Department of State/American Embassy in Ankara. It is difficult to find the words to thank them adequately.

Object Conservation

Gordion’s object conservation was supervised by Jessica Johnson and Cricket Harbeck, assisted by Jessica Abel, H. İbrahim Dural, and Emre Uzundağ. About a third of the department’s time was devoted to the



Figure 3: The crane lifting the restored blocks of the Early Phrygian East Gate from the scaffolding to their original position. Photo by Gebhard Bieg.



Figure 4: Installing the stainless-steel straps that anchor the facing stones of the Early Phrygian East Gate to the core of the wall. Photo by Gebhard Bieg.

treatment of the 33 pebble mosaic panels from one of the most prominent megarons on the citadel (Megaron 2, ca. 825 B.C.; fig. 6). This is the earliest pebble mosaic floor that has ever been

excavated, and it features a series of polychromatic geometric designs that most likely echo the kinds of textiles that would have been produced in the adjacent Terrace Building Complex.



Figure 5: Repointing the wall face of the Early Phrygian East Gate's South Bastion.
Photo by Brian Rose.

From what we can tell, this type of highly decorative floor was invented in Gordion in the second half of the ninth century, and then spread to areas under Assyrian control approximately a century later, during the reign of Midas.

The best-preserved sections of the mosaic were cut from the original floor seven years after its excavation, then set in concrete with rebar backing, and ultimately exhibited in the Gordion Museum in 1983. Such treatment of an artifact would be anathema to conservators today, and we needed to

formulate new strategies to ensure the preservation of the panels.

Work on the mosaic has been continuous since detailed condition assessments were made in 2010 by the Penn Architectural Conservation Lab team. The primary goals of the 2018 season were to reattach loose pebbles and improve the appearance of the mosaic patterns by removing concrete overgrout, algae, and general soiling. The concrete was removed mechanically with fine chisels, scalpels, and dental tools, while surface dirt and incrustations were

reduced by brushing and vacuuming, followed by a gentle cleaning with sponges and tap water. This season, the conservation team completed ten panels and conducted preliminary work on six others. With the help of Elisa Del Bono and Angelo Lanza, we also began to develop a new grout using a custom-made resin/sand mixture. It is anticipated that work will continue for the next two seasons, after which the mosaic will be newly installed in Gordion's site museum, which will be significantly expanded within the next few years.

Excavation: The South Gate in Area 1

One of our most important objectives is a better understanding of Gordion's city plan; in particular, we're attempting to reconstruct the ancient road system as a way of understanding the physical links among the various administrative, industrial, and residential districts. This has involved extensive use of remote sensing, especially magnetometry and electric resistivity tomography (ERT), which allows us to detect subsurface features such as walls and streets within a depth of ca. 8 m.

Remote sensing cannot answer all of an archaeologist's questions, however, especially when we are dealing with a complex series of layered settlements such as one finds at Gordion. There are times when only excavation can clarify the construction history of a building or district, and this is the case with the overall plan of the Citadel Mound. Young assumed that a sizeable road sliced through the center of the mound from north to south, thereby dividing it into two elevated parts or enclosed complexes (the "Eastern" and "Western" Mounds). The existence of this street has become generally accepted, even



Figure 6: Conservation of the Early Phrygian (9th c. B.C.) pebble mosaic in the Gordion Museum. Photo by Brian Rose.

though the evidence for it was very fragmentary, so we decided to make its exploration one of our primary tasks.

To that end, we conducted fieldwork in three areas along the central spine of the Citadel Mound: at the south, where excavation has yielded a new road leading into the citadel (the South Gate in Area 1); in the center of the mound (Area 4), immediately to the west of an area where Rodney Young believed he had discovered part of the alleged street; and at the north (Area 6), where Young discovered the northwest corner of the wall enclosing the eastern part of the citadel. All three of these areas can be seen in fig. 7.

The first of these (Area 1) has been under investigation since 2013, and has yielded a monumental approach road presumably leading to a gate into the citadel, first constructed in the ninth century B.C. and continually modified through at least the late sixth century B.C. (fig. 8). As a result of so many modifications, one can understand the complex only by looking at a plan where the building phases are color-coded by period (fig. 9). I will discuss the history of the complex chronologically, since excavations further to the north and west this year have enabled us to alter the dating of several of its components.

The initial construction in the Early Phrygian period, ca. 850 B.C., was even more extensive than we had assumed. A 6 m wide road oriented SE-NW leads into this area from the Lower Town, and then turns at an angle toward the west. The road was bordered at the south by a fortification wall nearly 3 m wide that was supported by a large glacis or stepped terrace wall over 2.5 m in height (fig. 9.1). The wall on the road's northern side (figs. 9.2, 10) still rises to a height of nearly 4.4 m and features a masonry technique similar in many respects to that of the contemporary East Gate.

This year we investigated in more

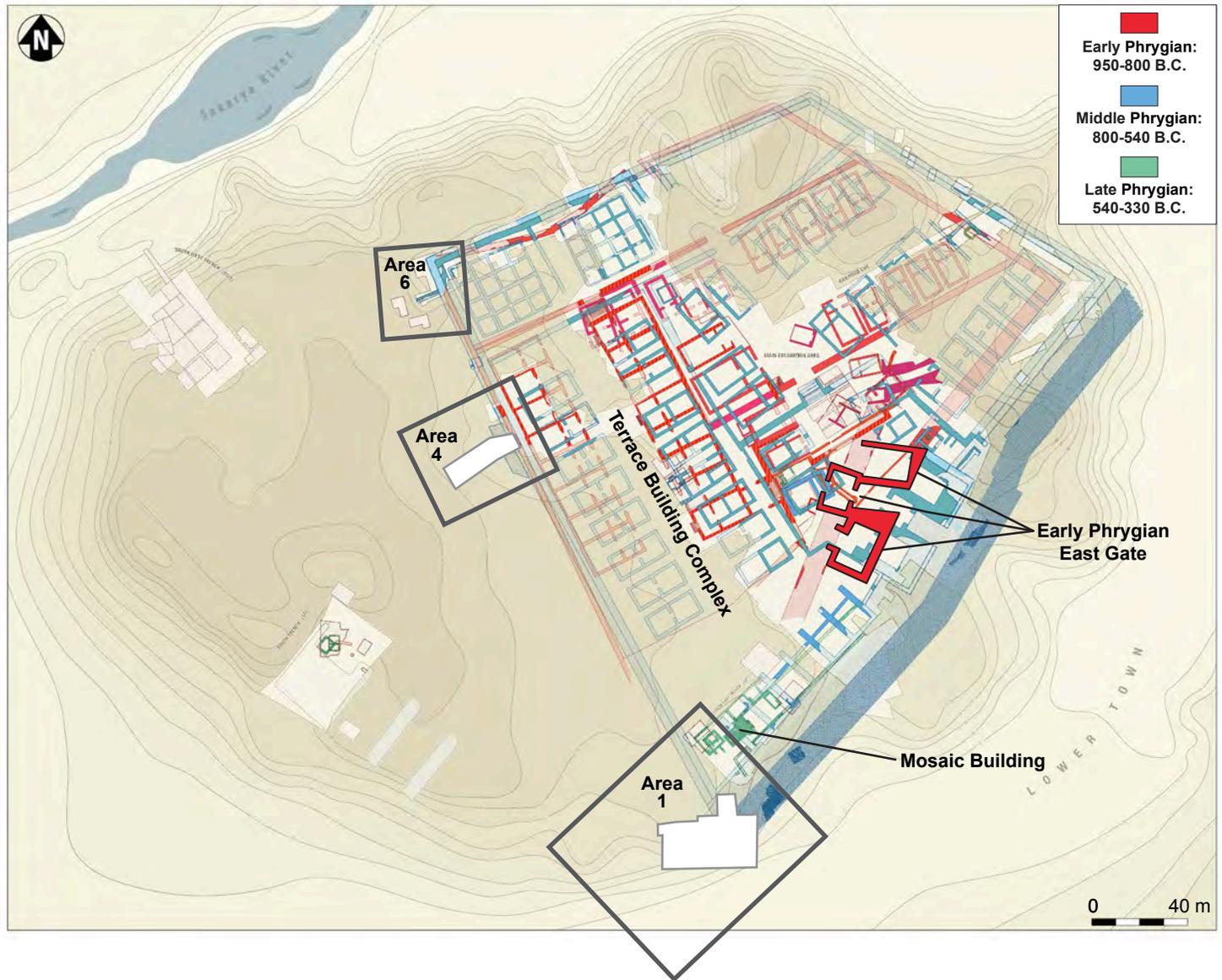


Figure 7: Color phase plan of Phrygian Gordion, with current excavation areas highlighted by grey boxes. Plan by Gareth Darbyshire and Gabriel Pizzorno.

detail the bend in the northern wall. In 2017 we had proposed that this bend opened into a road leading directly north into the citadel, but that is clearly not the case: the wall is unbroken, although the eastern section consists of a stepped foundation which, in turn, formed the western side of the glacis moving toward the northeast (fig. 9.3). We had earlier dated this glacis to the Middle Phrygian period, but we can now see that it was part of the 9th century construction, although reused in Middle Phrygian times.

Last year we had no idea of how long the approach road was or where exactly the gatehouse was located, largely because the area at the west that would have provided the answers lay under an enormous earthen dump that had been left there by Rodney Young in the 1950s, during his excavation of the Mosaic Building further to the northeast. We therefore spent the first half of the summer removing the dump, followed by a new remote sensing survey throughout the area. What we used for this was electric resistivity tomography, or ERT,

which indicates sizeable anomalies up to a depth of 8 m. We have superimposed the results on a drone photo of the two new trenches we began digging, with the anomalies registering as purple surrounded by red (fig. 11).

Within the larger trench at the east we discovered the northern wall of the Early Phrygian roadway, part of which still survives to a height of 3.60 m, as well as the stepped foundations on which it was built (figs. 9.4, 12). On the western side of this trench the wall seemed to end, and we thought at first

that we had at last reached the site of the gatehouse. But it quickly became clear that we had uncovered an enormous bastion with a rubble fill and a wall face of well-cut stones (fig. 9.5). A second trench further to the west yielded rubble fill that seemed to be a continuation of the same structure; if so, we are dealing with a bastion at least 18 m long, around which the road into the citadel must have zigzagged to the south.

While that initially seems surprising, we need to remember that the South Bastion of the Early Phrygian East Gate had a length of 33 m, and the Phrygians were prodigious builders throughout the 9th and 8th centuries. Even more surprising, perhaps, is the oblique angle of the bastion with respect to the Early Phrygian road wall, but again this is strikingly reminiscent of the East Gate (compare figs. 7 and 9.5). Further to the west of our trenches is a low lying area, now occupied by a dirt road leading onto the Citadel Mound (fig. 11), and



Figure 8: The approach road of the South Gate (Area 1), looking northwest. Photo by Gebhard Bieg.

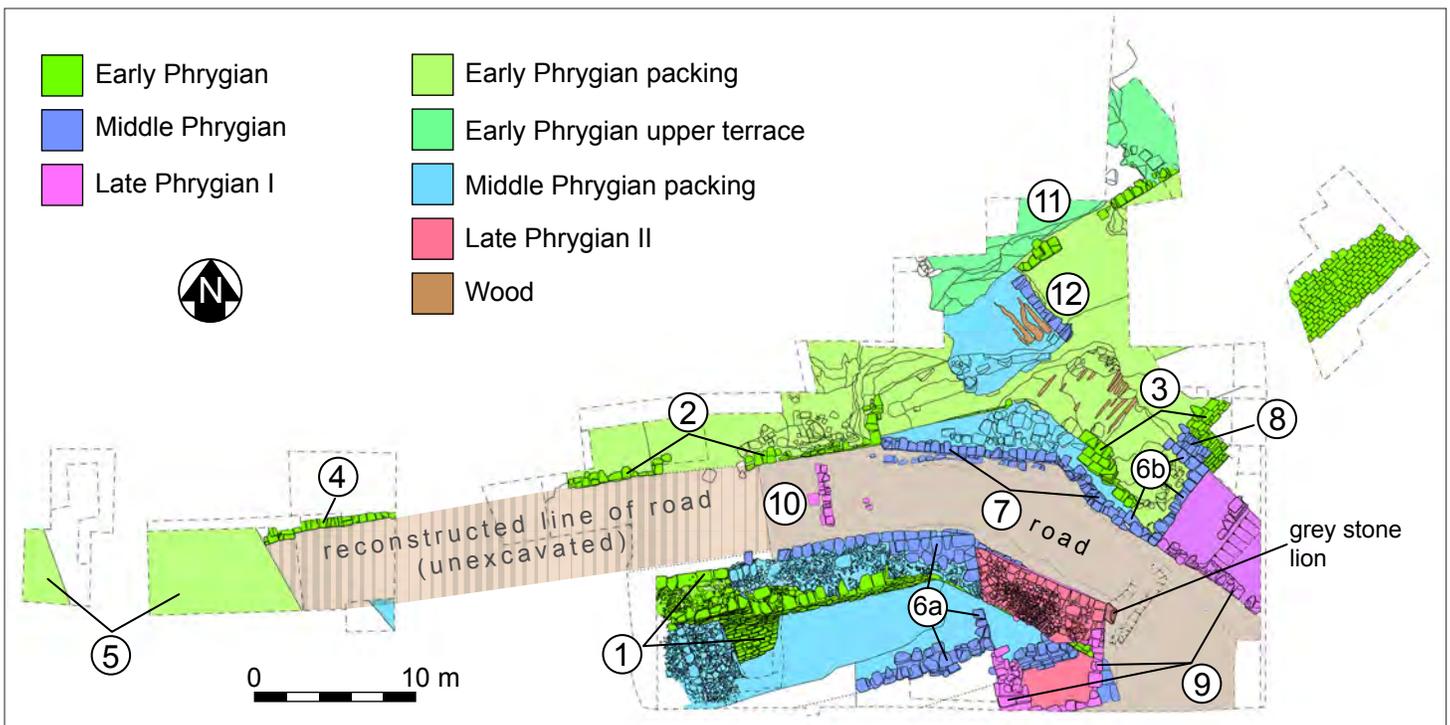


Figure 9: Color phase plan of the Early, Middle, and Late Phrygian components of the South Gate complex in Area 1 (9th-6th c. B.C.). Plan by Simon Greenslade.



Figure 10: The northern wall of the approach road at the South Gate (Area 1), looking northeast. The wall in the left foreground is Early Phrygian (9th c. B.C.); the polychromatic wall to its right, in the center of the photograph, is Middle Phrygian (8th c. B.C.). Note also the flagstone “speed bump” running across the Late Phrygian road in the foreground. Photo by Brian Rose.

remote sensing suggests that the ancient road may well have turned north here too, but we will not be able to verify this until next year’s excavation.

In any event, the approach road leading to the gate appears to have had a length of over 50 m, with a bastion interrupting its course in an attempt to further control access into the citadel and increase the effectiveness of its defense. It is worth noting that this is the longest known approach road of any citadel gate in Asia Minor. At the time in which it was built, sometime around 850, the outer (Lower Town) fortifications had probably not yet been constructed, so additional levels of security would be expected, but this was a far more monumental installation than we had initially anticipated.

When the citadel was rebuilt in the early eighth century B.C., there was a considerable amount of new construction in the South Gate area too, although many of the Early Phrygian walls

continued in use. The most significant changes involved a new and enormous bastion on the southern side of the road, 8 m thick and at least 20 m long (fig. 9.6a), while a complementary bastion also 8 m thick was constructed on the opposite side of the road at the east (fig. 9.6b, 9.12). The bend in the Early Phrygian wall at the north was now covered by a new and much more carefully built wall of polychromatic stones. The wall continues from west to east for a distance of 11 m, then angles toward the southeast for another 8.5 m, ending in the east bastion (figs. 9.7, 10). This bastion interrupted the southwest end of the Early Phrygian glacis, and the juncture of the two installations had to be rebuilt (fig. 9.8).

Contained within the construction fill associated with this new polychromatic wall were two miniature bronze fibulae (clothing pins), of types that can be dated around 800 B.C. (fig. 13), thereby giving us a *terminus post quem*

for the construction of the wall (or a date after which the construction would have occurred). Such miniature fibulae are extremely rare: comparanda for one of the types have thus far been found only in gold and silver. It is likely that the fibulae had originally been deposited elsewhere, but were later accidentally redeposited in the wall’s construction fill. Perhaps they originally came from the terrace situated directly above the South Gate, although no Early Phrygian building has yet been discovered there.

At some point, probably in the late 8th century, a grey stone sculpture of a free-standing lion was installed at the entrance to the approach road, with a length of 1.25 m and a height of more than .80 m. It may have been paired with a similar lion in red sandstone that was found nearby, although only fragments of the latter remain.

In the Late Phrygian period, shortly after the Persian attack in the 540s, access to the entrance road was further restricted by the construction of two new bastions situated at the southeast of their Middle Phrygian predecessors (fig. 9.9). The full extent of the eastern bastion has not been determined, but the western one was of polygonal shape with its eastern and southern sides measuring slightly less than 9 m in length. Both were fashioned of numerous reused Middle Phrygian blocks as well as tiles with relief decoration dating to the first half of the sixth century B.C. Set up against the western bastion, adjacent to the approach road, was the grey stone lion mentioned above, but it would now have functioned as a relief rather than a free-standing sculpture (fig. 9).

The Late Phrygian road itself was composed primarily of a compacted surface of colored pebbles, although two rows of flagstones protruding through the pebbled surface were found 8 m

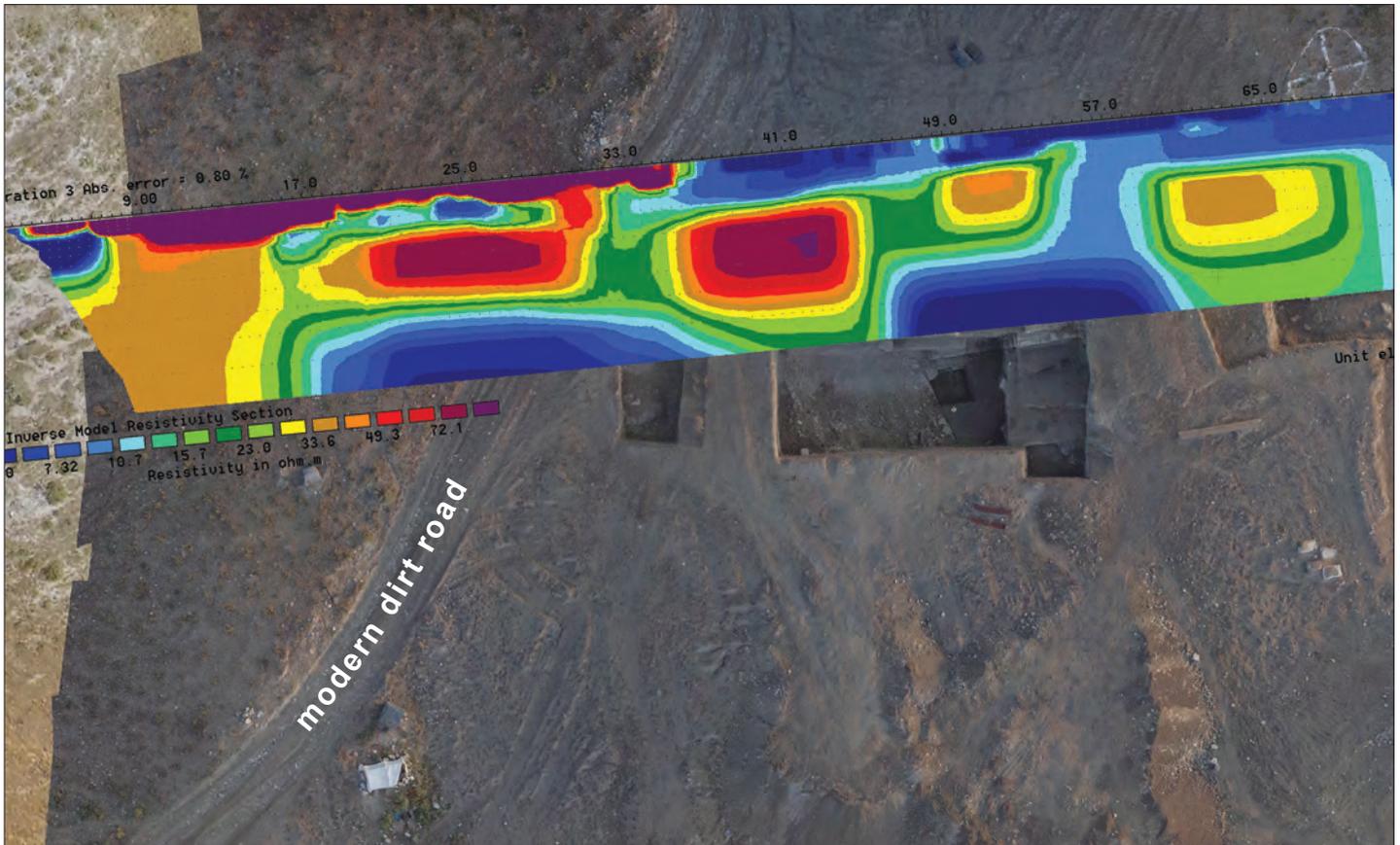


Figure 11: The ERT (electric resistivity tomography) results superimposed on the western trenches at the South Gate (Area 1).
Plan and photo by GGH.

after the bend in the road, the central stones of which have wheel ruts from vehicle traffic (figs. 9.10, 10). We initially thought that the flagstones were the beginning of a long paved surface, but further excavation showed that they were confined only to the two rows. In time, we realized that they probably constituted a “speed bump” intended to slow the approach of wheeled vehicles—in other words, yet another defensive mechanism.

Finally, we extended our excavations to the area between the Mosaic Building and the bend in the Early Phrygian wall on the north side of the road. Here we discovered a NE-SW wall that supported the upper terrace on which Building A and the Mosaic Building had been constructed (fig. 9.11). Although much of the wall had been robbed, seven courses

still survive to a height of nearly 3 m at the northeastern end, and it had clearly been constructed in the Early Phrygian period (9th c. B.C.). Built adjacent to it at an angle of nearly 90 degrees, another wall formed part of the Middle Phrygian east bastion mentioned above (8th c. B.C.; fig. 9.12). Due to the discoveries in these trenches we realized that the area directly to the north of the South Gate had already been terraced for monumental construction in the Early Phrygian period, which had never before been determined.

In viewing the components of the South Gate in tandem with those of the East Gate, one is struck by the elaborate security provisions that were put in place in the mid-ninth century B.C. In many respects they were more monumental than those used for any other known

citadel in Iron Age Asia Minor, and we have still not uncovered all the features of the complex. Clearly, we need to view such extensive building activity against the backdrop of an almost equally energetic campaign of city foundations and citadel constructions in eastern Anatolia (Urartu), the Upper Euphrates (Zincirli/Sam’al), and Assyria (Nimrud under Assurnasirpal II). Moreover, in light of the number of ambassadors and tribute bearers who must have been continually traveling between Phrygia, Cappadocia (ancient Tabal), Urartu, and Assyria during the ninth and eighth centuries, it seems likely that information regarding new urban additions or transformations would have been widely circulated. Each new construction would have highlighted the need for increasingly sophisticated

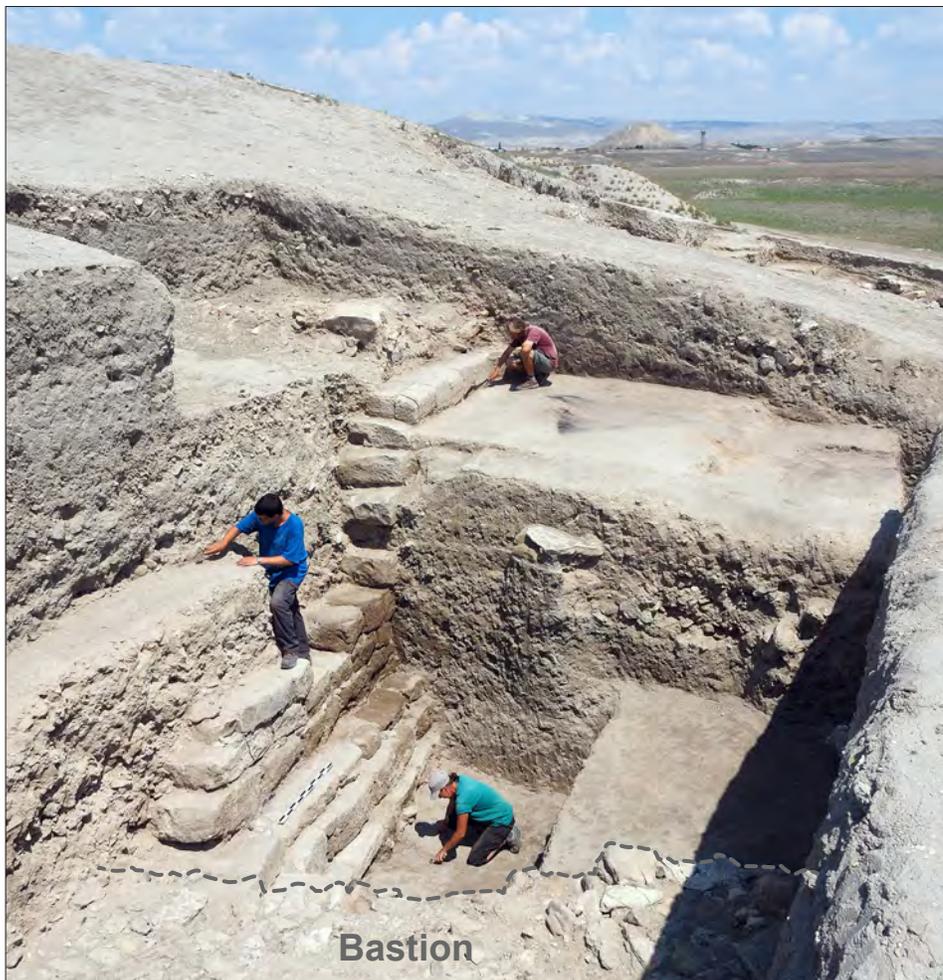


Figure 12: The northern wall of the South Gate's approach road in the western trench of Area 1, looking northeast. The walls are of Early Phrygian date (9th c. B.C.) but were reused in the Middle and Late Phrygian periods (8th-4th c. B.C.). The stones of the Early Phrygian bastion appear at the bottom of the photograph. Photo by Gebhard Bieg.

defenses in the other areas.

As you can imagine, these explorations in the area of the South Gate are unusually complex, and without the diligence, wisdom, and energy of excavation supervisors Simon Greenslade and Sarah Leppard, none of these discoveries would have been possible.

Area 4: The Center of the Citadel Mound

Area 4 lies slightly to the west of the center of the Citadel Mound, and directly to the west of the Phrygian industrial district, or "Terrace Building

Complex" (fig. 7). Excavation began here in 2015 in an attempt to clarify whether or not a central street did in fact exist, and to determine what lay to the west of it. In this case we were beginning our trench on the surface of the mound, and by the end of the 2018 season we had reached a level that was 12 m deep (fig. 14). In the course of the excavation, we encountered Seljuk occupation (13th-early 14th c. A.D.) with nearly 50 storage pits, two levels of Early Roman date (ca. 60-120 A.D.), one of which featured a gold pendant, and several houses of Hellenistic date, spanning the late 4th and 3rd centuries B.C.

At the end of the 2017 season we had uncovered a sizeable pit that contained the debris from a large public building that had been built in the first half of the sixth century B.C. In addition to burned wood and burned or degraded mudbrick, there was a concentration of broken architectural terracottas (roof tiles), including pan tiles, covers, ridge tiles, spouted eave tiles, decorated fragments from raking or lateral simas, and pendant frieze plaques (fig. 15). Altogether, approximately 2,600 kilograms (5,700 pounds) of architectural terracottas were uncovered, with geometric motifs and figural decoration, such as Theseus and the Minotaur and a lion with bull. The pottery discovered beneath the tiles indicates that the building in question was destroyed at the time of the Persian attack on the city ca. 540, and subsequently demolished.

We had initially assumed that the monumental building covered by these tiles lay in the adjacent area, at a level coinciding more or less with that of the pit, but further excavation revealed that this was not the case. At a depth of over 12 m beneath the surface we discovered a stone buttress wall that was generally perpendicular to the monumental Terrace Wall 10 m to the east (figs. 14, 16, 17; Wall 4467). Since the area in which we were working was so limited due to its great depth, we were able to uncover only a part of it, but the wall was over 1 m wide and was still preserved to a height of 2 m. It was constructed of large stones but these were only roughly finished, so the wall had a distinctly utilitarian appearance.

That it was built to provide support for the Terrace Wall seems clear; the precise time of construction is uncertain, but we can narrow the date to some extent. The Terrace Wall, which provided support for the Terrace Building Complex

immediately to the east, was installed in the early eighth century. It is not unlikely that the builders realized within the same century that additional support for the wall was necessary due to the enormous weight of the terrace fill, and the buttress that we discovered was probably one of several that were added then.

It is noteworthy that there was no sign of a street or even a clear walking surface at the base of the buttress, although we can now say with confidence that the Middle Phrygian level in the center of the mound was nearly 10 m lower than the Middle Phrygian floor level on the opposite side of the Terrace Wall, in the Terrace Building Complex. Consequently, we are clearly dealing with a settlement composed of two high mounds with enclosures, and a low-lying area between them, all of which were surrounded by fortification walls between the 9th and 4th centuries B.C.

Most importantly, there are no signs of the kind of wide, regular street slicing through the citadel's center that one sees in earlier reconstructions. The long westward path of the South Gate road, in fact, also argues against this. There may well have been a specialized activity in the center of the mound, nearly 10 m below the activities on the flanking eastern and western mounds, but what it was, at least for now, is a mystery.

Based on a new round of remote sensing on the western side of the mound, it looks as if an area ca. 180 m NW-SE and 80-90 m NE-SW in the inter-mound area lay at an elevation that was ca. 10 m lower than the surrounding occupation levels in the Middle Phrygian period (fig. 18). This lower elevation appears to be essentially the same as the level at which the South Gate road in Area 1 would have entered the Citadel Mound. There must have been stairways or ramped roads within the citadel that led from the low inter-mound area, and from the



Figure 13: The two bronze miniature fibulae from Area 1. Photo by Gebhard Bieg.

South Gate, to the surrounding higher terraces and buildings, although none has yet been discovered.

As has often been noted, at least by the Hellenistic period this low-lying area had been filled in and the entire mound was brought to a relatively uniform level, but the timing of that filling has never been clear until now. I provide the general chronology here, although all of the fills tip down, so precise measurements are difficult. The area began to be filled already in the first half of the sixth century, with between 2-6 m of earth and tile. Even the base level of the buttress wall contained broken tiles, which do not appear to have been introduced at Gordion until ca. 600 B.C. Between 1 and 3.20 m of fill can be dated shortly after the Persian attack in 540, including the elaborate tiled roof mentioned above. There was then a hiatus in activity in this area for nearly 200 years, until ca. 350 B.C., when another 1-1.5 m of earth was deposited. The Hellenistic occupation

levels account for a further 2.7 m of fill.

The one issue still to be addressed concerns the elaborate tiled roof, which surely did not come from a building adjacent to the pit where it was found. The most likely source is Building U, one of the Terrace Buildings immediately to the east of the pit in Area 4 (fig. 18). There is ceramic evidence that the building was reconstructed in the early sixth century, and its collapse included tiles of the same type as those found in the Area 4 pit. It therefore seems likely that Building U was destroyed at the time of the Persian attack, and in the subsequent cleanup most of its tile roof was tossed over the Terrace Wall into Area 4. This is nevertheless the most complete Middle Phrygian roof ever uncovered at Gordion, and we should be able to complete a reconstruction drawing of it.

There were several noteworthy finds in the Hellenistic house that lay above the Persian-period pit, which include a group of well preserved bone objects decorated with linear markings and



Figure 14: The trench in Area 4, looking southeast. Photo by Brian Rose.



Figure 15: Brigitte Keslinke cataloguing the architectural terracottas from Area 4. Photo by Gebhard Bieg.

arrangements of dotted circles (fig. 19). There is uncertainty as to their use. Some interpret them as handles, while others view them as cosmetic containers based on black staining frequently found on the interior. Also discovered were knife blades, lathe butts, and unfinished alabaster vessels, all of which were no doubt associated with a series of alabaster workshops that flourished at Gordion during the Hellenistic period.

The excavation of this area was unusually challenging due to its great depth and multiplicity of successive settlements. It was masterfully supervised by Sarah Leppard, who was assisted by Işık Abacı, Ben Abbott, and Max Dietrich, and we are indebted to all of them.

Area 6: The Northwest Corner of the Eastern Mound

The excavations in Areas 1 and 4 had been intended to provide a new understanding of the hypothetical street in the mound's center, and since the street



Figure 16: The Middle Phrygian buttress wall in Area 4, looking northwest. Photo by Brian Rose.

was projected to end at the northwest corner of the eastern mound's Enclosure Wall, we made the clearing of that area a priority in the 2018 campaign (fig. 7). This sector had already been excavated by Rodney Young 50 years ago, but

the architectural remains found there had been only summarily published and were quickly covered again. We therefore devoted several weeks to cleaning and conserving them, a project that was admirably executed by Penn

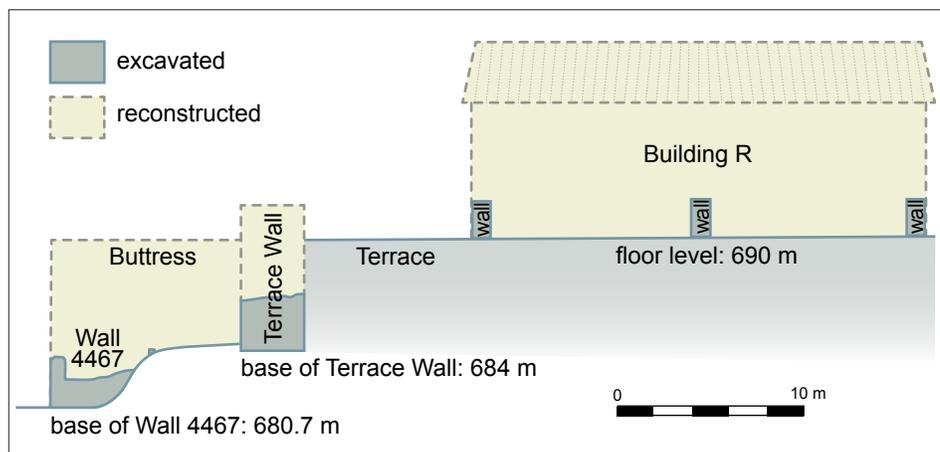


Figure 17: Elevation of the buttress wall, Terrace Wall, and Building R in Area 4. Building R lies next to Building U (see fig. 18). Drawing by Sarah Leppard, with modifications by Gareth Darbyshire and Ardeth Anderson.

ancient history graduate students Ben Abbott and Max Dietrich.

The Enclosure Wall contained within this area, which runs SE-NW, occupies the same line as the Terrace Wall in Area 4 (fig. 18). It then turns to the northeast and frames the large storage cellars that Young called PPB (the “Persian-Phrygian Building”). The wall was composed of large stones ca. .60 m long, .50 wide, and .25-.40 high, and the sections that were in danger of collapse received new supports (fig. 20).

At a distance of 12-13 m to the southeast of the corner, there is a wall of well-cut blocks projecting from the Enclosure Wall and laid perpendicular to it, i.e. in a NE-SW direction (figs. 18, 21). It is at least 10.3 m long, clearly facing toward the northwest and bordered on that side by a stone pavement. Construction certainly began after 800 B.C., since the Enclosure Wall replaces an Early Phrygian predecessor, and the use of large, carefully finished stones for the walls and paving suggests a construction date not later than the end of the eighth century B.C.

A second wall composed of rubble was subsequently built above the projecting wall, with four more or less

evenly spaced postholes running NE-SW, the first of which (at the northeast) is adjacent to the Enclosure Wall. These were intended for substantial beams, and we are probably dealing with a set of triple doors that led to an area at the southeast.

This wall lies at the opposite end of the mound from the newly discovered South Gate, and they may have been complementary constructions at either end of the citadel: walled roads that funneled traffic to a gatehouse. What the northern entrance led to is still unclear, nor has additional remote sensing in this area been able to help us. Although Mary Voigt and Cuyler Young discovered large buildings with heavy stone foundations in the Northwest Sector of the mound (fig. 18), ERT lines set to the west of Area 6 showed no discernible structures.

ERT does not register walls that are less than 1 m in width, however, and it is noteworthy that ERT lines did not record the line of the Terrace Wall between Areas 6 and 4, even though it must have existed to provide support for the Terrace Building Complex and the monumental cellars in PPB. This may be yet another case where only

excavation can solve the problem, and it highlights again the enigmatic nature of the western mound.

The Beyceğiz Tumulus

Located nearly 12 km to the east of Gordion, the towering Beyceğiz Tumulus has consistently been a target of looters, and in 2017 it became the focus of a rescue excavation by the Museum of Anatolian Civilizations in Ankara, in partnership with the Gordion Project (fig. 22). The tumulus has a preserved height of slightly more than 15 m, and is therefore the fourth largest burial mound in this area, just after MM (the “Midas Mound”) at 53 m, the Kiranharmanı Tumulus at 24 m, and Tumulus W, the oldest one known at Gordion, at 22 m. In spite of its distance from Gordion, the position of Beyceğiz on a high ridge ensured that it would still be visible from the Citadel Mound.

Although ERT lines revealed a rectangular anomaly that was of an appropriate size and position for a tomb chamber, the rescue excavations showed that it was simply a stone feature probably related to the construction process of the tumulus, as were a series of stone “guide walls” and the remnants of a wooden mast. These discoveries provided us with the best evidence we have ever had regarding how these monumental tumuli were built.

Enough of the tumulus was excavated to indicate that there was no tomb chamber; in other words, it was a cenotaph, and the ceramics in the mantle of the tumulus indicate a construction date of ca. 700 B.C. Of the 45 tumuli around Gordion that have been excavated, this is the only cenotaph to have been uncovered, although we should not be surprised by

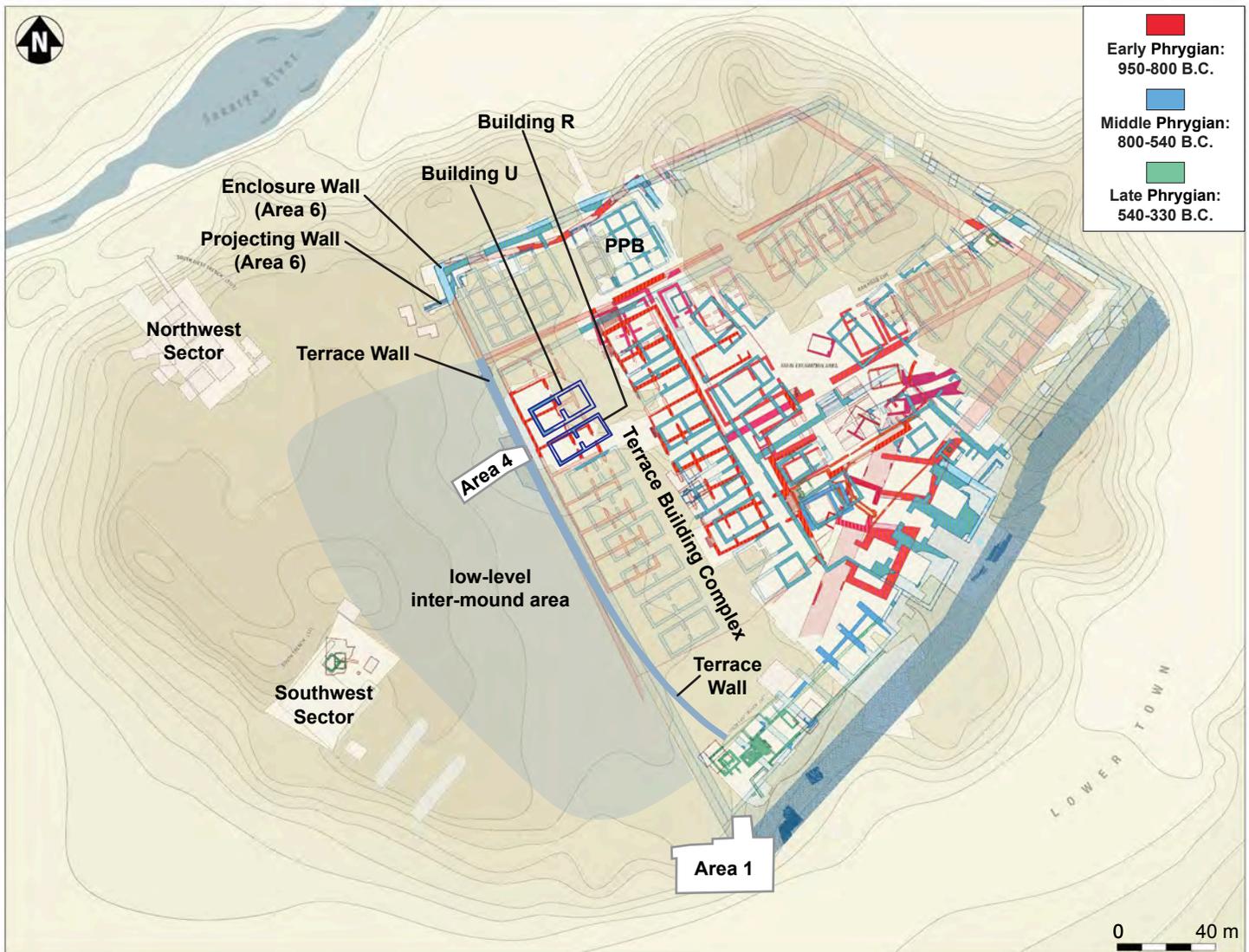


Figure 18: Color phase plan of Phrygian Gordion, with low-lying area highlighted. Plan by Gareth Darbyshire and Gabriel Pizzorno, with modifications by Sarah Leppard.

its existence. The Assyrian annals attest to the high level of armed conflict in which the Phrygians were engaged at this time, which coincides with the reign of Midas. Some of the commanders may not have made it home from the battlefields in southeast Asia Minor, and surely several cenotaphs honoring them would have been erected.

The excavation of the tumulus lasted approximately four months, and its successful completion is owed to Enver Sağır, director of Ankara's Museum of Anatolian Civilizations, to Mustafa

Metin and Mehmet Sevim of the same museum, and to Richard Liebhart and Braden Cordivari of the Gordion Project.

Gordion Cultural Heritage Educational Program

For the last four years, the Gordion Project has conducted a cultural heritage educational program under the supervision of Gordion's deputy director, Ayşe Gürsan-Salzman, in partnership with Halil Demirdelen, Deputy Director of the Museum of

Anatolian Civilizations in Ankara, and with the assistance of the Penn Museum's palaeo-botanist Naomi F. Miller. In 2014 and 2015, the program focused on cultural heritage training for students; in 2016 and 2017 we shifted to local educational leaders, especially the teachers and administrators from secondary schools near Gordion.

In 2018 our goal was to work more extensively with high school teachers, their students, and the residents of the surrounding area, by bringing them into the daily activities at the excavation. In



Figure 19: Early Hellenistic bone objects from Area 4.
Photos by Gebhard Bieg.



Figure 20: Max Dietrich and Ben Abbott cleaning the NW Enclosure Wall (Area 6), looking northwest.
Photo by Brian Rose.

other words, we wanted them to acquire a more nuanced understanding of the process of discovery and preservation of ancient material culture. One of our hopes is to ensure that archaeology is fully integrated into local high school curricula, and to train local students to act as weekend guides at the Gordion Museum and the archaeological site. There were 38 participants this year, the highest number since the beginning of the program in 2014. The group included teachers, students, and school principals; members of the county education ministry; and officials focused on the promotion of historic sites.

The 2018 program began with a general orientation program in the Gordion Museum’s Visitor Center, followed by a tour of the Citadel Mound, with a focus on architectural conservation (fig. 23). Several groups were then assigned different types of “hands-on work” at the excavation for a five-week period. These participants had to be added to the excavation permit in order to take part in the work, but those additions actually worked well for us, since over 50% of the team members of fieldwork projects in Turkey now have to be Turkish citizens. The training sessions included faunal and human skeletal analysis; architectural and object conservation, especially the large ninth century B.C. pebble mosaic floor in the Gordion Museum (fig. 6); cleaning of the newly discovered walls in the Area 1 excavation; and the illustration of sherds and reconstruction of vessels. The latter class was especially well received by the art teachers in the group, who are also practicing potters.

There were tours of the landscape around Gordion as well, with a focus on how plants can be used to prevent erosion in the ca. 125 tumuli that surround the settlement site. Daylong

trips to Ankara's Museum of Anatolian Civilizations, Ethnographic Museum, and Roman monuments were led by Halil Demirdelen, Deputy Director of the Museum of Anatolian Civilizations. Our last daytrip focused on Seljuk period mosques (12th – 13th c. A.D.) and Republican period (early 20th c. A.D.) war memorials in the Gordion region.

In short, this season's Cultural Heritage Educational Program was balanced between intensive work at Gordion and daytrips led by experts in different branches of archaeology. The objective was to introduce teachers, students, and municipal government employees to the value of preserving natural and historical landscapes as part of their cultural heritage. Some teachers indicated that they are already planning to incorporate visits to the Gordion Museum and the archaeological site into their courses, and we hope that this program can be used as a model for other archaeological sites in Turkey.

Publication, Staffing, and Notable Visitors

Our work during the 2018 season was made easier due to the energetic support of our representative, Mr. Mustafa Metin of the Museum of Anatolian Civilizations in Ankara, and his colleague, Mr. Emre Köse. We also benefited tremendously this year from the periodic visits of Mr. Enver Sağır, Mr. Halil Demirdelen, and Mr. Mehmet Akalın, the Director and Deputy Directors, respectively, of the Museum of Anatolian Civilizations. We extend warm thanks to the General Directorate for Cultural Heritage and Museums, especially Mr. Yalçın Kurt (General Director), Mr. Ali Rıza Altunel, Mr. Melik Ayaz, Mr. Köksal Özköklü, Mr. Umut Görgülü, and Ms. Nihal Metin.

Equally generous in their assistance



Figure 21: The projecting wall abutting the NW Enclosure Wall (Area 6), looking northeast; Emily McGowan is surveying the remains. Photo by Brian Rose.



Figure 22: The Beyceğiz Tumulus, looking north. Photo by Braden Cordivari.



Figure 23: Halil Demirdelen lecturing at the orientation session of the Gordion Cultural Heritage Educational Program. Photo by Brian Rose.



Figure 24: Beth Dusingberre, Charles Williams, and Brian Rose examining the horse trappings from Tumulus E (530 B.C.). Photo by Gebhard Bieg.

were the Kaymakam and Belediye Başkanı of Polatlı, Mr. Mahmut Nedim Tunçer and Mr. Mürsel Yıldızkaya, respectively. Mr. Kadim Koç (Polatlı Belediye Başkanı Yardımcısı), visited the site several times to discuss educational programming in and about Gordion, and he was a constant source of support for us.

The excavation house was filled with researchers working on a wide variety of manuscripts that spanned a period from the Bronze Age through the Roman period. These included Gareth Darbyshire (iron objects, especially those from the cremation burials); Beth Dusingberre (the Iron Age and Persian-period cremation burials and associated finds); Brigitte Keslinke (Hellenistic ceramics and Late Phrygian architectural terracottas); Kathleen Lynch (imported Greek pottery); Richard Liebhart (architecture of Tumulus MM and Beyceğiz Tumulus); Braden Cordivari (Beyceğiz Tumulus); Tuğba Gençer and Eylem Yediay (Early Hellenistic human skeletal material); Canan Çakırlar and Francesca Slim (faunal analysis); Billur Tekkök, Asil Yaman, Merve Yeşil, and Ashhan Güçlü (Roman ceramics); Gülşah Günata (Iron Age ceramics); Gül Gürtekin Demir (Lydian pottery); Gebhard Bieg (Küçük Höyük); Günsel Güngör (lamps); and Barış Yılmaz (the “North Cellar”).

The pace of publication is steadily increasing. Three monographs will be completed this year: Phoebe Sheftel’s *Bone and Ivory Objects from Gordion*, Gül Gürtekin Demir’s study of the Lydian pottery from Gordion, *Lydian Painted Pottery Abroad*, and *The Hellenistic Settlement at Gordion* by Shannan Stewart and Martin Wells. Janet Jones’ volume on the glass of Gordion will be finished by the spring of 2019, as will the volume on the cremation tumuli by Ellen Kohler and Beth Dusingberre, with contributions by Gareth Darbyshire and

Jane Hickman (fig. 24). Penn AAMW graduate student Sam Holzman's article on the textiles of Gordion will appear in the journal *Hesperia* this year.

We want to single out several members of the staff without whom this summer's work could not have functioned as well as it did (fig. 25): Brigitte Keslinke (Colorado University), registrar, assisted by Lolly Burrows (Bard Graduate Center); Gebhard Bieg, photographer; Günsel Özbilen Güngör, illustrator, assisted by Ali Can Kırcaali (Samsun University); Joseph Nigro, Brian Norris, Emily McGowan, Braden Cordivari, Ben Abbott, and Max Dietrich (Penn University), surveying, mapping, and drone photography; Canan Çakırlar and Francesca Slim (Groeningen University), faunal analysis; Naomi Miller (Penn Museum), and Emily Johnson (Boston University), archaeobotany; Billur Tekkök (Başkent University), Brigitte Keslinke, and Lolly Burrows, ceramic analysis; Stefan Giese and Christian Huebner (GGH), geophysics; and Gareth Darbyshire (Penn Museum), archivist.

The architectural conservation was overseen by Elisa Del Bono, Angelo Lanza, Giuseppe Bomba, and Renzo

Durante, and assisted by Ali Can Kırcaali, Mehmetcan Soyluoğlu (Sheffield University), and Emre Uzundağ. The object conservation work was expertly overseen by Cricket Harbeck and Jessica Johnson (Smithsonian Institution), with interns Jessica Abel (Penn Museum), H. İbrahim Dural (Gazi University), and Emre Uzundağ (Akdeniz University).

The excavation of the Phrygian fortification walls (Area 1) was directed by Simon Greenslade and Sarah Leppard. The trench west of the Terrace Building Complex (Area 4) was supervised by Sarah Leppard, assisted by Ben Abbott (Penn University), Işık Abacı (Istanbul University), and Max Dietrich. Richard Liebhart and Braden Cordivari assisted Mustafa Metin and Mehmet Sevim of the Museum of Anatolian Civilizations in analyzing the results of the 2017 rescue excavations at the Beyceğiz Tumulus. Zekeriya Utğu, our house manager and guard, kept everything running efficiently within the excavation compound and on the Citadel Mound. Although she was not a member of the Gordion staff in Turkey, Ardeth Anderson of the Penn Museum is responsible for the design and layout

of each Gordion newsletter, and she also deserves our heartfelt thanks.

Within the U.S., we continually rely on the counsel, guidance, and support of Charles K. Williams II, as well as Julian Siggers, the Williams Director of the Penn Museum, Amanda Mitchell-Boyask, Executive Director of Development at the Penn Museum, and the Museum's Board of Overseers.

We have had the good fortune to welcome team members from earlier campaigns at Gordion over the years, and those who worked with Rodney Young fondly recall the two jeeps that provided transport from the excavation house to the Citadel Mound. The jeep from 1953, shown here with a sleepy Ellen Kohler (fig. 26), no longer survives, but the one from 1961 is still relatively intact and in residence at the excavation house (fig. 27). It has not run for nearly ten years, but with the assistance of İbrahim Dural we identified a repair shop in Ankara, and it should be back in operating order for the 2019 season.

We would like to close by noting again that none of our accomplishments this summer would have been possible without your encouragement and generous



Figure 25: The 2018 Gordion Project staff. Photo by Gebhard Bieg.

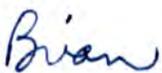
support. It is a pleasure to acknowledge, in particular, the assistance offered to us by the Penn Museum of Archaeology and Anthropology, the C.K. Williams II Foundation, the Merops Foundation, the Selz Foundation, and the U.S. Department of State/American Embassy in Ankara. At this particular time, when the cultural heritage of so much of the world is disappearing so rapidly, we're grateful for the investment that you've made in the preservation of the past.

We hope to be able to share our results with more of you during the year, in lectures in the U.S. and at Gordion itself. You'll find the latest information about the project on our website:

<http://sites.museum.upenn.edu/gordion/>

Thank you again and we look forward to welcoming you to the site!

With best wishes,



C. Brian Rose

James B. Pritchard Professor of
Archaeology, Penn Museum
Director, Gordion Archaeological Project



Ayşe Gürsan-Salzmänn

Penn Museum

Assistant Director, Gordion Archaeological
Project



Figure 26: Ellen Kohler in the first Gordion Excavation jeep, 1953. Photo: Gordion Archive.



Figure 27: Zekeriya Utğu in the 1961 Gordion Excavation jeep. Photo by Gebhard Bieg.

The Friends of Gordion support the ongoing activities of the Gordion Excavation Project, which include site conservation, fieldwork, and publications of the latest discoveries. All Friends of Gordion receive the annual newsletter that provides information about the results of the season's work. Friends are especially welcome at Gordion and are given guided tours of the site, the excavation, and the museum. Every contribution, no matter how small, enables us to further the cause of protecting and publicizing the site. You can support Gordion by making your tax deductible donation at <http://sites.museum.upenn.edu/gordion/friends-of-gordion/friends-of-gordion/>

