THE KERKENES PROJECT

A PRELIMINARY REPORT ON THE 2007 SEASON

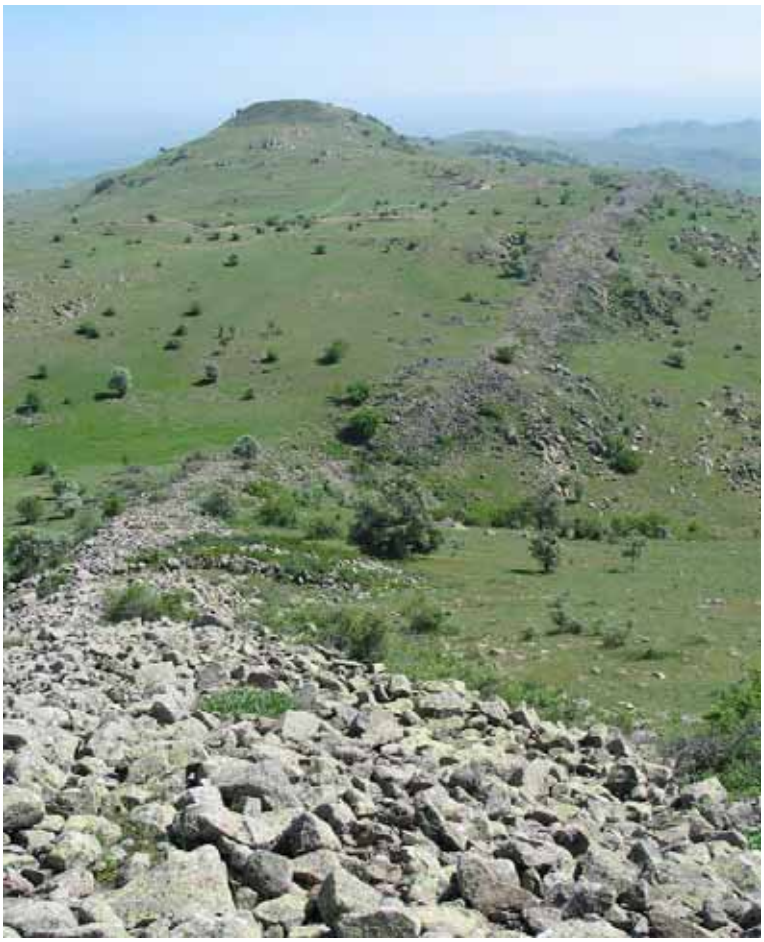

Figure 1. The city wall with the Monumental Entrance to the Palatial Complex in the middle distance and the Kale as a backdrop, looking east. (06dpkc0247)

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LOCATION

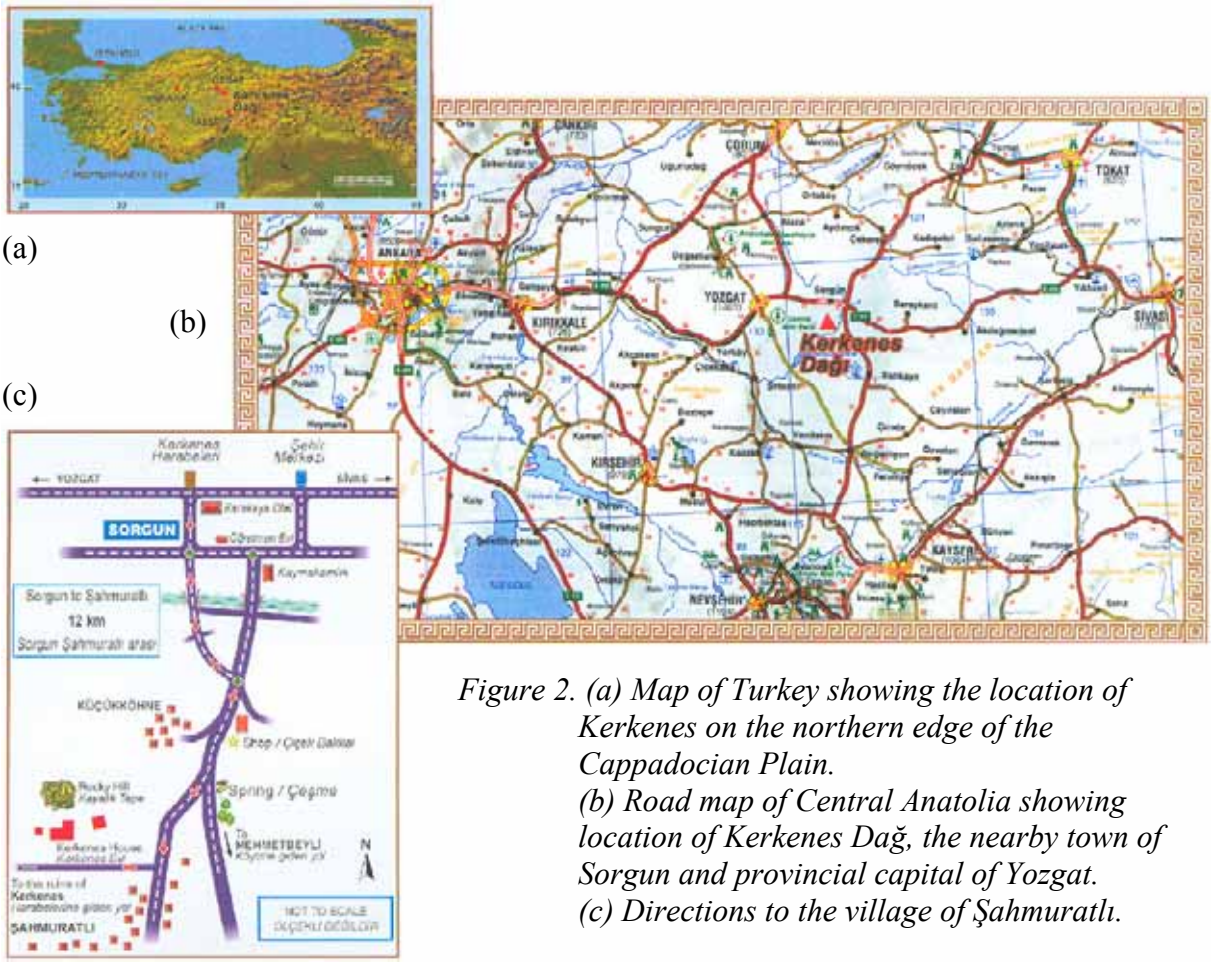

Figure 2. (a) Map of Turkey showing the location of Kerkenes on the northern edge of the Cappadocian Plain.
(b) Road map of Central Anatolia showing location of Kerkenes Dağ, the nearby town of Sorgun and provincial capital of Yozgat.
(c) Directions to the village of Şahmuratlı.

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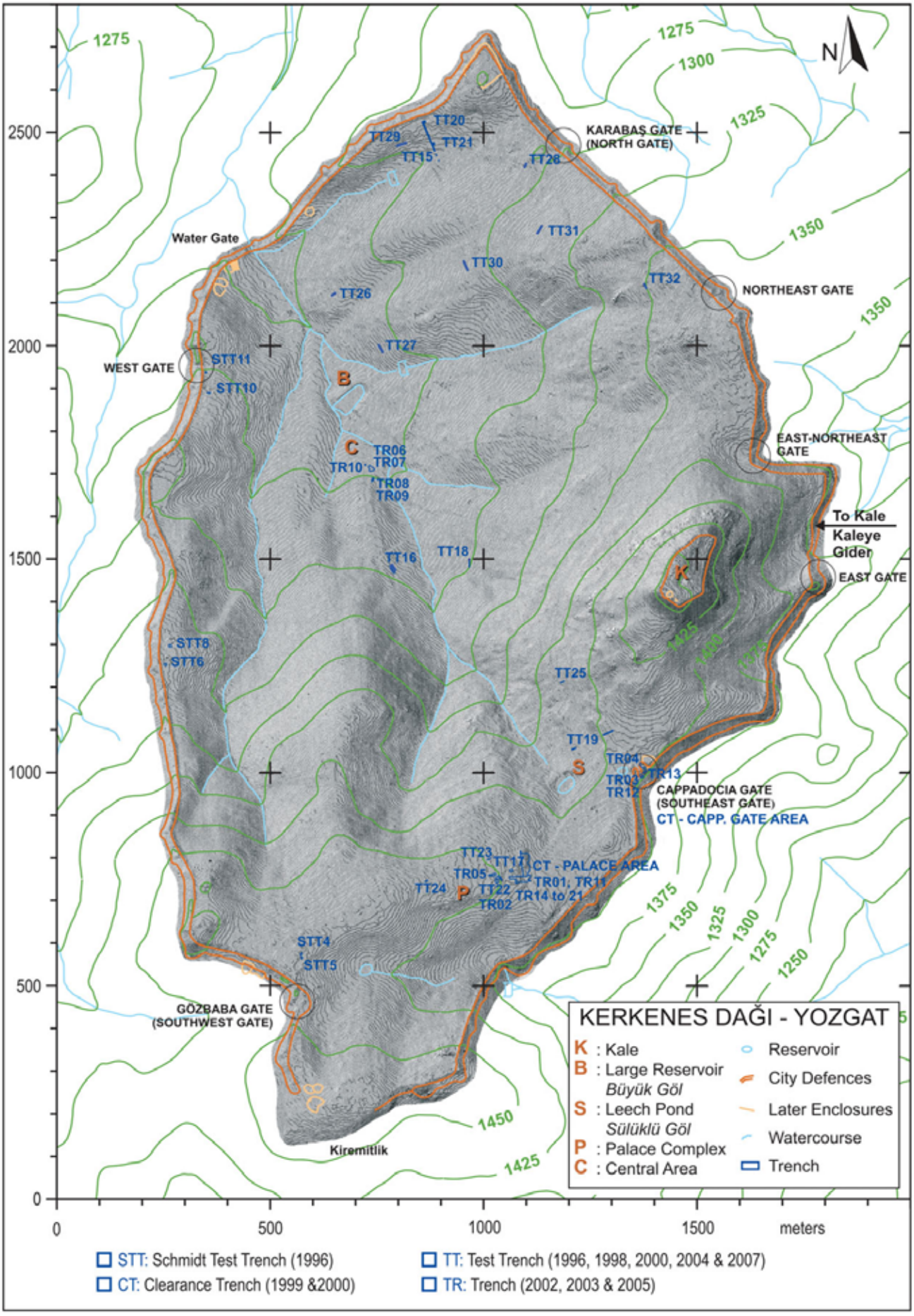

Figure 3. Digital Terrain Model (DTM) made by Işlem GIS, using ERDAS Imagine, from the GPS survey of Kerkenes.

THE 2007 TEAM

Figure 4. The Kerkenes Expedition House and Eco-Center, located on the edge of Şahmuratlı Village, photographed from the Kale top. (07dpnc1019)

Work on the ancient Iron Age city (Fig. 1) located on the Kerkenes Dağ, in the region of Yozgat (Figs 2 and 3) has continued since 1993 when an international team began multi-disciplinary research. The expedition base at Şahmuratlı Village (Fig. 4) is closely associated with the growing Kerkenes Eco-Center. Villagers are employed for geophysical survey, excavations and other expedition tasks.

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Kerkenes Eco-Center Team

We would like to note that collaboration with the Kerkenes Eco-Center Team plays a significant role in various aspects of the project and wish to acknowledge the contribution of the 2007 key team members.

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A report on the 2007 activities for the Kerkenes Eco-Center Project appears separately.

ACKNOWLEDGMENTS

We thank the Director General, Orhan Düzgün, and his staff at the General Directorate of Cultural Resources and Museums for their support. Thanks are also due to the representatives, İsmail Sarıpınar and Erdal Yiğit, for their help and good advice. We extend our gratitude to the two past Directors of the Yozgat Museum, Mustafa Akkaya and Ertuğrul Danık, as well as to the present Acting Director, Hasan Şenyurt, and museum staff who offer continuous help and encouragement.

We are most grateful to the Governor of Yozgat, Amir Çiçek, the Yozgat Director of Culture and Tourism, Fuat Dursun, the District Governors of Sorgun, Meftun Dallı and his successor Ertuğrul Kılıç, and the Mayor of Sorgun, Ahmet Şimşek, who, with their staff, continue to be extremely supportive and provide every possible encouragement and help to the project. Assistance from local organisations is most welcome and we wish to thank in particular the Directors of the Department of Rural Services, Muharrem Şengül, TEDAŞ, Bülent Gürel, and Türk Telekom, Mutalip Efe, the Yozgat Mayor, Yusuf Başer, and their staff.

The Kerkenes project comes under the auspices of the British Institute of Archaeology at Ankara which provides facilities in Turkey. Unfortunately the Kerkenes Project no longer qualifies for funding from the BIAA.

We are deeply indebted to the Village of Şahmuratlı and Headman Osman Muratdağı for extending traditional Anatolian hospitality. Mehmet Erciyas, the Kerkenes Guard, has gone beyond the call of duty to assume his responsibilities in guarding the site and taking care of the project's premises.

Finally to all the team, the house staff and workers from the village of Şahmuratlı, our heartfelt thanks. Little would have been achieved without their dedication, enthusiasm and hard work.

Sponsors

The main sponsors in 2007 were the Oriental Institute of the University of Chicago, The Joint Theory Institute of the University of Chicago and Argonne National Laboratory (under U.S. Department of Energy, Office of Science contract number DE-AC02-06CH11357), the Joukowsky Family Foundation, Toreador Turkey Ltd, The Archeocommunity Foundation, John Notz and an anonymous donor. Additional funding was received from Andante Travel, the Anglo-Turkish Society Bernard and Innes Burrows Memorial Award, the Charlotte Bonham Carter Trust and John Kelly Consulting Inc.

Research activities and work on publication of results which progress all year round at the Middle East Technical University are made possible by the generous donations, channelled through the METU Development Foundation, from The Erdoğan Mustafa Akdağ Foundation, Hayri Yıldız, Lafarge Sağlık Eğitim ve Kültür Vakfı, MESA, Yenigün and Yibitaş-Cimpor Yozgat Çimento. Artı Sistem and Ertem Printing sponsored once more the production of the Kerkenes News.

METU has made office space available, METU Computer Centre provides technical support and METU Press assists with publication. The British Institute at Ankara, ESRI, ERDAS, İşlem, Geoscan, John Haigh and Sokkia-Seza assist with equipment and software.

Life in the field has benefited from the generosity of AKG Gazbeton, the Ankara Hilton, the British Embassy, the Erdoğan Mustafa Akdağ Foundation, Kavmar, Kamar Supermarket, MNG, New Holland Trakmak, Onduline, Üç Yıldırım and Yibitaş Yozgat Çimento.

Research and educational activities related to the Kerkenes Eco-Center were supported by funds from the Archeocommunity Foundation, American Embassy, Australian Embassy DAP, Canada Fund, Chevron and UNDP-GEF Small Grant Program.

Sponsors, including those of previous phases, are listed in the Kerkenes Web Page.

COLLABORATION AND PROJECT FACILITIES

Collaboration and Support

A formal agreement has been signed with the Oriental Institute of Chicago University, with Scott Branting as Co-Director of the project. International cooperation continues for fieldwork, post-fieldwork and publication with the Center for Ancient and Middle Eastern Landscapes (CAMEL) at the Oriental Institute in Chicago, The Malcolm and Carolyn Wiener Laboratory of Aegean and Near Eastern Dendrochronology at Cornell University, UC Berkeley, SUNY Buffalo, Laboratoire de Géographie Physique - CNRS, the School of Art History, Cinema, Classics and Archaeology at the Melbourne University and the Anatolian Iron Age Ceramics Project.

Collaboration at METU involves the Faculty of Architecture, the Faculty of Engineering, the Museum and TAÇDAM. Colleagues and students from the Department of Geological Engineering and its Remote Sensing and GIS Laboratory, the Department of Metallurgical Engineering, the Materials Conservation Laboratory and Photogrammetry Center and the Graduate Programs in Settlement Archaeology, Archaeometry and GGIT contribute to the research and publication activities. Ongoing work is also in progress with a team from the Departments of Hydrogeology and Anthropology at Hacettepe University.

Project Facilities

Thanks to the generosity of sponsors and friends, project facilities at Kerkenes have significantly improved and expanded (Fig. 5). The expedition house complex, which now includes The Erdoğan Akdağ Center for Research and Education, can accomodate large groups of visitors and students (Figs 6 and 7). Fruitful cross-disciplinary discussions are generated when groups of academics, diplomats, tourists and local visitors come to Kerkenes (Figs 8, 9, 10 and 11).

The Eco-Center, run in collaboration with ŞAHDER, the Kerkenes and Şahmuratlı Village Association for Public Relations, Prosperity, Help and Support, involves villagers in the daily running of the expedition.

Figure 5. The Kerkenes House and Eco-Center, at centre, is located on the edge of the Village of Şahmuratlı. (07dpnc1019)

Figure 6. The Erdoğan Akdağ Center for Research and Education hosts large groups of researchers, students and visitors. Guests enjoy vegetables grown in the Eco-Center organic garden and small bioclimatic greenhouse, at right, as well as solar cooked meals. (07dpnc1921)

Figure 7. In May 2007, the Andante Travel group, guided by Trevor Watkins, at right, enjoyed the site tour as much as lunch prepared by village ladies and served on the spacious balcony of the Erdoğan Akdağ Center. It was a good opportunity to thank Andante Travel for the 2006 Archaeology Award. (07dpnc0216)

Figure 8. The Andante Travel group looking at the burnt debris from the Monumental ENtrance to the Palatial Complex in May 2007. (07dpnc0206)

Figure 9. Selime Doğan walked up to the top of the Kale with a group of students from Yozgat. The dominating view goes a long way towards explaining the choice for the location of the ancient city. (07dpnc0220)

Figure 10. Among the visitors in the autumn were academics and diplomats: David Hawkins, Gary Beckman, Karla Taylor, Mark Weeden, Lynn Roller as well as the Australian Ambassador, Peter Doyle, and his family. (07dpnc1036)

Figure 11. The American Institute of Archaeology tour for travel and study, lead by Nancy Wilkie, walking towards the Monumental Entrance to the Palatial Complex. (07dpnc1112)

In the spring Mehmet Erciyas, with the help of some villagers, prepared the garden for a good crop of organically grown vegetables (Fig. 12). The strawbale house and the small mudbrick workshop host the activities of ŞAHDER, the village association. The four-room prefabricated building donated by MNG has increased to just over 30 the number of people that can be accommodated within the expedition complex.

In September 2007, the group of METU students taking part in the 'Hands on Building' course helped with the construction of expedition facilities including the new Solar House with its traditional village oven where ladies from the village bake bread for the team and guests (Fig. 13). The participation of skilled workers, who shared their expertise with the students, was financed by a grant from Chevron.

Figure 12. Between the mudbrick workshop, at left, the strawbale house, at centre, and the four-room prefabricated building, at right, the garden is being prepared for a good crop of organically grown vegetables. (07dpnc0216)

Figure 13. METU students, enrolled in a 'Hands on Building' course, helped with the construction of the Solar House and other expedition facilities. (07dpnc0216)

Funding and the donation of building materials from local organisations have permitted the construction of a large Conservation Workshop (Figs 14, 15 and 16). The fragile remains of shattered architectural elements which are being patiently pieced together by the project conservator, Noël Siver, and other team members will be housed in this new building.

Figure 14. The new Conservation Workshop, at right, is adjacent to the Kerkenes Conservation Laboratory and Depot building, at left. (07dpnc1023)

Figure 15. Doors and windows were finally put in place and painted in the autumn, before the first snow. (07dpnc3206)

Figure 16. As well as the large spacious workshop, the building provides an equally spacious covered balcony where tables can be laid out for sorting and mending architectural stone elements. (07dpnc1031)

THE 2007 SEASON

The 2007 season began on May 11 and the Depot was closed on July 13. At the end of the season we were pleased to show the progress of the ongoing conservation work to the Governor of Yozgat, Amir Çiçek, the Sorgun District Governor, Meftun Dallı, the Mayor of Sorgun, Ahmet Şimsek, and other visitors from local authorities and organisations (Fig. 17).

The Geophysical survey in the area of the Palatial Complex was conducted in May. Transportation studies consisted of checking plans of the street network and urban compounds in the lower area of the city and, in June, excavation of seven trenches to test transportation simulations and to sample occupation material from different parts of the city. Work on site also included cleaning and conservation at the Monumental Entrance to the Palatial Complex and the Cappadocia Gate. A new collaboration involves a study of geomagnetic dating across Turkey.

During much of the season work continued on the conservation and restoration of architectural pieces from previous years together with the preparation of a series of final reports. Construction of the new workroom with a large covered terrace for the mending, restoration and housing of large architectural pieces was completed before the winter.

Symposium

During the week of May 28 to June 1, Geoffrey Summers attended the Annual Symposium in Kocaeli where he presented the significant results of the 2006 season.

Figure 17. The Governor of Yozgat, Amir Çiçek at left, the Mayor of Sorgun, Ahmet Şimşek, at centre, with other officials from Yozgat and Sorgun visiting the conservation laboratory at the end of the 2007 season. (07dpnc0803)

THE URBAN SURVEY

Geophysical Survey with a Resistivity Meter

In May, 15 days of remote sensing survey with a Geoscan RM15 resistivity meter were accomplished in the area of the palatial complex (Fig. 18). A total of 42,000 square meters of area (4.2 hectares) were surveyed, revealing the entire extent of the Palatial Complex, as well as significant portions of adjacent urban blocks.

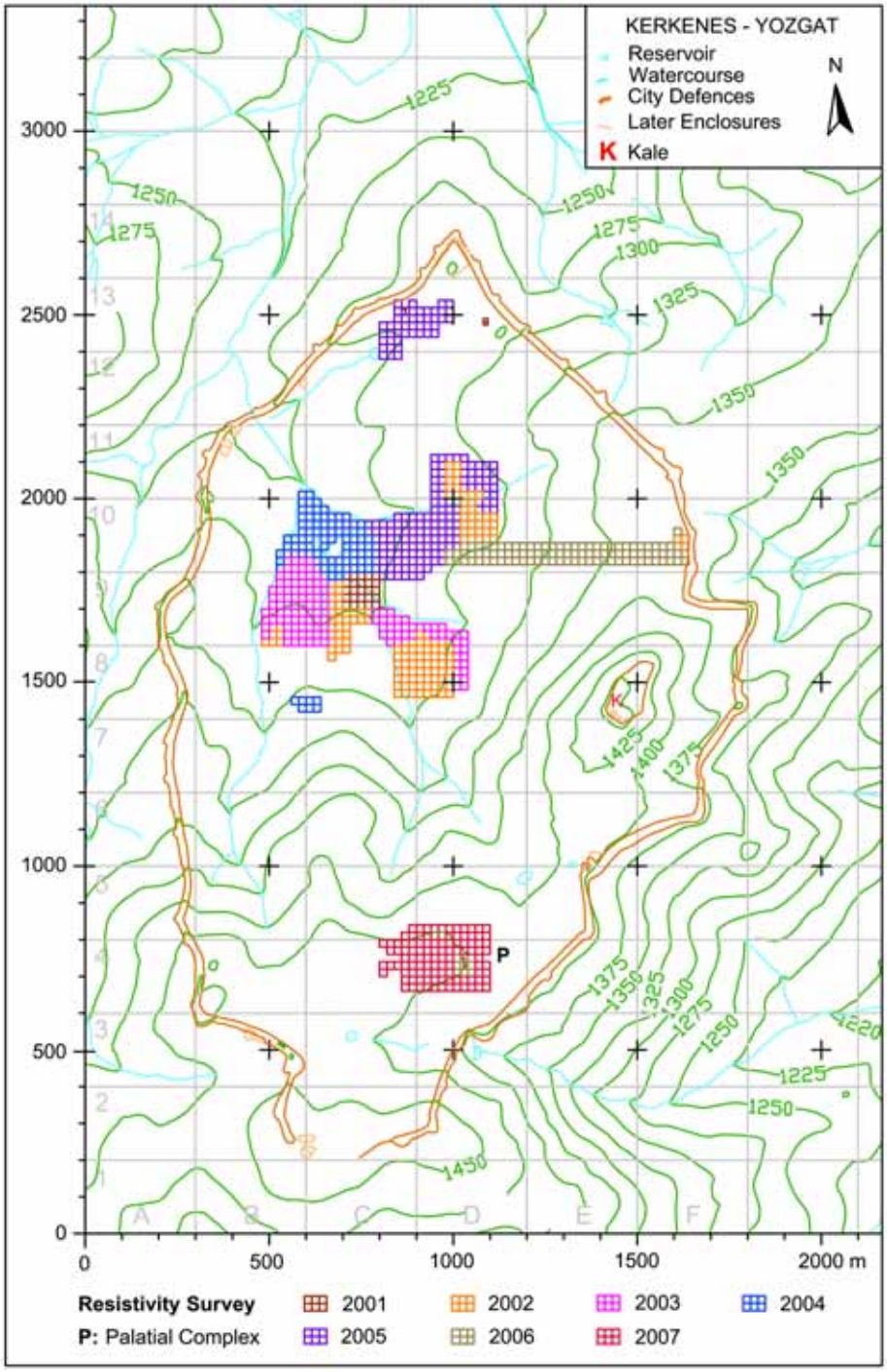

Figure 18. Progress map of resistivity survey.

At the Palatial Complex, resistivity survey readings were taken, as in previous years, at a sample density of two readings per meter. Numerous stones on the surface makes insertion of probes difficult (Fig. 19). While using extra-long probes so that stones could be straddled produced excellent results, the area that could be covered in one day was considerably reduced. The results of the 2006 and 2007 resistivity survey (Fig. 21c) at the Palatial Complex and surrounding area were examined together with existing sets of data from the GPS topographic (Figs 20 and 21a), aerial photography and gradiometer surveys (Fig. 21b). Images displaying raw data (Fig. 22a) and processed data were compared while observable features on the surface of the ground were documented. Finally, a preliminary plan of the Palatial Complex and neighbouring structures was drawn (Fig. 22b).

Figure 19. Resistivity survey over stony ground at the Palatial Complex is slow.

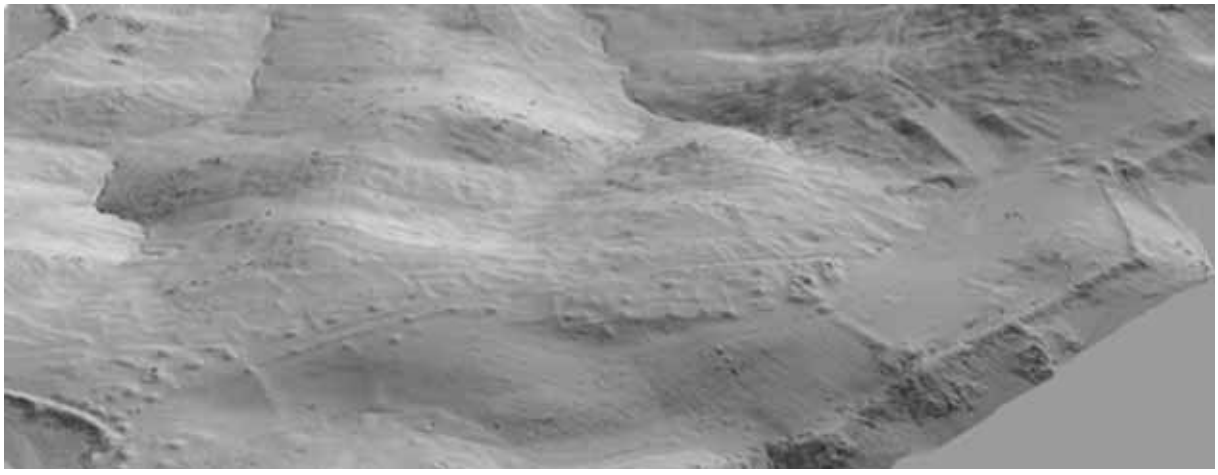

Figure 20. GPS data from which 3D models were generated using ESRI GIS software (Arc View with Arc Scene) provide useful visualisation of the terrain assisting with analysis and interpretation of 2D geophysical survey images.

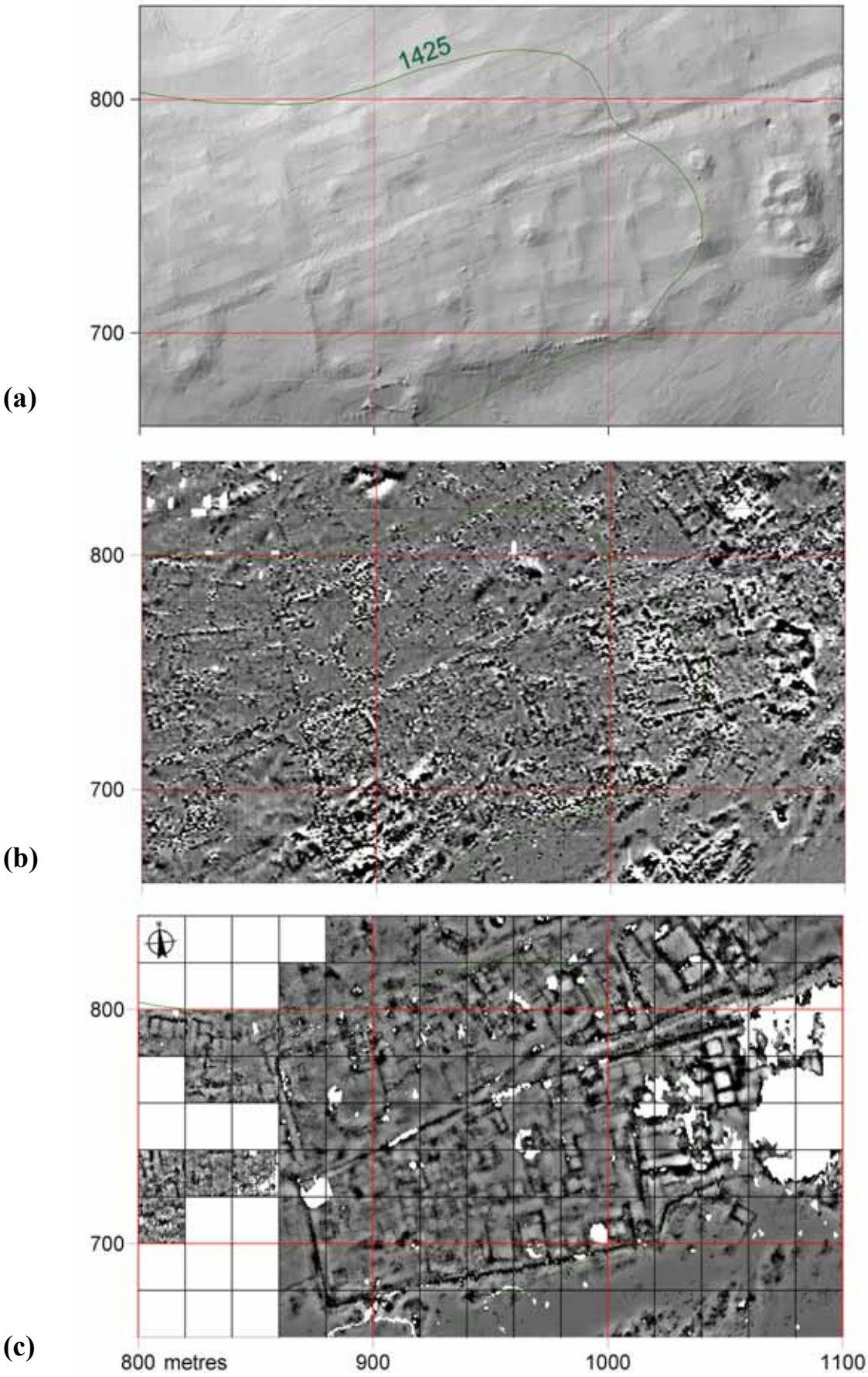

Figure 21. (a) GPS survey at the Palatial Complex.
(b) Completed gradiometer survey at the Palatial Complex.
(c) Processed resistivity data survey at the Palatial Complex.

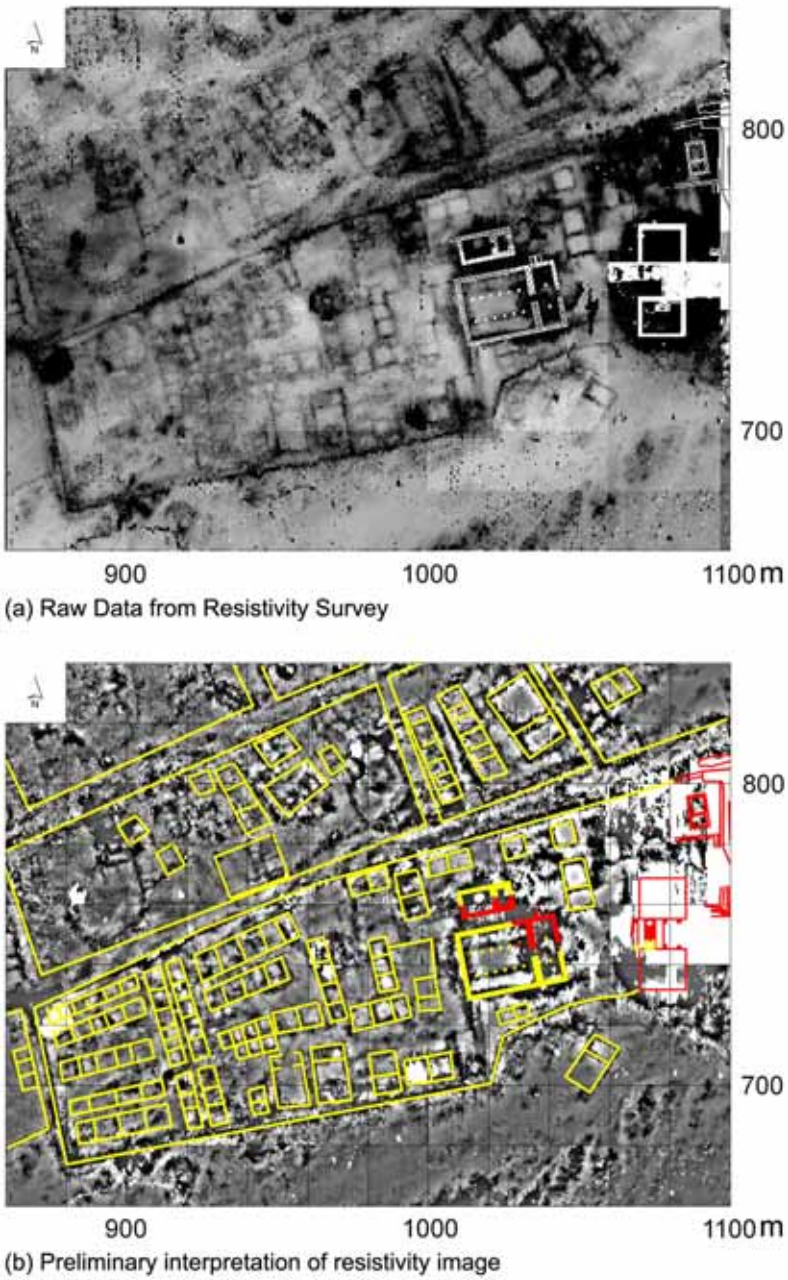

Figure 22. (a) Map of raw resistivity data from the Palatial Complex and surrounding area.
(b) Plan of the Palatial Complex and surrounding area as understood from the data available. Structures excavated are in red.

New Understanding of the Palatial Complex

The new images (Figs 21 and 22) permit new and more refined interpretations which, at some future date, it will be important to verify by excavation.

Firstly, it can be seen that the eastern end of the complex, dominated by the massive Structure A and its supporting stone glacis, appears to belong to an initial phase very possibly dating back to the foundation of the city. Only the eastern end of this defensive structure was to survive later modifications. To the west a large trapezoidal urban block some 140m in length, and thus the largest such block identified in the city, was laid out. The most significant structures within this block are a pair of large two-roomed buildings each comprising a rectangular hall and ante-room, located at the centre of the southern side. Dominating the other closely packed buildings within this block are rows of cells, presumably storage units.

Perhaps a generation later the space between these two elements, the fortified strong point and the large residential block, was filled with public structures, notably the Audience Hall and the Ashlar Building, both of which have been investigated by excavation. The new resistivity images reveal a third major two-roomed building, perhaps with a hearth in the centre of the hall, across a paved court east of the Ashlar Building.

In a final phase, not many years before the destruction and abandonment of the city, a new Monumental Entrance was inserted. This scenario, of four major phases of planned construction, cannot yet be proven. Doubtless there were many phases in the sequence of building and there could hardly have been a day of good weather without the clamour of workmen, the creaking of carts, and the squeals of animals hauling wood, mud, stone and thatch.

These developments suggest ever growing confidence and prosperity with an original emphasis on defence replaced, after two or three generations, by palatial buildings approached through a splendid gated court overlooked by large semi-iconic stone idols, statuary and a sculpted monument bearing an inscription in the Old Phrygian language. One can well imagine the Kings of Pteria holding court in the Audience Hall.

To the north of this great compound we see smaller urban blocks divided by a grid-like pattern of streets indicative of central planning. Although details are not always easy to see the overall character of these blocks is very clear. They are much smaller versions of the original block of the palatial compound. Prominent rows of small cells suggest emphasis on storage while two-room buildings, presumably residences, are suitably smaller than the large pair in the palatial block.

Exceptional, and known to us since our first season, is the very large building towards upper right in the image. Clues as to the function of this special building are elusive, no internal fittings or features being visible. It is hard to avoid the suggestion that it is a temple.

Groundtruthing and Recording

Progress was made in recording and photography of the more recent tumuli and animal pens constructed in the Palatial Complex area. Groundtruthing was carried out with the help of the tablet computer (Fig. 23) to identify on the ground features revealed by the remote sensing surveys.

Figure 23. Groundtruthing using the tablet computer. (07dpkc0253)

As last year, this data was used with a Global Positioning System (GPS) and the tablet computer to check more of the ancient city plan against features visible on the ground surface. The tablet computer was also used to navigate along the ancient streets of the city (Figs 24a and b) and to select locations for the transportation test trenches excavated in 2007.

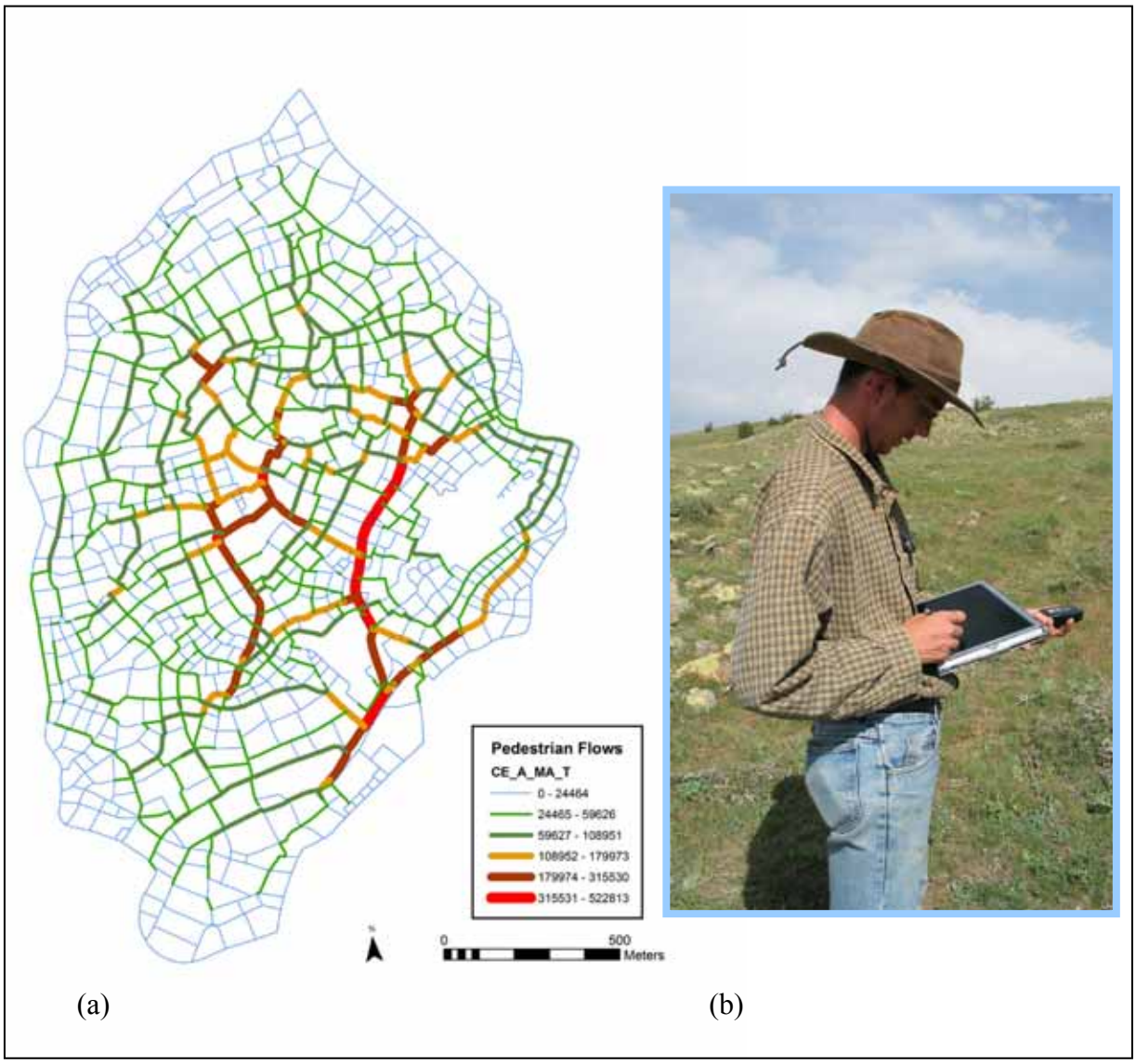

Figure 24. (a) Plan of the ancient streets, a study by Scott Branting.
(b) Navigating along ancient streets with a tablet computer. (07dpkc0255)

Data Processing and GIS

Significant work was also accomplished on analyzing and transforming the resistivity data from previous seasons in the lower area of the city. Processing of the new resistivity data from the Palatial Complex area is ongoing while new ways of combining and fusing results form different sets of data are being investigated.

GIS studies continue with the different sets of data. A paper by Geoffrey Summers, Françoise Summers and Pınar Kaymakçı was presented at the 2007 ESRI Users Conference which was held at METU Conference Center in October 2007.

EXCAVATION OF TEST TRENCHES ACROSS STREETS WITHIN THE CITY

During June and the first week of July, seven test trenches were excavated in the northern portion of the city (Fig. 25). All of the trenches were 1m wide and varied in length from 9.5m to 23.5m. These test trenches continued the program, started in 2004, of excavating across the ancient city streets to test computer simulations.

These simulations, similar to those used by city planners in modern cities to analyze traffic, reveal how people once used this ancient city. The simulations tell us which are the main streets and which are very minor streets within the city. They can also provide information about urban blocks, revealing which ones might have been public and which others might have had a more private function through analysis of traffic volumes, origin and destinations.

Soil samples were taken from each street and, as was done in 2004, shipped for analysis at the McBurney Geoarchaeology Laboratory at the University of Cambridge in England. There the samples will be analyzed in order to test the results of the computer simulations.

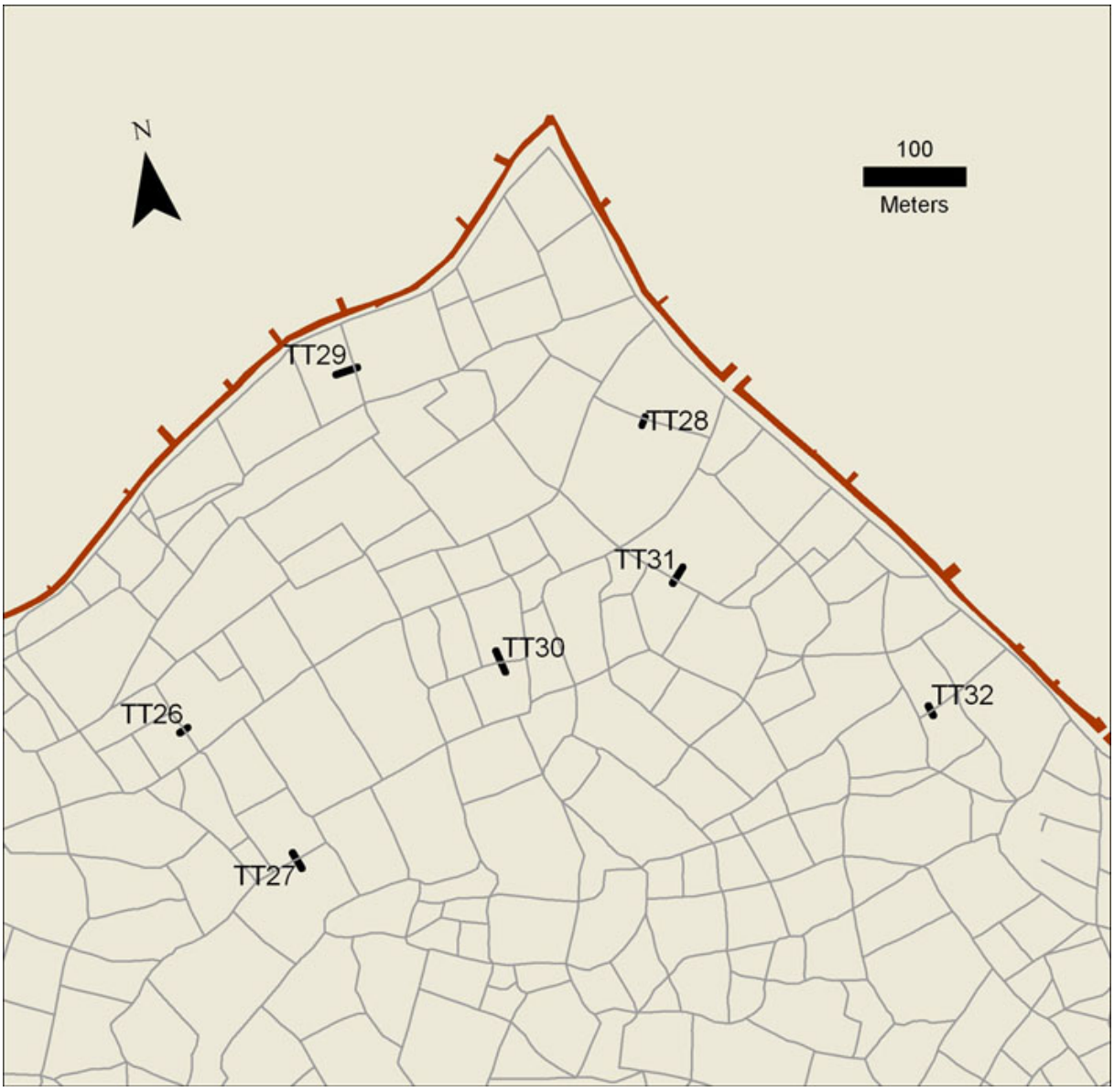

Figure 25. Map of the northern sector of the city showing location of 2007 Test Trenches TT27 to TT32, streets and defences.

Test Trenches

The Test Trenches (TT), named in sequence from TT26 to TT32, were positioned using the remote sensing plan of the city so that the ends of each trench were just inside the dry laid granite wall footings of the adjacent urban blocks. Thus each test trench ran over the urban block walls on either side of the street and across the entire width of the street area (see Fig. 26 for TT26).

Each trench was excavated down to the bedrock with the exception of TT28 whose southern wall had been built on rubble filling of a fissure in the bedrock. The specifics of each test trench are described below.

Figure 26. Excavation of TT26 across the street running between two urban blocks. (07dpkc0305)

TT26 was 10.2 by 1m and reached a maximum depth of 1.15m (Fig. 27). Two dry laid granite urban block wall footings were found. The first in the northeastern part of the trench was the outer wall of the urban block to the northeast of the street. It was 1.2m wide and had a preserved height of 80cm. The second was in the southwestern part of the trench and was the outer wall of the urban block to the southwest of the street. It was 1.05m wide and had a preserved height of 75cm. The total width of the street area between these two partially collapsed walls was 6m.

Figure 27. Test Trench TT26. (07dpkc0305)

TT27 was 18.8 by 1m reaching a maximum depth of 1.55m (Fig. 28). Only the bedrock foundation of the northern outer urban block wall has survived. The southern urban block wall was 80cm wide and still stood 35cm high. Both walls had collapsed into the 9.1m area between the two walls through which the street would have run. In addition, the base of two walls were exposed within the southern urban block. The first, with a preserved height of 43cm, ran perpendicular to the outer urban block wall and had been broken in two. The second, preserved to a height of 25cm, was set back from the first and was parallel to it.

Figure 28. Test Trench TT27. (07dpkc0305)

TT28 was 9.4 by 1m and reached a maximum depth of 1.6m (Fig. 29). The outer urban block wall to the northeast of the street area was 75cm wide and 45cm high. The outer urban block wall to the southwest of the street area was 1.5m wide and 80cm high. Both walls had partially collapsed into the 5.05m wide street area between the two urban blocks.

Figure 29. Test Trench TT28. (07dpkc0341)

TT29 was 23 by 1m and reached a maximum depth of 2.18m (Fig. 30). In addition to a street area running between the two urban blocks, there was also a deep cut into the bedrock for a pool of water and a smaller water channel parallel to it. The outer wall of the urban block to the east, which was also the outer wall of a small two-roomed building just inside the urban block, was 1.2m in width and preserved to 1.2m in height. The outer wall of the urban block to the west was 65cm wide and 90cm high and was laid in a foundation trench cut into the bedrock. Both walls had partially collapsed into the street area and water features which together were 19m wide.

Figure 30. Test Trench TT29. (07dpkc0777)

TT30 was - 23.55 by 1m and reached a maximum depth of 70cm before hitting bedrock (Fig. 31). The wall of the urban block to the north was 85cm wide and preserved to 40cm in height. The wall of the urban block to the south was 1.4m wide and also 40cm in height. A later wall, preserved 31cm, had been built abutting the urban block wall to the south, which narrowed the 20.2m street area between the urban blocks.

Figure 31. Test Trench TT30. (07dpkc0626)

TT31 was 19.74 by 1m and reached a maximum depth of 98cm (Fig. 32). The wall of the urban block to the northeast of the street area was 1.16m wide and preserved to 65cm in height. The wall of the urban block to the southwest of the street area was 80cm wide and preserved to a height of 75cm. Both walls had partially collapsed into the 16.15m area through which the street had run between the urban blocks.

Figure 32. Test Trench TT31. (07dpkc0821)

TT32 was 11.4 by 1m and reached a maximum depth of 1.75m (Fig. 33). The wall of the urban block to the southeast was 80cm wide and preserved to a height of 60cm. An additional wall, 55cm wide and with a preserved height of 20cm, had been built within the area between the two urban blocks just in front of the southeastern urban block wall. No comparable urban block wall was found to the northwest of the street. Instead there was a series of threshold stones and upright stones that might represent steps up into this urban block. The northernmost wall within the trench appears to be a corner of a small structure within the urban block. It was made of much smaller stones, was 50cm in width, and was preserved to a height of 60cm.

Figure 33. Test Trench TT32. (07dpkc0923)

None of the street areas exposed in these excavations were paved, all were dirt roads. From each test trench occupation material was recovered, both inside the small exposures of urban blocks and from the area of the street, and is being analyzed. These include animal bone, pottery (see Fig. 34 for a selection from TT27), seeds and some fragments of metal objects. One complete double looped copper alloy hairgrip was found just inside the southern urban block in TT27 (Fig. 35). The bone and seeds recovered are being sent to METU for analysis. Additional soil samples taken in each test trench will be analyzed at the University of Utah.

Figure 34. Selection of diagnostic Iron Age sherds from TT27. (07dpnc1013)

Figure 35. Double looped copper alloy hair grip from TT27. (07dpnc1203)

Once excavation and recording were completed the bottom of each test trench was covered with geotextile, to preserve the surfaces and minimize plant growth, urban block walls were rebuilt so that they stand two courses above the surface of the ground, making them visible to visitors, and then the entire test trench was backfilled. Such backfilling is necessary for the safety of people and animals and also preserves the original walls and surfaces that would not survive the harsh winters if left exposed.

Plans and sections of the trenches (see Fig. 36 for TT26) are being prepared for final reports and publications.

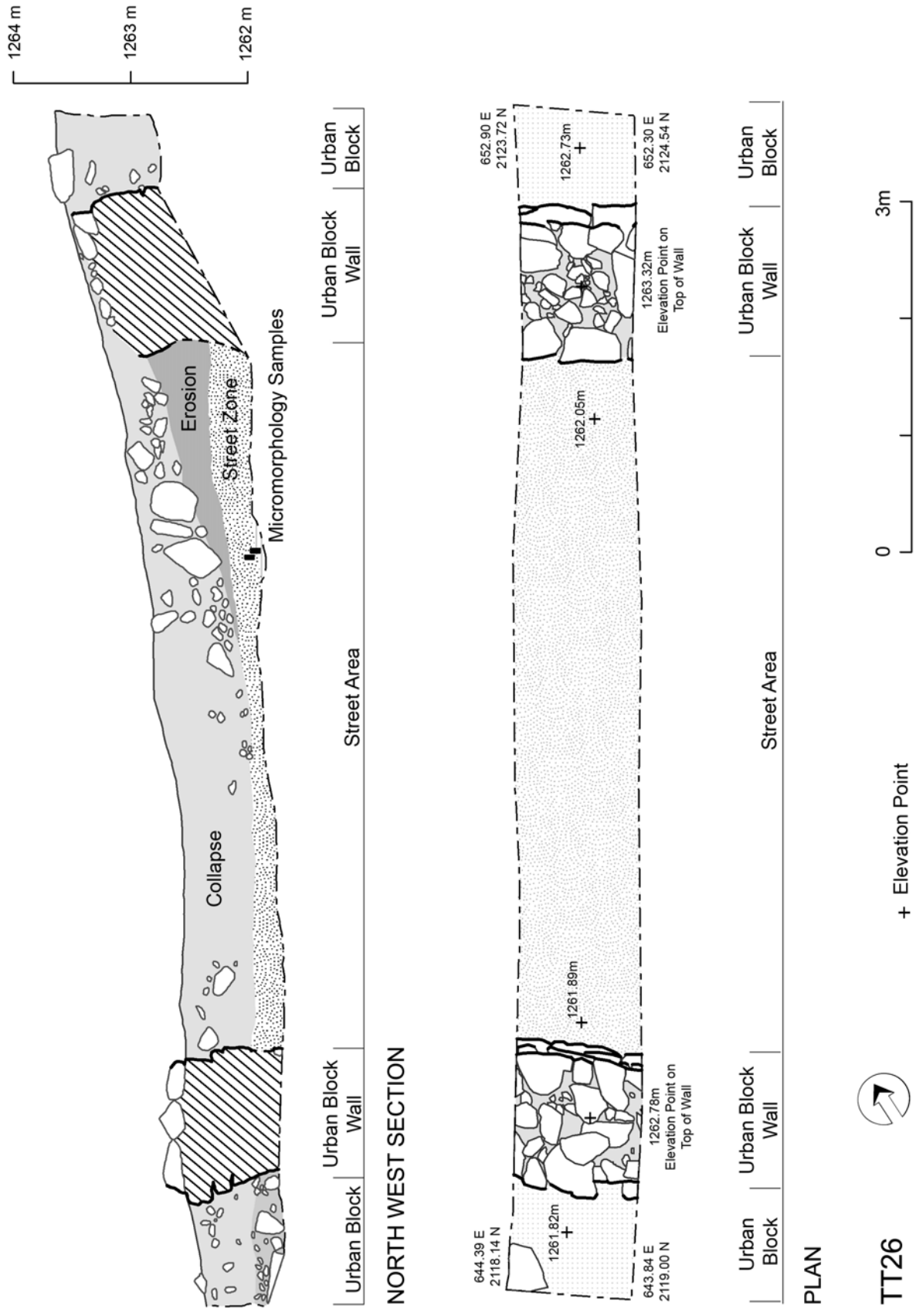

Figure 36. Plan and section of Test Trench TT26.

SITE ENHANCEMENT, CONSERVATION AND CLEARANCE

As well as attracting local media, Kerkenes was filmed in July by an international television team for the History Channel, USA. They are producing an episode of the television show 'Digging for the Truth' which will focus on the Phrygians and King Midas. Kerkenes Dağ will be featured as a part of this program which will be broadcast internationally.

Cultural Heritage has to be presented to the general public if it is to be preserved. At Kerkenes, however, uncovered remains are very fragile because of the intensity of the fire that destroyed the city and what is to remain exposed has to be carefully chosen. The visitor can be taken around with a set of virtual images and explanations while more vulnerable elements remain uncovered.

During the 2007 campaign, the Monumental Entrance to the Palatial Complex and the Cappadocia Gate, the two highlights of a visit, were carefully cleaned and emergency conservation undertaken to conserve the standing monuments, to enhance the appearance of their structures and to make them safe for visitors to the site.

The Monumental Entrance to the Palatial Complex

In the Monumental Entranceway to the Palatial Complex large stones from the southern platform wall that had collapsed onto the pavement during the winter were moved to buttress the remaining wall and to enhance the visual experience of visitors (Fig. 37).

Figure 37. In the Monumental Entrance fire-shattered blocks were moved to the sides while the rubble core of the platforms was ramped to increase safety. (07dpnc1748)

The Cappadocia Gate

At what we have called the Cappadocia Gate, a part of the stone clad timber support for a portion of the glacis at the East Tower was repaired after damage occurred over the winter. Additionally, a portion of the front wall of the South Tower was built up so as to divert flocks of sheep and goats through the original gate passage, thereby preventing further erosion of the rubble core. Stones recovered from clearance were used to support the inclined sidewall of the passageway so as to prevent its collapse.

Preparing the final publication of the volume on excavation at the Cappadocia Gate raised questions about the angle of the passageway and the depth of unexcavated fill in the gate court. Two more operations, a new Clearance Trench CT52 located along the back of the South Tower (Figs 38 and 39) and a sondage in Trench TR13 (Fig. 40 and 41), were carried out in an attempt to elucidate further the construction of the gate.

Clearance Trench CT52

In Clearance Trench CT52 a section of wall was articulated to investigate the possible presence of a staircase. No evidence for a staircase was forthcoming (Fig. 38) but burnt beam slots in the facing of the inner tower wall were observed (Fig. 39).

Figure 38. In Clearance Trench CT52 (Fig. 39), a section of wall was articulated along the back of the South Tower. (07dpnc1503)

Figure 39. Evidence for burnt timber elements in walling was recovered at the Cappadocia Gate in Clearance Trench CT52. (07dpnc1519)

Trench TR13

In TR13 loose stone fill was removed from the inner, east, corner of the gate chamber to establish the depth and character of the surface (Fig. 40). An attempt to reach the surface was not completed because of the very unstable nature of the loose rubble fill. Sufficient was done, however, to show that the level in the inner corner of the recesses was not raised above that of the passage.

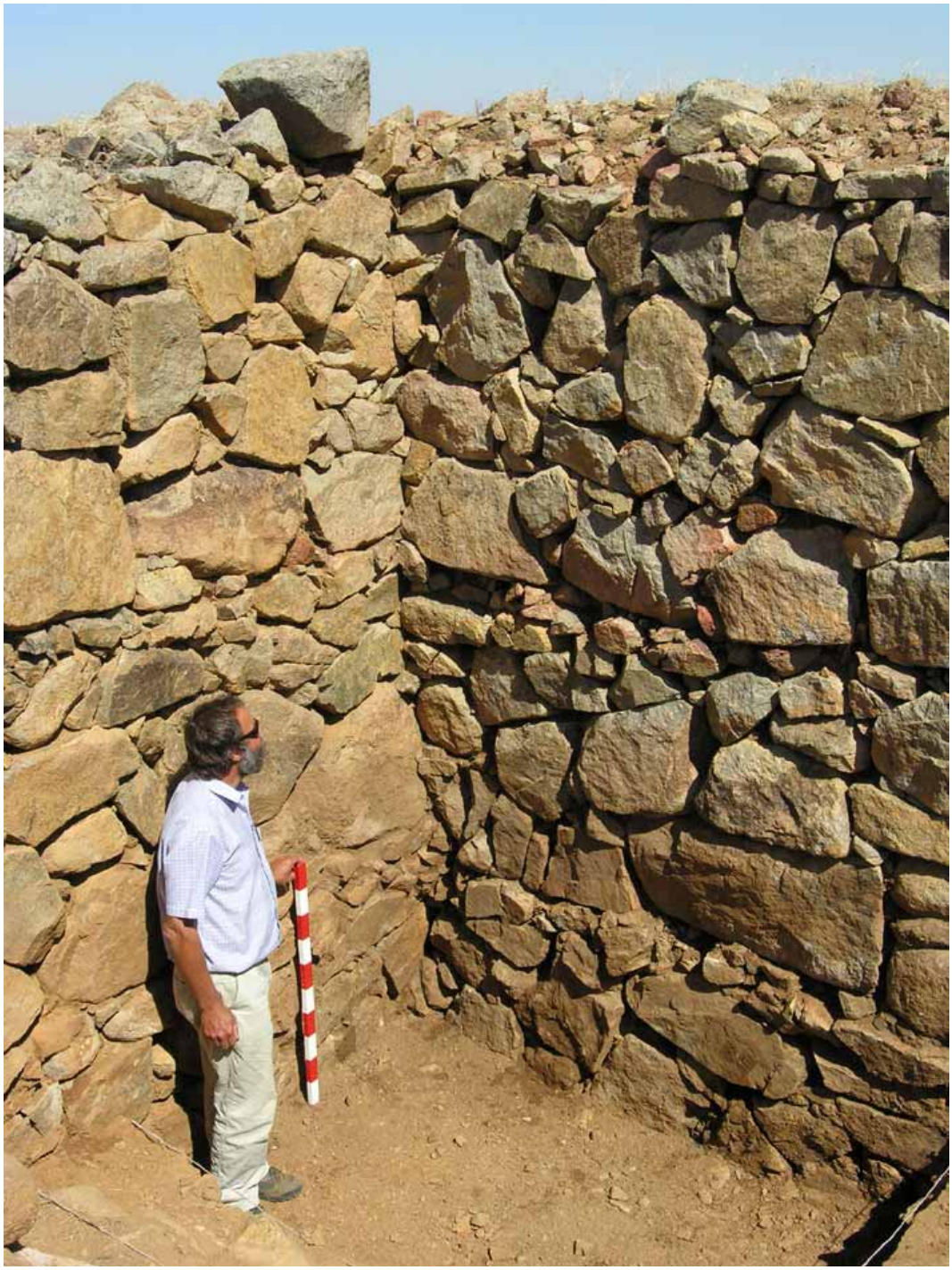

Figure 40. New stretches of wall faces at the inner chamber of the Cappadocia Gate were exposed in TR13. (07dpnc0660)

Figure 41. North East wall face of the inner gate chamber in Trench TR13. Courses of smaller stones could indicate the location of horizontal timbers. (07dpnc0656)

Two layers of thick mud plaster on the wall face added weight to the idea that the recesses were covered. Further cleaning and documentation revealed more evidence for the use of horizontal timber beams in the wall faces of the gate passage, recesses and chamber (Fig 41). An earlier idea that timbers were incorporated in the outer wall face was dismissed, partly because the inclusion of wood might be defensively weak, the wood being combustible, and partly because seven kilometres of timber implied very extensive deforestation. However, the existence of timbers set in the face of the wall just above the top of the glacis would have helped stabilise the masonry and might explain the strangely uniform level to which the entire circuit of the defences was reduced.

The loose fill of stones, some very large, prevented completion of this deep sounding. Pending larger scale excavation in a future season, the sondage was lined with geotextile, filled with straw bales and given a covering of earth.

Drawings of the Cappadocia Gate

The plan of the gate (Fig. 42) confirming the slanted axis of the gate passage and the irregularity of the towers was finalised. As further excavation in Trench TR13 uncovered new stretches of walls, these were recorded and added to the section drawings (Figs 43a and b).

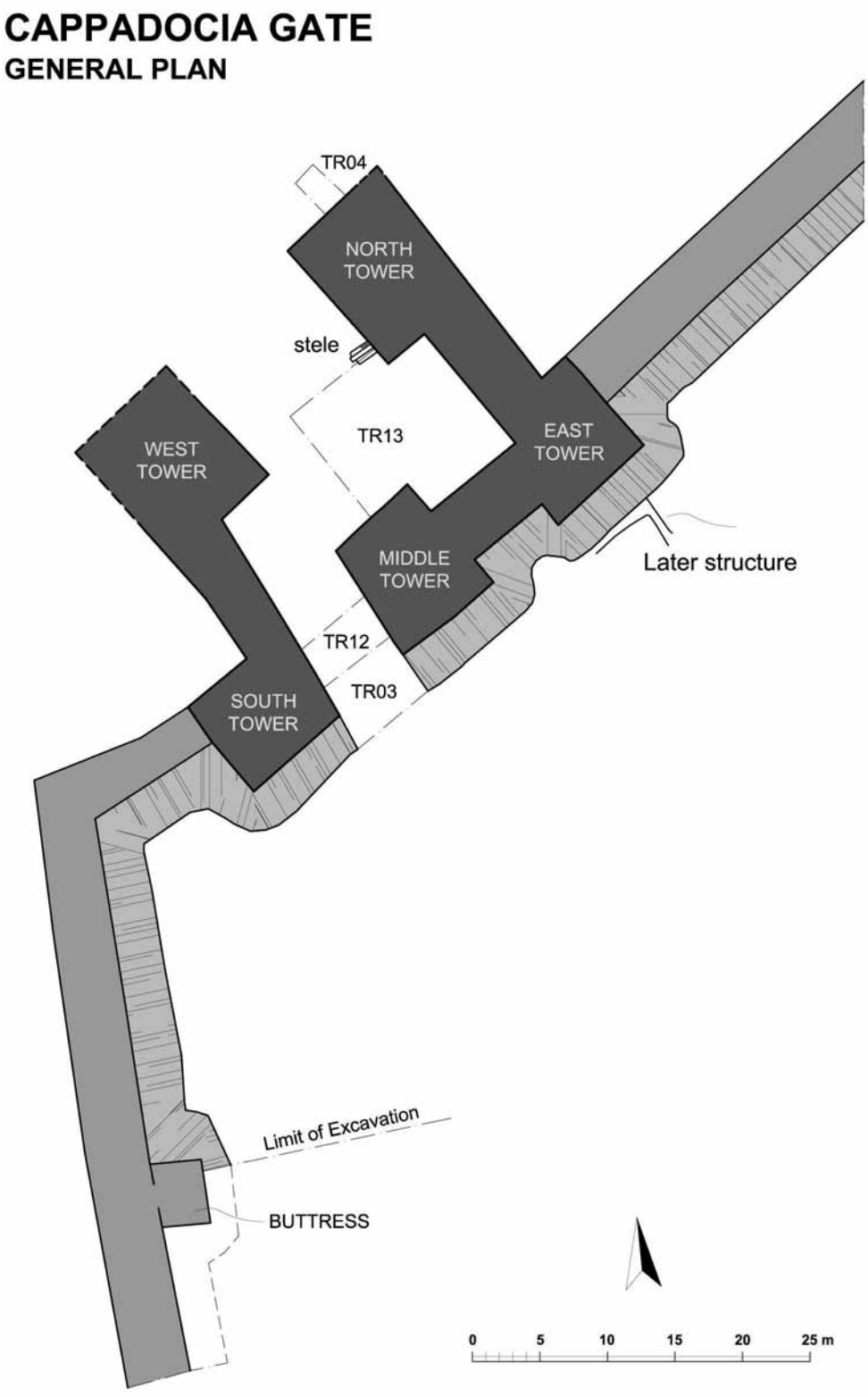

Figure 42. Plan of the Cappadocia Gate.

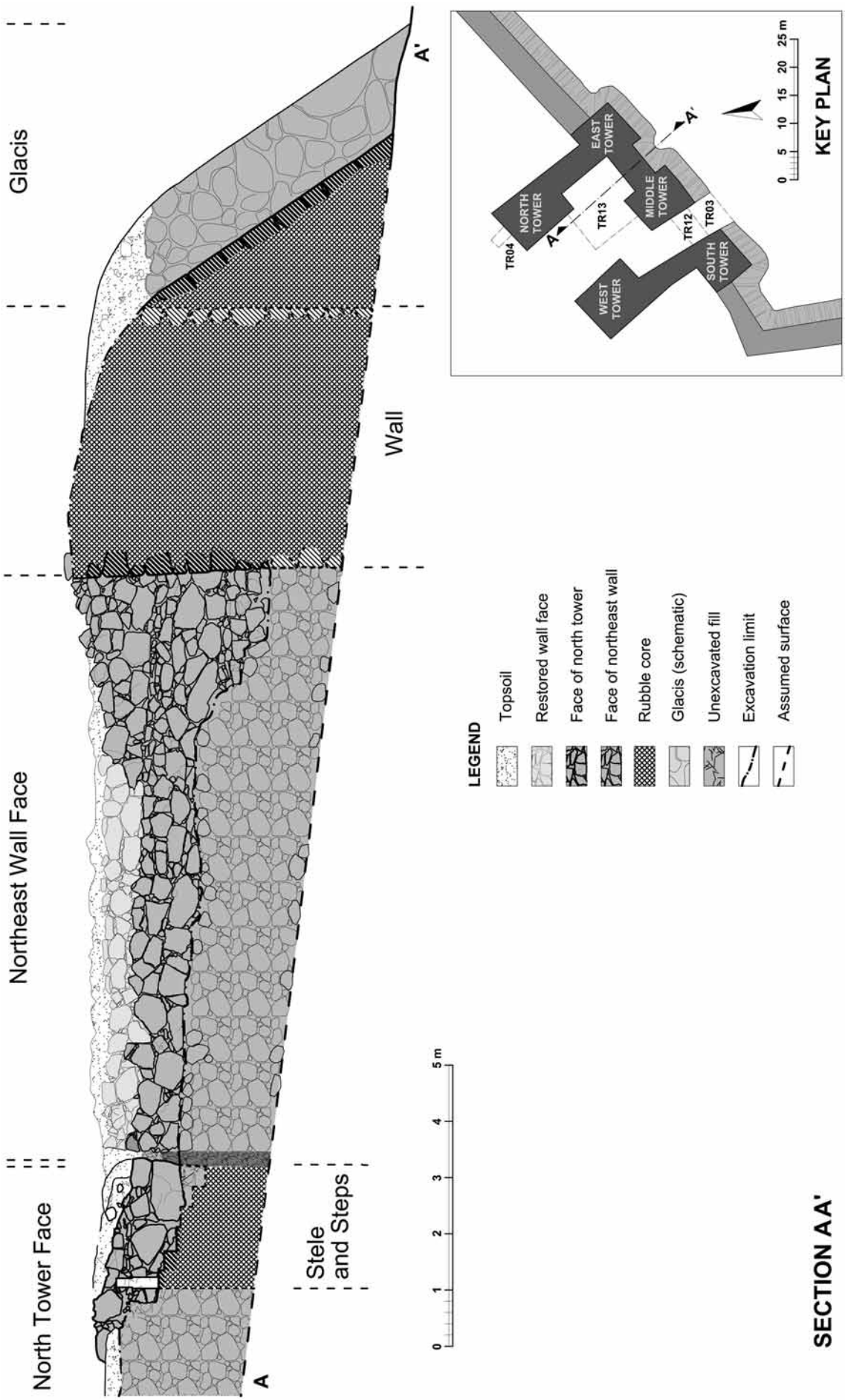

Figure 43 (a). Section AA' through the inner chamber of the Cappadocia Gate.

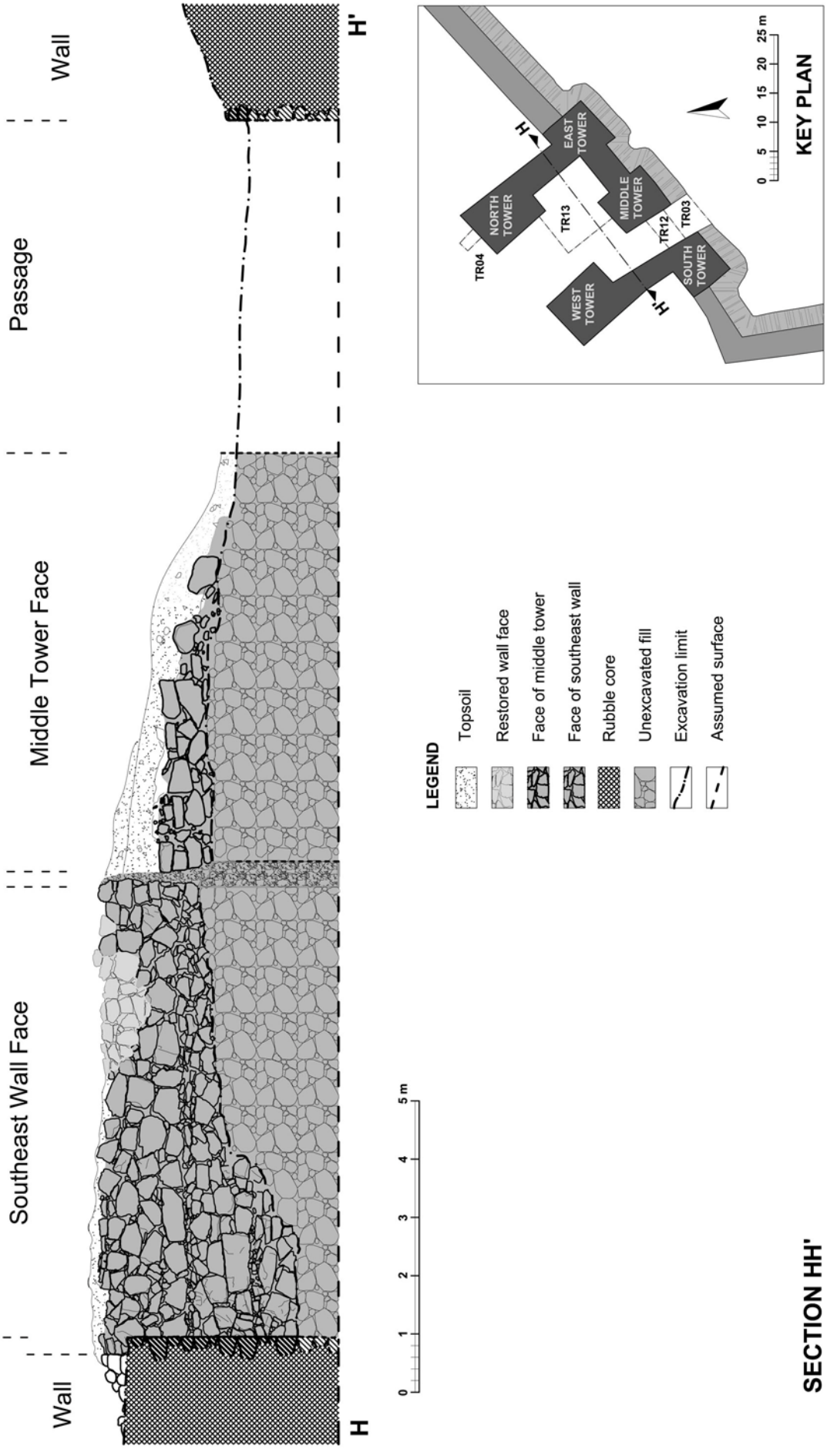

Figure 43 (b). Section HH' through the inner chamber of the Cappadocia Gate.

GEOMAGNETIC DATING STUDY

Geomagnetic samples were collected from two contexts, test trench TT15 (Fig. 44) and the Palace Complex. Both locations were excavated in previous years and had evidence of very heavy burning in the final destruction of the city. These samples will be used as part of a geological project by Nuretdin Kaymakçı and Pınar Ertepınar Kaymakçı of METU as part of a wider study of changes in both the direction of magnetic north and in magnetic intensity on the Anatolian Plateau over the last 10,000 years (i.e. the Holocene). Similar dated samples have been collected from a large number of archaeological projects throughout Turkey.

Figure 44. Nuretdin Kaymakçı measuring the angle and direction of a sample drilled out from fire-altered stone. (07dpnc1408)

CONSERVATION AND ILLUSTRATION

Join finding, mending, drawing, and photography of the semi-aniconic representations first discovered last year among the fragmentary stone from the Monumental Entrance to the Palatial Complex continued throughout the season (Figs 45, 46 and 47). We now seem to have pieces from a minimum of 17 idols. Work on reconstructing and conserving these unique pieces will continue in 2008.

Figure 45. Noël Siver and Tiffin Thompson working on architectural fragments. (07dpnc1412)

Figure 46. Noël Siver mending a sandstone idol that was smashed during the destruction and fire. (07dpnc1416)

Figure 47. Ben Claasz Coockson drawing the most complete idol that had been thrown down from the south platform at the Monumental Entrance. (07dpnc1414)

In addition to the extensive work with the semi-aniconic representations the best exemplars of each sized bolster block that were mended and recorded last season were gap-filled and photographed as part of the ongoing restoration program this year (Figs 48 and 49). Work also continued on join finding and mending several other unique architectural pieces that are still emerging as stone is pieced together. Work on reconstructing and conserving these still emerging architectural pieces will continue in 2008.

A newly discovered fragment was added to the anaconic stele found at the Cappadocia Gate (Fig. 50).

Figure 48. A large bolster, perhaps from a capital, after conservation and restoration. (07dpkc1211)

Figure 49. A medium-sized bolster with a portion of the block with which it is engaged. (07dpkc1205)

Figure 50. The semi-icomic stele and top step from the Cappadocia Gate with the newly discovered fragment of the head in place. (07dpkc1226)

ENHANCEMENT, SAFETY AND CONSERVATION 2008-2010

Following the good advice received from the representative Erdal Yiğit we propose to draw up, in 2008, detailed plans for protection and visitor safety at the Palatial Complex and Cappadocia Gate. We will then seek approval from the Directorate before applying for funds, specifically for these purposes, in 2009 for work at the Palatial Complex and in 2010 at the Cappadocia Gate. In this respect we would like to refer to the proposals for conservation and restoration of the Cappadocia Gate previously submitted and to note that complete clearance of the Gate is not possible because the wall faces have been severely damaged by the fire which preceded abandonment of the city in the mid first millennium B.C.

We are concerned that any measures that are taken should not introduce inappropriate materials (concrete, barbed wire etc.) to the site, should not in any way detract for the visual impact made by the standing walling which are the main visitor attraction (Fig. 51), and should in no way antagonise local shepherds with whom we have striven to build strong relationships.

Figure 51. The Andante Travel group at the Cappadocia Gate, the highlight of a visit, in May 2007. (07dpnc0206)

PLANS FOR FUTURE RESEARCH AND PUBLICATION

Geophysical Survey and Transportation Studies

Geophysical survey for a few weeks each spring is expected to continue for the foreseeable future.

The excavation of a number of test trenches across city streets will continue in 2008 and 2009. This work will not only test the simulations used for understanding how the city functioned, but will also form a basis on which to plan future large-scale excavations within one or more urban blocks of the city.

Long Term Plans for Large-Scale Excavations at Kerkenes

The groundwork is being laid for future programs of large-scale excavation at Kerkenes Dağ. Considerable funding and the participation of additional institutions is being sought for this endeavour. The initial goal for these excavations would be the complete clearance of an entire urban block selected according to the results of the remote sensing and transportation simulations. Additional work may also be done in the Palatial Complex and Cappadocia Gate, including additional excavation as well as restoration if permission is granted.

Publication of Monographs

A monograph on sculpture and inscription, by C. M. Draycott, G. D. Summers and Cl. Brixhe, was completed and accepted for publication by the Oriental Institute Press of the University of Chicago just prior to the season. This will be the first volume in a Kerkenes Dağ Series to be published by the Oriental Institute Press. It will appear within the next year and it will also be available for free download online.

A monograph on the excavation at the Cappadocia Gate is also being prepared. Architectural sections (see Figs 43a and b as examples) through the towers, wall and glacis were finalized. The entire plan of the gate was checked and amended in light of the articulation work carried out this summer. Architectural reconstruction drawings were also prepared. It is anticipated that this volume will be ready for publication in 2008.

Progress was also made towards a final monograph on the Palatial Complex, which will include the resistivity survey of the entire area. Conservation and recording of the unique architectural elements from the Monumental Entrance was continued. At least one additional season will be needed to continue work on join-finding and mending the many architectural elements for this volume.

KERKENES DAĞ PROJECT PUBLICATIONS

By Year

Kerkenes Dağ Home Page: http://www.kerkenes.metu.edu.tr

This site represents a major experiment in the electronic publication of an international archaeological project.

2007 Branting, S., Wu, Y. Srikrishnan, R. and Altaweel, M. R.
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