We report here the results of field investigations conducted at Politiko-Troullia during the summer of 2008. Our research employed enhanced soil resistivity survey coordinated with expanded excavation of the western component of Bronze Age Politiko-Troullia (Fig. 1). The remains of this settlement lie buried in the foothills of the Troodos Mountains, south of the fertile Mesaoria Plain of central Cyprus. Politiko-Troullia covers a saddle perched at approximately 400m above sea level, bounded by deeply entrenched Kamaras Creek to the west and overlooking the streambed of the Pediaios River to the east (Fig. 2). Today, the Pediaios no longer flows below Tamassos Dam, 500m to the southeast, but in antiquity the inhabitants of Politiko-Troullia would have enjoyed ready access to arable land, spring-fed stream flow just at the community’s western edge, the resources of the largest river on Cyprus, and easily-mined copper sources less than 1km to the south in the pillow lavas of the Troodos. In concert, these factors no doubt encouraged the establishment of the agrarian community at Politiko-Troullia.

In his study of ancient stone gaming boards (“Brettspiele”), Hans-Georg Buchholz first inferred the presence of a Bronze Age settlement at Politiko-Troullia (1982, 70–71). Based on their reconnaissance along the easternmost coverage of the Sydney Cyprus Survey Project, Given and Knapp subsequently provided a brief description of Red Polished Ware ceramics and eroded exposures of three stone walls (probably those still visible at the site’s northwestern edge) that verified the settlement’s location (Given 2002, 44–45; Given and Knapp 2003).

Our earlier investigations in 2004 through 2007 show that Politiko-Troullia provides a stratified archaeological record well-suited to illuminate agrarian life and landscape formation over a substantial span of the Middle Cypriot era, during the prelude to the emergence of urbanized Late Cypriot settlement and society. Politiko-Troullia complements the evidence from Early

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and Middle Cypriot communities at Sotira-Kaminoudhia (Swiny et al. 2003), Marki-Alambra (Frankel and Webb 1996; 2000; 2006) and Alambra-Mouttes (Coleman et al. 1996). Prior to 2008, our fieldwork at and around Politiko-Troullia incorporated ecological and geological reconnaissance of the local landscape, systematic surface and subsurface survey over the full extent of Troullia, preliminary excavation of domestic remains in three locations in Troullia “West” and “East,” and expanded excavation of later Bronze Age occupation in the eastern portion of Politiko-Troullia (see Falconer et al. 2005; Fall et al. 2008).

Surface survey in 2004 identified two major concentrations of Bronze Age material culture and probable settlement in “Troullia West” and “Troullia East” (Fig. 3). Abundant domestic refuse, especially Red Polished Ware ceramics, ground and chipped stone, indicates a Bronze Age settlement covering more than two hectares in these two portions of the site. Topographic mapping of the Politiko-Troullia locality in 2005 and 2006 documented Bronze Age material culture distributed over 20ha, including fields immediately to the north, a broad agricultural terrace overlooking the Pediaios River, and the northern slopes of adjacent Politiko-Koliokremmos. Extensive agricultural terracing on Koliokremmos suggests intensive pre-modern management of the local agricultural landscape.

RESULTS FROM PRIOR EXCAVATIONS

Surface and subsurface survey in 2004 and 2005 revealed buried architectural structures, including four readily apparent complexes in Troullia East and West (Falconer et al. 2005, fig. 3). Our explorations also located a series of nine buried stone walls eroding out of the east bank of Kamaras Creek (in addition to the three reported by the Sydney Cyprus Survey), which forms the western boundary of Politiko-Troullia (walls 1–9 in Falconer et al. 2005, figs 2 and 3). Careful trimming of the near-vertical cut bank on the south side of Wall 3 revealed the wall’s founding surface more than 3m below the elevation of the adjacent modern fields. Five stratified use surfaces associated with this wall document long-term Bronze Age habitation of Politiko-Troullia, based on associated Red Polished ceramics, chipped stone, animal bones and plant remains (Falconer et al. 2005, fig. 4).

Politiko-Troullia East

Guided by our soil resistivity results from 2004 and 2005, we situated two 4×4m excavation units to assess apparent architectural compounds in Troullia East (Area B; see Fall et al. 2008, fig. 5) and Troullia West (Area Z; see Fall et al. 2008, fig. 8). Our 2006 excavations in Area B revealed interior portions of two structures with an intervening exterior alleyway (Fall et al. 2008, fig. 7). Excavation of Areas A–G in 2006 provided a more comprehensive exposure of a multi-room compound, including roofed structures (one with a stone door pivot), storage bins, alleyways and out-buildings. This stone-built architecture was founded on, or dug into, soft friable siltstone bedrock. Based on this enlarged exposure, much of the evidence from alleyway in Areas B and D, including copper tongs, fragments of a limestone casting mould and copper slag, suggests a roofed, exterior metallurgical work area. To the south of Areas A–G, Area L was situated to assess a striking linear subsurface feature revealed by soil resistivity along the crest of Troullia East. Excavation uncovered part of a lengthy wall running northwest-southeast that was founded on bedrock and accompanied by shallow deposits with wall fall, material culture and animal bones.

Areas A–G and L describe portions of an agrarian community of stone-built compounds dating to the Middle Cypriot Period. Faunal evidence is dominated by domesticated taxa, especially sheep and goat, augmented by significant amounts of pig and cattle (Fall et al. 2008, table 1). Flotation of 226 litres of sediment produced 18 carbonized plant seeds from domesticated and wild taxa, generating a seed density ratio of 80
seeds per kilolitre. The ceramic assemblage from Areas A–G and L suggests occupation in the Middle Cypriot period, based on abundant Red Polished Ware, especially Red Polished III, accompanied by more limited amounts of White Painted Ware from later deposits.

Politiko-Troullia West

Our original soil resistivity results and mapping of the walls exposed along Kamaras Creek led us to situate Area Z amid a concentration of buried architectural alignments at the southwestern edge of Troullia West. Excavation here in 2006 corroborated the insights from the Wall 3 stratigraphic section by reaching the well-preserved remains of Wall 1 buried under a full metre of slope wash from the hill of Politiko-Koliokremmos. The ceramics buried in association with the uppermost sediments along this wall again were characterized primarily by Red Polished Ware, suggesting even the colluvium in Area Z dated to the Middle Cypriot Period. Based on the combined evidence from the Wall 3 section and the initial excavation of Area Z, in 2008 we established a grid of eight new 4×4m units adjacent to Area Z. This excavation field, comprised of Areas Q–Z, investigated the complex of wall alignments apparent in our original soil resistivity mapping of Troullia West.

FIELD INVESTIGATIONS IN 2008

A grid of eight new 4×4m units adjoining Area Z was excavated in 2008. Figure 4 shows the configuration of these units, as well as the plan of the earliest architectural remains revealed in 2008 in Areas Q–Y (as well as the Area Z architecture uncovered in 2006). Following the removal of balks between units, full exposure of the 2008 excavations reveals a large central courtyard surrounded by houses on its north, west and east sides (Fig. 5). A sunken gaming stone in the courtyard provided a footing for a roof support. To the south, in Areas X and Y, parallel east-west walls frame an alley sloping down from east to west, leading toward the stream level of Kamaras Creek, presumably a major water source for the Bronze Age inhabitants of Politiko-Troullia (Fig. 6). Additional houses lay on the south side of this alley. The settlement at Politiko-Troullia was built on a gentle hill slope with houses on a series of levels trending down from east to west. Note that bedrock on the east side of our 2008 excavations had been trimmed vertically to create a terrace for the walls surrounding the central courtyard. Stone wall foundations were constructed on or immediately above bedrock. Heavy deposition of mudbrick fragments and crumbled remains indicates that the upper portions of these houses were built of mudbrick.

The Troullia West architecture excavated in 2008 includes multiple phases of construction and remodelling (Fig. 7). In general, late walls were added to subdivide pre-existing living space into smaller rooms. For example, following the initial construction of this complex, three cross walls were added to subdivide space in Areas X and Y. The southern courtyard wall in Areas V and W was rebuilt slightly to the north of its initial position, with an open doorway that was blocked subsequently. After abandonment, the remains of Politiko-Troullia were cut by a ceramic pipeline running from southwest to northeast (Fig. 8). The pipeline is made of fitted sections (Fig. 9), and appears to have carried water from a spring to the south of Politiko-Troullia northward, perhaps to Ayios Irakleidios Monastery. This pipeline most likely was installed sometime between the 12th and 15th centuries A.D. during the Lusignan Dynasty, as indicated by a piece of Sgraffito ware pottery found immediately underneath one pipe section (Fig. 10).

The architectural plan revealed in 2008 corresponds readily with the subsurface alignments suggested by soil resistivity survey in 2004 (Fig. 11, and see Falconer et al. 2005, fig. 3). This agreement strengthens the likelihood that the broader array of subsurface features apparent in our 2004 soil resistivity results do indeed document more widespread architecture buried in
Troullia West to the north, east and south of our 2008 excavations. To complement the plan views generated by horizontal soil resistivity survey, we utilized a long Wenner array of several electrical poles, coupled with a TR/CIA resistance meter and interpretive software, to generate vertical portraits of soil resistivity that provide stratigraphic cross-sections of buried sediments and features (Fig. 12). At the outset of our 2008 season we employed vertical soil resistivity survey along six transects in Troullia West just beyond the bounds of our excavations units (Fig. 13). This combination of horizontal and vertical resistivity survey quickly expanded our ability to infer likely patterns of deeply buried architecture around Areas Q–Z at Politiko-Troullia.

**Pottery and Gaming Stones**

In keeping with Buchholz’s original identification of Politiko-Troullia, gaming stones continue to appear frequently, with both linear and spiral patterns (Figs 14 and 15). The ceramics from Areas Q–Y indicate occupation during the Middle Cypriot Period slightly earlier than the occupation of Politiko-Troullia East (Areas A–G), which was excavated in 2007. The ceramic wares excavated in 2008 are dominated by Red Polished Ware III, with an abundance of bowls and incised vessels. Black Topped Bowls with a variety of incised motifs provide good examples of finely crafted serving vessels found in abundance in the 2008 excavations (Fig. 16). White Painted Ware sherds appear to represent White Painted III most commonly, with occasional examples of White Painted II. In addition to bowls, the Politiko-Troullia assemblage includes jars, jugs, juglets, cooking pots, and lightly-fired trays and basins. A variety of cooking hobs include an example with anthropomorphic features (Fig. 17), and a unique jar sherd features circular raised decoration encompassing a seal-like inscribed pattern (Fig. 18).

**Botanical Remains**

Systematic water flotation of sediments from a variety of contexts at Politiko-Troullia produced botanical remains, including substantial remains of wood charcoal. In 2008 we floated 251 litres of sediment and recovered 497 seeds, producing a seed density of 1980 seeds per kilolitre (1.98 seeds per litre). This value is almost 25 times greater than the seed density produced from our 2006 and 2007 excavations of Areas A–G in Troullia East. Plant taxa represented in the Politiko-Troullia assemblage include olive (*Olea europea*), grape (*Vitus vinifera*), fig (*Ficus carica*), pistachio (*Pistacia sp.*), caper (*Capparis sp.*), cereals, and several wild taxa (e.g., *Asteraceae, Galium* and wild legumes). The most abundant carbonized seeds came from olive (*Olea*). These results suggest cultivation of orchards (and undoubtedly annual crops as well) amid the persistence of significant stands of trees that would have provided fuel wood for a variety of household (e.g., food preparation) and industrial (e.g., metallurgy) tasks at Bronze Age Politiko-Troullia. The potentially late persistence of forests on Cyprus stands in contrast to the earlier deforestation on the mainland of the ancient Near East (Butzer 1996; Fall et al. 2002).

**Animal Bones**

The animal bone evidence from Politiko-Troullia East (Areas A–G) indicates animal husbandry largely dedicated to the management of domesticated agriculturally-related species. The 2008 excavations produced approximately 16,000 bones and bone fragments, of which about 20 percent could be identified to species and bone element. The major taxa include sheep/goat (approximately 70% of NISP), cattle (9%), pig (4%) and cervids (18%). The cervids are wild Mesopotamian fallow deer (*Dama dama mesopotamica*; see Fig. 19) represented in a mix of mature and immature individuals. With only minor variations between taxa, the 2008 faunal remains were recovered most abundantly from Areas V, W, X and Y, which are arrayed along the alley leading down slope to Kamaras Creek.
Depositional Patterns

The density of ceramic sherds, animal bones and charcoal fragments showed clear spatial patterning that aids the behavioral interpretation of Bronze Age settlement at Politiko-Troullia. The densest amounts of sherds and bones were found in the alleyway running roughly east-west just south of the central courtyard in Areas Q–Y. The courtyard also produced areas of dense sherd and bone deposition. Room interiors revealed significant deposition, but at levels that reflect generally cleaner conditions in interior spaces. Metallurgical remains, especially slag samples, were likewise abundant toward the southern reaches of our 2008 excavations. This evidence included a particularly fine example of the hafted end of a copper or copper-alloy dagger blade (Fig. 20).

These patterns suggest intentional deposition of refuse in public spaces, especially along the alley, and more regular cleaning of surfaces inside the houses surrounding the courtyard. While the architecture excavated at Politiko-Troullia in 2007 suggests a discrete “room block,” with a series of related structures and spaces bounded by an enclosure wall, the architecture excavated in 2008 suggests multiple households focused on a shared central space (and possibly multiple clusters of households separated by streets). These patterns are similar to those of traditional mudbrick rural architecture on Cyprus during more recent historical periods.

CONCLUSIONS

The 2008 excavations at Politiko-Troullia shed new light on settlement at this potentially large Bronze Age community, which may have been the precursor to Iron Age Tamassos. The excavations in Areas Q–Y provide evidence of occupation at Politiko-Troullia somewhat earlier in the Middle Cypriot Period than the evidence from Areas A–G excavated in 2007, which dates to the latter portions of the Middle Cypriot period. These results suggest the potential of a dispersed farming community comprised of earlier households with shared communal space and later discrete room blocks. The inhabitants of Politiko-Troullia appeared to have shifted from being mixed hunters and farmers to dedicated farmers and herders, very much involved in the adoption of the domestication economies of the Secondary Products Revolution (Sherratt 1980) that characterize the Bronze Age on Cyprus (Butzer and Harris 2007), as well as the greater Mediterranean (Rackham and Moody 1996) and the mainland Near East (Fall et al. 2002). Future excavations hope to produce excavated evidence to supplement this portrait, especially from the portions of Politiko-Troullia West that promise to reveal stratified evidence that may carry the record of settlement at this community earlier into the Bronze Age.
REFERENCES


Fig. 1. Map of Cyprus, with small box locating Politiko-Troullia near Politiko village, approximately 25km southwest of Nicosia.

Fig. 2. Overview of Politiko-Troullia (facing northeast) showing the 2008 excavation areas under sun shades. Steep down-cutting along Kamaras Creek exposes limestone bedrock in the foreground (Photo by Sid Rempel).

Fig. 3. Cadastral map showing Politiko-Troullia locality. Shaded area indicates the extent of Red Polished Ware pottery on the site’s surface (approximately 20ha). The prime domestic areas of Troullia West and East cover over two hectares. Hatched lines indicate agricultural terraces on the hill of Politiko-Koliokremmos.
Fig. 4. Architectural plan of earliest stone wall foundations excavated in Areas Q–Y (2008) and Z (2006) at Politiko-Troullia. Shaded area indicates exposed bedrock which was cut back to the east during the Bronze Age to accommodate the central courtyard. Note the sunken gaming stone in Area S that served as a post support. The alleyway between the southern courtyard wall and the Area X/Y/Z wall received particularly substantial cultural deposition (Plan by Sid Rempel).
Fig. 5. Courtyard and surrounding rooms excavated at Politiko-Troullia in 2008 (facing south). Note modified bedrock on the east side of the courtyard, and alleyway in the background. Zuzana Chovanec sits next to the northern courtyard wall; Tara Vereyken kneels by the western courtyard wall, while Rhian Stotts stands in the alleyway, just outside the southeastern corner of the courtyard (Photo by Sid Rempel).

Fig. 6. Stone walls defining the alleyway and courtyard excavated at Politiko-Troullia in 2008 (facing northwest). Sounding at west end of the alleyway approaches bedrock, indicating the depth of cultural sediments in Politiko-Troullia West. Rhian Stotts sits in the alleyway outside the southeastern corner of the courtyard; Zuzana Chovanec kneels south of the southern alley wall, and Molly Mahaney sweeps near the northwestern corner of the courtyard (Photo by Sid Rempel).
Fig. 7. Plan view of architecture excavated in Areas Q–Y (2008) and Z (2006) at Politiko-Troullia. Darkest shading indicates the earliest Bronze Age walls. Lighter shading indicates subsequent construction of cross-walls in Areas X and Y, relocation of the southern courtyard wall with a doorway. Lightest shading indicates blockage of the southern courtyard doorway. A buried Medieval ceramic pipeline cuts through this Bronze Age architecture, running southwest-northeast (Plan by Sid Rempel).
Fig. 8. Maggie Brown sweeps along the Medieval pipeline and adjacent chinking stones in Area V, Politiko-Troullia (facing north). Note how the pipeline cuts obliquely southwest-northeast through the two-row wall on the western side of the courtyard. Posthole shown in background to northeast (Photo by Sid Rempel).

Fig. 9. Two sections of Medieval ceramic pipe excavated from Politiko-Troullia in 2008. Note standardized lengths and jointed ends (Photo by Sid Rempel).

Fig. 10. Sherd of Sgraffito ware recovered in 2008 underneath one section of the Medieval pipeline at Politiko-Troullia (Photo by Sid Rempel).
Fig. 11. Plan of architecture excavated in Areas Q–Z overlaid on soil resistivity plot from 2004. Dark areas indicate high resistivity and possible buried stone features (e.g., walls). The irregular western edge of the resistivity plot reflects the end of resistivity coverage as it approaches the edge of Kamaras Creek, which bounds Politiko-Troullia on the west. Note the agreement of excavated wall alignments and those suggested by resistivity (Plan by Sid Rempel).

Fig. 12. John Hunt (foreground) and John Czarzasty (background) aligning an east-west Wenner array of probes for vertical soil resistivity survey south of Area X at Politiko-Troullia, 2008 (Photo by Sid Rempel).
Fig. 13. Plan of architecture excavated in Areas Q–Z at Politiko-Troullia, with extrapolated connections to the ends of Walls 1–4, which are exposed along the eroded east bank of Kamaras Creek. Six transects labeled A–A1, etc. indicate vertical soil resistivity alignments surveyed in 2008. Broadened red portions of the transects indicate likely intersections with buried walls (North to top of figure; Plan by Sid Rempel).
Fig. 14. Limestone gaming board with linear alignment of pecked depressions, excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).

Fig. 15. Limestone gaming board with spiral alignment of pecked depressions, excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).

Fig. 16. Partially reconstructed Black-Topped incised bowls exemplifying a range of decorative patterns, excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).
Fig. 17. Anthropomorphic incised cooking hob leg excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).

Fig. 18. Red Polished ware jar sherd with raised, incised stamp-like decoration excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).

Fig. 19. Proximal (lower) and distal (upper) antler fragments from Mesopotamian fallow deer (*Dama dama mesopotamica*) excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).

Fig. 20. Haft end of a copper or copper-alloy dagger blade fragment with three rivets excavated from Politiko-Troullia, 2008 (Photo by Sid Rempel).
ΠΕΡΙΛΗΨΗ

Οι αρχαιολογικές ανασκαφές στη θέση Πολιτικό-Τρούλλια της Εποχής του Χαλκού το καλοκαίρι του 2008 ενίσχυσαν τα αποτελέσματα και τις θεωρίες των προηγούμενων ερευνών που διεξήχθησαν μεταξύ του 2004–2007. Η ανασκαφή του 2008 στα Δυτικά Τρούλλια αποκάλυψε πολλαπλές φάσεις οικοδομής και αναδιαμόρφωσης, με ένα αρχιτεκτονικό σχέδιο στο οποίο κεντρική θέση είχε η αυλή στα νότια της οποίας υπήρχε ένας μικρός δρόμος, ο οποίος κατηφορίζει προς τα δυτικά, προς το ποταμάκι της Καμάρας. Τα κεραμικά που βρέθηκαν, στα οποία υπήρχε μια πληθώρα του Ερυθροστιλβωτού τύπου, υποδηλώνουν κατοικία στη Μέση Εποχή του Χαλκού. Οι απανθρακωμένοι σπόροι ανήκουν περισσότερο σε καρπούς οπωροφόρων δέντρων, ενώ τα αιγοπρόβατα και το ελάφι (Mesopotamian Fallow Deer) χυμαραχούν μεταξύ των οστών ζώων που ανευρέθηκαν. Τα κατάλοιπα από οστάκια, οστά και φυτά χαρακτηρίζονται από χωρική διάσταση που διαχωρίζει τα πιο βαριά οικογενειακά συγκοινωνία που βρίσκονται στα δρομάκια από τα λιγότερα κατάλοιπα στην αυλή του Δυτικού Τρουλλιά, καθώς και από έναν περίβολο που ανασκάφηκε στον Ανατολικό Τρούλλια το 2007.