Pyla-Koutsopetria Archaeological Project (PKAP) Final Report 2008 Field and Study Season

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With Contributions by:

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Introduction (Caraher, Moore, Pettegrew)

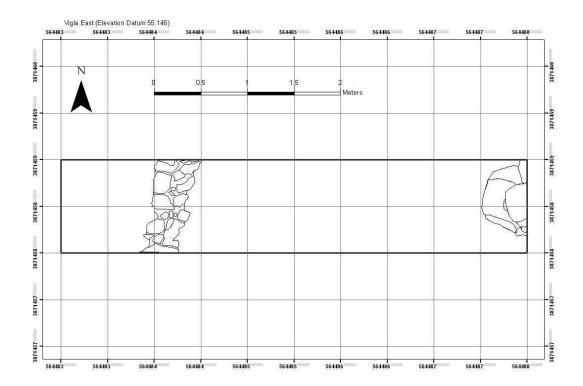
The Pyla-Koutsopetria Archaeological Project recently completed its sixth season of fieldwork at the site of Pyla-Koutsopetria (including Pyla-Vigla and Pyla-Kokkinokremos) under the direction of Professor William Caraher (University of North Dakota), Professor R. Scott Moore (Indiana University of Pennsylvania) and Professor David K. Pettegrew (Messiah College) and in collaboration with Dr. Maria Hadjicosti of the Department of Antiquities. Several specialists joined us for our 6-week season: Professor Dimitri Nakassis (University of Toronto), Michael Brown (University of Edinburgh), Brandon Olson (Penn State University), Maria Andrioti (Princeton University), John Hunt, Matt Dalton, Susan Caraher and Katie Pettegrew. A graduate student from University of North Dakota and the Indiana University of Pennsylvania, three undergraduates from Indiana University of Pennsylvania, and three undergraduates from Messiah Collage also joined the PKAP team. The 5-week 2008 combined field and study seasons (May 14-June 23) saw the successful completion of six tasks:

- 1. We investigated a series of small soundings: 4 on the plateau of Pyla-*Vigla* and 3 on the height of Pyla-*Kokkinokremos*.
- 2. We created a new high-resolution topographic map of Pyla-*Vigla*, Pyla-*Kokkinokremos*, and Pyla-*Koutsopetria* with <1 m accuracy using a Trimble R8 DGPS.
- 3. We completed 7550 sq. m. of electrical resistivity and electrical tomography at the sites of Pyla-*Koutsopetria*, Pyla-*Vigla* and Pyla-*Kokkinokremos* under the direction of Michael Brown of the University of Edinburgh and John Hunt of Limassol.
- 4. We completed the preliminary analysis of the pottery collected during four seasons of intensive survey (2004, 2005, 2007, and 2008).
- 5. We begun to document the context pottery, plan, and architectural mortar and plaster from the excavations conducted by Dr. Maria Hadjicosti at the site of Pyla-*Koutsopetria* in the 1993 and 1999.
- 6. We conducted 8 ha of additional intensive survey on the plateau of Pyla-*Vigla* and around the area of Kazamas on the northern half of the Pyla-*Vigla* plateau.

I. Summary of Trench Soundings (Andrioti, Brown, Caraher, Moore, Nakassis, Olson, Pettegrew)

Vigla: Trench 1

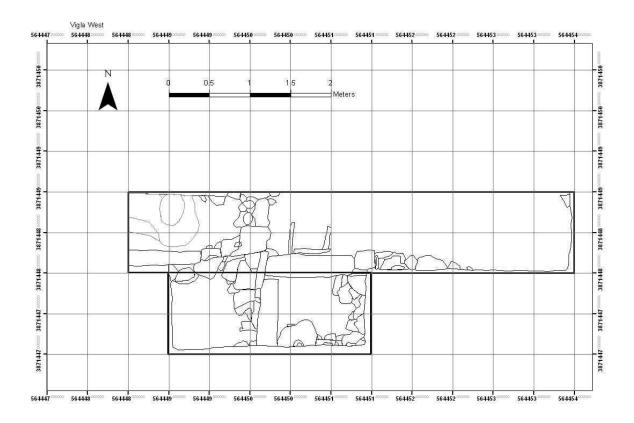
Final top plan:



Summary: Vigla Trench 1 was investigated from 30 May to 10 June 2008. The unit produced a sizeable ceramic assemblage and metal, bone, shell, and stone material. The predominant feature uncovered was a 0.50 meter wide wall running roughly north/south through the trench. The trench appears to represent a single-phase habitation site dating to the Classical-Hellenistic period. The material west of the wall represents sediments on the exterior of the building, while the soils to the east of the wall constitute an interior space, based on the presence of a clear floor surface and higher artifact densities. Finds of interest include four coins, a broken lead sling bullet, and evidence for lead sling bullet production in the form of casting debris, all of which were found on the floor level to the east of the wall.

Vigla: Trench 2

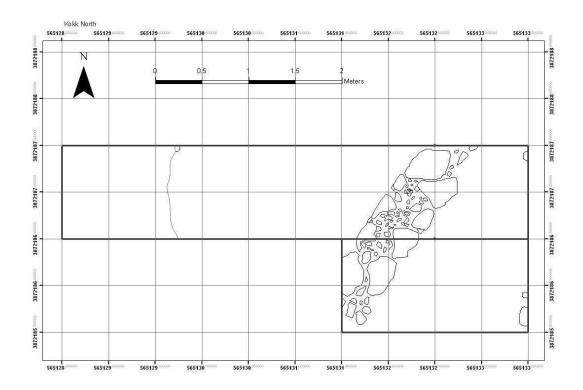
Final top plan:



Summary: Trench 2 was investigated from 30 May to 17 June 2008 on the Vigla plateau. The features in the trench include cross walls running east-west and north-south, flooring of multiple phases, and a cistern-like feature carved into bedrock in the northwest. There are two separate phases of architecture and three phases of occupation. The primary finds consist of ceramics, metal, shell, stone objects, mortar, plaster, and bone; significant among these are a coin, metal projectile point, and the bottom half of a limestone statuette. Preliminary readings of the pottery date the assemblage to the Iron Age and Classical/Hellenistic periods, while the variety of ceramics found and the quality of the wall construction suggest domestic habitation rather than a monumental building. There is evidence that there was a significant destruction by fire late in the history of the building. Overall, this finds from this trench seem to represent domestic habitation of the Classical/Hellenistic periods.

Kokkinokremos: Trench 3

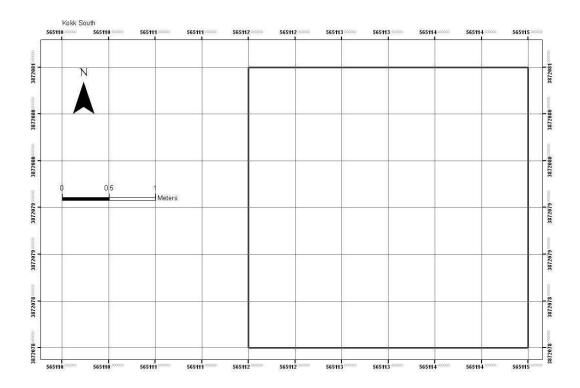
Final top plan:



Summary: Trench 3 was investigated to ground-truth the interpretation of a large landscape feature detected using remote sensing and geophysical survey during 2007. The results of the investigation revealed a bedrock cut corresponding to this feature, together with associated architecture. The interior of the building preserved a 'floor' surface and numerous in-situ deposits. The material of Trench 3 represent the partial remains of a single architectural phase of a Late Bronze Age structure, which appears to have been abandoned following a relatively short period of use. The patterning of the tumble indicates that the structure collapsed inwards, directly on top of the in-situ occupational deposits. The total absence of this scatter on the western 'exterior' of the building would suggest that this collapse was the result of a gradual process of decay following the loss of structural integrity in the upper portions of the building. While the importance of this feature as a determinant on intra-mural planning would have in itself been slight due to its relatively shallow dimensions, the widespread protrusion of bedrock directly to the west of this feature does support its interpretation as a 'boundary' in terms of occupational density on the plateau.

Kokkinokremos: Trench 4

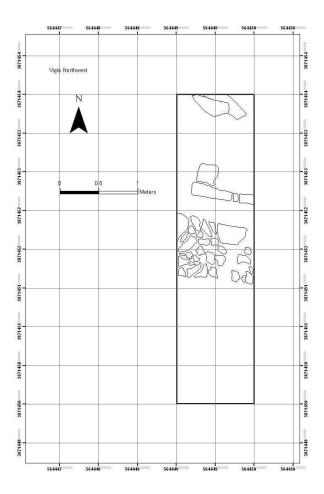
Final top plan:



Summary: Trench 4 is located on Kokkinokremos plateau. It was conceived of and planned with the purpose of furthering our knowledge of the Late Bronze Age history of the area. Resistivity images suggested a wall trending southeast through the area occupied by this trench. After a short investigation period of six days, however, it was determined that the readings of the geophysical survey were mistaken and that the expected wall did not in fact exist. No structures or substantial finds were uncovered and the ceramic finds are few and relatively undiagnostic. However, this is a useful conclusion, as it establishes that habitation in this part of the plateau focused on the ridges and that the central part of the plateau was empty space.

Vigla: Trench 5

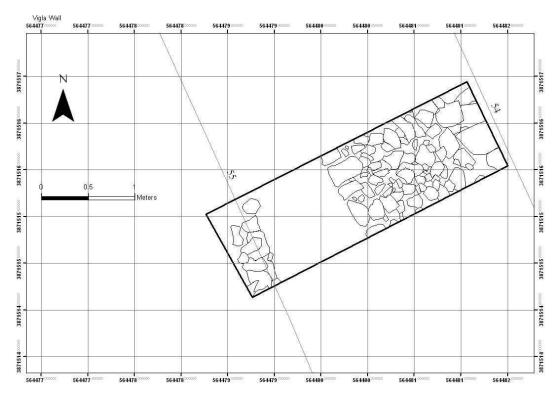
Final top plan:



Summary: Trench 5 was investigated on the Vigla plateau from 6 June to 17 June 2008. It was conceived of and planned in order to investigate the nature of the large structure that was discerned by geophysical survey, to help understand and interpret the habitation layers uncovered by Trench 1 and Trench 2, and to provide further evidence concerning the chronology of the area as a whole. The results confirmed the absence of Late Roman pottery on the plateau, and placed the most visible phase of architecture in this area in the Classical and Hellenistic periods. Part of the wall of a large structure was uncovered, but its relatively insubstantial nature does not suggest a large monumental building as we had initially interpreted in the geophysical results. There are at least three occupational phases represented, two of which have related architecture.

Vigla: Trench 6

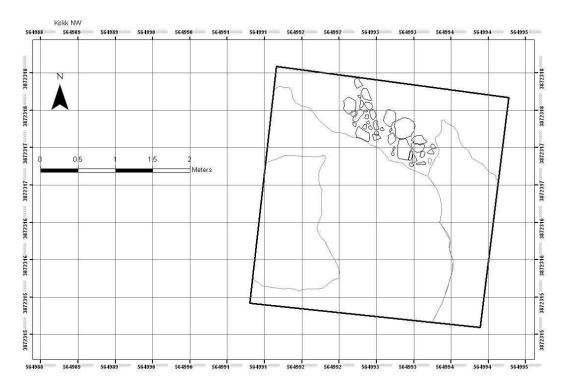
Final top plan:



Summary: Trench 6 was founded with the aim of providing a foundation date for the perimeter wall, providing information related to the use and possible re-use of the structure, and definitively clarifying the wall's impressive girth and method of construction. The sounding revealed three architectural phases, all probably Hellenistic in date. The earliest phase is associated with a plaster-faced mudbrick wall running upslope, founded on bedrock. After a short abandonment of the structure associated with this mudbrick wall, a plaster-faced stone wall running along the 55 m contour line was built, associated with a packed floor of earth and gravel. Shortly thereafter, this structure appears to have been cut into by a trench associated with the construction of the fortification wall.

Kokkinokremos: Trench 7

Final top plan:



Summary: Trench 7 investigated the prominent outcrop of exposed bedrock in the northwest of Kokkinokremos, adjacent to the narrow strip of land connecting the site with the wider Pyla upland massif. The purpose of this sounding was to look for foundation cuts which could potentially suggest the presence of architecture in this otherwise heavily eroded section of the plateau. While a possible bedrock cut was identified in the northern portion of this otherwise very shallow area, it was not possible to reliably determine if this feature was artificial, and the evidence for architectural augmentation of the bedrock at this location is therefore not definitive.

II. Topographic Survey (W.R. Caraher)

A. Overview

During the 2008 field season, we conducted approximately 15 days of topographic surveying using a Trimble R8 DGPS unit. This unit consisted of a base station, rover, and survey controller. The data was initially processed in Trimble Geomatics Office and then exported to ESRI ArcGIS 9.2 to be integrated into our pre-exiting data sets and to be rendered into a new DEM (Digital Terrain Model). The DGPS team worked in the field at the same time as the field teams. In general, the team consisted of one member (Caraher) manning the Survey Controller unit and another member (often our Camp Manager, Bret Weber) leveling the Rover antenna which was mounted on a 2 m poll. Our basic procedure was to follow rough transects spaced at 15-20 m across even the most rugged terrain in our area recording points every 15-20 steps (12-18 meters). Over easy terrain we could record over 300 points an hour. Over more difficult terrain, like the slopes of Vigla or Kokkinokremos, we sometimes barely recorded 50 points an hour.

B. Topographic Survey

During the course of the season we took approximately 5000 points of which approximate 4000 were used for mapping and planning purposes. We totaled for 5 seconds on each point.

All coordinates were in UTM WGS 1984 zone 36N. Elevations were derived EDM 96 geoid model.

On Vigla we used a single base point. Two base points were required for Kokkinokremos as we could not maintain radio contact with our original base on the northwestern corner of the hill.

- 1. Vigla Base: viglabase5 27: 3871439.789, 564466.394 El: 55.315
- 2. Kokkinokremos Base: newbasejune2008: 3872112.183, 565092.599 El: 55.932
- 3. Kokkinokremos North Base: kokknorbase: 3872369.245, 565098.698 El: 56.948

The Vigla base (viglabase5_27) was located near the northern edge of the plateau and marked by a metal pipe. The base station was clearly visible from almost the entire Koutsopetria plain, and we had not trouble mapping the entire shape of the hill and the majority of the plain itself. The data acquired from viglabase5_27 is now located in shape file ViglaDatum.

We used two datum points to map Kokkinokremos (newbasejune2008 and kokknorbase). The point called newbasejune2008 was the base that we used to map the majority of points on the hill as well as the elevation and corner points for the trenches and any features. This datum was located in the middle of the western spur, slightly offset toward the west. It is marked by a steel pipe painted bright orange. The data acquired from this base is located in shape file KSDatum.

The secondary datum, kokknorbase, provides the necessary coverage to map the points along the eastern side of the eastern spur and the northern side of the slope. It was located on the eastern slope of Kokkinokremos on a conspicuous ridgeline slightly to the north of the flag polls on its eastern side. It was marked by a rough stone cairn and a spray painted line. The data acquired from this base is located in shape file KNDatum.

C. Simple Corrections and Additional Work

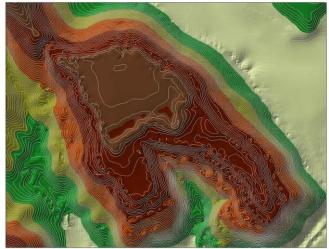
When we checked the position of this new base from the newbasejune 2008 datum (and checked newbasejune 2008 from the kokknorbase datum), we discovered a difference in elevation for the points recorded from these two data of about 3.25 m. One simple linear

correction is provided in the shape file AdjustedElDatum in the column ElCor. While this simple correction succeeded in correlating the elevation produced by both bases to one another, the points would still benefit from proper differential correction. It was impossible to link the base on Vigla to either base on Kokkinokremos. Finally, it will be necessary to remove some points taken from the KNDatum that are below the surface of the ground, namely the final elevations from the trenches on Kokkinokremos.

D. Other DGPS Data Collection

Over the course of topographic mapping we also collected data on a number of other features in the landscape. The most important of these were the trenches. The elevation data points for each trench were produced by the DGPS and will require correction after we differentially correct the base points. We also recorded the corners of each trench and the corners of the Geophysical transects surveyed by John Hunt. The wall on Vigla and its associated taphros were both recorded as were the most prominent roads crossing our study area. It is our hope that the roads can provide good points for georeferencing aerial photographs. Unfortunately, lack of time and manpower prevented us from mapping the walls on Kokkinokremos or any of the cultural features in this area. If time permits it would be advisable to return to the study area for another season of intensive mapping.

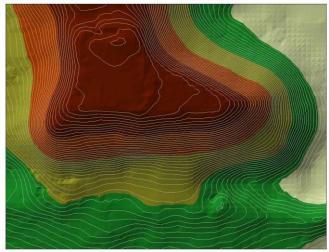
E. New Topographic Maps for Vigla, Koutsopetria, and Kokkinokremos Once the base points are differentially corrected (provided that this is possible), it will not be difficult to produce new topographic maps from the collected data.



Kokkinokremos



Koutsopetria



Vigla

III. Geophysical Survey: Electrical Resistivity and Tomography (Brown & Hunt)

A. Report on Geophysical Work during the 2008 Field Season

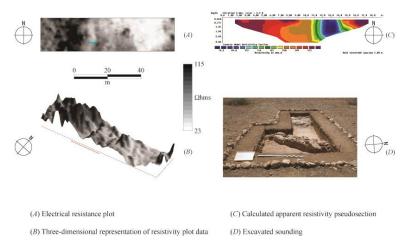
In 2008, the Pyla-Koutsopetria Archaeological Project worked with John Hunt of Limassol and Michael Brown of University of Edinburgh to conduct 6 days of geophysical prospecting. In all, we surveyed an additional .8 ha of the study area. Each geophysical grid was composed of 20 x 20 meter units. This work had two independent goals: 1) to determine precisely the location of subsurface features at Vigla and Kokkinokremos in order to ensure that our placement of trenches was precise and 2) to continue to document the subsurface features at Koutsopetria with particular attention to whether the area showed any indication of formal planning or monumental thoroughfares. While the results of this latter project are not yet processed, we can comment here on the logic behind the placement of geophysical units and very preliminary results.

B. Vigla and Kokkinokremos Revisited

Our geophysical work in 2007 consisted of several large transects at Kokkinokremos, Vigla, and Koutsopetria surveyed using electrical resistivity. This work revealed the presence of several seemingly man-made anomalies below the surface of Vigla and Kokkinokremos, and determined the placement of our trenches for the 2008 excavation season. The large scale of these geophysical transects, however, allowed for a considerable amount of imprecision to enter into the placement of the subsurface features (i.e. as a result of grid creep and the natural imprecision of the geophysical technique). Consequently, we decided to conduct a small scale resurvey of these areas again using resistivity in order to ascertain the precise location of these subsurface features for the 2008 excavations. The results of the geophysical prospecting produced very similar results to those conducted in 2007.

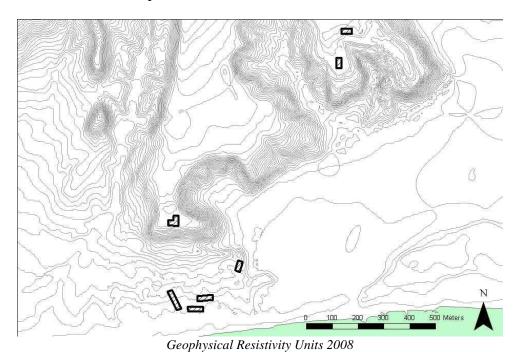
In addition to traditional geophysical work with electrical resistivity, we also conducted several small-scale tests of a technique called electrical tomography. This method works on the same principles as traditional resistivity, but rather than plotting the horizontal distribution of resistance, records the vertical differential of resistance using a series of probes placed along a single line. The results of the tomography, particularly on Kokkinokremos, expanded our reading of the traditional resistivity grid by showing that the variation in resistivity was, in fact, a subsurface terrace.

Pyla-Kokkinokremos Twin-Probe Resistivity Data (1x1m)



C. New Transects

In addition to the resistivity survey conducted at Kokkinokremos and Vigla, we surveyed 4 additional transects at Koutsopetria. The areas were selected to avoid the long stretches of rubble produced by field clearance. These long berms limited the areas available for gridded resistivity based on 20 x 20 meter units that ensured the best results from processing our data. Nevertheless, we were able to place four grids that sought to intersect both the north-south and east-west axes of the coastal plain which we hoped would allow us to get some impression of the site's town plan.



While we have not completed processing of these results yet, at least one transect, the easternmost transect at Koutsopetria, appears to show a large building, perhaps a warehouse. The other transects produced results that were far less well-defined and seemingly represent the garbled tumble of toppled buildings.

IV. Finds Analysis (S. Caraher & R. S. Moore)

A. Museum Work

During the 2008 season, we worked on several different ceramic projects. First, we finished analyzing all pottery collected from pedestrian survey of the Pyla-Koutsopetria region during previous field seasons. Select artifacts from this analysis were chosen for more detailed ceramic study (labeling, photographing, and cataloguing). Second, we began analyzing and cataloguing ceramic artifacts collected during the 2008 test soundings. This analysis was only partially completed and will require more intensive work next summer during our proposed "study season." Third, after talking to Dr. Maria Hadjicosti prior to our 2008 field season, with her permission we also started analyzing the pottery she collected during her two excavations on the plain of Pyla-Koutsopetria. During this field season, we were able to analyze slightly more than half of the artifacts from her excavation stored in the Larnaka Museum. Finally, we continued to work on the preparation of a formal catalogue of significant sherds for publication. Artifacts selected for formal catalogue descriptions had all been labeled and imaged and approximately half of them have been drawn. We continued using the description system established in 2006 for the cataloguing of artifacts.

PKAP Catalogued Artifact Recording Form (PKAPCARF)

Artifact Number:	Label?		Scan?	Photo?	Drawing?
Dimensions:		Muı	nsell:		
Description Fabric:					
Description Shape:					
Description Decoration:					

In general, we used the "Instructions for Inventorying" employed at the American School of Classical Studies Excavations at Corinth. Greece dated to 2005:

Dimensions: All dimensions were recorded in meters. A maximum of three dimensions were included for each artifacts: 1) h = height; the height of the properly stanced rim; 2) l = length; the maximum preserved length of the rim fragment; 3) est. diam. = estimated diameter; this was only used for rims and estimated from a rim diameter chart with a maximum rim diameter of 24 cm. In some instances, the maximum rim diameter for artifacts over 24 cm was estimated in order to convey the proper order of magnitude (e.g. 26 cm or 34 cm). Consequently, all estimated rim diameters over 24 cm should be treated as only rough estimates. For artifacts other than rims or too small to estimate diameter or stance, we simply recorded the maximum artifact dimension.

Munsell: For all artifacts, we recorded a Munsell number for the fabric of the artifact. For slipped artifacts, we included a Munsell number of the color of the slip.

Description Fabric: This was done with the naked eye both inside the museum and in sunlight. The size and coarseness of the grain was estimated and recorded as either fine, medium coarse, or coarse. Any visible inclusions were recorded by color unless they could be easily identified by the naked eye, such as lime, quartz, or mica. The goal of the fabric

description is to produce descriptions that are useful to other archaeologists studying artifacts under similar conditions.

Description Shape: If the artifact was from a known artifact type (e.g. PHW3), in most instances this was simply noted along with any recognizable subtypes. If the artifact could not be associated with a known type or was significantly anomalous, then a more formal description was included following the guidelines established by the Corinth Excavations.

Description Decorations: This field included a brief description of the surface decoration, painting, or the character of the slip.

B. Registrar's Report for the 2008 PKAP Season

Processing of artifacts during the 2008 Field Season again took place within the laboratory at the Larnaca District Archaeological Museum. Prior to fieldwork getting underway, Mara Horowitz analyzed the survey material from the 2007 season on Kokkinokremos, and Dr. R. Scott Moore analyzed survey material from the Vigla area.

The main areas of analysis were PKAP 2007 survey, PKAP 2008 survey, PKAP 2008 excavations on Kokkinokremos, PKAP 2008 excavations on Vigla, and the previous excavations at Pyla-Koutsopetria.

During the off-season, several questions had been posed with regard to specific catalogued artifacts and we prioritized resolving these issues during the lab time. More than half of these artifacts were located and all were deemed correctly recorded by Dr. Moore. Another group of mislabeled artifacts were located and corrected.

The main priority for this season was to organize the artifacts at the museum in such a way as to maintain control over the survey and excavation material, and to continue inventory in a methodical manner. Artifacts that were selected for cataloguing by Dr. Moore were first sent to the registrar for labeling and then to either the illustrator or photographer according to the degree of recording.

All of the artifacts that have been previously catalogued for publication were located in storage and grouped together for the 2009 study season. During the offseason, images for each of these artifacts will be quality checked. Thus, should any require re-imaging, it will be a manageable task.

This year PKAP had three illustrators. Mat Dalton, Brandon Olson and Kate Pettegrew illustrated several artifacts from the PKAP excavation, survey and the Pyla-Koutsopetria excavation of the Basilica. Maria Andrioti and Mat Dalton were responsible for photographing artifacts. Photography was done outside in the shade using a standard color chart and black and white scale. Both a photography log and illustration log were kept as well as the Survey Unit Inventory Record (SUIR) forms for all of the analyzed materials.

Daily activities included logging the materials brought in from the field, washing the ceramic artifacts from the Vigla excavations and survey areas, photography, illustration, labeling, analysis, scanning and storing. Unlike prior seasons of PKAP, the storage and stabilization of metal artifacts was a greater priority.

A total of 13 crates of Kokkinokremos survey material and four crates of Vigla area survey material have been marked for storage away from the Larnaca District Archaeological Museum's workroom. Material collected from the 2008 field season will either be stored for the study season in 2009 or partially catalogued for the 2009 study season.

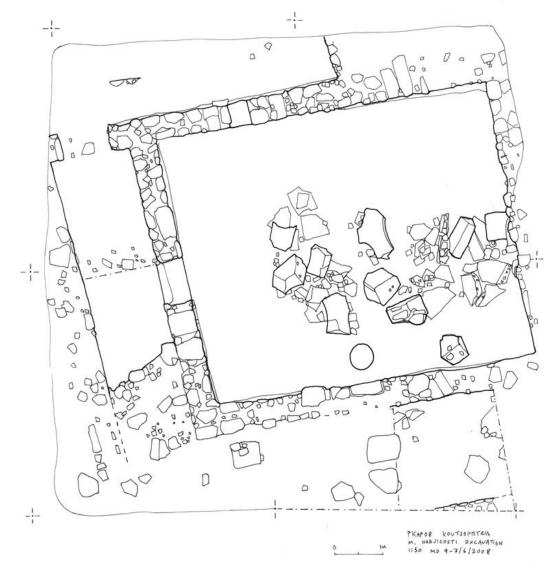
V. Excavation at Pyla-Koutsopetria: 1993 & 1999 (Caraher, Dalton, Moore, and Lepinski)

The study of the finds, architecture, and decoration from the room excavated by Maria Hadjicosti in 1993 continued during the 2007 offseason and 2008 field season. Caraher directed the study, but was heavily dependent upon contributions from Dalton and Lepinski. Lepinski is responsible for publishing the painted plaster and molded gypsum and will copublish the architecture with Caraher.

A. Provisional Study of the Architecture and Construction Pyla-Koutsopetria Room 1 (William Caraher)

Introduction

This study is based upon a week of fieldwork at the site of Pyla-Koutsopetria during the 2008 Pyla-Koutsopetria Archaeological Project field season. During this time Mathew Dalton produced a new stone-by-stone plan of the room, and we prepared a tentative reconstruction of the double arch which spanned the room north to south. We also made a series of preliminary observations both from the in situ architecture and from the inventoried architectural plaster. The analysis offered here is in no way final, but rather presents some preliminary reflections on the architecture of Room 1 which will form the point of departure for a more comprehensive study in the summer of 2009.



Construction Techniques

The walls of Room 1 at Pyla-Koutsopetria provide some clear indications of the techniques used in the construction of the lower level of the room. The basic construction material is a combination of field stones and large cut blocks which are almost certainly spolia from earlier buildings. The cut blocks are rather regular in size ranging between 0.45 m and 0.55 m in height, 0.25 m and 0.35 m in width, and 0.75m to 0.85 m in length. The soft limestone appears to have been quarried locally for a monumental building of earlier date. These blocks were sometimes placed as orthostates and the space between the blocks filled with fieldstones set in a coarse grey mortar and earth. Such modular construction techniques appear at Kopetra. Elsewhere in the wall, particularly at the lowest levels visible, there is evidence that the stones were arranged in courses, presumably to provide additional stability. It may be that these courses served the same function as bricks elsewhere in the Late Antique Mediterranean. Finally, there is some evidence for the use of ceramic tile and gypsum blocks in the walls. The ceramic tiles are not arranged systematically as elsewhere in Cyprus (e.g. Kourion where tile was arranged in an almost cloisonné style) but rather as occasional chinking. The tiles and gypsum blocks are not dissimilar from those in use in other parts of the site suggesting that they derived from buildings that we not much earlier in date to Room 1. The exterior and interior of the wall was covered with a coat of the same coarse mortar used in the fill of the

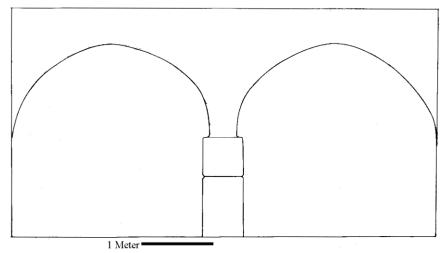
The mortar used in the bedding for the floors of the room is considerable coarser than the mortar in the walls with numerous large rounded pebble inclusions. The scoring lines visible in the bedding seem to mark the dimensions of the gypsum paving slabs. These appear to be of irregular size, and the several remaining gypsum slabs in the room do not appear to fit the dimensions preserved in the scoring of the floor bedding. The large slabs of floor in a similar pebbly mortar in the rubble on the floor of the first floor indicate that second story had a floor of the same construction.

Architecture

The preserved fragments of floor from the second story preserved on the floor of the Room 1 provide only one piece of evidence for the substantial weight of the second story. Several mortar fragments (e.g. 94G) most likely from the top sections of the second story wall show that the room was wood-roofed. The impressions on the mortar fragments indicate that the main beams of the roof were approximately 0.12 – 0.15 m in diameter. The roof beams would have rested upon similarly sized beams set into the top of the walls and rather closely spaced (<0.10 m) perhaps to support better the weight of the thick Corinthian style roof tiles. The remains of these roof tiles littered the excavated layers and the surrounding fields. The impressions of wooden beams in several fragments of preserved mortar from the room (e.g. 94B, 94A) suggests that at least part of the second story may have had wood beams running laterally through the walls to save weight.

The second story was supported by preserved walls xxx m thick and pierced by a narrow door at its western side. The only evidence for windows was a rather narrow slit in the north wall which measured a mere 0.30 m in width. It seems likely that most of the preserved gypsum window screens came from larger windows in the building's second story.

The most significant architectural feature in Room 1 is a large double arch which bisected the room north to south. While less than 50% of its original span is preserved in the tumble on the floor of this room, enough material is present to propose tentatively a minimum height and basic shape. The arch was constructed of roughly cut local limestone and rubble set in the same heavy mortar as the walls. The exterior of the arch was covered with a somewhat finer gypsum mortar that is likely similar to the base for plaster described by Lepinski in her catalogue. The arch sprung from a central pier set on the room's east west axis. Unfortunately no clear foundation of this central pier is visible. Several fragments of the pier are scattered on the floor of the room and argue for a minimum height for the arch higher than the currently preserved levels of the walls. A preserved fragment of the springing of the arch is clearly narrower than the central pier. The plaster on the exterior of the springing appears to flair out slightly suggesting that the pier had a distinctly notched profile that would emphasize the transition from the solid supporting feature of the pier to the curvilinear arches. At least one of the two keystones is preserved with attached fragments of the floor of the second story. Another fragment seems to show the point at which the arch springs from the wall. The scattered arrangement of the fragments of the arch on the floor of the building testify to the substantial architectural loads this feature supported. The north to south span of the arch makes it likely that the central beam of the roof ran east to west.



The only entrance to the room was a doorway in the middle of the western wall. The central pier, however, would have prevented a clear line of site to the room's eastern wall. The lack of a clear central axis recommends against reading this room as a chapel or space reserved for the formal performance of the liturgy. The graffito of a ship found on one of the piers seems likely to have faced toward the west based on the nature of the collapse on the floor of the building. There seems to have been a low bench running partially along the length of the eastern wall.

Provisional Catalogue of Architectural Mortar

Pyla-Koutsopetria 1993, Sq. D, No. 94A

Max Preserved Dim. 0.27 m x 0.59 m

Notes: Preserves impression of a long beam (>0.59 m) with a diameter of approximately 0.12 m. Impressions of masonry also preserved.

Pyla-Koutsopetria 1993, Sq. D, No. 94B Max Preserved Dim. 0.18 m x 0.42

Mortar

Notes: Impression of beam preserved on unfinished side of mortar approximately 0.12 m in diameter. The unfinished side also preserves the impression of rough masonry presumably from the walls.

Pyla-Koutsopetria 1993, Sq. Δ, No. 94C Max Preserved Dim. 0.21 m x 0.45 m

Mortar

Notes: Preserved impression of a beam approximately >0.10 m in diameter as well as impressions of coarse masonry. Joins clearly with No. 94E showing considerable plaster surfaces both "below" and "above" beams recommends that wood was used with mortar in the walls above the preserved level.

Pyla-Koutsopetria 1993, Sq. Δ, No. 94D Max Preserved Dim. 0.19 m x 0.44 m

Mortar

Notes: Similar to 94 c with preserved impression of a beam with a diameter of approximately 0.12 m as well as masonry. Water damage on mortar is perpendicular to beam allowing for the possibility that it was incurred while the plaster (and the wall) were still in situ. Semi-circular cut (or break) in mortar approx. 0.10 m in diameter.

Pyla-Koutsopetria 1993, Sq. D, No. 94E Max. Preserved Dim. 0.21 m x 0.37 m Mortar

Notes: See 94C

Pyla-Koutsopetria 1993, Sq. Δ, No. 94F Max. Preserved Dim. 0.19 m x 0.21 m Mortar

Notes: Impressions of wood beam 0.08 m in diameter. Roughly flat surface with one edge that is unfinished and 3 broken sides.

Pyla-Koutsopetria 1993, Sq. Δ, No. 94G

Max. Preserve Dim. 0.16 m x 0.16 m max preserved dimensions

Notes: Finished exterior surface curves toward top where there are three preserved incised lines.

Impressions of beams preserved parallel to the exterior faces and on two sides.

Side >0.13 m in diameter

Side >0.13 m in diameter

Bottom >0.10 m in diameter

Across the top perpendicular to the beams that pass through the exterior face of the mortar and parallel to the beam that runs across the bottom of the fragment, the impression of several small (<0.03 m) sticks or reeds is preserved. This fragment likely derives from immediately beneath the roof and captured the impression of the beam that ran along the top of the wall and the beams that support the roof. The smaller impressions across the top of the fragment represent the reeds or sticks that served as the ceiling of the second story.

Pyla-Koutsopetria 1993, Sq. Δ, No. 94H

Max. Preserved Dim. 0.10 m x 0.21 m

Notes: Impressions of smaller sticks or reeds (0.03 m - 0.04 m) in diameter) perpendicular to the plaster face. These impressions may be associated with the ceiling of the second floor (see 94G) and suggest that this fragment of plaster came from the top of the wall on the side that was perpendicular to the main beam of the roof (presumably the north or south side of the room). Exterior face of plaster shows slight lip perhaps showing where plaster fit against ceiling beams.

Pyla-Koutsopetria 1993, Sq. Δ, No. 94I Max. Preserved Dim. 0.09 m x 0.10 m

Mortar

Notes: Similar to 94H. Impression of reeds or sticks perpendicular to face. Slight discoloration on unfinished side perhaps indicates burning.

B. Molded Gypsum Stucco, Stone Architectural Elements, and Painted Plaster at the Early Christian Basilica at Pyla-Koutsopetria (Sarah Lepinski)

The small-scale rescue operations by the Department of Antiquities in 1993 and 1999 at Pyla-Koutsopetria recovered numerous fragments of molded gypsum stucco, carved stone architectural elements and painted plaster from an Early Christian basilica. The excavations cleared an annex room, Room 1, which is located to the south of the main west-east axis of the building and uncovered small sections of the central apse of the basilica. (Fig. ** Plan)

The decorative media from the basilica demonstrate that the building was remarkably well-adorned. The majority of the architectural elements and all of the paintings were recovered from a single area, Room 1, although a few surface finds and a number of crustae from an opus sectile floor were found within the apsidal area.² Analysis of the architectural elements and paintings demonstrates that Room 1 had two distinct phases and that the function of the two phases likely differed.

During the first phase the room contained extensive stucco decoration, including molded gypsum window frames with scale and rosette designs, lined door jambs and pilaster moldings. Marble column capitals and decorated stone lintel fragments also adorned the room in this phase. In the second phase the stucco windows panes were plastered over and the room was painted. Crosses, concentric circle medallions, and vegetal motifs were painted in a limited range of colors, predominantly red, green, black and yellow. It is not clear whether the symbols were painted concurrently or over time and although the motifs are related in general symbolic nature, the paintings do not appear to form a coherent program.

While the function of Room 1 in its earlier phase cannot be determined, the symbolic references of the painted iconography likely indicate that during the second phase the room served as a burial annex. The painted motifs and designs (which are also carved and incised in places) preserved on the paintings are exceedingly common in Early Christian tomb paintings from the Eastern Mediterranean.

Cyprus has a long tradition of mural painting, which dates from at least the Archaic period.³ This tradition is relatively well-represented by a number of preserved, albeit fragmentary, paintings from the Hellenistic and Roman periods. Paintings from these periods are primarily preserved within tombs; the majority of excavated examples are clustered around the South-western coast of Cyprus.⁴ Roman paintings are also preserved from a few sites, however, such as Kourion, Paphos and Polis; these paintings primarily depict masonry-style schemes.⁵ In comparison with the Roman period, even fewer paintings remain from Early Christian structures and tombs on Cyprus. 6 The closest parallels for the paintings from Pyla-Koutsopetria are found within funerary contexts in Northern Greece.

¹ Hadjisavvas, S. 2000. "Pyla-Koutsopetria. Chronique des fouilles et découvertes archéologiques à Chyre en 1999." BCH 124:692-693; Christou, D. 1994. "Pyla-Koutsopetria. Chronique des fouilles et découvertes archéologiques à Chyre en 1999." BCH 118: 689-691.

²The *crustae* and roof tiles from the excavations are being studied by Dr. Phryni Hadjichristophi from the Cyprus Museum.

³ Daszewski, W. 1986. Wall Paintings Section 5, viii of entry "Cyprus" in: J. Turner (ed.), The Dictionary of Art. London: Grove, Macmillan Publishers Limited. Vol. 8 p. 356.

⁴ Michaelides, D. 2007. "Cypriot Painted Tombs and their Ceilings." In L. Borhy ed. *Plafonds et voûtes à* l'époque antique. Actes du VIIIe Colloque international de l'Association Internationale pour la Peinture Mural Antique. 15-19 mai 2001. Budapest-Veszprém. 89-96. Budapest: Pytheas.

⁵ Kourion: First to second century paintings from Nympheum and adjacent buildings preserve banded decoration with grooved lines. Christou, D. 1985. "Excavations at Kourion 1975-1984." In Archaeology in Cyprus Ed. V. Karageoghis, 269-276; 1994. Kourion: a complete guide to its monuments and local museum. Nicosia. First to second century paintings from Paphos (check what buildings) Dazewski, W.A. 1985. "Researches at Nea Paphos 1965-1984." In Archaeology in Cyprus ed. V. Karageorghis, 277-291. Chemical Analysis of Paintings: Kakoulli, I. 1997. "Roman Wall Paintings in Cyprus: A Scientific Investigation of Their Technology." In Roman Wall Painting. Materials, Techniques, Analysis and Conservation. Proceedings of the International Workshop Fribourg 7-9 March 1996. Ed. H. Béarat, M. Fuchs, M. Maggetti, D. Paunier, 131-141. Fribourg: Institute of Mineralogy and Petrography. Polis: Najbjerg, T., C. Nicklies, A. Papalexandrou. 2002. "Princeton University Excavations at Polis/Arsinoe: Preliminary Report on the Roman and Medieval Levels." RDAC 2002, 139-154. Second century after Christ. [Add Paphos theater here]

⁶ Salamis provides two exceptional examples of Early Christian Painting (Χατζηδακης, M. 1967. AD 22 pt. 2, no. 2, Πw . 59; the most significant painting from this period is preserved from within a water cistern in Salamis. The painting is dated tentatively to the fifth century and depicts crosses, the head of Christ within a medallion

In contrast to the international (and universally Early Christian) character apparent in paintings from Pyla-Koutsopetria, the molded gypsum and a number of carved stone elements from the basilica at Pyla-Koutsopetria display strong regional artistic connections. A number of comparable groups of molded gypsum stucco exist from contemporary Early Christian basilicas in Cyprus, such as those at Kopetra, Kourion, and Soloi.⁷ [I need to expand this]

Fabric Types for stucco and painted plaster:

The plasters used in the gypsum stucco fragments and the paintings are distinct and easily identifiable. There are five general types of plaster that are described below.

The plaster mortar used to cover the stucco elements in the second phase (Type 4 below) is identical to that used for much of the base layers of the paintings.

Painting plaster:

In general there are two –three layers of gypsum plaster are preserved. The second layer is thicker (00.12-00.19 m.) very white fine hard with few small (00.002 m. or less) inclusions (light-colored, transparent). The third layer consists of (00.12-07.00 m.) very white fine very hard with abundant (over 80%) small inclusions (dark and tan grit) and some straw or chaff impressions. The thickness of this layer varies tremendously accounting for the rough surface of the face of rubble, tile and cement wall.

Painting face Type 1: final layer that is very thin (00.001 m.) white fine hard fabric with few (10-50%) small (00.002 m. or less) inclusions (light-colored, transparent). Within this group, the final layer is very similar to the second layer of plaster described above. The pigment was painted directly on the final layer of plaster.

Painting faces Type 2: also very thin (less than 00.001 m) white fine hard fabric with no apparent inclusions. It is finished with a white wash, (less than 00.001 m.) which serves as a ground for the paint.

Stucco plaster and mortar:

Type 3: Molded gypsum fabric is very consistent, well-prepared and generally a very hard fabric with frequent (5-10 %) small (0.1-0.2 mm) white and transparent inclusions. (Also: 5, 6, 7/8, 9, 10)

Type 4: Secondary plaster on face of gypsum windows: Very white fine hard with few-Frequent (3-5 %) small (00.002 m. or less) inclusions (light-colored, transparent, dark). This mortar was used for base layers of many of the paintings.

Type 5: Very hard white gypsum stucco with common (10%) medium-large (.25-1.5 mm.) inclusions (dark, light, brown and some grey). (Inv. 43b)

Catalogue of Stucco and Stone architectural elements from Pyla-Koutsopetria

The catalogue entries include full descriptions of the stucco and stone architectural elements (fabric, shape, decoration, and measurements). Unless indicated the fragments come from the excavations within Room 1. Inventory numbers are those assigned by excavators. The catalogue does not include description of undecorated plaster mortar (Inv. 94) or plaster from a secondary phase with negative impressions from molded gypsum decorative elements (Inv. 6, fragments within Inv. 82).

Plaster with Finger Impressions, Incisions or Graffiti (Need to add 83)

and a long panel (3 feet 6 inches wide) with an aquatic scene. Du Plat Taylor, J. 1933. "A Water Cistern with Byzantine Paintings, Salamis, Cyprus." The Antiquaries Journal XIII, 102-103, fig. 1-2.

⁷ Kopetra: Rautman, M. 2003. A Cypriot Village of Late Antiquity. Kalavasos-Kopetra in the Vasilikos Valley. JRA Supplementary Series 52. Kourion: Megaw, P. 1976. "Excavations at the Episcopal basilica of Kourion in Cyprus in 1974 and 1975: a preliminary report." DOP 30: 345-71. Soloi: des Gantiers, J. and Tram Tam Tinh. 1985. Soloi. Dix campagnes de douilles, 1964-1974. Ste. Foy, Quebec.



Inv. 4

Description- Carved limestone pilaster/pier/door jamb with vertical incisions.

P. h 00.23

P. 1. 00.175

Th. 00.12

Inv. 43 B

Fragment of white stucco plaster (Type 4) with some random hatched incisions.

P.h 00.08 m.

P.1. 00.07 m.

th. 00.02 m.

Room 1, Δ 9, Depth 877. Found and inventoried with no. 43 A but seemingly unassociated in terms of decoration and material.

[check measurements]

-incised (Inv. No. 44) looks very similar to a common schematic tree/menorah-like scheme that is frequently found in tombs. A number of examples exist within tombs from Thessaloniki⁸

Inv. 66 (A-C, D, E)

Very white gypsum stucco (Type 5) with graffiti. Five fragments with incised circular lines and graffiti. The graffiti writing has not been completely studied at present.

Most complete- three fragments mended:

P.h 00.24 m.

P.100.13 m.

th. 00.02 m.

Room 1, 20 cm. above floor.

Notebook L.N. 916/93



Inv. 91 A Fragment of white gypsum stucco (Type 4) with finger impressions in swirling lines.

⁸ Add these citations

2 Fragments P.h 00.40 m. P. 1. 00.21 m. th. 00.09 m.

Room 1, Δ 8, between the blocks of the arch. Depth 850.



Inv. 91 B Fragment of white gypsum stucco (Type 4) with finger impressions in schematic vegetal lines. P.h. 00.24 m. P.1. 00.14 m. th. 00.08 m. Room 1, Δ 8, In between the blocks of the arch, Depth 850 m.



Inv. 92 A Block of sandstone with fragment of white gypsum stucco (Type 4) adhering. The stucco preserves finger impressions made with two fingers in hatching design.

P.h. 00.17 m.

P.1. 00.18 m.

th. 00.03 m.

Room 1, Δ 8, On floor south of Room 1. Depth 720 m.



Inv. 92 B

Fragment of white gypsum stucco (Type 4) adhering. The stucco preserves finger impressions made with two fingers in hatching design.

P.h. 00.15 m.

P.1. 00.18 m.

th. 00.03 m.

Room 1, Δ 8, On floor south of Room 1. Depth 720 m.

Notebook L.N. 945/93



Inv. 135

Fragment of white plaster (Type 4) with incised lines.

P.h. 00.09 m.

P.1. 00.12 m. th. 00.02 m.

Room 1, Γ 8, 30 cm. above floor in debris with small stones and pieces of plaster. In NW corner.



Inv. 136 Larger fragment with incision and painted red symbol (encircled double-axe).

See painting catalogue

Room 1, Γ 8, 30 cm. above floor in debris with small stones and pieces of plaster. In NW corner.

Molded and Carved Stucco Plaster



Inv. 5

Molded white stucco block incised with three parallel lines. Red pigment is preserved in two of the three incised lines. Incised lines are generally 00.004 m. wide. Fabric is consistent with other molded gypsum blocks from this room (e.g. Inv. 7, 8,) generally very hard fabric with frequent (5-10 %) small (0.1-0.2 mm) white and transparent inclusions. (Type 3)

P.h 00.075 m.

1. 00.082 m.

th. 00.147 m.

Specific context "Along the wall- south part" Notebook LN 929/93; joins with LN 935/93





Inv. 7, 8 Molded white stucco rectangular window frame with rosette decoration. The fragment has been used in secondary context. The face of the frame was plastered over causing the plaster to seep through the petals of

the rosettes (the thickness of secondary plaster 00.03 m.). The frame is almost complete but only a small portion of the face is exposed, revealing two incised lines along exterior frame. h. 00.30 m.

1. 00.45 m.

th. 00.

Room 1, Square Δ 8, depth 947. Notebook L.N. 932/93, 937/93



Inv. 9

Molded white stucco rectangular block with two incised lines. Fabric as Type 3 with very white inclusions.

P.h. 00.125

P.1. 00.052

th. 00.052

Room 1, Square Δ 8, depth 911 near Inv. 7.

Notebook L.N. 933/93



Inv. 10

Molded white stucco fragment preserving the corner of window frame(?) with two incised lines painted with red pigment. Fabric type 3.

P.h. 00.13 m.

P.1. 00.10 m.

th. 00.058 m.

Room 1, Square Γ 9, Depth 886

Notebook L.N. 928/93



Inv. 12/17

Two joining fragments of lintel or door jamb. Molded white stucco block with three incised lines, the two outer lines preserve red pigment. Fabric type 3

P.h 00.08 m.

P. 1. 00.453 m.

th. 00.075 m.

Room 1, 12- Δ 8, Depth 890; 17- Δ 9, Depth 812

Notebook L.N. 929/93; 936/93



Very hard white gypsum stucco with common (**) medium-large (.25-1.5 mm.) inclusions (dark, light, brown and some grey) [Type 5]

P.h 00.18 m

P.l. 00.15 m.

th. 00.05 m.

Frieze width 00.09 m.

Area I, Room 1, Δ 8, Depth 877

Notebook L.N. 934/93



Inv. 82

Molded gypsum (Type 3) window with three sections surrounded by frame. Larger rectangular frame contains rosette decoration. And the two smaller frames are open. Found plastered over with a molded gypsum pilaster capital placed within one of the smaller, open frames.

Pilaster: Foliate design with cross in "keystone". Red painted incised lines.

P.h. 00.20 m.

P.1. 00.14 m.

Th. 00.03 m.

Window frame with rosettes. Fragmentary condition. Exterior frame has two incised painted lines (red exterior and black interior) and the interior frame has 3 incised painted lines (red, black central line, red). Very similar to one of three frames within Inv. 90.

P.h. 00.24 m.

P.1. 00.56 m.

th. 00.055-00.06 m.

Room 1, Δ 8, west section. Depth 900.

Notebook information. Not supplied.



Inv. 83 (A, B, C, D-G)

Molded gypsum door jambs (two well preserved) (Type 3) that were preserved when adhered to a pan tile and plastered over for second phase of Room 1.

P.h 00.54 m.

P.1. 00.085 m.

th. 00.12 m.

Room 1, Δ 8, West section, Depth 900.



Inv. 84

Molded gypsum window with scale design (Type 3). Face is completely plastered (Type 4) H.00.52 m.

L. 00.36 m.

th. 00.065 m.

Room 1, North section. Depth 820 . near the arch in room 1.

Molded gypsum window fragments (Type 3) that has been plastered over (Type 4). As many as three windows may be included within this collection all lumped under inventory number 90. Window 1: Double exterior framing lines of Rosettes window. Outside incised line preserves black pigment. The inside line is red. Rosettes are not traced but molded. Interior of petals painted black. Corner: P.I. 00.13 m. P.h. 00.12 m. th. 00.06 m. Petal: P.I. 00.10 m., P.h. 00.04 m.; Frame: P.I. 00.045 m. Window 2: Double exterior framing line for Rosette window. Outside line is carved and painted red. Inside line is carved and painted black. Petals of Rosettes are carved and painted red. 10 fragments, many with secondary layer of plaster adhering. Frame: P.h. 00.05 m., P.l. 00.32 m., th. 00.05 m. Petal: h. 00.05, l. 00.043 m. Window 3: Three fragments with single line frame with no pigment. P.h 00.38 m., P.l. 00.13 m., th. 00.065.



Inv. 172

White molded gypsum stucco window fragment with scale design. Plaster as other windows (Type 3) and secondary plaster adhering to face. Three incised lines around the frame of the window are apparent. One of the three lines preserved red pigment and

P.h 00.15 m.

P.1. 00, 22 m.

th. 00.06 m.

Above the floor in Room 1. Γ 8.

Notebook

Stone Architectural and Decorative Elements

Inv. 1

Description- Carved limestone fragment of window (?) with six preserved carved lines, four curved parallel lines and two parallel straight.

P.h 00.06 m.

P.1. 00.11 m.

Th. 00.09 m.

LN 931/93

Inv. 51 Column Capital

Surface find. 40 m. south of Room 1

Inv. 71 Fragment of Sandstone Pilaster

Surface

Inv. 85

Stone lintel with four preserved carved rosettes within double-line frame. The rosettes are comprised of four heart-shaped petals around a central circle.

h. 00.125 m.

P. 1. 00.

th. 00.145 m.

Room 1, Γ 9, In front of entrance, Depth 789

Notebook



Inv. 89

Carved gypsum Akroterion [pilaster capital?] with acanthus leaves.

Description (Fabric, Shape, Decoration)

h. 00.19 m.

1. 00.20 m. at top/00.15 m. at bottom

th. 00.08 m. at top

Surface. 20 m. north east of the excavated area (Room 1?)

Inv. 93

Sandstone Lintel with two parallel lines.

P.h 00.16 m.

P. 1. 00.20 m.

th. 00.10 m.

Room 1 Depth 800

Inv. 105 (Missing- Animal Frieze)

Room 1. Impression of Engraved animals on rectangular blocks



Inv. 118 White and grey (Proconnesian?) marble capital with stylized acanthus leaves on each corner. Top: P.h 00.26 m. 1. 00.26 m. th. 00.15 m. NW corner of Room 1 (Γ 8)



Inv. 158 Fragment of small sandstone column Diameter- 00.19 m. top; 00.013 m. preserved bottom th. 00.19 m. 30 m. from entrance of Room 1 in passage. (Γ 8)



Inv. 159 Limestone Lintel(?) with two holes (**) Description (Fabric, Shape, Decoration) P.h 00.19 m. P.1. 00.42 m. th. 00.07 m. Surface. West of excavated area



Inv. 160

Decorated limestone fragment of Lintel(?) with incised lines and cut-out holes.

P.h 00.125 m.

P.1. 00.24 m.

th. 00.03 m.

Surface



Inv. 162

Fragment of limestone window screen with single-incised lunette.

P.h. 00.12 m.

1. 00.06 m.

th. 00.07 m.

Surface near excavated area



Fragment of limestone window screen preserved in T-shape. Incised lines. Turn on right arm. The carving has been marked out on face, visible faint lines.

P.h 00.135

1.00.045

th. 00.072 Surface near the excavated area.

Technical characteristics of the painted plaster from Pyla-Koutsopetria

There are 42 painted plaster fragments and 13 depict identifiable decoration. Only these fragments have been photographed and drawn although measurements and brief descriptions of all fragments are included below. The motifs include crosses, one inscription, concentric circles and vegetal motifs and are in general, Christian in nature, especially the crosses and vegetal designs. The painted motifs are common (with stylistic variances that are likely due to regional preferences) throughout the Hellenized east, although published comparanda is particularly prevalent in Northern Greece.

Within the group of 42 painted fragments, however, there are two different techniques used for the face of the final layer: 1. the first consists of a final layer that is very thin (00.001 m.) white fine hard fabric with few (10-50%) small (00.002 m. or less) inclusions (light-colored, transparent). Within this group, the final layer is very similar to the second layer of plaster described above. The pigment was painted directly on the final layer of plaster. 2. The second type is also very thin (less than 00.001 m) white fine hard fabric with no apparent inclusions. It is finished with a white wash, (less than 00.001 m.) which serves as a ground for the paint. The white wash was applied with large brushstrokes that left an uneven surface for painting. In many places on the preserved fragments, this white wash has flaked away from the face of the final layer, which is colored a light tan on its exposed face (the color of the final layer beneath the white wash is not light tan in section thus it has been affected chemically by white wash). In areas that were painted, the pigment has flaked off with the white wash. The difference in plaster faces indicates that the paintings likely came from different spaces within the excavated area.

The range of colors preserved on the painted plaster fragments (dark red, orange, light brown, yellow and green) all appear to be natural earth pigments, locally available on Cyprus. The exception is the black pigment, which was probably derived from carbon. The pigments appear to be applied to the dry plaster surface of both plaster face types (secco technique). A binder (organic substance) was likely used to help the pigment adhere to the surface. The source of the pigments and the identification of what substance was used for a binder can only be substantiated with chemical analyses.

Catalogue of Painted Plaster from Pyla-Koutsopetria



Inventory No. 95

Red heart-shaped leaf on vine

3 fragments reconstructed on white ground with red pigment.

Square Δ 9, D. 800

P. h. 00.23 m.; P. w. 00.45 m. Surface.

Digital Photo Numbers: 349-4977, 0083, 5574-5591

Drawing Number: 1, 2, 3 Negative Number: B 87. 988

Plaster Face Type: 1

No shading. Red pigment is used as outline of leaf and vine, interior of outline not painted but pigment is slightly blurred (perhaps no binder?). Impressions of chaff on reverse of plaster. Brick (at least four) and rubble impressions on reverse of fragments.

Heart-shaped leaves on a vine are a popular motif early Christian imagery, particularly within mosaic floors and sculptural relief.⁹ In tomb paintings parallels are abundant in Northern Greece.¹⁰



Inventory No. 96a, b

Schematic tree motif in green with black ground line on white ground (only fragment a pictured here). 3 fragments.

Square Δ 9, D. 800

a. P. h. 00.20 m.; P. w. 00.165 m. b. P.h. 00.11 m.; P. w. 00.06 m. Surface. Digital Photo Numbers: 349-4978, 349-4979, 0117-0120, 5594-5603

Drawing Numbers: 6, 7

Negative Number: a. 87.989, b. 87.990

Plaster Face Type: 1

Green brushstrokes are loose. Unlike 95, outline is not used, single brushstrokes. Vertical brushstrokes of white ground. Rock and rubble impressions on reverse.

⁹ For a few examples of many see the mosaic floor within the narthex of Basilica A at Dion Pierias where the heart-shaped leaves are used as a framing meander. (Στ. Πελεκανίδης. AD 1965 20 (part 2, no. 3) Πiv. 596 γ; 1964 AD 19 (pt. 2, no 3) Πiv. 449 β. Another example of many floors that incorporate the Kantharos flanked with animals (deer, peacocks) and heart-shaped leaves in a floor at Ermione in Northern Greece (ПАЕ 1955- 20. Πiv. 79β. Finally, relief examples with Early Christian symbols in relief sculpture are also very common. For example, a relief that depicts two crosses, each of which sit above an inverted heart-shaped leaf, that flank a circular medallion The vines meet in the center of the relief and form a knot that joins three radiating circles of the medallion (Orlandos, A. 1927-29. AD 11-2, 46, Eiy 48). A similar relief is depicted on a parapet slab from Basilica A at Philippi, although in this relief the medallion contains six heart-shaped petals. (Λ 1855a. Ch.Koukouli-Chrysanthaki, Ch. Bakirtzis. 2000. Philippi. Athens: Ministry of Culture. Archaeological Receipts Fund. fig. 70).

¹⁰ One of many examples from fourth century tomb on the οδό Λαγκαδά in Thessaloniki that preserves ribbon and garlands and heart-shaped vine tendrils. Τωυρτα, A. 1987. AD 42, pt. 2., no. 2. Πιν. 236 α .



Inventory Numbers 97 a-e

Flanged cross with part of the Christogram IC and fragments of parallel lines painted in red and brown pigment on white ground. 8 fragments total. Not mended but clearly associated fragments with parallel lines - 97 b, c, d, e, which are not pictured. 97 f not associated with motif.

Square Δ 9, D. 850, 900

a. P. w. 00.26 m., P. h. 00.19 m. Surface, b. P. w. 00.062, P. h. 00.05 m. Surface; c. P. w. 00.04 m., P. h. 00.04 m.; d. P.w. 00.07 m., P. h. 00.05 m.; e. P. w. 00.09 m., P. h. 00.04 m. Surfaces.

Digital Photo Numbers: a. 349-4980, 349-4981, 0131-0133, 5614-5631; b-e 349-4982 - 349-4987, 0121-0130, 5604-5631.

Drawing Numbers: 8, 9

Negative Number: a. 87.939, b-e 87.940

Plaster Face Type: 2

Slight shading in light brown ochre on horizontal arms of cross. Lines of cross are outlined in red, interior not painted. Very pale black line extends across the vertical lines below the horizontal arms of the cross. White wash ground is very sloppily applied creating an uneven painting surface. Wash has chipped off in areas taking pigment with it.

The cross is a Latin cross (or *crux ordinaria*), which has longer descending arms and slightly flanged terminations.



Inventory Number 98 a

Inscription [- C -]AODA[N](?) in red extends below red (00.02 m.) and blue/green (preserved 00.03 m.) bands on a white wash ground. Blue/green appears to be green earth with carbon (?). 16 fragments total with portions of bands and letters. Additional associated but non joining fragments are labeled 98 b-e. (see below)

Square Δ 9, D. 840 in the middle of the square.

Measurements: a. P. w. 00.97 m., P. h. 00.16 m. Surface. b. 2 fragments P. w. 00.15 m., P. h. 00.08 m.; c. P. w. 00.16 m., P. h. 00.11 m.; d. P. w. 00.15 m. P. h. 00.14 m.; e. 11 fragments P. w. 00.56, P. h. 00.35 m. Surface

Digital Photo Numbers: 0009-0042. a. 349-4989, 349-4990; 5632-5638;

b. 349-4988, 5641-5642; c. 349-4992, 5639-5640; d. 349-4991, 5643-44; e. 349-4993, 349-4994, 349-4995

- 349-5003, 5645-5648. Drawing Number: 10

Negative Number: a. 87.941; b. 87.942; c. 87.943; d. 87.944.

Plaster Face Type: 2

98b, c, d, e

Fragments associated with the inscription but non joining and with indistinguishable forms. Square Δ 9, D. 840 in the middle of the square.

98 b 2 fragments of with red band and a bit of green pigment.

P. w. 00.15 m., P. h. 00.08 m. Digital Image Numbers: 0134-0136 **98 c** P. w. 00.16 m., P. h. 00.11 m.

Drawing Number: 12

98 d P. w. 00.15 m., P. h. 00.14 m.

Negative number: 87.944

98 e 5 fragments without white wash and parts of a green band (00.04 m.) P. w. 00.14 m., P. h. 00.12 m.

Digital Image Numbers: 0015-0028, 0032-0044

Plaster Face Type: 2



99 a, c

Schematic flanged cross in red on white ground. 99 c preserves three incised guidelines below fragmentary arm of a second cross (?). 99 b preserves a small bit of red pigment.

3 fragments total (99 d-e are not part of this same scheme and do not contain any identifiable markings). Square Δ 9, D. 840 (from the middle of the square).

a. P. w. 00.13 m., P. h. 00.15 m. Surface. b. P. w. 00.13 m., P. h. 00.15 m. c. P. w. 00.15 m., P. h. 00.15 m. Digital Photo Numbers: 350-5005, 350-5006, 350-5007; 5649-5654; 0142, 0144, 0145-0148.

Drawing Numbers: 13 Negative Number: a. 87.945 Plaster Face Type: 1

99 d. e

Fragments associated with 99 a, c but without distinguishable symbols.

Measurements d. P. w. 00.13 m., P. h. 00.16 m. Surface. e. P. w. 00.00.08 m., P. h. 00.11 m. Surface. Plaster Face Type: 1

100 a, b

Part of a frame (?) painted in red on white slipped ground (sloppily applied). No rubble impressions just brick or stone. Δ 9, D. 840.

a. P. w. 00.09 m., P. h. 00.17 m. Surface. b. P. w. 00.08 m., P. h. 00.14 m. Face Type 2

101 a, b

a. Red paint on white ground with an undefined segment of yellow. P. w. 00.08 m., P. h. 00.10 m. Surface. Δ 9, D. 870; b. Two painted parallel curving lines. P. w. 00.035 m., P. h. 00.05 m. Surface. Δ 9, D. 840.



102 a, b, c

Green foliate design with "barbed" shoot in red outline with slight brown shading within lines. 3 fragments (b and c are associated but not mended and not pictured). They preserve green pigment. The green paint is brushed on haphazardly and the pigment (likely green earth) looks as though it has been mixed with carbon black.

Δ9, D. 912, 900

a. P. w. 00.22 m., P. h. 00.09 m. Surface. b. P. w. 00.04 m., P. h. 00.05 m. Surface. c. P. w. 00.055 m., P. h. 00.045 m. Surface.

Digital Photo Numbers: a. 0092-0093, 4301, 4303, 4304-4305 b. 0100, 0102. c. 0096-0098

Drawing Number: 14 Negative Number: 87.946 Plaster Face Type: 1

The barbed vegetal motif may signify an acacia tree with its spines protruding from the mass of green leaves. While not native to Cyprus, acacia trees or bushes grow wild in the Jordan valley and in Sinai. (I have been unable to find comparanda for this motif, although I have contacted Elizabeth Bolman about it.)



103 а-е

[Add measurements of barbs]

Green foliate design with two "barbed" shoots outlined in red, the shoots are not shaded, although light brown lines appear within green area. Faded pigments make the decoration difficult to discern. 5 fragments (only a pictured here).

a, b. Square Γ 9 c, d, e. Square Δ 9, Δ 8.

a. P. w. 00.21 m., P. h. 00.10 m. Surface. b. P. w. 00.11 m., P. h. 00.06 m. Surface. c. P. w. 00.17 m., P. h. 00.11 m. Surface. d. P. w. 00.06 m., P. h. 00.04 m. Surface. e. P. h. 00.12 m., P. w. 00.07 m. Surface. Digital Photo Numbers: a. 0108, 0109; b. 0103, 0107; c. 0110, 0111; d. 0114, 0116; e. 0112, 0113

Drawing Numbers: 15 Negative Number: 87.947 Plaster Face Type: 1



104 a, b

a. Incised concentric circles (at largest preserved extent three bands are preserved) in vellow/light brown ochre and green on white ground. The two yellow circles average 00.02 m. in width. The interior yellow circle is adjacent to a white area approximately 00.06 m, wide and is separated from the second yellow band by another white area also 00.06 m. wide. The second yellow band is separated from the green band (00.02 m. wide) by a third white area measuring 00.02 m. wide. These bands are preserved in part on all 10 fragments labeled with inventory number 104.

104 b preserves a number of colors (dark red ochre, yellow, bright orange and green). While the poor preservation of the paint prevents certain identification it appears to be a floral motif with red along the edges of yellow petals. The outline (size **) of the floral motif is green. A faint green line of a stem extends below the base of the flower.

10 fragments (c, d, e, are associated but non joining)

Square Δ 8, Δ 9

a. P. w. 00.23 m., P. h. 00.16 m. Surface. b. P. w. 00.25 m., P. h. 00.17 m. Surface.

Digital Photo Numbers: a. 0052, 0053; b. 0060. 0061.

Drawing Numbers: 16, 17

Negative Number: a. 87.948, b. 87.949

Plaster Face Type: 2

Stylized floral motifs (florets, buds) are popular within funerary painting. "Fields of flowers and buds, in particular, are reminiscent of the depictions of Elysian Fields, the paradisoi that became very common in early Christian tomb decoration."¹¹ Contemporary parallels are found in Northern Greece within early Christian mosaics and tomb paintings in Thessaloniki. 12



Highly deteriorated surface. Red and green preserved but motifs are not distinguishable.

 $^{^{11}}$ Michaelides 2004, 94. Kourkoutidou-Nicolaideou, E. et alii. 1997. Από τα Υλήσα Πεδία στοΧρισπανικό Παράδεισο. Thessaloniki. Ministry of Culture, Museum of Byzantine Civilization. fig. 4-5. For example, within an acrosolium of an undated, but likely later Roman, Tomb P.M. 2902 in Paphos paintings depict flowers and garlands that are organized unsystematically. This imagery has its roots in earlier Hellenistic painting traditions in Egypt. Michaelides 2004, 92, fig. 9. Michaelides cites as an example the ceiling decoration of Tombs 1 and 2 of Kom el-Chougafa at Alexandria. Guimier-Sorbets, A.M. 1997. "Les deux tombes de Perséphone dans la nécropole de Kom el-Chougafa à Alexandrie." BCH 121.1: 355-410, fig. 4, 11-12, 22. ¹² Τσι

Square Δ 8

P. w. 00.10 m. P. h. 00.11 m. Surface

Digital Photos: 0054, 0055 Negative Number: 97.950 Plaster Face Type 2



104 d

Yellow and green concentric circles with incised bands separated by white band (00.027) The preserved exterior band is green and is poorly preserved (00.005 m.). The inner yellow band measures 00.02 m. Within the yellow band there is an additional incised line.

2 fragments.

Square Δ 9

P. w. 00.17 m. P. h. 00.25 m. Surface.

Digital Photos: 0062, 0063 Drawing Number: 18 Negative Number: 87.951 Plaster Face Type 2

Incisions within wet plaster were frequently used within Roman painting techniques to mark out designs beneath the final plaster layer and it evident within Roman period paintings on Cyprus (the Nympheum at Kourion), which are marked out on the final layer of plaster. 13 This is the technique used in the painted plaster from Pyla-Koutsopetria and other tombs on the island. The technique of deep incisions within radiating motifs is also apparent within Early Christian structures in Northern Greece. ¹⁴ In Early Christian painting circular motifs, or medallions, frequently frame other designs such as stars, flowers, or crosses. 15 The incised circles frequently form garlands; the interstices of the concentric lines are painted with leaves.¹⁶



104 e, f

3 fragments (104 f is associated with incised lines an very little is discernible and g-j are also associated but not pictured)

¹³ Kakoulli 1997.

¹⁴ Philippi Cemetery Basilica (Check this)(ПАЕ 1959- 12. Піу. 63 b).

¹⁵ Amphipolis (ΠΑΕ 1967- 8. Πίν 66 b) [check which basilica]

¹⁶ Grave B in the Cemetery Basilica at Philippi preserves four painted garland medallions that encircle Latin crosses. Στ. Πελεκανίδης. "Η έξω των τειχών παλαιοχριστιανική βασιλική των Φιλίππων." AEphem 1955, 153-157. See also the Basilica at Philippiados (Π AE 1989- 10. Π iv. 123 α and β).

Sketchy white wash

Square Δ 9

e. P. w. 00.23 m., P. h. 00.16 m. Surface, f. P. w. 00.19 m., P. h. 00.09 m. Surface

Digital Photos: e. 0056, 0058; f. 0066, 0067

Drawing Number: 19

Negative Number: e. 87.952; f. 87.953; g. 0064, 0065; h. 0077, 0082; i. 0074, 0075; j. 0069, 0071.

Plaster Face Type 2

Inv. 136

Incised weathered gypsum that preserves hatched graffiti in no apparent patterns and a figure eight painted in red pigment.

Measurements P. w. 00.34 m., P. h. 00.20 m. Surface

Digital Photos: 0048, 0050 Negative Number: 94.474.

Summation

The architectural elements belonging to the first phase of Room 1 display that the overall decoration was well-conceived. The room was finished with gypsum stucco architectural features such as large rectangular window panes (perhaps as many as six) with both rosette and scale patterns (Inv. 7/8, 82, 83, 84, 90, 172), vegetal pilaster capitals (Inv. 82), a vegetal frieze (Inv. 43 A), and door jambs (Inv. 12/17, 83). A limestone lintel with carved rosettes (Inv. 85) likely adorned the entrance to the room and an elaborate white and grey marble column capital (Inv. 118), a fragment of a stone column (Inv. 158), and a sandstone cornice fragment (Inv. 93) A second column capital (Inv. 51), a sandstone pilaster capital (Inv. 71), a limestone pilaster capital (Inv. 89), fragments of carved stone windows (Inv. 162, 163), and two fragments of an elaborate sandstone, and perhaps much later, lintel/cornice (Inv. 1591, 160) were found on the surface and may be associated with the initial architectural phases of the building, although this cannot be stated unequivocally at this time.

In the second identifiable phase of Room 1 the gypsum plaster windows were plastered over with thick (00.006 m.) mortar, but left in situ (in many cases the new face of plaster was incised with lines and/or graffiti). The plaster applied to the faces of the windows is very similar (if not identical) to the plaster that preserves the painted motifs (most generally Type 1 but also 2- see beginning of catalogue for description of plaster types). The painted motifs include a large flanged cross that is believed to have originally decorated the central pier of the room (Inv. 97), as well as other painted crosses (Inv. 99), an inscription (Inv. 98), stylized vegetal motifs (Inv. 95, 96, 102,103) and concentric circular symbols (Inv.104) and fit well among visual comparanda found in funerary contexts throughout the Late Antique Mediterranean. Their application within Room 1 may indicate that in this second phase Room 1 was sanctified for burials.

Intensive visual analysis reveals much about the molded gypsum and painted plaster. Without further contextual information (I have yet to see excavation notes and study architectural plans), however, it is impossible to further validate observations regarding phasing or to understand the original placement of the molded stucco elements or the paintings.

VI. Intensive Survey (Caraher and Moore)

During 2008, the Pyla-Koutsopetria Archaeological Project conducted 5 days of intensive survey. The survey team was lead by Mathew Dalton under the supervision of David Pettegrew and Scott Moore. It was generally an experienced team typically including several fieldwalkers (S. Caraher, D. DeForest, J. Crawley) who were familiar with principles of intensive pedestrian survey and had some experience with its practices.

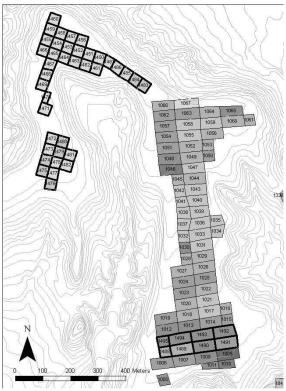
The main goal of this abbreviated survey season was to complete our survey of the Vigla/Kazamas ridge which runs north from the site of Vigla. The main area of attention was the northern most reaches of this ridgeline which we could not survey during the 2007 season because many of the fields remained under cultivation. In addition to these units, we also surveyed a stretch of 8 units immediately to the north of Vigla that we could not survey during 2007 because crops remained unharvested in the fields.

The total area survey in 2008 was 8.2 ha. In keeping with our earlier work our survey units were units of 40 x 40 m squares with the largest units being 40 x 80 m and the regular unit size being 40 x 40 m. Despite allowing the larger 40 x 80 m units, we maintained an average unit size of 1793 square meters, thus continuing the "high resolution" survey approach initiated in the 2004-2005 campaigns on the plain of Koutsopetria. For the larger 40 x 80 m units, we continued the practice begun in 2007 of recording artifact densities at the 40 m mark ensuring that our artifact density records were compatible in resolution to the units walked at our standard 40 x 40 m size.

The units to the north of the final units walked during the 2007 season (DUs 1450-1487) showed a continuation of the artifact scatter recorded at the end of the previous year in units 1044-1067. This material presumably coincides with the site of Kazamas that was recorded by Catling over the course of the Cyprus Survey. As the units follow the Kazamas plateau back around to the north (DUs 1467-1482), the densities declined despite universally high artifact densities (i.e. >70%). This suggests that there is little evidence for any settlement or use on the western most peninsula of the Kazamas Vigla ridge.

The final units walked during the 2008 survey season filled in a gap between units 1006-1011 and 1012 and following. The gap had initially existed because the farmer had not harvested his crop by our 2007 field season. The material from units 1488-1495 showed a continuation of the artifact densities visible in the fields to north and south. The artifact densities in these units averaged over 2300 artifacts per hectare forms part of an artifact scatter comprised of units of approximately 2000 artifacts per ha extending some 200-300 m north from the southern border of the Kazamas/Vigla plateau. Superficially, it would appear that the pottery found in these units showed a distinctly earlier signature than the material on Vigla or from the coastal plain of Koutsopetria with a distinct group of Iron Age, Archaic, and Geometric sherds.





Survey Area 2008 Season

VII. Miscellaneous

Concordance of Finds

Museum Inventory Numbers PKAP Finds Number

		Concordance
Museum	PKAP	Туре
	1453_6	Base. Glazed Bowl. Orange Fabric. Max Preserved H. 0.001 m x Late Antique. 0.055 m x W. 0.067 m
2	1454_8	Miniature Toe. Red Fabric. Max Preserved H. 0.008 m x 0.014 m.
3	1467_5	Rim. Black slip. Orange fabric. Max Preserved H. 0.049 x W. 0.052
4	1480_13	Rim. Painted. Orange Fabric. Max Preserved H. 0.013 m x 0.036 m x 0.055 m
5	1490_37	Twisted Handle. Painted. Orange fabric. Max Preserved L. 0.066 m x 0.017 m.
6	1490_38	Coan Amphora Handle. Orange fabric. Max Preserved H. 0.103 m x W. 0.049.
7	1491_6	Rim with lug handle. Red Fabric. Max Preserved H. 0.071 m x 0.076 m
8	1494_49	Amphora Toe. Orange fabric. Max Preserved H. 0.74 m x W. 0.057 m
9	5005_FS1001	6 sherds from one amphora with basket handle. Orange fabric 3 sherds form compete rim with diameter of 0.142 m. and Max Preserved H. 0.004 m. Handle and Shoulder join with a max. preserved H. 0.193 m
10	501_501	6 Joining sherds. Black Slip Bowl. Buff fabric. Diameter 0.145. H. 0.037.
11	5013_1001	Body Sherd with horizontal loop handle. Orange fabric. Max Preserved H. 0.145 m x W. 0.194 m.
12	5013_28	Base. Orange fabric. Max Preserved Dim. 0.06 m x 0.049 m
13	5013_31	Handle. Buff fabric. Max Preserved Dim. 0.051 x 0.018.
14	5013_33	Base. Orange Fabric. Max Preserved Dim. 0.034 m x 0.024.
15	5013_35	Base. Buff with pink core fabric. 0.052 m x 0.057 m.
16	5013_39	Rim. Buff. Max Preserved H. 0.036. Max Preserved Diam. 0.061
17	5013_53	Body Sherd with painted decoration. Orange Fabric. Max Preserved H. 0.045 m x W. 0.045 m
18	5016_100	Body Sherd with Painted Decoration. Orange Fabric. Max. Preserved H. 0.044 m x W. 0.048 m
19	5016_104	Rim. White with red core. Max Preserved H. 0.062 m x W. 0.082 m.
20	5016_105	Base (?). Miniature Vessel (?). Red Fabric. Diameter 0.021 m. Max Preserved H. 0.015 m
21	5016_106	Rim. Bowl. Painted Red to Grey. Light Orange fabric. Max Preserved H. 0.029 m x W. 0.039 m
22	5016_12	Body Sherd. Buff fabric. Max. Preserved 0.096 m x 0.061 m
23	5016_46	Rim. Pink Fabric. Max. Preserved 0.102 m x 0.049 m
24	5016_47	Rim with vertical handle. Max. Preserved H. 0.05 m x W. 0.063 m
25	5016_48	2 Joining sherds. Miniature bowl. Buff fabric. Max Preserved H. 0.032. Base diameter 0.048
26	5016_5	Body Sherd. Buff. Max Preserved 0.122 m. x 0.097 m.
27	5016_98	2 non-joining body sherds. Painted with horizontal red slips. Archaic? Piece 1: Max. Preserved 0.074 m x 0.033; Piece 2. Max. Preserved 0.048 m x 0.023 m
28	5206_FS1001	Fish Plate. Black Glaze. Orange fabric. Diameter 0.156 m; H. 0.027 m

Museum Inventory Numbers PKAP Finds Number Concordance

Musoum	DKVD	Type
Museum		Type
		Body Sherd. Buff fabric. 0.11 m x 0.07 m.
30	5218_FS1001	Lid. Stone. Chalky white fabric. H. 0.06 m; Diameter 0.178 m
31	5225_FS1001	Female Statuette. Medium grained yellowish limestone. Max Preserved H. 0.10 m. Preserved from waist down. Bottom half of lower right leg and foot missing; wearing a heavy garment that is girdled low on the waist. Loops of girdle somewhat visible but damaged. The garment is folded over the girdle and hangs lower on the right side. Garment clings to body in many folds. The figure is striding to the right with right leg advancing and the weight falling on the left leg which is held firm. The right hand holds up extrax folds bunched at the side of the body. The right leg seems to be exposed. The knee is rendered albeit summarily and there might be traces of paint on the two folds on either side of the leg.
32	5231_FS1001	Ground Stone. Sub triangular in section. Local Limestone. Max Preserved 0.17 x 0.17 x 0.08.
33	5402_FS1002	Miniature vessel. Pink Fabric Max Preserved 0.047 x 0.045
34	5402_FS1003	Incense burner lid (?). Orange fabric. Max Preserved 0.058 m x 0.035 m
35	5405_FS1003	3 non-joining body sherds. Orange fabric. Sherd 1: Max Preserved W. 0.146 m x H. 0.065; Sherd 2: Max Preserved W 0.09 m x H. 0.09; Sherd 3: Max Preserved H. 0.057 m x W. 0.067 m
36	5410_FS1001	5 non-joining sherds excavated from the same ash layer. All orange fabric. Sherd 1: Max Preserved W. 0.185 m x H. 0.122; Sherd 2: W 0.078 m x H 0.081; Sherd 3, Part of Neck. Max Preserved H. 0.056 x W 0.105; Sherd 4, Handle: Max Preserved H. 0.08 x W. 0.038; Sherd 5, Complete Profile of Basin: H. 0.065 m X Max Preserved W. 0.235.
37	5413_FS1001	Handle. Grey fabric. Cooking pot. Max Preserved. 0.096 m x 0.012 m
38	5603_FS1001	Base. Buff fabric. Max. Preserved H.0.023; Max Preserved Diam. 0.043 m. Diameter 3 joining pieces.
39	5609_FS1001	Body Sherd. Orange Fabric. Max Preserved 0.09 x m 0.119 m.
40	74_501	Palestinian Frying Pan Handle. Red Fabric. Max Preserved L. 0.05 m
41	10_501	Complete Profile of Late Roman Bowl (Phocaean Red Slip). H. 0.047 x Max Preserved W. 0.168 m

Pyla-Koutsopetria Archaeological Project Metal Objects

Museum Inventory Numbers PKAP Finds Number Concordance **Metal Objects**

Museum	PKAP	Bags	Notes
42	5241_FS1001	Box	Bronze Nail Head. 0.038 x 0.017
43	5016_FS1001	Box	Lead Arrowhead 0.029 x 0.014
44	1400_Grab	Box	Bronze Coin. 0.016 x 0.004
45	6102	II.	Complete Bronze Object. Possible Ornament. 0.042 x 0.007 x 0.001
46	5402	Box	3 thin lead fragments and two iron nail fragments.
47	5011_Box 2	Box	Grooved Iron Fragment. 0.012 x 0.021

Museum Inventory Numbers PKAP Finds Number Concordance **Metal Objects**

Metal Objects			
Museum	PKAP	Bags	
48	1458	Box	Perforated Bent Iron Plate. 0.056 x 0.040 x 0.002
49	5601	Box	Bronze Shaft Fragment. 0.011 x 0.002
50	5013_Box 1	Box	Bronze Coin 0.012 x 0.003.
51	5016_FS1002	Box	Multiple barbed lead shaft. 0.083 x 0.006. Lead Fragment 0.012 x 0.004.
52	501.1_80	Box	Iron Fragment. 0.027 x 0.015
53	5219	Box	3 Iron Fragments.
54	5203_Box 1	Box	Lead Slag. 0.043 x 0.025
55	5229_FS1001	Box	Bronze Projectile Point. 0.063 x 0.008
56	5205	Box	Bronze Projectile Point. 0.037 x 0.009
57	1047_15	Вох	Modern Iron Horseshoe. 0.063 m x 0.004 m
58	5203_Box 2	Box	Folded Lead Fragment. 0.022 x 0.010
59	5218	Вох	Iron Nail Fragment. 0.018 x 0.008
60	1459	Вох	Metal Bottle Cap. 0.026 x 0.001
61	5003	Вох	Bronze Tack or Nail. 0.028 x 0.012
62	5011_FS1001	Box	Iron Fragment. Possible shaft. 0.044 x 0.013
63	1349_8	Вох	Iron plough fragment. 0.056 x 0.015
64	5010	Box	Bent Bronze Nail. 0.038 x 0.012
65	Vigla_Surface_Grab_Box 1	Вох	Bronze Projectile Point. 0.008 x 0.050
66	5603	Вох	5 Iron Fragments.
67	5405	Вох	Lead Fragment. 0.040 x 0.020 x 0.003
68	5012	Вох	Iron fragment encrusted to rock. 0.038 x 0.044 x 0.027
69	Vigla_Surface_Grab_Box 2	Box	Bronze Projectile Point. 0.066 x 0.005
70	5016_Box 1	Box	Lead Sling Bullet Fragment. 0.025 x 0.013.
71	5013_FS1004	Вох	Bronze Coin. 0.012 x 0.0025
72	5013_FS1003	Вох	Bronze Coin. 0.018 x 0.003
73	5219_FS1001	Вох	Bronze Coin. 0.019 x 0.002
74	6006	Box	Bronze Fragment. Possible piece of vessel. 0.024 x 0.0005
75	5212	Box	Folded Lead. 0.034 x 0.018 x 0.018
76	5401	Box	2 Iron Fragments. Nail
77	5402_FS1001	Вох	Bronze Nail. 0.034 x 0.016
78	5013_Box 2	Box	28 Iron Fragments and 4 Lead Fragments and 2 Bronze Fragments including a nail head and pin.
79	5008	Вох	Lead Slag. 0.042 x 0.055 x 0.012
80	5016_Box 2	Вох	5 Iron Fragments and 5 Lead Fragments. Cache?
81	5235	Вох	2 Iron Fragments.
82	5013_FS1005	Вох	Two iron shaft fragments. Total length 0.243 x 0.020.
83	5011_Box 1	Box	14 Iron Fragments including curved blade. Blade 0.024 x 0.078 x 0.015.
84	5013_FS1006	Вох	Bronze Coin 0.016 x 0.005
85	5013_FS1002	Box	Bronze Nailhead with hollow shaft. 0.023 x 0.026
86	5229_FS1002	Box	34 Bronze Vessel Fragments.

Museum Inventory Numbers PKAP Finds Number Concordance Metal Objects

Museum	PKAP	Bags	Notes
87	6011	Box	Lead bead. 0.015 x 0.014