

**THE LEVANTINE CERAMICS PROJECT 2019 WORKSHOP 2:
CERAMIC WARES OF CYPRUS FROM NEOLITHIC THROUGH MEDIEVAL TIMES
CAARI & THE CYPRUS MUSEUM, NICOSIA JUNE 13TH-14TH, 2019**

WORKSHOP SUMMARY

LCP editor Andrea Berlin opened the proceedings with a brief presentation highlighting why it is especially important and useful for archaeologists who work on Cyprus to submit material to the LCP:

- ✚ **Cyprus: The rest of the Levantine world needs you!!** Archaeologists working elsewhere often identify especially nice (or especially odd) pottery as coming from Cyprus. By adding more vessels (and photos and break photos and thin-sections) to the LCP, you ensure the accuracy of more of those identifications. Currently, there are 9674 vessels on the LCP, of which just 451 (4.6%) are from Cyprus. Come on Cyprus: help the rest of us!
- ✚ The LCP gives you a platform to grapple with – and get a handle on – your pottery, while allowing you to incorporate earlier research. It can help you figure out how to think about your pottery and refine your ideas. It's also low-stakes: when (not if!) you change your mind, you can edit your entries, add more information, change associations, etc.
- ✚ The LCP can direct other people to your work – and to you! Users may find an example, see a bibliographic citation and/or contributor name – and then click on your name and send an email. The LCP helps us build and expand our scholarly network.
- ✚ The LCP helps you learn about new information quickly. You can set notifications according to frequency (immediately, daily, weekly), mode (by email or by a notice within the site itself), and topic (according to periods, places, and shapes – e.g., only amphoras).
- ✚ The LCP is a partner for print publication. Submit data to the LCP and then use the “get citation” button for a publication-compatible reference. When new information is added to that LCP page, the reference in the print publication will automatically be updated, which helps keep older publications relevant.
- ✚ Contributing to the LCP makes you part of a community of scholars, now and in the future.

We are building a tool for the long run – because we know that there is always more to discover and learn.

Session 1: Petro-fabrics via NAA & Petrography

Matt Spigelman: Updates on NAA and Cypriot petro-fabrics

Matt presented an overview of his dissertation, in which he used NAA to identify origin and distribution of vessels belonging to the Red-on-Black ware family and the implications for production & trade in Bronze Age Cyprus. He began with older distribution maps of tombs containing the standard identified ware groups of Red-on-Black, White painted, etc., and also of finds from mainland Levantine sites dating from the MB IIA – MB IIC/LC I. A big question was if the chemical patterns made sense in connection with the four major geologic units on the island: Marmonia Terrane; Circum Troodos sedimentary sequence; Kyrenia Terrain; and the Troodos Ophiolite sequence. Matt noted that one challenge in evaluating NAA data is that multiple small groups can be identified chemically but many of these are not necessarily discrete groups in archaeological terms. He issued a warning: if tight clear groups are not apparent, then statistics and cluster analysis will not help. He then asked how we can move forward, and even possibly use NAA to link petro-fabrics with wares.

He got promising results from using the technique of laser ablation on slips. The evidence showed a marked change over time, with earlier slips used unrefined clay, while later vessels found overseas, and possibly made specifically for an export market, used greater levigation, which resulted in more refined slips.

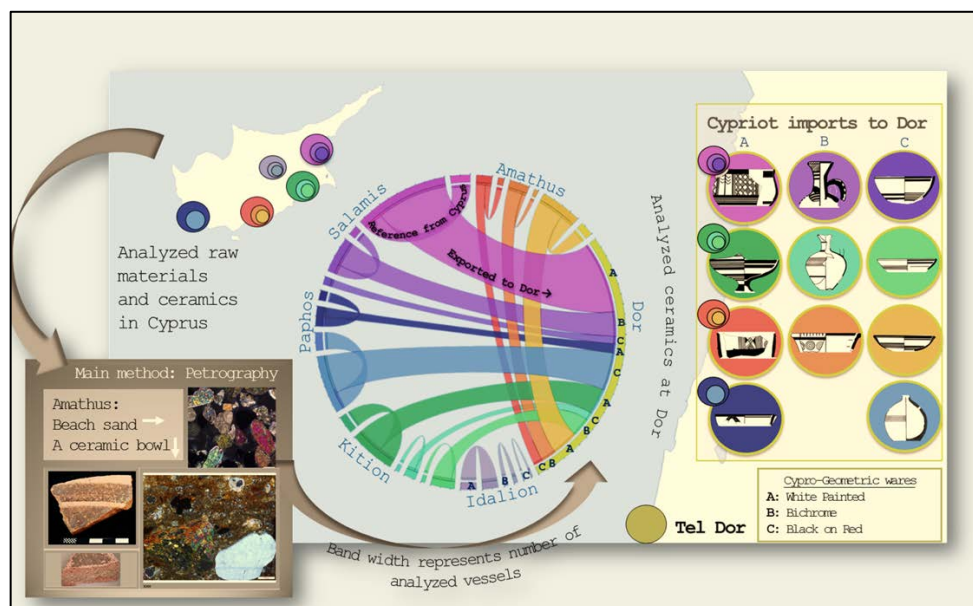
Matt concluded by noting that there are huge data sets waiting to be analyzed at Berkeley, MURR, Brookhaven, and Hebrew University. He would be happy to work with anyone who is interested in data from specific sites.

Paula Waiman-Barak, Teresa Bürge, and Peter Fischer: Petro-fabrics from Hala Sultan Tekke and Kition

Paula reported on the collaborative work that she, Teresa, and Peter have done on the ceramics of Hala Sultan Tekke. This project is an outgrowth of an earlier collaboration with Anna Georgiadou, T. Eshel, and Ayelet Gilboa, in which they analyzed 380 Iron Age Cypriot vessels (White Painted, Bichrome, and Black-on-Red) found at Tel Dor, in Israel, via both visual/stylistic and also petrographic analyses, in order to identify their specific origins. In that project, they found that petrographic analysis consistently affirmed identifications made on stylistic grounds. They extended their study by analyzing another 75 vessels from Cyprus as well as by taking a series of comparative geological samples from various Cypriot locales, including coastal sands from Ayia Napa, Enkomi/Salamis, Larnaca, and Amathus. Using FTIR spectra, Paula was able to distinguish the analytical signatures of Palaepaphos terra rossa soils, and river bed clays from Palaepaphos, Amathus, Larnaca, and Ayia Irini.

From the current project on the ceramics of Hala Sultan Tekke, Paula discussed a group of locally produced vessels of White Painted Wheel Made, Bucherro, White Shaved, Plain White Wheel Made, and Monochrome, which date from LC IB – LC IIIA. These vessels have been published by Peter Fischer and Teresa Bürge (“Tombs and Offering Pits at the Late Bronze Age Metropolis of Hala Sultan Tekke, Cyprus,” *BASOR* 377 [2017], pp. 161-218); together they comprise 43% of the Hala Sultan Tekke corpus. All of these productions were made from a base petro-fabric which Paula has submitted to the LCP as [East Cyprus: calcareous silty fabric with basaltic minerals](https://www.levantineceramics.org/petrofabrics/83-east-cyprus-calcareous-silty-fabric-with-basaltic-minerals) (<https://www.levantineceramics.org/petrofabrics/83-east-cyprus-calcareous-silty-fabric-with-basaltic-minerals>). In addition to the high number of examples found at Hala Sultan Tekke, other vessels made from this petro-fabric have been identified at Kition, Salamis, and Tel Dor.

Finally, Paula was able to tie all of this data back into a question that she and her collaborators started with: which Cypriot producers were sending pottery to Dor? The results are best conveyed via this graphic:



Eleni Nodarou: Petro-fabrics and pithoi from south-southwestern Cyprus

Eleni reported on a multi-faceted study of Late Cypriot pithoi. She has analyzed 135 samples from 8 sites by petrography and p-XRF. The sites are of different types, including elite centers (Kalavassos-Agios Demetrios, Alassa, Maroni, Maa), larger urban settlements (Kouklia Hadjiabdoulla, Kouklia-Evreti, Palaepaphos-Laona), and smaller towns (Episkopi-Bamboula). The goal was to characterize fabrics, investigate recipes, evaluate the implications for regional production, and investigate the boundaries between potters and communities.

The pithoi can be classified according to Priscilla Keswani's three shape groups:

- ❖ Group I: short neck, wide mouth, easy access.
- ❖ Group II: long constructed neck, possibly for longer-term storage.
- ❖ Group III: long neck, large body, thicker walls, associated with monumental elite structures.

Eleni found that in each group, a variety of petro-fabrics were represented, all of which she has submitted to the LCP:

- ❖ Alassa mudstone-tempered: <https://www.levantineceramics.org/petrofabrics/151-alassa-mudstone-tempered>. This petro-fabric has a fine matrix and the deliberate addition of red subangular to subrounded inclusions of sedimentary origin (mudstones). The size and distribution of the mudstones indicate that they were added as temper in the clay mix. Other nonplastic inclusions include micritic limestone, metamorphic rock fragments, calcite, sandstone, biotite mica laths. Rare to very rare fragments of pyroxene and serpentinite; very rare microfossils. This petro-fabric's origin is Kouklia; pithoi made of this petro-fabric have been identified at Hadjiabdoulla, Palaepaphos-Laona, and Episkopi-Bamboula.
- ❖ Alassa ophiolitic: <https://www.levantineceramics.org/petrofabrics/150-alassa-ophiolitic>. This is a calcareous fabric, in some cases containing microfossils. The coarse nonplastic inclusions consist of micritic limestone (dominant) and occasional fragments of basalt, pyroxene, serpentinite, and mudstone. It is similar to Alassa mudstone-tempered but also has ophiolites and the mudstone fragments are fewer and more round. This indicates that the mudstone is alluvial rather than intentionally added, which means that this constitutes a different recipe. Pithoi made of this petro-fabric have a wide distribution, and appear at almost all sites studied. It is the only pithos fabric found at Maa-Palaiokastro.
- ❖ Palaepaphos Hadjiabdoulla ophiolitic: <https://www.levantineceramics.org/petrofabrics/155-palaepaphos-hadjiabdoulla-ophiolitic>. This is a calcareous fabric, and was predominant at Alassa, Kalavassos-Agios Dimitrios, and Maroni-Vournes. Nonplastic inclusions consist of micritic limestone, pyroxene and a few volcanic rock fragments, which indicate a connection with the Troodos ophiolite series.
- ❖ Palaepaphos Hadjiabdoulla mudstone-tempered: <https://www.levantineceramics.org/petrofabrics/153-palaepaphos-hadjiabdoulla-mudstone-tempered>. This is the main fabric group at Palaepaphos Hadjiabdoulla. It is characterized by a fine calcareous matrix packed with rounded fragments of micritic limestone and microfossils in which the mudstone fragments have been added as temper. The absence of other non plastic inclusions leads to the assumption that the raw material was either very fine or has been sieved prior to use.
- ❖ Palaepaphos Hadjiabdoulla ophiolite and mudstone <https://www.levantineceramics.org/petrofabrics/154-palaepaphos-hadjiabdoulla-ophiolite-and-mudstone>. This petro fabric relates to Palaepaphos Hadjiabdoulla mudstone-tempered; the difference between the two is that in this fabric the majority of the nonplastic components relates to an ophiolitic environment and the fragments of the mudstone are not only fewer in number but also smaller in size and more rounded. This indicates that in this case the mudstone is not added as temper by the potter but occurs naturally in the alluvial raw material.
- ❖ Calcite (tempered?): <https://www.levantineceramics.org/petrofabrics/152-calcite-tempered-fabric>. This petro-fabric occurs regularly but always in small quantities (1-3 samples per site), at least in the analyzed assemblages from south-southwestern Cyprus. The secondary nonplastic components (if any) are not the

same: at Alassa there are some mudstones, at Laona (Palaepaphos) some metamorphics, at Hadjiabdoulla (Palaepaphos) almost nothing else. Maybe somebody can provide information on its origin or say if it has been encountered as a common (or rare) fabric in another pithos assemblage somewhere in Cyprus?

Eleni found that at Alassa and Kalavassos-Agios Dimitrios there is a big variability in the ophiolite-related pithos fabrics: texture, amount of micritic limestone, presence or absence of fossils, some mudstones but in different sizes, occasional biotites. So it was hard to make groups. Analysis via p-XRF showed that from Palaepaphos to central Cyprus, and from smaller to larger centers, the variability in petro-fabrics increases. In addition there was a noticeable difference between sites in the southwest (Maa, Koulia, Alassa, Episkopi) and south-central (Kalavassos, Maroni) in the matter of mudstone tempering. All of this suggests that the pithoi were made by quasi-independent groups of potters, some operating in southwest Cyprus and others operating in south-central Cyprus.

Session 2: Neolithic – Middle Cypriot

Jo Clarke: Cypriot 'Coarse Ware' Trays with U-shaped openings. Origins, manufacture, and use

Jo could not join us in Nicosia, but she graciously sent a fascinating paper on a particular form of ceramic tray that appears at the earliest ceramic Neolithic sites on the island and lasted for about 1000 years. The vessels are large, about 40 cm in diameter. They are low fired, with thin-walls, crumbly and porous; their size and texture make them difficult to move. They rarely show signs of burning. They were made in the same petro-fabric as Monochrome burnished ware; this fabric differs entirely from that of the finer decorated wares.

This expedient and cursory shape is specific, and odd. The U-shaped opening introduces a weakness in the form. These vessels comprise about 10% of site assemblages across the island. They were found in everyday contexts and discarded. They were not used for daily tasks, but for some widely common behavior. There are no parallels known from sites in the Near East or eastern Mediterranean. What were they used for?

Jo advanced the hypothesis that these trays were used in the final stage of salt production. Salt is necessary for curing meat, but there are no inland salt deposits on Cyprus. The technique requires panning and then leaving the water to evaporate until only salt is left. The U-shaped opening facilitates rapid drainage and also makes it easier to remove the salt. A remarkably close parallel comes from Middle Bronze Age levels at Brean Down, in Somerset, southwest England, which demonstrated that the form was used for this very process. The wide & long-lived distribution of this vessel suggests that for about a millennium, across the island, salt was produced on a village scale to make sufficient amounts for each community's use.



Andrew McCarthy: Neolithic-Chalcolithic ceramics from Prastio Mesorotsos

Andrew reported on the Neolithic phases discovered at Prastio Mesorotsos. The site was occupied essentially continuously from aceramic Neolithic through Ottoman, with the exception of a gap from LC IB to LC III. A survey over a wide area has identified “hot spots” for Neolithic. The sequence is as follows:

- ❖ The earliest deposit is a late PPNB domestic surface, with domed oven and the first pit to be identified in a ritual context. Next there is a wall of the Khirokitian phase, and then a series of Late Neolithic structures with pottery. C14 from a human tooth shows a date in 7th mill. BCE.
- ❖ Pottery Neolithic phase 1: surface 544 with pottery in a reddish paste with vegetal and mineral (limestone) inclusions and light burnish. This seems to be a locally made version of Monochrome Burnished Ware (MBW) or Cypriot Dark-Faced Burnished Ware.
- ❖ Pottery Neolithic phase 2: Building 650 overlying previous surface. Majority of pottery MBW, mostly with thicker walls, along with the first combed wares (Cb).
- ❖ Pottery Neolithic phase 3: elliptical building 550. In this phase there is a greater variety of fabrics and wares. Cb is present plus red-white painted (RW), along with burnished and plain coarse wares (CW).
- ❖ Pottery Neolithic phase 4: “Harry’s pits”. Same ceramic variety as in phase 3.
- ❖ Pottery Neolithic phase 5: “West Upper Trench.” A smaller assemblage, mostly with reddish fabric with limestone inclusions, with self-slip and burnish (which differentiates it from the Phase 1 material). Increase in Red Monochrome.

The site pottery is being studied by Lisa Graham overall, and Sarah Costello, especially for the Neolithic ceramics. In the latter corpus Sarah has identified four calcareous and two non-calcareous fabrics, plus another three fabrics. It would be marvelous to get these wares and a few vessels of each (with color photos and break photos) on the LCP!

Charalambos Paraskeva: Towards Multivariate Typologies: Chalcolithic Pottery from Chlorakas-Palloures

Harry is tackling a huge and fundamental question: how do we go about defining wares and types in prehistoric pottery?

He notes that the standard definition of ware as an association of characteristics – of fabric, manufacturing processes, surface treatment, and/or shape – can lead to problems, especially in the case of ceramics of the earliest periods. Individual researchers come up with their own sets of characteristics, fabrics are ignored, and too often a 1:1 association of fabric + surface creates too many groups.

Harry presented the concept of the “fuzzy type.” This approach identifies observable variables separately for fabric, surface, and form. All relationships and co-occurrences are noted, with the goal of eventually identifying salient constellations of co-occurrences that can be associated with identifiable, meaningful human behaviors.

Harry is testing this approach at Chlorakas-Palloures, a large settlement of about 5 hectares in the Paphos district. Three years of rescue excavations have uncovered round houses and extramural features, and close to 100,000 sherds. Using this corpus, the project has identified emergent “fuzzy types” for fabric, surface treatment, and form/shape. In the workshop Harry summarized the main “fuzzy types” so far identified for fabrics:

- ❖ Fabric fuzzy type A: iron-rich fabric, low fired, with medium-sized vegetal fillers and sparse specks of limestone and quartz. Associated with ceramics dated from earlier to middle Chalcolithic.
- ❖ Two variants: AA, with larger and more inclusions, used for coarser vessels; and AD, wide dark grey core, translucent minerals.
- ❖ Fabric fuzzy type B: medium hardness, different sort of firing.
- ❖ Fabric fuzzy type C: sherd hardness medium to medium-hard. Significant improvements in firing, better control over process of oxidation, better supply of fuel. Two variants: CC and CH. The latter is more

- specialized, very hard, better levigated.
- ❖ Fabric fuzzy type D: hard red, wide dark grey core, many limestone inclusions. Mixture of calcareous and iron-rich clays.
- ❖ Fabric fuzzy type E: late Chalcolithic. Clay now bright reddish brown, vessels generally fully fired. Likely imported, but has a local counterpart in fuzzy type EE. Intentional tempering here recognized of crushed igneous material.
- ❖ Fabric fuzzy types G and H. The latter may not have been used for pottery but rather for construction.

Currently over 80 different associations of fabrics with surface treatment have been identified. This meticulous work continues – we are excited to see what develops!

p.s. In later discussion over coffee, Harry explained how he could use current LCP categories to submit the information he has been collecting. He agreed that fabric fuzzy types could be seen as individual, local, petro-fabrics, and that significant associations of fabrics and surface treatments could be submitted as individual, local Chlorakas-Palloures wares. The goal is not to tie down or limit the interpretive process and future possibilities, but rather to allow others who are studying the earliest stages of ceramic production to learn from the ideas being developed and tested at Chlorakas-Palloures.

Giulia Muti: MC pottery from Erimi Laonin tou Porakou: the storage vessels

Giulia presented the results of her study of a specific functional category, the storage vessels (*pithoi* and large jars) from the so-called ‘workshop complex’ at [Erimi Laonin tou Porakou](#). Erimi is a Middle Cypriot site (c. 2000–1650 BCE) located on a plateau on the eastern bank of the river Kouris, on the southern coast. The workshop complex had two main occupational phases. A total of 40 complete or fragmentary storage vessels have been identified, most of which came from the roofed units of the latest phase.

The Erimi vessels were made in a local version of Red Polished ware, as well as Drab polished wares that seem to come from various locales, and also Plain White wares. Giulia described each identified class along with the diagnostic traits of each vessel (e.g., the shape of body parts, decoration).

All of this was preparatory to the main goal, which was to reflect upon the function of these large vessels. Giulia noted that these large vessels play a crucial role in recent research on the late MC and the definition of the transitional period MC III/LC IA. This category is seen to grow in importance through the period, because the vessels seem to be connected to increased storage capacity. The Erimi workshop offers an excellent example of storage intensification and the exploitation of communal spaces for this purpose. Giulia posed the following research questions:

- ❖ Were all the Erimi storage vessels really used for storage? In other words, what is the role of contexts in the definition of their function?
- ❖ Which types of use practices can we reconstruct for these vessels by considering their contexts?

Stratigraphy and micromorphology indicate that the Erimi workshop was intentionally abandoned. Based on the intact or nearly complete vessels from the most recent occupational phase, distribution is one to three vessels per room. The concentration and capacity are thus high, and equally disseminated in all inner spaces, along with work installations, other vessels and tools. There are no cases of *pithos* concentrations in single rooms or rooms with assemblages exclusively dominated by storage vessels. This indicates that none of these spaces can be defined as an organized storage area at Erimi.

Based on the above, Giulia identified three different cases of storage practices at Erimi:

- ❖ *Pithoi* in direct association with working installations and used in specific activities, e.g., as dyeing vats, since textile manufacture seems to have played an important role in the workshop.
- ❖ *Pithoi*/large jars from concentrations of vessels and other artefacts.

- ❖ Storage vessels in special contexts (including ritual/sacred).

She concluded that the function of these large vessels was more fluid than one might have thought simply by labelling them according to single functional category; and further that their function depends not only on form but also on contexts and associations. Close analysis of the Erimi storage vessels can shed new light on the role of storage vessels in MC community spaces.

Lastly, as a first step towards representing the range of vessels and wares from Erimi Laonin tou Porakou, and with the kind permission of site director Professor Luca Bombardieri, Giulia also entered two wares on the LCP: Middle Cypriot Red Polished South Coast: <https://www.levantineceramics.org/wares/614-middle-cypriot-red-polished-ware-south-coast> – with 24 associated vessels! and [Early and Middle Cypriot Drab Polished ware](https://www.levantineceramics.org/wares/615-early-and-middle-cypriot-drab-polished-ware) (<https://www.levantineceramics.org/wares/615-early-and-middle-cypriot-drab-polished-ware>), with 5 associated vessels. She promises to add photographs and drawings of all these vessels soon!

Now that there is a ware entry for [EC-MC Drab Polished](#), others can submit vessels (preferably with break photos!) and associate them with this ware. In this way we can begin to amass a corpus that will allow us to see regional groupings by shape and petro-fabric.

Lisa Graham: EC & MC pottery from surveys, tombs, and sites

Lisa presented pottery from four sites: Makounta, from the Polis area; Kissonerga, in the Paphos district; Prastio, behind Palaeopaphos in the Troodos foothills; and Alambra Mouttes, in the western portion of the island.

She looked at the relative percentages of various EC-MC wares: Red polished (RP), Drab polished (DP), Black polished (BP), White painted (WP), and coarse ware (CW). These are deliberately general categories; in reality every site made their own versions of these wares. Her analysis showed quite discrete patterning:

- ❖ Makounta: DP 59%, RP 41% - a clear west coast agenda. Three fabrics: RP comes in two fabrics; the DP comes in a single, consistent fine, hard, yellowish red fabric.
- ❖ Kissonerga Ammoudhia: DP 68%, RP 24%, CW 3%, Cookpot: 5%. Identified 10 different fabrics here.
- ❖ Prastio Mesorotsos: RP 86%, DP 14%. Identified 5 different fabrics, used for both RP and DP.
- ❖ Alambra Mouttes: RP 98%, WP 2%, DP < 1%, BP <1%. Identified 5 different fabrics.

One way that the LCP can help advance these analyses will be by enabling the identification of local sub-groups of each of these wares. This can best happen by submitting examples from many sites, including color photos of exterior, interior, and section break. This will make it easier to see patterns and key differences, which will lay the groundwork for identifying local and regional productions.

Session 3: Late Middle – Late Cypriot

Eilis Monahan: EC III – MC III(?) pottery from Politico Troulia

Eilis presented a smorgasbord of pottery from Politico Troulia, which is located right in the middle of the island, at the intersection of all geological formations (and, Eilis said, as far from a beach as you could possibly get). The site is quite large: Red Polished ceramics cover an area of about 20 ha.

There are four architectural phases, ending with a workshop that was burned and destroyed c. 1870 BCE. C14 dates range from c. 1950 – 1870 BCE. Eilis found it most suitable to identify the pottery according to five broad ware categories: Red Polished Black Top; Red/Black Slip; White Painted; Cook pot; and Coarse Ware. There are also some Incised wares, some of which seem not to be local. Eilis made a start on documenting this material by submitting [Cypriot Red Polished Black Top ware](#) to the LCP along with a beautiful example that includes a color

photo and a break photo: <https://www.levantineceramics.org/wares/628-cypriot-red-polished-black-topped> and <https://www.levantineceramics.org/vessels/20567-pt-h-031-120-2>.

It will be great to see more examples of the range of vessels and wares from Politico on the LCP!

Mara Horowitz: LC I pottery from Phlamoudhi-Vounari

Mara reported on pottery from [Phlamoudhi-Vounari](#), a small Late Cypriot I settlement on the north coast, at the base of the Karpas Peninsula. The site was originally excavated by Edith Porada from 1970-1973. The earliest levels are LC IA (or perhaps MC III?), apparently built by the community and emergent elites at nearby Phlamoudhi-Melissa as a local ceremonial and trading center (Horowitz 2007, 2008). Mara described the LC phases as follows:

- ❖ Vounari Phase 2: LC IA (or possibly MC III?). A small room with earth floor and patches of ash, pithoi, decorated pottery. We don't have any idea what this might be.
- ❖ Vounari Phase 3: LC IA. 16 x 16 m stone platform, burned and abandoned at the end of LC IB.
- ❖ Vounari Phase 4-5: LC IB. An impressive elevated structure with imposing stone façade. Lots of 'party pottery' inside. Two areas with storage and pithoi.

The ceramic corpus allows the activities here to be identified. Many pithoi indicate significant storage capacity. Large numbers of vessels of locally made Red-on-Black ware as well as imported White Slip I, Base Ring I, Black Slip, Red Slip, White Painted, and Plain White (primarily handmade) wares indicate plenty of eating and drinking. Lastly a small number of coarse ware cooking pots testify to meal preparation. The corpus also includes single exotics, such as one fragment of Tell el Yehudiyah ware and one of Red Lustrous ware. Dating is problematic because the identified wares don't neatly cohere in clear chronological patterns.

In the case of the Red-on-Black ware vessels, two major fabrics can be identified: one hard and salmon-colored, the other softer and tan-buff. There are also two decorative modes, one with thicker lines and the other thinner lines. The thicker lines tended to be on the harder fabric. Preliminary SEM analyses of the fabrics showed variability in the amounts of iron and potassium.

The pottery was initially recorded with a sherd count sheet in the field in 1970-73 (al-Radi 1983), and then with a typology created by Joanna Smith (Smith 2008). Most of the pottery was taken to Columbia University in New York for study but has now been returned. Currently Mara is digitizing plans, which will allow a more accurate analysis of ceramic distribution, and also completing the ceramic study process.

Ekin Kozal: LC Monochrome Ware from Kinet Höyük and Alalakh/Tell Atchana

Ekin submitted [Late Cypriot Monochrome Ware](#) to the LCP (<https://www.levantineceramics.org/wares/616-late-cypriot-monochrome-ware>), and summarized finds of this ware at two palatial sites in Anatolia: Kinet Höyük, a harbor site; and Alalakh, a city located 50 km inland in the Amuq plain, on the other side of the mountains (which makes it more of a Levantine site, geographically).

At Kinet Cypriot pottery begins to show up in the Middle Bronze II palatial contexts (Kinet Period 16). Specifically it is vessels traditionally assigned to LC IA2 wares that appear. Monochrome vessels comprise 15% of all the wares in Period 16; the amount then doubles to 32% in Periods 14-13. Ekin has submitted four examples of LC Monochrome found at Kinet to the LCP:

- ❖ <https://www.levantineceramics.org/vessels/20459-kt-24185-1>
- ❖ <https://www.levantineceramics.org/vessels/20460-kt-22951-1>
- ❖ <https://www.levantineceramics.org/vessels/20458-kt-24745-1>
- ❖ <https://www.levantineceramics.org/vessels/20457-kt-24819-1>

At Alalakh, there are two large palaces, one of MBA (Level VII) and another of LBA (Level IV), dating from c. 1800 to 1300 BCE. The earliest Cypriot vessels are White Painted ware bowls, found in the Middle Bronze Age (Level VII) palace, which is dated to the 18th c. BCE. In the LB I phase (14th c. BCE) Cypriot monochrome is by far the most common ware, at 70%. The amount goes down considerably in the subsequent LB II (13th c. BCE). Ekin submitted four examples from Alalakh to the LCP, and you can see them on the [Alalakh site page](https://www.levantineceramics.org/sites/1591-alalakh): <https://www.levantineceramics.org/sites/1591-alalakh>

Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP MS) shows that the fabric of the monochrome ware vessels does not overlap with Amuq clays, and also that the fabric of the monochrome ware vessels found at Alalakh/Tel Atchana are a direct match with vessels from Kalopsidha. This conforms nicely with David Frankel's 2009 distribution map which shows that monochrome ware has been found mostly in eastern Cyprus.

Artemis Georgiou and Maria Dikomitou-Eliadou: LC Splash-Painted Ware

Artemis described a broad study that she and Maria have done on [LC Splash-Painted ware](https://www.levantineceramics.org/wares/619-lc-splash-painted-ware): <https://www.levantineceramics.org/wares/619-lc-splash-painted-ware>, a highly regionalized production known only from the urban nucleus of Kouklia-Palaeopaphos. In the Late Bronze Age this settlement had developed into an internationally connected sanctuary site; and yet the Paphian ceramic industry was quite idiosyncratic. For example, White Slip II was used everywhere but here, where instead a regional version called White Slip IIA was made.

Splash-Painted ware was first named and published by Vassos Karagherogis. It has received other names, such as Teratsoudhia ware and 'Revolutionary style'. Some examples have been grouped with White Painted III, IV, and V.

The study by Artemis and Maria included a typology, descriptions of decorative treatment, tracing the ware's distribution, macroscopic fabric analysis, and preliminary compositional analyses – all to recover insights into local ceramic productions of the Late Bronze Age.

LC Splash-Painted Ware has been found at practically every locality excavated with the Paphian urban nucleus, and in large numbers. Everywhere it appears, it accounts for about 12% of vessels. It seems to have been produced in the LC IIC-III A periods, although it is difficult to give a precise date because it is so regional and few in-situ finds.

A single shape is known: jugs with a flaring rim, a single vertical handle, biconical (inverted piriform) body, and (usually) flat bases. Often the bases have a grainy resting surface. The surface is always covered in an abstract painted pattern, made with sloppy, thick lines, unevenly applied. The uneven application means that there is a lot of variability in color.

Macroscopic fabric analysis shows a light colored grey colored clay, fired thoroughly, with frequent, poorly sorted array of inclusions, including micritic limestone and mudstone. The majority of vessels were handmade, but a few were wheel-thrown. Some have such pronounced wheel marks that it seems they were fashioned with a slow wheel/tournette.

p-XRF analyses were conducted of 30 samples plus about nine samples of wheel-made black-slip and red-slip vessels. The 30 splash-painted samples come from various sites within the urban nucleus. Half of the selected samples (57%) were made of the same fabric, which has been termed Fabric 1. This fabric has an array of inclusions common to all samples; it seems to be a result of mixing two different clays, one red non-calcareous and the other sedimentary. The likely source is the river valleys in the immediate region. The other fabric is actually a variation of Fabric 1; the differences seem to be due to slight variations in clay preparation. There is no

correspondence between technique and fabric; vessels made by hand, slow wheel, and faster wheel were all made in both fabrics.

These results lead to more questions, for example: were these vessels the product of a single potter? A single workshop? Why were only jugs decorated in this manner? Any explanation would need to account for both the great quantity and the great consistency in detail. Perhaps this is best understood as a regional ceramic class rather than the output of a single workshop.

In support of this presentation, Artemis submitted [LC Splash-Painted ware](#), along with three vessels (and a break photo) to the LCP.

Session 4: Hands-on in the museum

Despo Pilides: Pithoi and accompanying ceramics from Ayios Sozomenos Ambelia

Thanks to Despo's kind efforts, we were able to examine in person ceramics recovered from her excavations at Ayios Sozomenos Ambelia. The site is located on a high plateau, one of several that make an impressive and dramatic group flanking the central Mesaoria plain. It was identified in the course of a survey of the area, conducted to identify occupation patterns in the central part of the island during the Late Cypriot period. Before discussing Ayios Sozomenos Ambelia, Despo briefly described the remains from two other sites found in this survey. The first is Barsak, where excavations have uncovered a monumental fortification wall over 2 m wide. A second site is Politco Troulia, which is located below the plateau of Ayios Sozomenos. Here excavations uncovered a cluster of buildings that may have been for both metal and ceramic production, as there were found many wasters and also fragments of unfired vessels. This site had been abruptly abandoned, leaving many objects laying on the floor, but there is no evidence of purposeful destruction. (For a discussion of the pottery of earlier periods from this site, see Eilis Monohan's summary, above).

Ayios Sozomenos Ambelia is like a smaller version of Kalavassos Ayios Demetrios. There is a long hall filled with storage jars and pithoi, obviously intended for collecting and storing massive quantities of agricultural goods. This structure was violently destroyed by fire, which is dated by a cluster of C14 dates to the mid-late 13th c. BCE. The long hall contained vessel types generally dated from MC III – LC II but were here found side-by-side. There are storage jars decorated with incised bands, pie-crust, and stamped floral designs such as are known from Enkomi and Phlamoudhi, and which are generally thought to date to the MC III transition. There are also pithoi of Priscilla Keswani's Type III, usually thought to date to the LC II period, but as they were found alongside the decorated storage jars, it appears that these types were contemporary.

Despo's presentation of the site and its material led to a spirited discussion, and an agreement that we should create on the LCP a ware family for [LC pithoi](https://www.levantineceramics.org/wares/625-late-cypriot-pithoi): <https://www.levantineceramics.org/wares/625-late-cypriot-pithoi>. We also associated two of the petro-fabrics that Eleni submitted with this ware: [Alassa mudstone-tempered](#) and [Alassa ophiolitic](#). The next step will be to add vessels from Ayios Sozomenos, Alassa, Kalavassos, Palaepaphos, and Episkopi-Bamboula (and other places as well), with drawings, color photos, and especially break photos, as well as petrographic thin-sections – and then to link these with the petro-fabrics that Eleni Nodarou has identified (see above for the summary of her presentation). As more examples are added, we will be able to use LCP comparisons and the "View on map" tool to identify patterns of shapes and fabric groups, and gain insights into production and chronology.

Lindy Crewe: Kissonerga Skalia pottery fabrics

Lindy gave us a hands-on presentation of the range of fabrics represented in the Bronze Age levels of Kissonerga Skalia. This era saw significant transformations in ceramic technology; the challenge for researchers is how to construct and define groups so as to accurately reflect production that was experimental, local, and increasingly intentional. (For discussion of this same issue for the Chalcolithic period, see the summary above by Charalambos Paraskeva on the pottery from Chlorakas-Palloures.)

One transformation that has been identified in the Chalcolithic era, thanks to Diane Bolger's work at Kissonerga Mosphilia, is a change in clay sourcing. Into the Middle Chalcolithic Kissonerga potters were using calcareous clays readily found in nearby streambeds, but by the later Chalcolithic they had switched to non-calcareous clays – a pattern that Lindy has identified as continuing into the Bronze Age. The earliest Late Chalcolithic use of non-calcareous clays seems to correlate with a desire to produce metallicizing vessels at a time when international contacts increased, bringing Cyprus into the sphere of the Anatolian trade network (c. 2700 BCE). From the Early Cypriot Bronze Age these lustrous red surfaces (the Red Polished wares and variants such as Drab Polished ware) continue to be the primary styles at Kissonerga. Late in the Middle Cypriot Bronze Age (c. 1800 BCE) potters start to produce vessels with dark grey/black surfaces, related to the Black Slip wares which appear in other parts of the island at this time.

One next step would be to submit to the LCP Kissonerga Skalia groups as local 'ware/ware families,' along with break photos and petrographic samples. Eventually these could be associated with local petro-fabrics. Most will likely be local to the site, but some might also be connected with ware and clay groups from other sites – or vice versa. For example, Lindy noted that one fragment from Kissonerga Skalia is Chalcolithic Red-and-Black Stroke Burnished, and is the same as Chlorakas-Palloures "Fuzzy Fabric Type EE," which has chert inclusions (see summary above by Charalambos Paraskeva). This is actually local to Kissonerga and was probably imported to Chlorakas. There are also fragments that could be classified as Drab Polished, both with and without a blue core but apparently of the same material, and cooking pots with crushed mudstone temper and lime coating (thanks to Eleni Nodarou and Paula Waiman-Barak for identifying the mudstone temper).

As more examples of vessels from sites around the island are submitted to the LCP, we will gain a vivid picture of this era's increasingly varied and complex ceramic production.

Lastly, Lindy added to the LCP [Early Cypriot Red Polished I-II](#), illustrated by a beautiful jar (with break photo!) from Kissonerga Skalia.

Session 5: After the Bronze Age

Anna Georgiadou: Salaminian Bichrome Ware

Anna reported on one aspect of a large, ongoing research project called MuseCo. Bringing Life to Old Museum Collections: The interdisciplinary study of pottery from the Cypriot Iron Age Polities of Salamis, Soloi, Lapithos, and Chytroi. In this project, material from tomb groups excavated before 1974, still largely unpublished and unknown, is studied with the goal of defining ceramic production in the eastern and northern parts of the island and defining zones of interaction. The project began with the collaborative work on the early Iron Age Cypriot material from Tel Dor (on which see above, in the contribution by Paula Waiman Barak), which discovered that most of the Cypriot imports to that site came from Salamis.

Salaminian Bichrome Ware represents one regional product of the island-wide style group of [Cypriot Bichrome \(Iron Age\)](#). The Salaminian vessels were made of a single petro-fabric: [East Cyprus: calcareous silty fabric with basaltic minerals](#)

There are a limited number of Salaminian bichrome ware shapes:

- ❖ footed deep bowls, found at Salamis, Enkomi, Kition, Kythrea, Galinoporni, and Styloio – and at Tel Dor in Israel. Floral and geometric designs.
- ❖ wide, shallow bowls, found at Salamis, Enkomi, Rozokarpaso – and Tel Dor in Israel. Concentric circles in and out.
- ❖ Belly-handled amphora, found at Salamis, Alaas, and Spathariko. Both concentric bands and floral, lozenge, and geometric designs. This form sometimes was adorned with human figures.
- ❖ Barrel jugs, found at Lapithos, Palaepaphos, Amathus, Enkomi, Salamis, Rizokarpaso – and Tel Dor in Israel. Two standard sizes: 20 cm and 10 cm in height. Larger variant of 30 cm high in Cypro-Geometric and especially in the Cypro-Achaic period.

Anna promises to enter this ware along with several examples into the LCP soon!

Nancy Serwint: Figurines from Polis

Nancy gave an overview of current research perspectives in coroplastic studies, as an initial step in considering how the LCP could become a beneficial working platform for scholars working on this vast body of material.

Nancy speaks from the vantage point of having worked with the Princeton Cyprus Expedition at Marion-Arsinoe since 1973. The project database currently has over 60,000 terracotta objects ranging in date from the 7th c. BCE to the Roman imperial era. 30,000 of these objects derive from two sanctuary complexes at Marion: Peristeries Sanctuary (750-450 BCE) and Maratheri Sanctuary (600-312 BCE).

Nancy summarized the various vantage points by which scholars assess figurines and other terracotta objects. As is often the case with ceramics, especially of later periods, the fundamental starting point is style and form, best relayed via typologies. Types serve to establish both chronology and also the conceptual range of interests at a given site. A dramatic shift in the number of typological categories can be a meaningful indicator in and of itself. For example, at Polis, there are over 30 figural types for the Archaic era – but the number jumps to over 50 types for the Classical era.

Other aspects of typological analysis focus on manufacturing techniques (e.g., hand-made, one-part mold, two-part mold), and a type's stylistic or technical origin. It is often the case that coroplastic publications end with such typological catalogues. But of course other angles of investigation are possible.

Around Polis, clay beds that provide good sources of material for both pottery and other terracotta objects are well known. The material has been studied by ethnoarchaeologists, who have collected and processed raw material, and also by archaeometric analysts, whether macroscopically by hand-held microscopes as well as by petrography, XRF, and NAA. These studies have shown that there is more variability in the clay fabrics for mold-made figurines. As is so often the case, a bit of information leads directly to more questions. Were molds shared? Were some molds imported, and then used by local craftspeople? Were different clays used by different artisans over time? Analysis has shown that for some figurines made from two-part molds, two different types of clay could be used for the same figurine.

There is ample evidence for terracotta production at Marion via molds and even fingerprint impressions. A new project has begun to scan fingerprints and collect the images in a database. New analyses show that fingerprints reveal both gender and age, meaning males vs. females, and children vs. adults.

Nancy closed by noting the many points of overlap and intersection between the study of figurines and ceramics: clay sources, production locales, stylistic and technical borrowings from other places – and of course the basic point that figurines represent an enormous body of material whose future study could benefit from an easily accessible, openly available platform to collect and share data. We have plans to meet at the 2019 ASOR Annual Meeting (which will be in San Diego CA in mid-November) to discuss building a new submission category for figurines. Stay tuned!

Brandon R. Olson, R. Scott Moore, Thomas Landvatter, Justin Stephens, and Melanie Godsey: Pyla-Vigla and its early Hellenistic ceramics

Brandon reported on the past two seasons of work at [Pyla-Vigla](#), a fortified site atop a natural hill overlooking Larnaca Bay and a considerable stretch of the island's southeastern coast. The site was discovered in the context of the [Pyla-Koutsopetria Archaeological project](#) (PKAP).

The team has had just two seasons so far, but a great deal of information has already been recovered. The site was encircled by a massive fortification wall, built of a combination of ashlar blocks, large fieldstones, and mudbrick. Long stretches have been uncovered in trenches on the height's southern, sea-facing side, and its northern side, which can be approached via a wide saddle. The walls were founded directly on bedrock, which is seen to have had a very irregular contour. Every excavation unit has at least two and sometimes three floor levels, but no chronological distinction between the material recovered can be seen, indicating a very narrow chronological range for the site's occupation and use. In deposits and on surfaces up against the walls, large numbers of weapons have been found: knives, socketed projectile points, and over 100 sling bullets – plus evidence of their manufacture. An unusually high number of coins have also been recovered, and notably only two issues are represented: small bronzes of Evagoras II (361-351 BCE) and Alexander, the latter coming from a Cypriot mint (either Kourion, Salamis, or Paphos).

In 2012 an enormous deposit of late Classical/early Hellenistic pottery was found, with a limited number of forms: locally produced wheel-made lamps (Howland 25 variant/round-shouldered), color-coated echinus bowls, saucers with rolled rims, basket-handled jars, amphoras of Mendean or Knidian form but perhaps of local manufacture.

By virtue of location, date, site type, and specific finds, Pyla-Vigla seems to have been built in the later fourth century BCE, either by Ptolemy I or Antigonos Gonatus, to serve as a fortified outpost.

Brandon has already submitted several vessels from Vigla to the LCP and promises to add more. These examples will add to the LCP's corpus of early Hellenistic pottery, from Cyprus specifically and also from other Levantine sites. Currently on the LCP there are 151 Hellenistic vessels from Cyprus – compared to 1977 from the Levant overall. Continuing to add to this corpus will enable researchers to better investigate questions of typology, comparable forms, functions, distribution, and connectivity.

Anastasia Shapiro: Frankish-era cooking pots and jars/jugs of Cypriot manufacture from Acre

Anastasia presented a group of cooking vessels of Cypriot manufacture found in the Old City of Akko (Frankish Acre). Eight years of excavation in the Frankish/Crusader-era complexes of the Hospitaller Compound and the Knight's Hotel produced a large corpus of plain and decorated pottery, both local products and imported vessels, including cooking vessels made in Cyprus. The full corpus was published by Edna Stern in 2012. As in earlier eras (e.g., Late Bronze Age, Hellenistic-Roman, Abbasid), the port of Acre was a vital node in the wide economic network of the eastern Mediterranean; foreign goods of all sorts arrived here.

The vessels that Anastasia presented belong to a specific ware: [Cypriot Medieval Handmade Coarse Ware, Paphos Group D](#), which Smadar Gabrieli presented at the first LCP workshop held in Athens in 2012: <https://www.levantineceramics.org/wares/120-cypriot-medieval-handmade-coarse-ware-paphos-group-d>.

Anastasia submitted seven cooking pots – including photos, drawings, and linked petrographic samples – to the LCP. These now join the [one vessel from Paphos](#) that Smadar submitted in 2012. Anastasia concluded by noting that vessels of this ware comprise only a very small part of the huge assemblage of cooking wares found at Acre, and suggested that they may represent the personal belongings of individual sailors or traders, rather than goods intended for sale.

Final points: I see RED! + FAQs, reminders – and one great working tip

I see **RED!**

We now have a series of red polished and slipped wares of the EC, Philia, and MC periods on the LCP. Some were added years ago, others just recently. Below is a list, along with the name of the original submitter and the listed contributors. It would be excellent if people would put their heads together, perhaps via a skype chat or shared google doc, decide if these names are appropriate or should be changed, add more information and better descriptions, and especially begin adding vessels to illustrate.

- ✚ Early Cypriot Red Polished I-II: <https://www.levantineceramics.org/wares/626-early-cypriot-red-polished-i-ii>, submitted in 2019 by Lindy Crewe, contributor: Lindy Crewe.
- ✚ Early Cypriot Red Polished South Coast: <https://www.levantineceramics.org/wares/554-early-cypriot-red-polished-south-coast>, submitted in 2019 by Matt Spigelman, contributors: Jenny Webb and Lindy Crewe.
- ✚ Middle Cypriot Red Polished South Coast: <https://www.levantineceramics.org/wares/614-middle-cypriot-red-polished-ware-south-coast>, submitted in 2019 by Giulia Muti, contributors: Giulia Muti and Luca Bombardieri
- ✚ Red Polished Philia: <https://www.levantineceramics.org/wares/128-red-polished-philia>, submitted in 2012 by Jenny Webb, contributor: Jenny Webb.
- ✚ Philia Red Slip: <https://www.levantineceramics.org/wares/131-philia-red-slip>, submitted in 2012 by Jenny Webb, contributor: Jenny Webb.
- ✚ Middle Cypriot Red Slip: <https://www.levantineceramics.org/wares/201-middle-cypriot-red-slip>, submitted in 2012 by Joanna Smith, contributor: Joanna Smith.

Matt Spigelman and Joanna Smith, the LCP Area Editors for Cyprus, will discuss how best to arrange a group discussion on this subject. Please let them know if you would like to be included in that conversation.

FAQs (🤔)

Question: How can the LCP be used for the ambiguous, smaller-scale productions of the earlier periods?

- ✚ On the LCP ware simply means something that human hands have interacted with, and petro-fabric is essentially clay with inclusions. You can use the categories of ware/ware family and petro-fabric to help clarify material that is sui generis, very local, and probably also often experimental. For example, Harry's 'fuzzy fabric groups' can be submitted as individual, local Chalcolithic-specific petro-fabrics, and conjoined pairings of fabric and surface treatment can be submitted as individual, local Chalcolithic-specific wares/ware families. In the same way, petro-fabric pages can be made for the various Neolithic groups identified at Prastio Mesorosos, and ware family pages can be made for the groups that Lisa is using to identify the pottery from her survey sites. In this way we will gain a better view of groupings, and in turn of people's movements and linkages.

Question: How can the LCP help us work towards a refined or new system for Cypriot ware/ware families? Perhaps we can split up the large old categories into regional versions and start collecting examples?

- ✚ Joanna Smith said that the LCP can help us work towards ceramic group names and definitions that more accurately reflect what we know. This has been one of the primary challenges of dealing with ceramics on Cyprus. She noted that when she first encountered the pottery from Phlamoudhi, it became clear that the traditional SCE ware categories could not be used to describe the material. The LCP's categories of ware/ware family and petro-fabric allow for both flexibility and linkages, so that we can collect the information we have – and then see what clusters, patterns, and groups they form.

Question: where are the workshops?

- Joanna noted that we have very few actual production locales, and suggested that firing was probably done at the village level but away from the living areas, so we aren't likely to find the precise spots. It is also probable that firing was done in venues that are archaeologically unrecoverable, such as small pits or piles covered with soil or clay that was then removed. Ethnographic analogy is helpful here, such as the firing modes still used today by potters of Göğayüp, a small village northeast of Sardis, in western Turkey.



Reminders

- Add individual vessels! Even a single photo or drawing is useful (and break photos are like gold). More examples help make the maps more representative.
- Before adding something, check the browse pages for sites, references, wares, and petro-fabrics to see what already exists in those categories. Remember that you can filter by country & period.
- You can create and define wares/ware families without petrographic studies. Name and describe groups as you see them. Then you can associate individual vessels with a ware group. Trust your instincts! Scientific analyses can come later.
- Entries can always be edited – expanded, reworded, re-arranged. URLs stay stable even when a name is changed. So don't be afraid to begin with a minimal entry. You can always change it, or add more.

A great working tip: an easy way to take break photos

We all benefit from seeing break photos – so here's an easy way to take good ones, suggested by Dennis Braekmans at the LCP workshop held at Bilkent University in Ankara this past May: set your fragment in a small container filled with sugar! The plain white color offers a good contrast and does not compete with the color of the clay; the material itself is sufficiently dense that even a small fragment will remain stable; and the sugar itself will not react with or penetrate the clay body.

The day after that workshop, Peter Stone and Andrea Berlin put Dennis' idea to a test. We cut off the bottom of a small water bottle and "borrowed" some sugar from the Starbucks upstairs from the Kinet Höyük storeroom at Bilkent (sorry Starbucks). It worked perfectly!



Finally, a big shout-out to Despo Pilides, on behalf of the Cyprus Museum and the Department of Antiquities, and to Lindy Crewe and the amazing staff of CAARI: their collective energy and cooperation ensured a fantastic experience for all of us. Many thanks!

