

The Sonia and Marco Nadler Institute of Archaeology is proud to announce

The power of ceramics

*Transformations and interactions
in the Eastern Mediterranean
during the Late Bronze and Iron Ages*

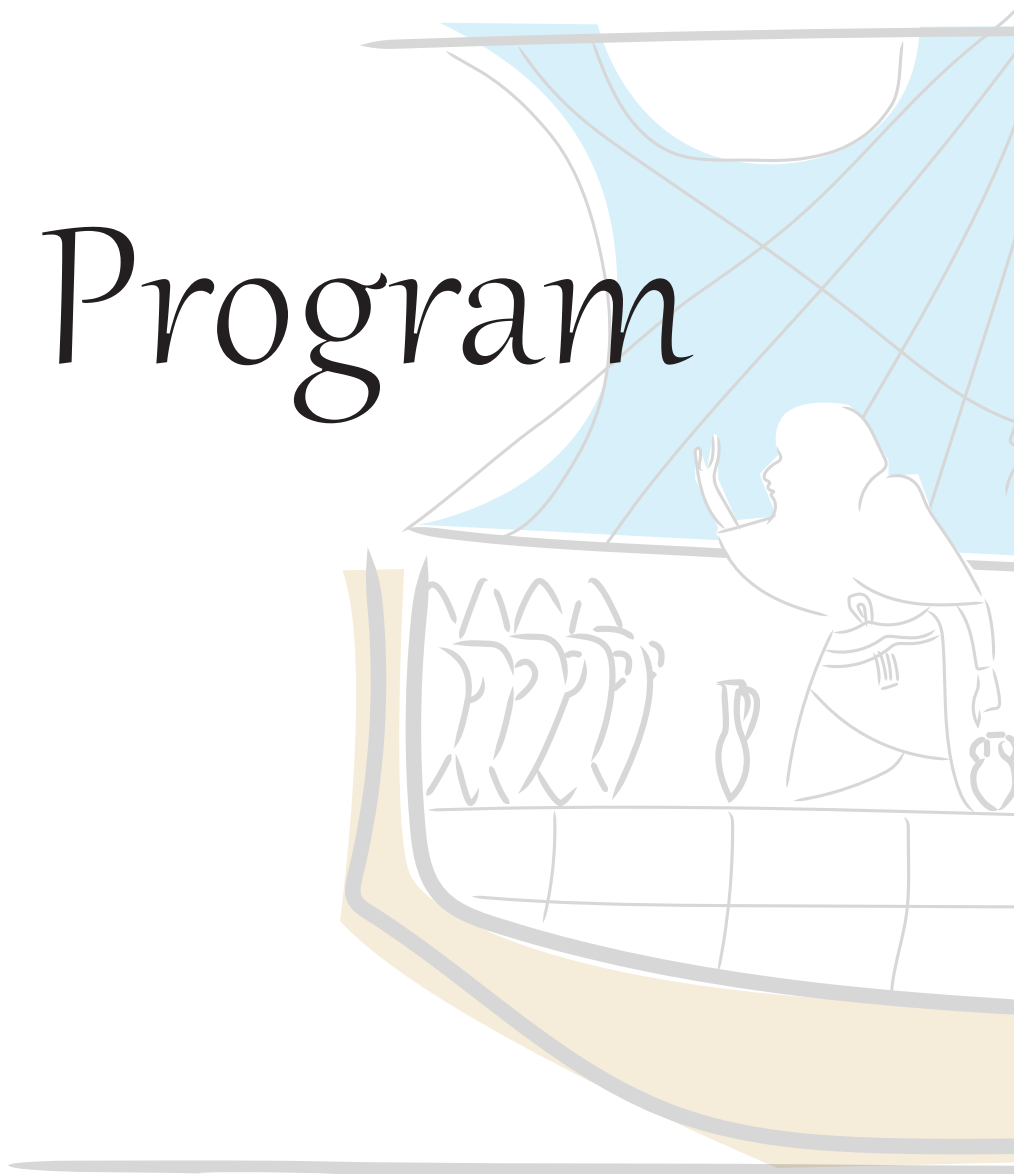
The symposium is organized by Dr. Paula Waiman-Barak and Prof. Oded Lipschits, Tel Aviv University, and Dr. Sabine Kleiman, Eberhard Karls Universität Tübingen/Tel Aviv University.

The aim of this symposium is to bring together European and Israeli archaeologists and scientists under the framework of ceramic studies from the Eastern Mediterranean in the Late Bronze and Iron Ages (2nd–1st millennia BCE). In recent years, numerous analytical studies have produced increasingly accurate information regarding pottery production, style, and movement. These efforts echo patterns of exchange rooted in chronological trajectories, which enable detailed reconstructions of ancient economies and their connections across the Mediterranean. The periods in focus are characterized by profound changes in the general social, political, and economic organization, from the downfall of the Late Bronze Age's major trading centers to the slow development of new polities during the early Iron Age.

Scholars working in the field of Eastern Mediterranean ceramic studies belong to different schools of thought and are situated in many places in Europe, the Levant and the Middle East. This symposium will give researchers the opportunity to exchange data from well-contextualized ceramic assemblages excavated at key archaeological sites in the Aegean, Cyprus, Anatolia, the Levant and Egypt. It will offer scholars of all levels – with a focus on early career researchers during their PhD or postdoctoral research – the chance to explore various methodologies and ways of investigating the studies of archaeological ceramics. Special attention will be given to a discussion of methodology,

particularly the strengths and weaknesses of each type of analysis and what method has the best potential. Alongside synthetic papers, we plan to present the integrated results from various archaeological projects that applied primarily ceramic petrography combined with other mineralogical or chemical analyses. There is also room for typological studies that have yet to be connected with archaeometric studies. Additional discussions will be dedicated to innovative works that explore the use of 3D computerized models to standardize analyses of volume and the production methods of ceramic vessels and organic residue analyses for reconstructing the transportation of organic goods in ceramic vessels and identifying pigments for the decoration of wares.

Program



Day 1 – 21.2.2023

08:30 Morning coffee

09:00 Yuval Gadot | Welcome address

Session 1

Interaction and Transformation of Pottery – The Southern Levant

Chair: Elisabeth Wagner-Durand

09:20 Ido Koch | Powerful Interconnectedness

09:50 Ortal Harush | Learning Networks: Social Signatures in Material Culture – A View from the Iron Age II

10:20 Coffee break

11:00 Sabine Kleiman | The Potters of the Shephelah: Pottery Production and Exchange in the Late Bronze and Early Iron Ages

11:30 Golan Shalvi and Ayelet Gilboa | Fifty Shades of Purple: A Glimpse into the Dye Industry at Tel Shiqmona during the Iron Age

12:00 Visiting the laboratories of the institute

Lunch break

Session 2

Pottery Production and Distribution in Late Bronze and Iron Age Northern Syria and Turkey

Chair: Ekin Kozal

14:30 Marie-Henriette Gates and Murat Eroğlu | The Late Bronze Ceramic Industry at Kinet Höyük: An Ancient Cilician Seaport

15:00 Dirk Paul Mielke | Archäometric Approaches for the Characterization of Hittite Pottery

15:30 Coffee break

16:00 Gunnar Lehmann | The Early Iron Age at Kinet Höyük, Cilicia, Turkey

- 16:30** **Sinem Haciosmanoğlu** | Archaeometric Analysis of the Iron Age Cypro-Cilician White Painted Ware from Sirkeli Höyük and Comparison with the Regional Pottery Production in Plain Cilicia
- 17:00** **Juliane Stein** | Iron Age Pottery from Tell Rifaat: New Insights and Old Problems
- 17:30** Summary and end-of-the-day discussion
- 18:00** **Dinner on campus**
- 20:00** **Wine in the dorms**

Day 2 – 22.2.2023

08:30 Morning coffee

Session 3

Pottery Production and Distribution in Late Bronze and Iron Age Cyprus and the Eastern Mediterranean 1

Chair: Constance von Rüden

- 09:00** Maria Dikomitou-Eliadou and Artemis Georgiou | Late Bronze Age Ceramic Fabrics in Their Regional Setting: The Case of Paphos, Cyprus
- 09:30** Maria Dikomitou-Eliadou and Anna Georgiadou | Cypro-Geometric and Cypro-Achaic Pottery Production at the Polity of Salamis, Cyprus: A Technological and Compositional Investigation of White Painted and Bichrome Pottery Wares
- 10:00** Coffee break
- 10:30** Teresa Bürge, Paula Waiman-Barak and Johannes H. Sterba | A Diachronic View on Intra-Cypriot Relations in the Late Bronze Age as Reflected in the Pottery from Hala Sultan Tekke: Typology, Technology and Provenance Studies
- 11:00** Zachary C. Dunseth | What It Is and How It Was Made: Potential Use (and Abuse) of FTIR Spectroscopy in Ceramic Analysis, with a Special Case Study on Cypriot and Sardinian Nuragic Tableware from Hala Sultan Tekke
- 11:30** Peter M. Fischer | Hala Sultan Tekke, Tell el 'Ajjul and Tell Abu al-Kharaz: Common Ceramics
- 12:00** Hands-on student session at the petrography lab
Lunch break

Session 4

Pottery Production and Distribution in Late Bronze and Iron Age Cyprus and the Eastern Mediterranean 2

Chair: Philipp W. Stockhammer

- 14:00** **Paula Waiman-Barak** | Trade in the Eastern Mediterranean: New Perspectives
- 14:30** **Katja Soennecken** and **Luisa Goldammer** | Continuity and Change: Tall Zirā'a and Its Role in Trade and Cultural Networks
- 15:00** Summary and end-of-the-day discussion

- 16:30** **Tour of Jaffa with Shahar Gofer**
Dinner at the harbor

Day 3 – 23.2.2023

08:30 Morning coffee

Session 5

Trade in the Eastern Mediterranean during the Late Bronze and Iron Ages 1

Chair: **Gunnar Lehmann**

09:00 Ekin Kozal and Gubaz Mustafa Kibaroğlu | Style as Trademark: Production and Distribution of Red Lustrous Wheel-made Ware (ca. 1500–1200)

09:30 Elina Kardamaki and Peter Day | Late 13th-century (LH IIIB2) Long-distance Trade between Mycenaean Greece and the Eastern Mediterranean

10:00 Henning Franzmeier | Levantine Imports in Qantir-Piramesse: Can It Help Reconstructing the History of Egypt's Capital in the Transition from the Late Bronze Age to the Early Iron Age?

10:30 Coffee break

11:00 Assaf Kleiman, Alexander Fantalkin, Liora Bouzaglou and Israel Finkelstein | Aegean and Egyptian Imports in Late Iron Age Megiddo: Evidence of Greek Mercenaries?

11:30 Ayelet Gilboa, Paula-Waiman-Barak, Gunnar Lehmann, Anna Georgiadou and Golan Shalvi | Cyprus and the Southern Levant during the Iron Age: A Non-Braudelian Ceramic Perspective

12:00 Hands-on session: Imported wares from Azekah and Megiddo
Lunch break

Session 6

Trade in the Eastern Mediterranean during the Late Bronze and Iron Ages 2

Chair: Assaf Kleiman

- 14:00** **Vanessa Linares** | “The Invisible Trade”: Organic Residue Analysis of Small Ceramic Vessels from Tel Shadud, Tel Bene Beraq and Tel Yehud during the Late Bronze Age
- 14:30** **Itzick Shai, Matthew Susnow and Chris McKinny** | The Social Interaction of Merchants and Indigenous Peoples in Late Bronze Age Cult
- 15:00** Coffee break

Session 7

Theoretical and Practical Approaches to Production and Distribution of Pottery during the Late Bronze and Iron Ages

Chair: Artemis Georgiou

- 15:30** **Constance von Rüden** | Between Skillful Routines and Creative Divergence: Embodied Cognition and the Study of Craft Practices in Archaeology
- 16:00** **Elisabeth Wagner-Durand** | Style and Habitus: Early Iron Age Pottery Design in the Levant as Means of Expression and Communication
- 16:30** **Philipp W. Stockhammer, Shlomit Bechar and Maxime Rageot** | Interaction and Transformation of Pottery in the Late Bronze Age: Integrating Theory, Practice and Science
- 17:00** Summary of the main results and final discussion

Abstracts



Powerful Interconnectedness

Ido Koch

Communities located along the Mediterranean coast have interacted since time immemorial. People moved and exchanged commodities and ideas. While they all were connected to their hinterlands, these communities were somewhat different, exhibiting interregional connectivity. Within these networks of interaction, “foreign” innovations are brought to the attention of locals, who react in ambivalence: they reject some innovations while accepting others, and thus a process of (mis)translation takes place. The process includes the modification of the imported—be it an idea, a practice, or an object—according to multiple conditions, among which are the local understanding of the innovation and the need to fit the local social context. Such interactions, in some periods, were so intense that glocalized spheres emerged, at times to the degree that scholars would call them “cultures” or “civilizations.” These will be the focus of my talk as illustrating different modes of interactions and exchanges of knowledge in the Levantine littoral during the Late Bronze and Iron Ages, exemplified in several categories of technologies and objects.

Learning Networks: Social Signatures in Material Culture – A View from the Iron Age II

Ortal Harush

The study of learning networks aims to understand the processes by which motor skills are learned and transmitted. Communities are embedded in distinct social networks leading to learning networks, each of which has a set of motor skills that can be considered a cultural marker. Indeed, individuals are influenced by the traditions of the society in which they operate. In ceramic production, the cultural affiliation and technical traditions of the individual are directly related to the operational aspects of the potters' motor skills. This study corroborated this hypothesis; individuals living in the same cultural, social and physical environment tend to acquire similar ideas about an object's nature, resulting in similar behavioral traits subsequently reflected in material culture. From a broader perspective, distinct ceramic variations—within the ethnographic data and the archaeological record—result from the potters belonging to different social groups with different learning environments, thus creating social markers and signatures.

The lecture will focus on an assemblage dating from the Iron Age II, particularly on one of the well-known and largely discussed ceramic assemblages of the period: the lmlk and the rosette jars, both forming part of the OSJ type. Their attribution to one general type and their association with the Kingdom of Judah's administrative and economic system set their affiliation to the same cultural group. Despite this determination, the current study reexamines the division between the two types and assesses the socio-cultural implications of the variations observed.

The Potters of the Shephelah: Pottery Production and Exchange in the Late Bronze and Early Iron Ages

Sabine Kleiman

During the Bronze and Iron Ages, the Shephelah (the foothill region between the southern Coastal Plain and the Judean Highlands) was one of the most densely settled areas in the southern Levant. However, from the Late Bronze II to the Late Iron I (14th until the end of the 10th century BCE) this region experienced profound changes in the general political organization. This lecture presents the main results of a broad study utilizing ceramic assemblages to observe mechanisms of continuity and change during these periods and how they correlate with the political and cultural history of the area. Previous research on the Late Bronze Age and Iron I Shephelah often focused only on a specific site or a single period; a specific ware, such as the local Aegean-style pottery; or around issues related to the ethnicity of the local population. This research, on the other hand, presents a detailed, large-scale investigation of the long-term developments in ancient pottery production, including 687 vessels from 12 different sites utilizing three different analytical methods: petrography, techno-stylistic investigation, and typology. The general focus on utilitarian household vessels, rather than specific fine ware, acknowledges the importance of understanding first what is “local” and what defines the general material culture of a site, a region and a period, as well as the associated symbolic and cultural notions.

Fifty Shades of Purple: A Glimpse into the Dye Industry at Tel Shiqmona during the Iron Age

Golan Shalvi and Ayelet Gilboa

Purple dye-stained pottery has been known from Tel Shiqmona for many years, making it clear that such production has taken place at the site. Nevertheless, the nature of the industry and its chronological range remained unknown. The analysis of the pottery by a combination of stratigraphic, typological, chemical and petrographic research opens a window for an in-depth understanding of that industry. This research shows that the production of the dye was the main activity at the tell, and that it was carried out continuously throughout the Iron Age. For most of that period, the production center in Shiqmona was the only one known in the Mediterranean basin. The extent of colored sherds was so great that in some strata dye traces were observed on dozens of pottery fragments, a phenomenon that has to date not been documented. In addition, many rim fragments of industrial vats, identical to those used in the dye industry but lacking colored residue, were found. These suggest that the production was more significant than initially appears. A number of unique industrial vat bases were also found. Besides provenance analysis, we examine the connection between the dye-stained vat rims, the unstained rims and the vat basins through petrography. For the first time, we offer a reconstruction of a complete production vessel. Questions about the technological function of the vessels are also addressed.

The Late Bronze Ceramic Industry at Kinet Höyük: An Ancient Cilician Seaport

Marie-Henriette Gates and Murat Eroğlu

AS is the case at many long-lived sites, the stylistic and technical aspects of the Bronze Age ceramic industry at Kinet Höyük, an ancient Mediterranean seaport, reflect two contrasting trends. The first is characterized by the continuity and gradual evolution of regional ceramic traditions; and the second by intrusive industries that abruptly changed long-established techniques of ceramic production. The use of locally available clays in both circumstances shows that these distinct cycles stemmed from internal factors within workshops. This point can be readily illustrated by maritime and riverine sites like Kinet. The circulation of pottery by ship in theory introduced different styles more intensively to them than to inland sites; but efforts to imitate and adapt foreign types need not have affected workshop practice beyond modifying its repertoire. By contrast, Kinet's Late Bronze ceramic industry is an example of the second trend. Its potters not only replicated the Hittite repertoire; they applied the manufacturing standards of Hittite workshops in central Anatolia to do so. Technical features broke sharply with earlier Bronze Age practices, even to the choice of clays as shown by XRF and petrographic analyses. This paper will propose that the exceptionally clean clay newly exploited by Kinet's LB potters was favored because it suited the "recipe" to produce a standard type of Hittite fabric. Its intrusive manufacture, lasting over three centuries, eventually declined to extinction. Iron Age successors reverted to a ceramic practice with regional variants widely shared throughout the northeast Mediterranean, as again confirmed by the petrographic and chemical analysis of their output at Kinet.

Archäometric Approaches for the Characterization of Hittite Pottery

Dirk Paul Mielke

The basis of any interpretation of pottery findings is a comprehensive understanding of their specific socio-political and cultural background. In this regard, the Late Bronze Age empire of the Hittites was one of the dominant major powers of the entire Ancient Near East in the second millennium BCE. The Hittites' sphere of influence extended far beyond their core area in central Anatolia, both politically and culturally. In terms of material culture, it is above all the pottery that repeatedly serves as evidence of Hittite influence. A holistic characterization of Hittite pottery requires not only classical archaeological analyses but also archaeometric investigations. Up to now, however, archaeometric analyses have played almost no role in Hittite pottery research. Only through persistent initiative has it been possible in recent years to initiate archaeometric research on Hittite pottery based on archaeological questions. In this lecture, the first insights of this research, which is still in progress, will be presented and put up for discussion.

The Early Iron Age at Kinet Höyük, Cilicia, Turkey

Gunnar Lehmann

The paper discusses the connections of the Cilician harbor Kinet Höyük with Cyprus during the Iron Age, as evident in the ceramic imports. Excavations at Kinet Höyük were conducted by Marie-Henriette Gates, Bilkent University, Turkey, between 1992-2012. Almost 500 ceramic vessels of the excavations were investigated with Neutron Activation Analysis. In addition, petrography was applied to further substantiate the elemental analyses. With these studies, the excavations at Kinet Höyük provide an exceptional wealth of information regarding the connectivity of the Cilician harbor with the Mediterranean and its continental hinterland. The paper focuses on the Cypriot ceramics, which provide evidence for close interactions between Cyprus and Cilicia during ca. 1200–740 BCE. After limited exchange during the Late Cypriot III, Cypriot imports increased significantly during Cypro-Geometric I–II and climaxed in Cypro-Geometric III and Cypro-Archaic I. The high resolution of the analyses presented here attempts to identify interactions with specific cities on Cyprus such as Salamis. The emergence of the Assyrian empire significantly curbed the imports of Cypriot pottery in the harbor. The paper offers possible explanations for the interactions reflected in the pottery imports.

Archaeometric Analysis of the Iron Age Cypro-Cilician White Painted Ware from Sirkeli Höyük and Comparison with the Regional Pottery Production in Plain Cilicia

Sinem Haciosmanoğlu

Sirkeli Höyük is one of the urban centers in the Iron Age kingdom of Que, in the Cilician Plain (modern Ceyhan Plain), located in South Anatolia. The site presents a continuous chronology in Iron Age layers, which are the most substantial occupations of the settlement, and with the ceramic assemblages present manifold influences and cultural contacts with neighboring regions, especially with Cyprus. For this study, we selected “White Painted Ware” as a proxy, which is one of the dominant groups in Iron Age Cypro-Cilician pottery assemblages in Sirkeli Höyük to ascertain whether they are an imported Cypriote White Painted or regional produced and accordingly, to comprehend Sirkeli Höyük’s role in the context of consumption and circulation of vessels locally in the region.

In this paper, we report the results of petrographic, geochemical (LA-ICP-MS, Laser Ablation Inductively Couple Plasma Mass Spectroscopy) and mineralogic analysis (XRPD, X-ray powder diffraction) carried out on Iron Age White Painted Ware (n = 40) collected from Sirkeli Höyük. The main aims of the study were to identify the compositional characteristics of the wares and to identify provenance by comparison with local clay samples collected from the Ceyhan Plain and with local pottery from the region.

Iron Age Pottery from Tell Rifaat: New Insights and Old Problems

Juliane Stein

The PhD project “Tell Rifaat/Arpad: Archaeology of an Aramaean(?) City” is the first complete analysis of the archaeological material of the British excavations at Tell Rifaat (1956–1964) in Northern Syria, which is identified with the ancient Aramaean capital Arpad. On the basis of pottery from selected Iron Age contexts, the development of the site is reconstructed, and stratigraphic problems related to this will be highlighted.

Late Bronze Age Ceramic Fabrics in Their Regional Setting: The Case of Paphos, Cyprus

Maria Dikomitou-Eliadou and Artemis Georgiou

This presentation will present the results of pottery studies that involved the morphological, compositional, and technological characterization of Late Bronze Age ceramics from the broader region of Paphos. Specifically, the discussion will include Late Bronze Age cooking pots from the wells at the locality of Evreti in Palaepaphos, and from the settlement of Maa-Palaeokastro, as well as Splash Painted ware and Black Slip / Red Slip Wheelmade tableware and storage jugs from various localities in the urban nucleus of Palaepaphos. These wares and corresponding functional groups have been studied in detail for their typology and style and their macroscopic technological characteristics. Subsequently, the respective ceramic samples were studied in thin sections using optical polarizing microscopy for their compositional, microstructural and technological characterization. A presentation of the prevailing ceramic fabrics and information about the associated technology of their production will be followed by a discussion of those compositional and technological characteristics that can be used as identifiers of Paphos' regional production in the Late Bronze Age. In addition, specific fabric and technological preferences will be assessed in association with the documented forming techniques (e.g., handmade, wheel-fashioned, wheel-thrown) used during pottery production or/and with the respective vessel group's intended function. Finally, the degree of inter-type and inter-site compositional and technological variability will be considered with regard to the local environment(s), contemporary socioeconomics, and settlement organization and correlation, while evaluating our current knowledge of regional pottery production at Paphos, during the second half of the second millennium BCE.

Cypro-Geometric and Cypro-Archaic Pottery Production at the Polity of Salamis, Cyprus: A Technological and Compositional Investigation of White Painted and Bichrome Pottery Wares

Maria Dikomitou-Eliadou and Anna Georgiadou

A large-scale morphological study and documentation of Iron Age pottery assemblages from the polity of Salamis was implemented in the framework of the broader research project “Bringing Life to Old Museum Collections: The Interdisciplinary Study of Pottery from the Cypriot Iron Age Polities of Salamis, Soloi, Lapithos and Chytroi” (MuseCo, EXCELLENCE/1216/0093). These pottery assemblages, many of them unknown to modern scholarship, provided a solid ground for the design of an analytical investigation into the regional pottery production of Salamis, focusing on the compositional and technological characterization of a representative sample of the two most common wares in the region during the Cypro-Geometric and Cypro-Archaic periods, i.e., White Painted and Bichrome pottery. An integrated research approach has been used that combines the initial detailed morphological study of the pottery assemblages, the macroscopic study of respective ceramic fabrics, and the compositional characterization of a pottery subset using ceramic thin section petrography. In addition, MuseCo aspires to an intra-regional analytical investigation within the polity of Salamis, comparing ceramics from the polity's center, with those from sites that can be considered part of its periphery and the polity's cultural, and socio-economic sphere. We aim at defining and documenting the technological profile of pottery production at Salamis, and the degree of compositional and technological variability within the region. This presentation will include our sampling strategy, research methodology, and petrographic data, followed by a brief discussion of our preliminary observations regarding the production of pottery within this potting region that was distinguished for its ceramic products within but also outside Cyprus.

A Diachronic View on Intra-Cypriot Relations in the Late Bronze Age as Reflected in the Pottery from Hala Sultan Tekke: Typology, Technology and Provenance Studies

Teresa Bürge, Paula Waiman-Barak and Johannes H. Sterba

The Late Cypriot pottery production is characterized by an exceptionally large variety of fabrics, technologies, shapes and styles. Despite many decades of intense pottery research, we still lack precise knowledge about the location, interconnections, interactions and diachronic developments of Cypriot pottery production centers. The wide-spread distribution patterns of specific wares and their enormous quantities found, not only inside Cyprus but also in all other areas of the Eastern Mediterranean and beyond, implies an organized mass-production of these vessels.

The stratified material from the renewed excavations at Hala Sultan Tekke offers a unique potential for studying diachronic patterns during the entire lifespan of the city (approx. end of 17th to 12th c. BCE). Results of both NAA and petrography have shown the presence of a large number of local fabric groups as well as imports from various parts of the island. Selected case-studies of different pottery types (e.g. cooking ware, plain fineware, painted fineware) will be presented and discussed, in connection with macroscopic evaluations, typological studies and technological observations. The paper will finally explore the possibilities of connecting provenance studies and understanding intra-island exchange patterns which may contribute towards a broader understanding of the Late Cypriot economic (and perhaps political?) organization.

What It Is and How It Was Made: Potential Use (and Abuse) of FTIR Spectroscopy in Ceramic Analysis, with a Special Case Study on Cypriot and Sardinian Nuragic Tableware from Hala Sultan Tekke

Zachary C. Dunseth

Fourier transform infrared (FTIR) spectroscopy is a rapid, inexpensive and minimally destructive technique that can provide information about a vast array of organic and inorganic materials, including natural and archaeological sediments, residues, and ceramics. In this presentation, I will discuss what the method can and cannot do for the analysis of ceramic vessels, with special mention of its effective use in helping understand clay sources, intentional and unintentional inclusions, pyrotechnology and production techniques. Finally, a representative case study of imported and local wares from Hala Sultan Tekke will be presented.

Hala Sultan Tekke, Tell el-cAjjul and Tell Abu al-Kharaz: Common Ceramics

Peter M. Fischer

Based on the author's field work in Cyprus, Palestine and Jordan, Cypriot-produced pottery offers the possibility to synchronise these areas and to study intercultural relations. In addition, petrographic analyses of 339 and NAA of 334 samples, both of ceramic material from the current project at Hala Sultan Tekke, resulted in most cases in the identification of the regions where the ceramics were produced. As a consequence, these results can be used for the identification of corresponding imported pottery at Tell el-cAjjul and Tell Abu al-Kharaz, although neither petrography or NAA have been employed on the ceramics of these two sites. In addition, the results of petrography and NAA of pottery from Hala Sultan Tekke, which was classified as Cypriot-produced imitations of original products, for instance, Mycenaean vessels, could be applied on the material from Tell el-cAjjul and Tell Abu al-Kharaz in order to identify analogous imitations. The current paper presents an overview of these investigations.

Trade in the Eastern Mediterranean: New Perspectives

Paula Waiman-Barak

The purpose of this talk is to present new insights into commerce in the Eastern Mediterranean throughout the Late Bronze and Iron Ages. In recent years, numerous provenance studies at key archaeological sites have yielded increasingly detailed data on ceramic production, style, and movement. These efforts echo patterns of exchange rooted in chronological trajectories, enabling detailed reconstructions of ancient economies and their connections across the Mediterranean. The main object of these investigations is to trace traded ceramics, particularly lucrative, decorated tableware, and maritime transport containers. Case studies from Late Bronze Age Hala Sultan Teke in Cyprus, and early Iron Age sites of Tel Qasile on and Tel Dor on the Israeli Coast will be presented.

Continuity and Change: Tall Zirā'a and Its Role in Trade and Cultural Networks

Katja Soennecken and Luisa Goldammer

Tall Zirā'a lies in the Wādī al-ʿArab and has been inhabited over 5000 years. The wadi played an important geopolitical role and connects the Jordan Valley including the Mediterranean coast via the Jezreel Valley, Beth Shean and the Jordanian Highland, and worked as a link between Egypt in the south and the Syrian-Mesopotamian region in the north. During the Late Bronze Age, an extensive trade network arose and goods were traded through the whole Mediterranean region. On Tall Zirā'a, as on other find sites in the southern Levant, a significant material culture change took place during the transition from Late Bronze Age to Iron Age I. The facts on the ground demonstrate the Late Bronze Age decline of a highly developed and urban center of a city state settlement into a smaller and less densely populated rural village. The lecture will give an overview of the pottery on the tell, which shows both continuation of traditions and innovations during the transitional period from the Late Bronze Age to the Iron Age I. Furthermore, imported ceramics, especially from Cyprus and the Aegean, will be presented.

Style as Trademark: Production and Distribution of Red Lustrous Wheel-made Ware (ca. 1500–1200)

Ekin Kozal and Gubaz Mustafa Kibaroglu

Red Lustrous Wheel-made Ware is generally known for its particular red polish and red fabric along with specific shapes, among which the most notable are the arm-shaped vessels and the spindle bottles. This style represents a specialized production to meet the demands of the market in the Eastern Mediterranean and Anatolia. This ware must have developed from a long existing pottery tradition in Cilicia, where red clays were used contemporarily along with the light brown clays throughout the Bronze Age (e.g. Red Gritty Ware from Gözlükule, EBA). As a result of the typological and the archaeometric analysis, it is possible to say that Red Lustrous has three fabric variations in the Late Bronze Age defined already in Kilise Tepe excavations in rough Cilicia as ware a (fine), ware b (semi-coarse) and ware c (coarse). The widely distributed Red Lustrous in the Mediterranean and Central Anatolia is produced mainly from ware a and rarely from ware b. This demonstrates that the fine version of the ware is especially produced for export, representing a distinctive style as a trademark.

Late 13th-century (LH IIIB2) Long-distance Trade between Mycenaean Greece and the Eastern Mediterranean

Elina Kardamaki and Peter Day

The late 13th century (LH IIIB2) has been referred to—and still is by some scholars—as a period of downturn in long-distance trade and exchange between the Mycenaean kingdoms and the East. This assumption was mainly based on the absence of single elements from assemblages of imported objects, supposedly reflecting the growing unrest and instability within Mycenaean territories. The picture was largely revised by the excavations of the last decades at Tiryns, and new material from other Mycenaean sites confirms the evidence from the Argive center that such a long-distance inter-cultural movement of goods has far from ceased in LH IIIB2. The evidence from Tiryns has been supplemented by an extensive program of petrographic and chemical analysis of imported transport containers found at the site. In addition to the well-known Transport Stirrup Jars and other Aegean-style transport vessels, the imports feature a substantial number of Canaanite jars, the vast majority of which date to LH IIIB2. This dovetails with our current research that highlights continuing, perhaps enhanced, links between the Southern Aegean and Central Mediterranean at this time. The transportation and re-use of these type of containers, and the inscription of Cypro-Minoan signs on the jars joins evidence of imported fineware pottery in Cyprus to suggest the context and agents of such maritime movement of goods during the late 13th century. The specific provenance analyses of the Canaanite jars pinpoint new spheres of interaction within the Levantine coast, while distribution of material inside and outside Tiryns allows insight into control mechanisms of the palace upon traded goods.

Levantine Imports in Qantir-Piramesse: Can It Help Reconstructing the History of Egypt's Capital in the Transition from the Late Bronze Age to the Early Iron Age?

Henning Franzmeier

After more than 40 years of systematic excavations, the ceramic corpus from the site of Qantir-Piramesse is very extensive and presents a wide range of shapes, wares, and fabrics. While domestic Egyptian material is predominant, up to 10% of the sherds recorded are of a non-Egyptian origin. Most of this material is of Levantine origin. While the corpus is not very diverse in terms of shapes with the vast majority belonging to Canaanite jars, the fabrics show a huge variety, relating to their places of production. In total more than 20 different fabrics have been identified so far. Based on the analysis of the material from sites Q V and Q VII which yielded evidence for the later phases of the occupation of Pi-Ramesse (i.e., the 20th/21st Dynasties, 1200-1000 BCE) the question will be posed whether it can help to shed light on the history of the site in that very crucial period for Egypt and the Levant.

Aegean and Egyptian Imports in Late Iron Age Megiddo: Evidence of Greek Mercenaries?

Assaf Kleiman, Alexander Fantalkin, Liora Bouzaglou
and Israel Finkelstein

Megiddo is among the most prominent examples of the new urban centers rebuilt by the Assyrians in the southern Levant during the 7th century BCE, several decades after the collapse of the Kingdom of Israel. Previous excavations of the site revealed the extensive remains of a well-planned town, with a system of right-angle streets and administrative structures, which functioned as one of the provincial capitals of the Neo-Assyrian Empire. Despite its evident importance, most of the information on this city derived from the century-old excavations of the Oriental Institute, a situation that left many unresolved questions about its material culture, chronology and history.

Recent excavations at the northwestern sector of Megiddo, to the west of one of the two Mesopotamian-style palaces discovered by the Oriental Institute, exposed a detailed Iron IIC sequence that provides a distinct snapshot of the material culture of the Late Iron Age city and its history. It includes a remarkable collection of imported ceramic wares from Egypt, Phoenicia, Cyprus, Anatolia and Greece, as well as several locally-produced Assyrian-style vessels. In this lecture, we present the new evidence, focusing mainly on the Aegean and Egyptian vessels, and consider their broader historical implications. We especially discuss the possibility that in the late 7th century BCE, the administrative sector of Megiddo was populated by Greek mercenaries who served in the army of the Egyptian rulers of the 26th Dynasty.

Cyprus and the Southern Levant during the Iron Age: A Non-Braudelian Ceramic Perspective

Ayelet Gilboa, Paula-Waiman-Barak, Gunnar Lehmann,
Anna Georgiadou and Golan Shalvi

AS opposed to environmentally-deterministic views, popularized mainly by Braudel and the authors of the “Corrupting Sea”, material evidence for exchanges between Cyprus and the close-by south Levantine shore in the Iron Age have been changing in a quick pace. These changes are evident in the distribution of the imports, the shapes involved, and the production centers of the commodities. This paper will concentrate mainly, but not only, on Cypriot ceramics found in the Southern Levant and present preliminary results from two projects conducted in Israel, focusing on quantitative and fabric analysis of such imports.

“The Invisible Trade”: Organic Residue Analysis of Small Ceramic Vessels from Tel Shadud, Tel Bene Beraq and Tel Yehud during the Late Bronze Age

Vanessa Linares

Ceramic vessels of various types deriving from three sites in the Southern Levant (Tel Shadud, Tel Bene Beraq, and Tel Yehud) dating from the Late Bronze (LB) IIA–LB III/Iron IA Age (LBA; 1400–1120 BCE) were sampled and analyzed for organic residue analysis (ORA). The emphasis was placed on small semi-closed ceramic vessels in order to investigate the line of trade networks that operated in the Old World during these periods. These vessels we all obtained from burial contexts. The results of this study are surprising and exciting as it reveals a line of materials that anticipates known trade networks between Southeast Asia to the Levant and or East Africa at least by a few hundred years as well as demonstrates overland trade of goods moving domestically from the Jordan Valley to the Jezreel Valley as part of a burial kit discovered at Tel Shadud. The analysis on imported Cypriot ware and vessels uncovered at Tel Yehud revitalizes a decades-old discussion on the presence and function of opium trade from the eastern Mediterranean through Base-Ring juglets to the Southern Levant. Lastly, the analysis of the vessels from the tombs of Tel Bene Beraq exposed the use of conifer resins and balms for possible burial rites and embalming practices that also derive from the eastern Mediterranean regions. Our research first employed the known protocols of the ORA methods as well as ruled out all possibility of sample contamination and lastly conducted a post-organic residue analysis investigation of various species within the plant kingdom from which these principle compounds identified within all vessels could have been exploited. The results shed new light on the trading networks and interactions that were in operation during the LBA as well as goods traded from abroad and domestically.

The Social Interaction of Merchants and Indigenous Peoples in Late Bronze Age Cult

Itzick Shai, Matthew Susnow and Chris McKinny

Late Bronze Age remains were uncovered at Tel Burna in a terrace west of the summit of the site. The excavations in this area exposed an enclosure where a plethora of finds were exposed. Based on the nature of these finds, we have suggested the enclosure to have been cultic. In this paper we aim to contextualize these finds, presenting a spatial analysis of the various objects with a focus on the ceramic repertoire. The latter includes locally produced and imported pottery, both of which comprise serving and storing vessels, alongside objects that were likely related to cultic activities (e.g., zoomorphic vessels, chalices and masks). In turn, in this paper we will examine what the intertwined usage of both local and imported vessels side-by-side may indicate about the local practice of ritual, what role foreign influences may have played in the local cult, and what motivations could have led the local population in a small site in the western Shephelah to integrate Cypriot vessels into their ritual practices.

Between Skillful Routines and Creative Divergence: Embodied Cognition and the Study of Craft Practices in Archaeology

Constance von Rűden

Craft practices are a key to understand the spatial and diachronic spread of pottery types and techniques. Through the determination of gestures and routines they do not only allow us insights into discursive technologies, but also into the skill involved and their empractic meaning. Of particular importance for archaeological research is the creativity that emerges from these routines, the concomitant technical changes, and their spatial and temporal distribution in a wider societal sense.

Nonetheless, we still find it difficult to describe precisely the different forms of knowledge that are relevant in craft practices and how they relate to the life of past individuals and communities. We tend to describe the general setting and mechanical rules of these processes, but one of the most important aspects of crafts, namely skill or know-how, are treated as a black box. A detailed analysis of what this exactly means is often lacking, which is particularly astonishing given the many new insights that cognitive science and associated fields can offer.

Therefore, it is the aim of the paper to discuss some problems of the still dominant structuralist models of cognition in relation to craft practices and think about the different gestures in crafts in a non-Cartesian way as sensual entities integrating the body, the material, their surroundings, and the associated tools. It will raise questions how we may complement and refine our well-known archaeological categories of formal types and compositions to do more justice to the field of craft research.

Style and Habitus: Early Iron Age Pottery Design in the Levant as Means of Expression and Communication

Elisabeth Wagner-Durand

Style is a means of communication, and – according to and acknowledged by many scholars – style also belongs to the broader field of. Therefore, style communicates habitus. Both, style as well as habitus, are modes of constructing self and identity via material (or oral, or bodily) expressions. Hence, archaeologically traceable styles are visually perceived modes of material making. Thus, there is no object without style, the material expression of a specific habitus acquired by socialization in distinct communities. Like emotional communities, habitual communities are not exclusive, and any individual can belong to a more or less infinite amount of such communities (family, religious group, workforce, etc.). The expressed habitus is due to location, time, and the overpowering community representing the largest part of the individual's identity at that exact moment in time. However, style as a communicative tool and as part of a habitual behavior has rarely been discussed when it comes to the pottery of the Levant. Therefore, this paper aims at setting a theoretical framework in which style is presented as mode of making, consuming, adapting, or assimilating pottery which in turn communicates the choices made related to a certain habitus. Furthermore, the paper engages in the attempt to translate this theoretical framework into the archaeological record. Therefore, it takes a first look at the selected pottery styles of the Iron Age I/II in the Central Levant. Being fully aware that pottery is not the only means of communicating style and thus materializing a certain habitus, the paper asks why certain choices were made, why some styles were assimilated or adapted, whilst others remain largely rejected in certain areas.

Interaction and Transformation of Pottery in the Late Bronze Age: Integrating Theory, Practice and Science

Philipp W. Stockhammer, Shlomit Bechar and Maxime Rageot

Aegean-type pottery at the Southern Levant has found great interest of research for a long time. Whereas studies first concentrated on questions of chronology, more recent approaches have taken a more practice-oriented approach focusing on dynamics of appropriation and entanglement. Based on existing conceptual approaches, we will first present our methodological approach to the study of practices with pottery in the Late Bronze Age Southern Levant. In a next step, we will zoom in and present relevant contexts from Late Bronze Age Hazor and their relevance for the understanding of the local appropriation and transformation of both Aegean-type and local pottery shapes, their functions and meanings. Lastly, we will zoom in one step further and present the results of our organic residue analyses of local and Aegean-type pottery from those contexts in Hazor and then, finally, integrate, theory, contextual and bioarchaeological approaches in order to achieve new insights into human-pottery-interaction at Late Bronze Age Hazor and beyond.

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Good to know!

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- Ambulance: 101
- Fire and Rescue: 102
- Paula: +972523281703
- Sabine: +972524595472

WiFi on Campus:

- Name: **Free-TAU**
- Password: **free-tau**

Banks and ATMs close to campus:

- ATM at the food court on campus
- Bank Leumi in Ramat Aviv Mall
- Bank Hapoalim in Ramat Aviv Mall

Supermarkets and pharmacies close to campus:

- Victory at the Broshim Dormitories
- Makhsanei Lahav on Einstein Str.
- Shufersal in Ramat Aviv Mall on Einstein Str.
- Superpharm in Ramat Aviv Mall

Transport information:

- **Train:** <https://www.rail.co.il/en>
- **Bus:** <https://www.bus.co.il/otobusimmvc/en>
- Train tickets can be purchased at each station (do not throw it away, you need it for exiting at your destination station)
- For the bus, you will need either a Rav-Kav (a rechargeable card) that can be purchased at the bus drivers, train station, at the airport ... or use an online application like Moovit
- **Most public transport does not operate on Shabbat (Friday evening until Saturday night)**

From the airport to TAU:

- **By train:**
 - direct train to the University train station; price: ca. 16 NIS
 - From the train to the Broshim dormitories you can either walk (ca. 15 min up the stairs), or take a bus (only one stop with Line 289)
 - Last train 23:52; First train: 4:54
- **By taxi:** price: ca. 180 NIS. When you exit the building and turn to the left, there is an official taxi station that will allocate you a cap. You can pay with credit card if you tell them before the ride.
- Address of the dormitories: **Ramat Aviv, 5 Dr. George Wise Street**





The conference will take place in **Gilman building** (about 5-10 min walk from Broshim). Following George Wise st. you enter the campus from Gate 4. Please have an identification with you for the guards. You turn left and you will see a big red sculpture. The building right behind it is Gilman building. Enter the building from the left and you find yourself directly in the archaeology department. There will be morning coffee and snacks in the area in front of the conference hall (Room 496).