# TAU ARCHAEOLOGY

The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures and The Sonia and Marco Nadler Institute of Archaeology The Lester and Sally Entin Faculty of Humanities | Tel Aviv University Number 3 | Winter 2018

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Newsletter of

The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures and The Sonia and Marco Nadler Institute of Archaeology

The Lester and Sally Entin Faculty of Humanities | Tel Aviv University Number 3 | Winter 2018

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#### Message from the Chair of the Department and the Director of the Institute



Director of the Institute, Prof. Oded Lipschits (left), and Head of the Department, Prof. Ran Barkai (right)

The Department of Archaeology and Near Eastern Cultures and The Sonia and Marco Nadler Institute of Archaeology of Tel Aviv University are proud to present the third installment of our biannual newsletter. The newsletter is an opportunity to present the past six months of achievements and academic activities of our faculty members and students. The theme of this edition is to specifically highlight the interesting and varied research projects of the graduate students of the Department and the Institute.

We take special pride in our graduate students, and the projects presented in this newsletter are just the tip of an iceberg that is wholly comprised of a great number of them. Working under the auspices of the senior scholars of the Department and the Institute, these students are centrally involved in the archaeology conducted in the field, the library, and our laboratories.

By placing our students at the core of the newsletter, we are able to illustrate the broad scope of field projects conducted by our faculty members, of scholarships provided by the Department, the Institute, and donors, as well as the scale of student participation in international projects and conferences. This issue also reflects daily life at the institute and includes a summary of past academic events, visiting scholars, and the list of upcoming conferences and events for the next six months.

All in all, the latest edition of the newsletter serves as a clear testimony to our continued striving for excellence, our passion for archaeology, and our dedication to raising a new generation of qualified and ardent archaeologists. We are delighted with the achievements of the scholars and students of the Department and the Institute of Archaeology, and we hope that you too will find this newsletter of interest.

hesil sall

Prof. Oded Lipschits Director, The Sonia and Marco Nadler Institute of Archaeology

*Prof. Ran Barkai* Chair, Department of Archaeology and Near Eastern Cultures

Fieldwork

## Third Season of Excavations at Ashdod-Yam: From Assyrian Compound to Byzantine City

#### Alexander Fantalkin

Following previous exposure of an enormous system of fortifications from the Iron Age IIB (8<sup>th</sup>-7<sup>th</sup> centuries BCE), an international team, headed by Dr. Alexander Fantalkin, in cooperation with Prof. Angelika Berlejung (University of Leipzig), returned to Ashdod for the third season. The goal of continued excavations of the Iron Age compound at Ashdod-Yam was to shed further light on the impact of the Assyrian destruction of Ashdod and expansion of the nearby city of Asdudimmu.

The season yielded several key finds, such as massive Iron Age mudbrick structures with intriguing finds, including Assyrian-style pottery and various luxury items (Fig. 1). The real gem of this season, however, came from the recovery of a rare mosaic floor.

In preparation for a full-scale investigation of the Roman–Byzantine Ashdod-Yam, a pilot excavation was conducted near the site, in cooperation with Saar Ganor (Israel Antiquities Authority) and The University of Göttingen. Here, a corner of a colorful mosaic floor (visible for the past 30 years) was cleaned, and a dedicatory inscription was discovered (Fig. 2), belonging most probably to a chapel of a Byzantine church or a monastery. Following a suggestion made by Dr. Leah Di Segni (The Hebrew University), it appears that the inscription should be dated to 539 CE. This is possible with the use of a Georgian chronological system, which developed its own Georgian era of Creation, introduced in Palestine long before it came into use in Georgia itself. Georgian early-Byzantine establishments are known from Jerusalem and the surrounding area: however, this would be the first example for a Georgian church or monastery of such a date, to be located on the Israeli coast.

Perhaps the structure was erected in memory of the famous Peter the Iberian, a Georgian royal prince by birth, who became a prominent figure of early Christianity, actively promoting Monophysitism that rejected the Council of Chalcedon. The British Mandate aerial photograph captured significant remains in the vicinity of the inscription, and it is plausible that the entire complex is represented on the famous 6<sup>th</sup> century CE Madaba Mosaic Map, located in the Byzantine Church of Saint George in Madaba, Jordan.



Figure 1: A 7th century BCE figurine of a lion (Photo by Sasha Flit)



Figure 2: A 6th century CE Byzantine mosaic and inscription (Photo by Sasha Flit)

## The Shmunis Family Excavations at Kiriath-Jearim 2017

Israel Finkelstein

The first season of The Shmunis Family Excavations at Kiriath-jearim took place in August 2017. The excavation is a joint venture of Tel Aviv University and The College de France, under the direction of Israel Finkelstein (Tel Aviv University), Thomas Römer, and Christophe Nicoll (The College de France). The mound of biblical Kiriath-jearim is located approximately 10km west of Jerusalem. The Convent of the Ark of the Covenant, which occupies the summit of the hill, was built over remains of a Byzantine monastery.

The town of Kiriath-jearim is referenced in multiple biblical texts, notably in the Book of Samuel in the Ark Narrative, and the Book of Joshua, in the description of the border between the inheritances of the tribes of Judah and Benjamin. These texts hint at the existence of a temple at Kiriath-jearim in the Iron Age. Pottery sherds collected on the surface of the site during past surveys, indicate that the site was inhabited from the Early Bronze Age through to the Early Islamic period, with evidence for a peak in activity in the Iron Age IIB-C (8<sup>th</sup> and 7<sup>th</sup> centuries BCE).

Three areas were excavated during the first season. In the first, remains of an Iron Age IIC domestic quarter were recovered. The other two areas unearthed the remains of massive stone-walls. These walls probably functioned as support for a large rectangular platform on the summit of the hill. These remains may date to the Iron Age or the Roman period. To accurately date the walls, samples were taken from earth deposits within the walls for Optical Stimulated Luminescence (OSL) dating. The results of the OSL dating will be available in early 2018.

The Shmunis Family Excavations at Kiriath-jearim will return in 2019. For more details visit the expedition's website at: kiriathjearim.wordpress.com or follow updates on Facebook: @kiriath.jearim.expedition.



Area B at Kiriath-jearim, at the end of the 2017 season (Photo courtesy of The Kiriath-Jearim Excavation Team)



The Convent of the Ark of the Covenant on the summit of the mound of Kiriath-jearim. Also pictured, a 2017 excavation area, with the remains of a massive wall (Photo courtesy of The Kiriath-Jearim Excavation Team)

## Tel Beth-Shemesh 2017

Shlomo Bunimovitz and Zvi Lederman

In June of 2017 the 27<sup>th</sup> season of excavations at Tel Beth-Shemesh took place, in collaboration with Lethbridge University (Lethbridge, Canada), Harding University (Arkansas, USA), and the Institute of Field Research (Los Angeles, USA),

This season saw the continued exposure of the southern wing of the Late Bronze IIA (14<sup>th</sup> century BCE) palace, located on the northern slope of the mound. It appears as though this section was damaged by later building operations, which reached the Middle Bronze Age level under the palace. The Middle Bronze architectural remains are impressive, and their cyclopean dimensions and related pottery attests to their attribution to the last phase of this period.

Another central goal of this season was to reach the southern part of the Level 5 (11<sup>th</sup> century BCE) temple, already exposed during previous seasons. This task demanded the dismantling of the overriding architectural remains of the Level 3 'Pillared Building' and part of the adjacent domestic quarter. Two significant finds were revealed during this process: 1) An Iron IIA pottery assemblage (Fig. 1), a key contribution to our knowledge about the pottery typological-chronological evolution, in this crucial period of the emergence of the Judahite kingdom. 2) The remains of a Level 4 olive oil extraction installation (Fig. 2), which joins five other similar installations exposed in previous seasons in all Iron Age I levels. The installations attest to the importance of olive oil production at Tel Beth-Shemesh during this period.

The meticulous excavation and recording of the above finds prevented us from reaching the Level 5 temple. Despite this, a well-constructed channel was exposed along the northern face of this building. The channel hints at the intriguing finds related to the temple precinct, which awaits us in the next summer of excavations at Tel Beth-Shemesh.



Figure 1: Iron Age IIA pottery assemblage *in situ* at Tel Beth-Shemesh (Photo by Zvi Lederman)



Figure 2: Field Director Dr. Dale Manor standing by the newly-found olive-oil installation (Photo by Zvi Lederman)

## Time Lapse in the City of David: Excavations of 2017

Yuval Gadot, Johanna Regev, Helena Roth, and Elisabetta Boaretto

Ancient Jerusalem has received a great deal of academic attention, primarily in archaeological and historical scholarship. It has been intensively studied in the past 150 years by way of documentation, observation, and various archaeological approaches. Jerusalem's historical core, located in the south-eastern hill (also known as the City of David and as Silwan), has been, and continues to be, studied extensively. Area E is its most important area, as it was excavated, documented, and published in great detail by Shiloh and his team. As a result, the area serves as a typology-based chronological and stratigraphic backbone for other excavations in Jerusalem.

The Ancient Jerusalem Excavation Project focused on producing absolute dates through radiocarbon dating, and assigning them to previously defined strata. This was achieved through the identification of micro-stratigraphy and the collection of organic material from well-defined contexts in the remaining bulks, left by the previous expedition.

Following several successful seasons, 2017 was the third and final year of this multinational project. Two teams of scholars from Charles University and The University of Zurich participated in the excavations, under the direction of Yuval Gadot, in cooperation with Johanna Regev and Elisabetta Boaretto of the D-REAMS Radiocarbon Dating Laboratory, Archaeological Unit (Weizmann Institute of Science), with Helena Roth as field director.

Meaningful preliminary results were obtained from the Iron Age II and Early Bronze Age. Material of the Middle Bronze Age was obtained, and will be processed in the coming months. The results of the final season will be processed over the coming months, and will be released in a series of forthcoming publications.



Microstratigraphy of floors in Shiloh's T5 bulk (Photo by Johanna Regev)



Excavating the baulks in Area E (Photo courtesy of The City of David Excavations Project)

#### Our Return to Masada: Readying for Season Two, 2018 Guy D. Stiebel

Following excavations at Masada in 2017, our expedition is currently preparing to return to the field in 2018. The coming season will focus on several several themes: our search for 'Green Masada', the trenches of the rebels, the footsteps of spiritual Masada, and Masada's third dimension.

Promising results for agricultural and gardening activities on top of the mountain were uncovered in 2017, in collaboration with Dr. Dafna Langgut's archaeobotanical team (Areas E and F). We will broaden the scope of this study, in both the palatial garden (*viridarium*) of Herod the Great, and in the field/plantation at the southern section of the site.

Areas A and D encapsulate evidence of the daily life, and hopefully the identity, of the inhabitants of Masada during the First Jewish Revolt (66–73 CE). Our team will further explore the stratified remains found in 2017, which was comprised of rare organic material culture (Area A), and a small cave that exhibits human activity (Area D), possibly in connection with the Essenes.

During the first season, two unknown water cisterns were uncovered (Area B), which were utilized by the monks of the Byzantine Monastery of Marda (Masada). This discovery increased our interest in the small community of hermits that settled the most remote *laura* in the Byzantine Judaean Desert, between the 5<sup>th</sup> and the 7<sup>th</sup> centuries CE.

Finally, we plan to complete the first full digital documentation of the site's surroundings. The results of the first season demonstrated the scholarly potential of the 3D modelling project, supervised by Dr. Hai Ashkenazi and Omer Ze'evi. The study will facilitate a greater understanding of the site's trail system. Our recent analysis suggests new insights into site layout, construction process, the volume of building materials employed, and above all, its chronology. To join the team at Masada head to masadaexpedition.org, or follow us on Facebook: @MasadaExpedition.

Excavation dates: January 28 - February 23, 2018



Drone view of the Western Ascent of Masada (Photo by Hai Ashkenazi)



Drone view of the probe in the viridarium of the Northern Palace of Masada (Photo by Hai Ashkenazi)

## Exploring the Genesis of Edom in the Ancient Copper Mines of Timna: Back to the Field in 2018

Erez Ben-Yosef

Is Timna the location of the legendary King Solomon's mines? After six seasons of surveys and excavations by The Central Timna Valley Project, the mystery remains unsolved. What has become clear, however, is that during the 12<sup>th</sup>–9<sup>th</sup> centuries BCE the copper mines of Timna were operated by a coalition of the local nomadic tribes, which most probably represents the early phase of the Edomite Kingdom. Subsequently, the excavated materials, which include a rare collection of organic remains (textile, leather, seeds), shed new light on the formation processes and historical role of the Edomites in the early Iron Age (12<sup>th</sup>–9<sup>th</sup> centuries BCE).

The focus of the upcoming season are the primary copper production sites of the early Iron Age, including a newly discovered smelting camp located on the edge of 'The Crocodile Ridge'. Noteworthy, is that the secrets of the valley are hidden within a vast area (over 100sq km), and that different sites represent the 400 years of early Iron Age copper exploitation. Only when examined together, does such a study provide the entire chronological sequence ('horizontal stratigraphy'). The data that we hope to obtain in the 2018 season is related to the various aspects of the early Iron Age society that operated the mines. These aspects include: technological achievements in mining and smelting (archeaometallurgy), its structure and regional impact, trade connections (in particular with Judah and Philistia), and more. As in previous seasons, an emphasis will be given to the application of various analytical methods, so as to maximize our insights. Methods employed include (among others), archeaomagnetism, luminescence, geochemistry, mineralogy, microarchaeology, and ground penetrating radar.

The 2018 season includes a field school in archaeological field methods, open to students and volunteers. In particular, the class will emphasize the recent advancements of archaeological science, and include practical field experience and guest lectures presented by experts. For more details visit the expedition's website at: archaeology.tau.ac.il/ben-yosef/CTV/, or follow updates on Facebook: @CentralTimnaValleyProjectCtv.

Excavation dates: January 27 – February 9, 2018



Excavation of a 10<sup>th</sup> century BCE smelting camp, Timna (Photo courtesy of The Central Timna Valley Project)

## **Upcoming 2018 Excavations**

In 2018, the Sonia and Marco Nadler Institute of Archaeology will continue to dig deeper into the complex past of the region.

Excavation directors usually select their excavation season based on the domestic academic calendar (semester break), international academic calendar (to ensure international scholars and students can participate), and weather conditions at the site (summer excavations, e.g., Tel Azekah and Tel Megiddo, versus winter excavations, e.g., Masada and Timna).

The following are the planned excavations for Winter 2018:

| Timna  | January 27 – February 9  |
|--------|--------------------------|
| Masada | January 28 – February 23 |





# **RESEARCH PROJECTS**

## Shedding Light on Iron Age Hebrew Ostraca via Modern Imaging and Computational Technologies

Shira Faigenbaum-Golovin, Arie Shaus, Barak Sober, Anat Mendel-Geberovich, Eli Piasetzky, and Israel Finkelstein

Our interdisciplinary project aims to advance the fields of epigraphy and palaeography through the incorporation of modern methods that pertain to applied mathematics, computer science, statistics, and physics. The research focuses on Iron Age Hebrew ostraca that stem from various sites across Israel and Judah. Since no readily available imaging apparatus and computerized analysis algorithms specifically tailored for the First Temple period inscriptions exist, the necessary technologies have been developed by our team in-house. The central goals of our research endeavor are:

- The acquisition of the most legible images of the ostraca
- The production of automated facsimiles
- A handwriting analysis of the ostraca

Among the results of our project is a marked improvement of the legibility of several ostraca, via low-cost multispectral imaging procedure (published in the *Journal of Archaeological Science*). A particularly striking product of our methodology is the discovery of a hitherto invisible text on the *verso* of the thoroughly studied Arad 16 ostracon, unnoticed for half a century (published in *PLOS ONE*). This revelation demonstrates the need for multispectral image acquisition for both sides of all ancient ink ostraca. Moreover, at least in sites where the recovery of ostraca is likely, we recommend employing multispectral techniques for screening newly unearthed ceramic potsherds, prior to their disposal.

Another outcome of our project is a handwriting comparison between 18 texts of the Arad corpus. The newly devised algorithm reconstructs the ancient letters, extracts their features, and performs a handwriting comparison. The



The *verso* of Arad 16: Revealed through low-cost Multispectral Imaging (Photo by Michael Cordonsky; Graphics by Noa Evron)

results (published in *PNAS*) indicate at least six different authors across the Judahite military chain of command ca. 600 BCE. This implies a high literacy rate within Judah's administrative apparatus before the kingdom's destruction by Nebuchadnezzar in 586 BCE.

The project was the recipient of funding from the European Research Council, under the European Community's Seventh Framework Programme (FP7/2007-2013), and ERC grant agreement no. 229418. This study was also supported by a generous donation from Jacques Chahine, made through the French Friends of Tel Aviv University.

To learn more, visit: www-nuclear.tau.ac.il/~eip/ostraca



Reconstruction of the Hierarchical Relations between Authors and Recipients in Arad Inscriptions: Based on the algorithm's results, most of these officials were literate (Graphics by Shira Faigenbaum-Golovin, Arie Shaus, and Barak Sober)

# City of David: Establishing a Radiocarbon Chronology for Jerusalem

Yuval Gadot, Elisabetta Boaretto, Joe Uziel, and Doron Ben Ami

In July 2017 a research proposal titled "Setting the Clock in the City of David: Establishing a Radiocarbon Chronology for Jerusalem's Archaeology in Proto-historical and Historical Times" won an ISF grant for four years. The project is led by Yuval Gadot, together with Elisabetta Boaretto (Weizmann Institute of Science), Joe Uziel, and Doron Ben Ami (Israel Antiquities Authority). This project aims to produce an absolute <sup>14</sup>C based chronology for the archaeological strata of ancient Jerusalem, effectively enabling a greater link between archaeology and known historical events and processes.

The relatively detailed historical record of Jerusalem and the importance of Jerusalem throughout history positions Jerusalem as a key site for the history and archaeology of the Near East. Until a year ago there were, surprisingly, less than ten published radiocarbon dates from Jerusalem, despite 150 years of archaeological excavation, and the fact that these excavations have exposed material cultures from each of the major periods i.e., from the Early Bronze Age until the modern era.

The project aims to correct this through the application of extensive stratigraphically-well-controlled radiocarbon dating of current excavations, as well as the re-exposure of strata from past excavations. Preliminary results on the Gihon Tower have already proven that the scenario of a Middle Bronze Age tower needs to be re-evaluated.

Great attention will be given to the identification of datable, short-lived, charred samples, from primary well-defined contexts. Doing so will link the absolute date to the associated material culture. We will also employ microarchaeological tools on-site to ensure that the contexts are indeed primary,



Targeted <sup>14</sup>C excavations in The City of David (Photo courtesy of The City of David Excavations Project)

by demonstrating, for example, that the charring process took place at the location where the charred seeds or olive pits are found. Samples will also be characterized in the laboratory and dated in triplicate, to achieve a high resolution in the results. Finally, Bayesian modelling will be used to obtain a detailed stratigraphic sequence.

This very challenging project will benefit from the close collaboration of archaeologists and chronology experts from the field, as well as the use of state-of-the-art methods, both in the field and in the laboratory. The results will have a major impact on the archaeology and history of Jerusalem and its surroundings.



A Sequence of floors dating to the Iron I, Iron IIA-Late, Early Iron IIB and Late Iron IIB as exposed in section T5. Organic material found on the floor, will serve to date Jerusalem's internal development during the Iron Age (Photo courtesy of The City of David Excavations Project)

#### **The Yavneh-Yam Archaeological Project**

Moshe Fischer

Yavneh-Yam (Lamneia-on-the-Sea) is located on the Mediterranean coast, approximately equidistant (20km) from loppe/Jaffa and Azotus/Ashdod. Jacob Kaplan carried out the first archaeological excavations of Yavneh-Yam in 1966–1969 on behalf of the Tel Aviv Museum. Kaplan revealed the existence of a large fortified site, which encircled the area of the harbor. The site consists of a square enclosure, bound by freestanding ramparts, which Kaplan attributed to the Middle Bronze Age IIA. Several rescue excavations carried out by the Israel Antiquities Authority between 1968 and 1992 within the area of the site and its vicinity, unearthed remains from the Chalcolithic period to the Late Bronze Age II, and the Byzantine period.

The Tel Aviv University Yavneh-Yam Archaeological Project was initiated in 1987, and I have directed excavations and the research program of the site since. The Yavneh-Yam Archaeological Project has excavated nine seasons (1992–2011) on behalf of The Institute of Archaeology (Tel Aviv University). Corroborating the site's excavation results and examining its finds has revealed remains from the Late Bronze II period through to the Early Islamic period (11<sup>th</sup> century CE).

Of the many remains revealed by excavations, several are worthy of mention. They include the Late Iron Age (late 7<sup>th</sup> century BCE) ashlar building (and its destruction); the Hellenistic complex destroyed by the Hasmoneans around 100 BCE; the elaborate town of the Byzantine period, sponsored and inhabited by the Empress Eudocia, and the Monophysitic father Peter the Iberian and his disciples (5<sup>th</sup>–6<sup>th</sup> century CE);

and the remains of the Early Islamic *ribat*, which monitored and controlled the harbor and ransoming of the prisoners  $(10^{th}-11^{th} \text{ century CE})$ .

The Yavneh-Yam Project spent several years as a training excavation for the students of the departments of Classics and Archaeology. Numerous articles and two volumes of collected papers (1991 and 2005) have been published thus far. The first volume of the final report is currently under preparation and planned for publication in 2018.





A view of a Byzantine period villa and bath complex (Photo by Moshe Fischer)

A selection of Greek red-figured pottery (Photo by Peter Grunwald)



Hellenistic tableware from the Hasmonaean destruction layer (Photo by Yoram Weinberg and Pavel Shrago)

## **The Tel Arad Publication Project**

Ze'ev Herzog

The Tel Arad project aims to process and prepare the full report of Yohanan Aharoni's Excavations of the Fortress Mound at Tel Arad (1962–1967). Aharoni was only able to complete a full account of the Arad inscriptions before his untimely death in 1976. The stratigraphy of the site and summary of its data has since been published in an interim report (*Tel Aviv Journal*). Further to this, several selected pottery assemblages have been presented by Lily Singer-Avitz (*Tel Aviv Journal*). The current research intends to prepare and publish the full report of Aharoni's excavations

The highlight of Tel Arad is the temple uncovered in Strata X and IX (Iron Age IIB), which was the only temple from the Kingdom of Judah to be exposed thus far. Since its unearthing, the temple has evoked a broad scholarly discussion regarding cultic habits in Judah, and has contributed to the study of the biblical accounts of Hezekiah and Josiah's cult reforms. The assessment and publication of the full excavation report aims to provide long awaited factual data on the stratigraphy of the fortress, as well as the phases of the temple's construction, rebuilding, and dismantling.

A detailed excavation report will provide a long-overdue source of information for the consideration of multiple issues and concerns, both general and site-specific. The key issues we intend to address include (1) the presentation of the excavation's detailed report, which will provide a source for the assessment of the social functions of the fort (located at the southern edge of the Kingdom of Judah). The analysis of the complete assemblage of objects will contribute to the clarification of the intertwining military, commercial, cultic, and quotidian aspects of such a stronghold within the state. Following this, (2) we will provide data on objects and eco-facts that originate from distant locations, and will demonstrate the role of the site in the interrelations between Judah and neighboring socio-political entities, i.e., the Kingdom of Israel, Phoenicians, Edomites, Philistines, and the nomadic Negev groups. Such a study will also demonstrate the role of the site within the interactions between major socio-political powers, i.e., Egypt, Assyria, and Babylonia. (3) The inclusion of the remains of the Persian, Hellenistic, Roman, and Early- and Late-Islamic periods in this report, will provide a means through which we can pursue a diachronic evaluation of the occupational significance of the site, and illuminate clues that will aid in the understanding of the reasons for the site's extended periods of desertion. Finally, (4) the rich assemblages of pottery and other objects exposed at the site will contribute towards a clarification (and hopefully a consensus) regarding the on-going chronological debate of the Iron IIA – IIB sub-division.



The Temple at Tel Arad: To the left, stairs that descend into the underground water resevoir (Photo by Ze'ev Herzog)



The Fortress Mound at Tel Arad: A reconstruction of the Stratum X fortress dated to the 8<sup>th</sup> century BCE (Illustration by Judith Dekel)



The Arad Temple Cult Niche: The rounded *Mazevah* and the two stone altars were laid down before they were buried by layers of earth and stone (Photo by S.J. Schweig)

### Mobility in the Eastern Mediterranean in the Late Bronze and Early Iron Ages: Inferences from Ancient DNA of Pigs and Cattle

#### Israel Finkelstein and Meirav Meiri

The Late Bronze Age (ca. 1550–1150 BCE) was a period of strong commercial relations and economic prosperity in the Eastern Mediterranean. Yet the end of this period is marked by a large-scale collapse and the migration of groups from various Mediterranean regions to the Levant. Our research integrates the analyses of ancient cattle and pig DNA, with an assessment of trade and migration, in a bid to shed light on human mobility in the late second millennium BCE.

Pigs and cattle are abundant in archaeological sites, and though their frequency does vary across sites and between periods, pig consumption is considered a marker of identity. During the Iron Age (ca. 1150–600 BCE) domestic pig bones are abundant at Philistine urban sites (Southern Coastal Plain) but are rare or absent in other parts of the region, e.g., sites in the central hills associated with the emergence of Ancient Israel. The high percentage of pigs at Philistine sites begs the question of origin: did Sea Peoples exploit local pig breeds? Or were pigs brought from the Aegean Basin and introduced to their newly acquired Levantine homeland? As there are hardly any differences between Aegean and Levantine pig populations (in terms of size and shape), the most effective means to answer this question is DNA research of both ancient and modern pigs.

We collected the teeth and bones of pig and cattle from Israel and Greece, to analyze the processes of translocation. Our results indicate that there was a movement of pigs between Greece and Anatolia (at least as early as the third millennium BCE), which were later translocated further south, to the Levant. As a favored livestock for marine transportation, the translocation of pigs may be connected to the eastward



Wild Boar (Sus scrofa) (Picture provided by Daniel Berkowic)

movement of Sea People groups during the early Iron Age. The later introduction of European pigs eventually replaced pre-existing local pigs, resulting in the maternal European genetic signature in all modern wild boars in Israel.

As a juxtaposition to our pig study, our cattle study demonstrates that cattle were not translocated between the Aegean Basin and the Levant. However it was discovered that the earliest evidence for crossbreeding between taurine cattle and zebu cattle was during the Iron IIA (ca. 900 BCE) in the Southern Levant. In light of the archaeological and historical evidence of Egyptian imperial domination in the Late Bronze Age, we suggest that this crossbreeding was a result of Egypt's attempt to expand dry farming in the region during a period of severe droughts.



Working at the Ancient DNA Lab (Photo by Uri Roll)

# STUDENT SPOTLIGHT

RI

# 'What's for Dinner?' The Jerusalem Diet and Its Zooarchaeological Record

Abra Spiciarich

Jerusalem is one the most excavated and complicated ancient cities in the world. The oscillating political, economic, and cultic position of Jerusalem in the first millennium BCE is well known from biblical texts, but still largely enigmatic from the perspective of the archaeological record. Recent excavations of the ancient city, as well as of its neighboring countryside, facilitate the approach towards more detailed and complex questions. Animal bones (or faunal remains) have been collected from almost every major excavation in Jerusalem, with several assemblages published. These publications, paired with material currently under analysis, allow for a comprehensive study of Jerusalem's socioeconomic status, and urban-rural relationship with its neighboring environs.

Generally speaking, animal economy develops and changes over time in response to social changes and environmental conditions. Faunal remains recovered from archaeological contexts are typically assessed as means to access the animal economy and subsistence strategies of ancient settlements. Within the parameters of the growing sub-field of Social Zooarchaeology, faunal remains help to shed light on the sociocultural aspects of an area, i.e., conspicuous consumption by elites, non-elites, priests, and possibly foreigners.

Jerusalem serves as a prime location for such a study, as it is described as a major cultic and capital city in biblical texts, and was the probable hub for (some, or even most of) the biblical authors and editors. The application of taphonomic and zooarchaeological analysis to faunal remains from Jerusalem also allows for the examination of the food laws dictated in the Hebrew Bible (e.g., Deut. 14 and Lev. 11). Faunal remains from the subsequent Early Roman period (63 BCE – 70 CE) suggest that the population of Jerusalem observed the biblical food laws, and housed a major urban market place (*Tel Aviv Journal*).

A diachronic and synchronic approach to studying the animal remains from Jerusalem and its hinterland during the first millennium warrants the further exploration of the socioeconomic and religious status of Jerusalem, the economic relationship between Jerusalem and its hinterland, and the development of the sumptuary and sacrificial laws in the Hebrew Bible.

Abra deals with zooarchaeological and taphonomic analyses to research Jerusalem during the 8 <sup>th</sup>-2 <sup>nd</sup> centuries BCE, under the supervision of Lidar Sapir-Hen, Oded Lipschits, and Israel Finkelstein. Her Ph.D. research focuses on three major themes: the socioeconomic and religious status of Jerusalem, the economic relationship between Jerusalem and its hinterland, and the development of the sumptuary and sacrificial laws in the Hebrew Bible.



Tray of animal remains from the Southern Cut of Jerusalem's Early Roman Landfill (Photo by Abra Spiciarich)



Abra Spiciarich analyzing cut marks under a microscope (Photo courtesy of Abra Spiciarich)

# On Sheep and Sodomy: Understanding Bestiality in the Hittite Empire

Emily Bischoff Bruintjes

Hittite sources document a complex treatment of bestiality. There are two documents in particular that demonstrate this relationship within the Hittite empire. The first document is the Hittite law code, within which three laws (§187, §188, §199) expressly prohibit sexual relations between humans and sheep, cows, dogs, and pigs. These three laws also state that should someone violate these laws, they could expect a death sentence. However, there is a ritual text (KUB 41.11) that would purify the individual of their crime, and allow them to return to Hittite society. My research examines the treatment of the sin of bestiality within the Hittite empire, by engaging with these two major Hittite Texts. More specifically, if the Hittite law code already condemned a man to death for the crime of bestiality, my study examines *why* the purification ritual was written at all (KUB 41.11).

The answer lies in Hittite beliefs related to the power of impurity. To the Hittites, becoming impure caused illness, failed crops, bad luck, and even death. More alarmingly, from the perspective of the Hittites, impurity could be passed to another innocent individual by way of simple touch or by being in the same room. Thus, a guilty man's impurity could spread to many



Clay Tablet KUB 41.11, which contains a purification ritual text against bestiality (Hosted by Hethitologie Portal Mainz)

innocent individuals and cause all manner of destruction to the community. I surveyed several theories as to where impurity/ purity beliefs stem from, and agree with the theories of Hutter (2013) and Barth (1969), who state that impurity beliefs arose from the need to define one's identity. In other words, the Hittites would label an act as 'impure' to define it as 'non-Hittite,' and subsequently protect the Hittite identity.

Yet the Hittite laws against bestiality say little about protection against impurity, as the laws simply state that a guilty individual 'may not approach the king,' which only indicates that an act was in fact contaminating. Following the results of my study, this is why I believe purification rituals were written. A purification ritual not only recognized (and legitimized) the impurity, but also absolved an individual of this impurity while neutralizing its threat to the rest of the community. Such rituals allowed the guilty man to renter and realign himself with Hittite society and identity.

Emily recently completed her M.A. thesis under the supervision of Amir Gilan. Emily's research focuses on the analysis of a Hittite Text. The research goal is to delve deeper into the Hittite understanding of sin, and the rituals practiced to solve those sins.

Clay tablet containing a piece of Hittite Law Code (Hosted by Hethitologie Portal Mainz)

## Archaeological Evidence for Knowledge Transmission and Learning Processes in Late Lower Paleolithic Qesem Cave

Ella Assaf

Following a long Lower Paleolithic relative technological and behavioral persistency, hunter-gatherers living in the Levant ca. 400,000 years ago adopted a new set of behaviors: they habitually used fire, hunted prime-aged medium-sized herbivores, roasted and cooked meat, quarried flint from underground sources, and knapped tools following complex and innovative technologies. These innovations were accompanied by an evolutionary replacement of the earliest populations of the Levant, most probably *Homo erectus (sensolato),* by a new hominine lineage, which perhaps accelerated the need for well-established knowledge transmission mechanisms. Data from the site of Qesem Cave (420–200ka) imply that the cave's inhabitants regularly shared knowledge and followed traditions, passing along information from all aspects of life, from generation to generation.

My research focuses on the identification and characterization of knowledge transmission mechanisms relating to flint knapping, as reflected in the lithic assemblages of Qesem Cave. Over 1000 lithic cores were analyzed from a technological point of view, in order to detect various levels of knapping skills (knapping experts in comparison to apprentices) in the cave's assemblages. The basic assumption is that apprentice flint-knappers could be recognized by the quality of their work, i.e., knapping mistakes, choices of low quality flint for knapping, etc.

The results demonstrate that some cores were most probably knapped by skilled knappers, while others were knapped by unskilled ones, or knappers who were in the process of learning. It appears that some of these processes reflect 'trial and error' mechanisms, and self-experiencing and practicing of knapping basics (as suggested, for example, by the presence of cores showing multiple and repeated knapping errors, and by the selection of low quality flint for knapping). However an additional mechanism involved was detected, in the sharing of knowledge between knappers in the cave, as indicated by a notable presence of specific cores that reflect two 'generations' of tool removals: a successful stage, followed by an unsuccessful one. Their presence may indicate that experienced knappers at Qesem allocated previously shaped (but not fully exploited) cores to inexperienced knappers for practice. These 'shared cores' appear in all areas of the cave, but more so in specific contexts, such as the central hearth area. This suggests that learning processes took place intensively by the fire.

It is accepted that knowledge transmission (relating to knapping, carcass butchering, and social norms) played a

significant role in human evolution, and may have become even more crucial at 'turning points' in human history, e.g., the late phase of the Levantine Lower Paleolithic. The study of lithic cores from Qesem indicates that this form of cooperation is well reflected at the Cave, as early as 400,000 years ago.

Ella's Ph.D. research involves aspects of knowledge transmission (related to knapping among early humans) and its identification in the prehistoric record. The study is under the supervision of Ran Barkai and Avi Gopher.



Example of a non-shared core made on non-homogeneous flint nodule. The knapper seems to have overcome obstacles relating to the material's low quality (Photo by Pavel Shrago)



Shared Cores from Qesem Cave: Cores with a successful first phase, a focus on the removal of laminar items, alongside a second phase, in which laminar removals were unsuccessful and terminated with a hinge as flake removals (Photo by Pavel Shrago and Sasha Flit)

# The Formation of Early Judahite Religion: The Temple at Moza as a Case Study

Shua Kisilevitz

This study examines the formation of early Judahite religion, based on the analysis of the newly discovered Iron IIA (late 10th-early 9th centuries BCE) temple at Moza. An archaeologist on the project, I was able to participate in the field excavation of the temple. Traditionally, the study of early Judahite cult and religious practices has centered on biblical accounts. Yet as the accounts are laced with later additions and religious agendas, the biblical narrative remains controversial among scholars, hindering any credible reconstruction or progressive academic discussion of early Judahite religion. In addition to this, cultic remains from Iron IIA Judah are scarce. Prior to 2013, only one temple (found at Tel Arad) had allowed for a fragmentary archaeologically-based reconstruction of cult. The unearthing of the temple at Moza, with its associated cult artifacts and sacrificial remains, constitutes the very first opportunity to approach the topic from a primarily archaeological perspective.

The aim of this study is to provide a depiction of cult practices during the early period of the Judahite kingdom, based principally on the material remains found at Moza, and to explain the archaeological implications in conjunction with the biblical text. Sites housing central cult places outside of Jerusalem are mentioned in the Hebrew Bible, such as Hebron, Bethel, and Gibeon, and Tel Dan in the north. Still, except for fragmented remains at Tel Dan, these cult places largely remain archaeologically unclear. Conversely, only a few excavated sites, including Tel Lachish and Tel Megiddo, have yielded cult places, and in most cases their cult artifacts are either devoid of context (such as at Ta'anach and at Tel 'Amal), or found in secondary use. Such an example occurs at Tel Beer-sheba, where the existence of a cult place during the Iron Age IIA is inferred through the abundance of artifacts with cultic connotations.

Ultimately, this study will provide an overview of the religious context of the Moza temple within ancient Israel in general, and the Kingdom of Judah in particular. This context will be constructed in regard to both archaeological evidence and the biblical and historical sequence. What emerges will be a comprehensive analysis of the Moza finds and their implications, especially for the Kingdom of Judah, in regard to aspects such as religious stratification and practices, the analogous historicity of the biblical texts, and the significance of Moza within the economic, administrative, and social setting of Jerusalem and the Kingdom of Judah.

Following several years of work as a field archaeologist, Shua's Ph.D. research now focuses on the formation of early Judahite religion, with the Temple at Moza as a case study. The study is under the supervision of Oded Lipschits and Israel Finkelstein.



Zoomorphic (horse) figurine from Moza (Photo by Clara Amit)



Anthropomorphic figurines (A and B) from Moza (Photo by Clara Amit)

### Archaeological Site Design as a Reflection of Heritage Design Mechanisms of the Cultural Landscape in the State of Israel

Avivit Gera

There are three main goals to this research. The first is to understand the mechanisms that have shaped, and continue to shape, the cultural heritage of the 20<sup>th</sup> and 21<sup>st</sup> centuries at archaeological sites in Israel. The second is to identify the means by which archaeology and archaeological knowledge manifest themselves in the processes of designing a site as a heritage site. The third is to understand how an archaeological site reflects Israeli society's conservation of the memory, of which designers of cultural heritage sought to express at a site.

This study will identify how archaeology and archaeological knowledge are expressed in the processes of designing various archaeological sites as heritage sites. To this end, I am currently examining the history of excavation and excavators' conclusions at selected sites, through published archaeological reports and professional literature. Doing so supports the identification of what factor or factors (entities involved in initiation, financing, planning, and implementation of the project) influenced the way in which scholars' conclusions have been presented at a site. Through a comparison of excavators' conclusions (as to the way various elements are presented at the site), I am able to determine whether a gap exists between archaeological knowledge and its presentation at the site.

This study also pursues existing studies that relate to ideology and archaeology. Such a perspective is essential to the subject of this research, as ideology of any type is one of the motives that manifests itself in the process of heritage site design. Extending this further, I will draw on questions surrounding the way in which an archaeological site reflects Israeli society's



Scholarly reconstruction of altar stones recovered from Stratum 2 at Tel Beer-sheba (Illustration by Tania Gorenstien)

conservation of memory. Within this is a consideration of the impact that cultural heritage and memory (as envisioned by cultural heritage site designers) has on Israeli society.

To answer this, I will explore the nature of the central message or messages that designers sought to convey at each of the selected heritage sites. Such messages will be identified through an investigation of how archaeological knowledge is presented at sites. The messages will be analyzed through the following questions: What emphasis is revealed in the presentation of the site; what period is displayed, and what subjects, in keeping with the period; and how is the message made accessible to visitors at the site? I will explore the ideological motives and decisions made regarding display at the site, and whether a process of ideological change took place over time. By assessing messages and ideological motives, I will be able to discern the place of memory, as it emerges at the heritage sites, and whether such memory has influenced such messages and the ideological motives.

Avivt is currently working on her Ph.D. dissertation under the supervision of Oded Lipschits, Nurit Lissovsky, and Guy D. Stiebel. Her research centers on interpretation and significance of archaeological sites within the contemporary cultural landscape.



Reconstruction of the northwestern tower at Nimrod Fortress (Illustration by Tania Gorenstien)

# Judahite Pottery in the Transitional Phase between the Iron Age and Persian Period

Liora Freud

The purpose of this study is to bridge the gap in pottery research between the end of the Iron Age (586 BCE) and the beginning of the Persian period (538 BCE) in the Judean and Benjamin regions, as well as indicate vessel assemblages that can be attributed to the Babylonian period (6<sup>th</sup>century BCE). The historical background of this period includes the destruction of the First Temple by the Babylonians in 586 BCE, and the beginning of the Persian period.

Many scholars have recognized Iron Age traditions within the shapes of the early Persian pottery vessels, and noted specific pottery vessel types as belonging to the 6<sup>th</sup> century BCE. Yet despite this, most scholars believe that assemblages cannot be attributed to this period because of its short timespan and lack of destruction layers. Within this project I will analyze and publish assemblages from secure stratigraphically sealed contexts, recovered from the renewed excavations at Ramat Raḥel, alongside material from six smaller and more recent excavations in and around Jerusalem.

This study will result in the creation of a corpus of vessel types, which will include vessels from the end of the Iron Age though to the Persian period. Such a reconstruction has not yet been attempted, with several Iron Age and Persian period assemblages typically published separately. Combining the analysis of both periods along with their transition will demonstrate how specific types change across time. Based on this new typology, and with the assistance of new studies on stamp impressions and petrography, I am able to indicate select pottery types that are transitional types, which continue from the Iron Age through to the very beginning of the Persian period. As a result, it is these types that are unique to the short timespan of the Babylonian period.

Based on the analyzed corpus, and the pottery types designated to the 6<sup>th</sup> century BCE, I endeavor to identify similar assemblages (single layers or loci) at other sites in the vicinity of Jerusalem as belonging to the 6<sup>th</sup> century BCE or the beginning of the 5<sup>th</sup> century BCE. Such assemblages testify more than anything to the continuity of settlement sequence, and close the gap that currently exists in our understanding of the pottery vessels from the Iron Age through to the Persian period, in the mountainous region of Judah. I believe that this work will form an important archaeological contribution to existing perspective of the Jerusalem and the Benjamin region, during a period where much of the archaeological evidence is still vague and lacking, and of which much of the current understanding is built off historical sources.

Liora specializes in the pottery of the Iron Age and Persian Period. She has several years of field experience, and has produced multiple publications on Iron Age pottery in Judah and the Negev. Liora's Ph.D. research is under the supervision of Oded Lipschits.



Liora Freud (far left) assesing ceramic material with colleagues from Tel Azekah (Photo courtesy of Liora Freud)

## The Analysis and Spatial Distribution of Roman Provincial Discus Lamps: A Case Study in Syria-Palestine and Africa Proconsularis

Marcio Teixeira-Bastos

Ancient sources that approach trade and established frameworks of exchange in Late Antiquity are often unbalanced in nature. The inconsistency behind these sources reflects the current perspectives held on these frameworks, and indicate how varying degrees of chaos motivated artisans to adapt their products. The history of Syria-Palaestina and Africa Proconsularis could be perceived as an amalgamation of agents. For example, the integration of forms of resistance, alongside the accommodation of power structures, creates spaces that reflect complex (but interdependent) interactions of shifting desires and cosmologies. As a result, the challenge is identifying and enhancing potential paths for the pursuit of 'the colonial encounter' beyond 'global' and 'totalizing' processes. This research endeavors to achieve this through the development of strategies that address local agency, as well as the manifestation of culture and history in the material record. More precisely, through the application of this framework, one may examine how major indigenous societies (particularly Jews, Samaritans, Phoenicians, and Nabataeans), were drawn into larger relationships of economic and symbolic power, under Roman rule, through the analysis of Roman discus class lamps and North African productions.

Most of the Syro-Palestinian discus class lamps that are sampled in my research were intentionally broken. The breaking of the lamps is interpreted here as an act of symbolic meaning, employed to assist a desire for change. In mutilating the lamp, one is able to simultaneously create 'new' knowledge from the 'old', through the redistribution of symbolic power, by way of traditional practices. The potency of images in the Roman world carried several aspects of a person's presence into posterity, transforming them into a prime object for memory restrictions. The discourse of image destruction and memory erasure (damnatio memoriae in the Roman world) arose just after Augustus by the time of the Principate (c. 1<sup>st</sup> – 3<sup>rd</sup> centuries CE). During Late Antiquity, Jewish and Christian positions differed substantially from Roman polytheist religion. In particular, Christian attitudes towards idolatry impacted the development of Byzantine iconoclasm itself. The so-called 'Second Image War' could be considered an internal development from Eastern Christianity, during a period in which the image as 'object-to-think' was a powerful discursive and polemical weapon, devoid of any precedente in Western tradition. Subsequently, visual representation on clay lamps (as linked to cultural influences) was not only a sort of propaganda for Roman imperialism;

but was also a place where responses to local and regional demands could also emerge, effectively spreading new ideas and influencing behavioral patterns.

The Roman Empire economy established the framework in which this phenomenon operated within, through the establishment of large urban centers (generating high demand for goods), subsequent tableware production centres, provision of resources necessary for large-scale artisanal production, and cultivation of the varying roles and proportions of traders commercially active within multiple markets.

Thus, by mapping the distribution of major lamp classes recovered from several archaeological sites, trade patterns, demographic shifts, and the manufacturing of lamps, can be reconstructed, and connections with different regions established.

Marcio is currently completing a double Ph.D. doctorate at both Tel Aviv University and the University of São Paulo under the supervision of Oren Tal, Yuval Goren, and M.I.D.A. Fleming (University of São Paulo).



Intentionally broken Roman discus lamps from Apollonia (Photo by Pavel Shrago)



A selection of North African lamps. (Photo by Marcio Teixeira-Bastos)

# Horvat Tov (Bir et-Tayyib): A View of Judah's Southern Frontier

Eli Itkin

By the end of the 8<sup>th</sup> century BCE Judah had suffered a violent end, as a result of Sennacherib's 701 BCE campaign. Despite this heavy destruction, which was followed by massive deportations and the annexation of Judahite territories to Philistia, settlement growth occurred in some fringe areas during the 7<sup>th</sup> century BCE. A notable example of this is the Beer-sheba-Arad Valley, along Judah's southern border, which reached a settlement peak, which exceeded that of any previous period.

One of the newly established sites in the region is the fortress of Horvat Tov, located ca. 5.5km northeast of Tel Arad. The site was excavated for four seasons during the 1980s and is mentioned in various publications as a key component in the chain of fortresses along the southern border of Judah in the 7<sup>th</sup> century BCE. Yet despite this, the stratigraphy, architecture, and material culture of the site remain unpublished.

The central aim of my thesis is to present the excavation finds from Horvat Tov, including the site plans, stratigraphic sequence, and architectural remains. My study will also analyze the ceramic assemblages, animal bones, and small finds of Horvat Tov. Another objective of this study is to examine the historical framework of Judah's southern border, with an emphasis on the Arad Valley, and the immediate vicinity of Horvat Tov during the 7<sup>th</sup> century BCE. Moreover, the study will examine the administrative, military, and economic ties between Horvat Tov, Tel Arad, and other fortresses in the region during this time frame.

The publication of Horvat Tov will aid the construction of a more complete picture of the region during the 7<sup>th</sup> century BCE. The geographic location and proximity of Horvat Tov (along the connecting road between the eastern Negev and

Jerusalem) to the international trade road (linking Arabia and the Transjordan to the ports on the southern coastal plain) provides an additional perspective on the relations between the major regional forces at the end of the Iron Age.

This study may also facilitate the creation of an updated typology and chronology of southern Judahite assemblages in the 7<sup>th</sup> century BCE, and perhaps shed light on the transition between the ceramic horizons of the Iron Age IIB and IIC.

Eli is completing his M.A. thesis under the supervision of Alexander Fantalkin. Eli's research examines the material culture of Judah and the Negev and is focusing on the geo-political reconstruction of southern Israel during the 8<sup>th</sup> and 7<sup>th</sup> centuries BCE.



An aerial view of Horvat Tov, captured at the end of excavations in 1988 (Photo courtesy of Israel Antiquities Authority)



A view of Horvat Tov (facing northwest, April 2017) (Photo by Omer Ze'evi)

## The Central Negev during the Roman and Byzantine Periods: Rehovot-in-the-Negev as a Case Study

Miriam Pines

Various studies have been dedicated to the major Roman and Byzantine sites of the Central Negev, and their finds. Yet most of these studies focused on individual sites, and resulted in (rarely completed) technical excavation reports. Furthermore, site development in the Negev, the early (Nabatean) settlement, and the Roman and Byzantine horizons, have seldom been dealt with in depth. Important aspects such as the relationships between the single site and its surroundings, route networks, and other means of communications, have usually been treated as individual subjects and never presented as a part of a united, holistic study. To this aim, the site of Rehovot-in-the-Negev (Arabic: Kh. Ruheibeh; hereafter referred to as 'Rehovot') was selected as a case study, together with the unpublished materials unearthed throughout six seasons of excavation (directed by the late Yoram Tsafrir on behalf of the Hebrew University of Jerusalem) at the site.

Rehovot is considered one of the six main Roman-Byzantine towns in the Central Negev, together with Elusa, Nessana, Mampsis, Sobota, and Oboda (Sa'adon and Mezad Yerouham are often regarded as major sites as well). Rehovot is located on the road from Elusa (ἕλουσα) to Nessana (Νεσσᾶνα) leading to the Sinai monasteries. The town was built atop a

small hill, situated near the west bank of the Shunra stream, amidst the sand dunes of Shunra and Elusa. Similar examples for arid-based rural settlements in the Southern Levant (other than the neighboring towns of Rehovot in the Central Negev) are found in the Limestone Massif in northern Syria and the Transjordan highlands.

This study aims to shed light on several cultural aspects of the populace of Rehovot and the Central Negev. Among the specific topics examined are: the significant role of Christianity in the region, the relationship between differing ethno-religious groups (including those both indigenous to the region and foreign), economic and dietary habits, municipal ordinance, and individual and collective identity.

Considering the lack of treatment of the site of Rehovot and its periphery, the integrated approach of this study has the potential to greatly advance the research of the Central Negev and its towns, as well as contribute extensively to our knowledge of the Byzantine societies of the Southern Levant.

Miri is currently a Ph.D. candidate, working under the supervision of Oren Tal, Moshe Fischer, and Zeev Weiss (Hebrew University).



View overlooking the site of Rehovot-in-the-Negev (Photo by Miriam Pines)

### Conversion to Christianity in Rural Settlements in the Province of *Palaestina Prima* in the 4<sup>th</sup>–7<sup>th</sup> Centuries CE: Beth Guvrin/Eleutheropolis; A Case Study

Barbara Astafurova

*Palaestina* saw one of the greatest historical and cultural events in its history during Byzantine rule, the victory of Christianity as the official religion of the Empire in 313 CE. In Palestine (the birthplace, death and resurrection of the Christian messiah), the new Christian regime marked a turning point in the fate of the country. This point represented the transition of the province from 'of no-particular significance to the Eastern Empire', to the Holy Land, *Terra Sancta*, and a goal of pilgrimage, monasticism and Imperial investment. Subsequently, the process of conversion to Christianity in Israel may have been greatly accelerated in contrast to other provinces throughout the Byzantine Empire.

In this study I focus on the territory of Beth Guvrin/Eleutheropolis and the stages of conversion to Christianity in rural settlements belonging to the province *Palaestina Prima* during the 4<sup>th</sup>-7<sup>th</sup> centuries CE. During the mishnaic and talmudic periods; Beth Guvrin was one of the most prominent cities in the region, with an ethnically and religiously mixed population. The importance of this city grew over the course of the period, until it became the capital of the south ('Daroma'  $\Delta a \rho \omega \mu a$ ). In the middle of the 5<sup>th</sup> century CE, Beth Guvrin changed from a Roman-Pagan city to a clearly Byzantine-Christian site, an important mechanism in the dissemination of the Christian religion in the area. In 300 CE Christians were still a minority throughout the country, both in cities and the countryside. Eusebius, in his Onomasticon, mentions just two entirely Christian villages in the southern part of the Eleutheropolis region, Anaia/Anaea and letheira/lethira in the Daroma. Yet archaeological finds from the area of my study indicate a much larger Christian presence in the territory, one greater than that reflected in the Onomasticon. Archaeological and textual sources attest to the growth of the Christian population during the Byzantine Period. Evidence of a Christian presence was found at multiple sites in the territory of Beth Guvrin/Eleutheropolis, e.g., Kh. Aristobulias, Kh. Hura, Kefar Aziz (or el-Uzeiz), Chermela, Anab el-Kabir, Beit Leyi (or Beth Loya), Kh. el-Bira (or Kh. el-Bir), Yatta (or lutta), Ziph and others. The goal of this research is to shed light on the religious and social changes in the area, due to the spread of Christianity during the Byzantine period.

Barbara is currently completing her M.A. thesis under the supervision of Moshe Fischer on 'Stages of the Conversion to Christianity in Rural Settlements in the Province of Palaestina Prima in the 4<sup>th</sup> –7<sup>th</sup> Centuries CE: The Territory of Beth Guvrin/ Eleutheropolis as a Case Study'.



A large ancient Greek inscription starting with a cross reading "Yesous Hode" +IECOYC  $O\Delta E$  (Jesus is Here). Below the inscription is a graffiti of the 'Chi-Rho', the symbol of Christianity. Above the inscription a boat is depicted, with a person standing on the front of it holding the sail, likely symbolizing Jesus, preaching in the Sea of Galilee (ca. 5<sup>th</sup> century CE) (Photo courtesy of Barbara Astafurova)

#### **Two Post-Doctoral Positions: Call for Posts**

The Sonia and Marco Nadler Institute of Archaeology, Tel Aviv University, will appoint two post-doctoral scholars for the academic year 2018-2019 in the fields of Archaeology, Ancient Israel Studies, or Ancient Near Eastern Cultures.

The highly competitive fellowships are offered to researchers across many disciplines, and will be awarded on the basis of academic excellence.

Applicants should have received their Ph.D. in a relevant field within the last three years from an institution other than Tel Aviv University. While appropriate training in archaeology, biblical studies, ancient Near Eastern cultures and/or biblical history is required, the nature of an applicant's specific research interests and areas of expertise is open.

Successful candidates are expected to make substantive contributions to the ongoing development of The Sonia and Marco Nadler Institute of Archaeology by organizing a colloquium on a subject to be decided at the beginning of the academic year that will stimulate an intellectual environment in which research and new interdisciplinary connections are pursued and developed.

In addition to engaging in their own research, the successful candidates will be expected to teach one two-hour graduate

level seminar during one of the two semesters (interdisciplinary offerings are desirable).

The fellowship period will begin October 1, 2018, and is for a period of one academic year. The appointment carries an NIS 85,000 (= to approximately \$24,000) stipend and teaching salary for each candidate.

Applicants are requested to submit a cover letter, a CV, copy of Ph.D. diploma, detailed statement of current research interests (up to 2000 words), and three letters of reference (to be submitted directly by the recommenders). In addition, post-doctoral fellows must state if they are applying for other sources of funding for the fellowship period.

The scientific committee includes Prof. Oded Lipschits, Prof. Ran Barkai, Prof. Yoram Cohen, Dr. Erez Ben-Yosef, Dr. Dafna Langgut, Dr. Yuval Gadot and Dr. Guy Stiebel.

Application materials should be sent to: Prof. Oded Lipschits (lipschit@post.tau.ac.il) and to Mrs. Nirit Kedem (niritshi@ tauex.tau.ac.il). Subject heading should read: Post-Doctoral Application.

Last date for acceptance of material: March 1, 2018 Results will be published on: March 30, 2018



# People



### **Scholarships**

The students and staff of the Department and of the Institute are grateful for the generous scholarships and grants awarded by donors, foundations, and research funds. Such funding is essential to continued research and development in the study of archaeology and ancient Near Eastern cultures.

#### B.A.

| Yael Duvdevani    | The Kessler Grant for Excellence in Ancient Near Eastern Studies and Egyptology |
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| Yulia Makoviychuk | The Friends of the Institute of Archaeology Scholarship                         |
| Inbar Meyerson    | The Friends of the Institute of Archaeology Scholarship                         |
| Linoy Namdar      | Sonia and Marco Nadler Institute of Archaeology of the Tel Aviv University      |
| Avital Romach     | The Friends of the Institute of Archaeology Scholarship                         |
| Eden Tabacznik    | Noa and Jacob Schreibman Scholarship                                            |
| Galit Tal         | The Kessler Grant for Excellence in Ancient Near Eastern Studies and Egyptology |
| Talia Siegel      | The Kessler Grant for Excellence in Ancient Near Eastern Studies and Egyptology |
|                   |                                                                                 |

#### M.A.

| Alon Arad<br>Shira Ben-Shachar | The Chaim Rosenberg School of Jewish Studies and Archaeology, Tel Aviv University The Masada Expadition |
|--------------------------------|---------------------------------------------------------------------------------------------------------|
| Shirad Galmor                  | The Argov Ben Zion Fund: The Chaim Rosenberg School of Jewish Studies                                   |
|                                | The Lester and Sally Entin Faculty of Humanities                                                        |
| Ben Laugomer                   | The Neubauer Foundation                                                                                 |
|                                | Sonia and Marco Nadler Institute of Archaeology of the Tel Aviv University                              |
|                                | The Department of Archaeology and Ancient Near Eastern Cultures, Tel Aviv University                    |
| Naama Walzer                   | The Megiddo Expedition                                                                                  |

#### Ph.D.

| Ayala Amir             | Dan David Foundation                                                                                         |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| Zachary Dunseth        | German-Israeli Foundation for Research and Development                                                       |
| Erin Hall              | Swiss National Science Foundation                                                                            |
|                        | Bubis Scholarship by The Ignatius Bubis Foundation Scholarship in Jewish Studies                             |
| Shua Kisilevitz        | The Drora and Abraham Apple Fund and Pinchas Douglatz Fund                                                   |
|                        | Israel Antiquities Authority Scholarship for Ph.D. Candidates                                                |
| Assaf Kleiman          | Swiss National Science Foundation                                                                            |
|                        | The Drora and Abraham Apple Fund and Pinchas Douglatz Fund                                                   |
|                        | Minerva School Scholarship                                                                                   |
| Eythan Levy            | Ministry of Aliyah and Integration Scholarship for Ph.D. Candidates                                          |
| Vanessa Linares        | Bubis Scholarship                                                                                            |
|                        | Tel Aviv University Academic Secretaryat, Foundations and Grants                                             |
| Miriam Pines           | The Chaim Rosenberg School of Jewish Studies and Archaeology, Tel Aviv University                            |
|                        | Beleben-Glas Scholarship for Excellence in Eretz Israel Research by Penny Beleben and Shlomo Glas Foundation |
|                        | Ignatz Bubis Award for Excellence in the Field of Jewish Studies by Ignatz Bubis Foundation                  |
|                        | A Scholarship in Memory of Sarah and Dr. David Orgler by The Sarah and Dr. David Orgler Foundation           |
| Débora Sandhaus (Reem) | "Bimat Ha-Hoker" by Chaim Rosenberg School of Jewish Studies, Tel Aviv University                            |
|                        | Israel Antiquities Authority Scholarship for Ph.D. Candidates                                                |
| Nahshon Zanton         | Israel Antiquities Authority Scholarship for Ph.D. Candidates                                                |
| Ayala Zilberstein      | Israel Antiquities Authority Scholarship for Ph.D. Candidates                                                |

#### **Post-Doctoral**

Eduardo Torrecilla Post-Doc. Scholarship by Sonia and Marco Nadler Institute of Archaeology of the Tel Aviv University

## **Visiting Academics**

The Department and the Institute were honored to host visiting scholars from abroad during their time at Tel Aviv University, and appreciate their contribution to student and research life during their stay.



Prof. Dr. Jakob Wöhrle

University of Oldenburg, Germany Presentation Title: The Books of Haggai and Zachariah and the Early Persian Period Invited by: Prof. Oded Lipschits



#### Prof. Zhu Tiequan

Sun Yat-sen University, China Presentation Title: Chinese Ancient Exported Porcelain and Its Global Trade Invited by: Prof. Israel Finkelstein



### **Student Collaboration Abroad**

This past semester saw a number of students of the Department and Institute travel the world, effectively networking and collaborating with international research projects, institutions, and fellow scholars. Students represented the University at a number of levels, participating in archaeological excavations, organizing and participating in conferences, and studying abroad.

# Our Spanish Summer: Neanderthals, Mammoths, and Cave-Bears in the Excavation of Toll and Teixoneres Caves, Spain

Bar Efrati, Yoni Parush, Yafit Kedar and Ira Bash

During this past summer, students from Tel Aviv University had the opportunity to participate in a prehistoric excavation at the Toll and Teixoneres Caves, in Catalonia, Spain. Located in a national park, the caves are situated close to one another, with excavations run by The Catalan Institute of Human Paleoecology and Social Evolution (IPHES), under the supervision of J. Rosell,<sup>1, 2</sup> R. Blasco<sup>3</sup> and F. Rivals.<sup>1, 2, 4</sup>

Teixoneres is a karstic space dated to the Mousterian culture of the Middle Palaeolithic, and the cave exhibits Neanderthal activity. The material culture consists of stone tools and high densities of animal remains. The faunal record indicates a high presence of carnivores (mainly hyenas and cave bears), as well as mammoths. Alternatively, Toll Cave is a 2km long karstic tube. The excavation itself is located close to the current entrance. Layers excavated date to the Middle Palaeolithic. During this period cave bears primarily inhabited the cave during hibernation.

Part of a team of 30 people, the group largely consisted of students from different Spanish universities. We were able to learn a great deal concerning excavation methodology, which was both interesting and informative. The excavation methodology at both sites is primarily dedicated to spatial analysis, and recording during the excavation was primarily based on coordinates of each find as it was exposed.

The excavation team was welcoming, and encouraged us to have fun while working effectively and efficiently. Each item found, no matter how small or fragmented, once recovered, was treated with the upmost respect and excitement.

#### 1: IPHES, Tarragona, Spain

2: Àrea de Prehistòria, Universitat Rovira i Virgili, Tarragona, Spain 3: Centro Nacional de Investigación sobre la Evolución Humana-CENIEH, Burgos, Spain

4: Institució Catalana de Recerca i Estudis Avançats - ICREA, Barcelona, Spain



An inside view of the cave excavations (Photo by Heidi Hammond)



Department students and excavation participants (Photo by Bar Efrati)

### **Student Collaboration Abroad**

| Name and Status                     | Location                 | Excavation / Conference / Workshop                                                                                                                             | Date                    | Contribution                                                                                                                                                                        |
|-------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nadia Bladt<br>Knudsen, Ph.D.       | Udine, Italy             | Broadening Horizons 5                                                                                                                                          | June 2017               | Presentation Title: Terracotta Figurines in the Early<br>Bronze Age Southern Levant: Materials and Methods of<br>Production at Tel Bet Yerah                                        |
|                                     | Boston, USA              | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Presentation Title: 'The Terracotta Herd': Zoomorphic<br>Figurines in the Early Bronze Age Southern Levant                                                                          |
| Mark Cavanagh,<br>Ph.D.             | Boston, USA              | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Poster Title: Dust to Dust, Ashes to Ashes: The Charcoal<br>Fertilizers of King Herod the Great                                                                                     |
|                                     | Boston, USA              | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Poster Title: GIS and Photogrammetry: Digital Mapping and<br>Documenting Ancient Copper Mining and Smelting Sites by<br>the Central Timna Valley Project                            |
| Zachary Dunseth,<br>Ph.D.           | Newcastle,<br>UK         | 7 <sup>th</sup> Developing International<br>Geoarchaeology (DIG) Conference                                                                                    | September<br>2017       | Presentation Title: 'Subsistence Practices in the Arid<br>Negev Highlands during the Intermediate Bronze Age (c.<br>2500–1950 BCE): The Geoarchaeological Perspective.'             |
| Avivit Gera, Ph.D.                  | Paris, France            | Arts in Society                                                                                                                                                | June 2017               | Illustrations and Significance                                                                                                                                                      |
| Maya B. Hadash,<br>M.A.             | Boston USA               | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Presentation Title: Azekah's Regional and Inter-regional<br>Connections during the 13 <sup>th</sup> and 12 <sup>th</sup> Centuries B.C.E.: A<br>Narrative from Its Ceramic Evidence |
| Yoram Haimi,<br>Ph.D.               | Poland                   | Excavations in the Extermination Camp of Sobibor                                                                                                               | July 2017               | Co-director of the Excavations                                                                                                                                                      |
| Yehonatan<br>Hershkovitz, M.A.      | Munich,<br>Germany       | Ludwig-Maximilian University of Munich                                                                                                                         | 2016–2017               | Erasmus Exchange and Munich Open-access Cuneiform<br>Corpus Initiative (MOCCI)                                                                                                      |
| Sabine Kleiman,<br>Ph.D.            | Boston USA               | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Presentation Title: Azekah's Regional and Inter-regional<br>Connections during the 13 <sup>th</sup> and 12 <sup>th</sup> Centuries B.C.E.: A<br>Narrative from Its Ceramic Evidence |
|                                     | Boston, USA              | Society of Biblical Literature Annual Meeting                                                                                                                  | November<br>2017        | Presentation Title: Systematic Abolishment or Honoring<br>the Past? The End of Sanctuaries in Judah and its Possible<br>Interpretations                                             |
| Helena Roth,<br>Ph.D.               | Providence,<br>USA       | Marking the Sacred:The Temple Mount/<br>Haram al-Sharif in Jerusalem                                                                                           | June 2017               | Presentation Title: Pilgrims Approaching the Temple Mount<br>at the Time of the Procurators: Recent Discoveries of Pools,<br>Elite Courts, and Garbage in the 'Lower City'          |
| Débora<br>Sandhaus<br>(Reem), Ph.D. | Marburg,<br>Germany      | The Transition from the Achaemenid to the<br>Hellenistic Period in the Levant, Cyprus<br>and Cilicia: Cultural Interruption or versus<br>Cultural Continuity   | October<br>2017         | Presentation Title: Changes in the Political Arena and the Transition between the $4^{th}$ and the $3^{rd}$ Centuries BCE: the Case of the Province of Yehud                        |
|                                     | Lausanne,<br>Switzerland | Sinergia Research Group, International<br>Conference: The Larger Context of the<br>Biblical Food Prohibitions, Comparative<br>and Interdisciplinary Approaches | June 2017               | Presentation Title: Consolidating the Judean/Jewish Identity:<br>The Hasmonean Pottery Production from the Pottery<br>Workshop in Crowne Plaza – Binyanei Ha 'Uma (Jerusalem)       |
|                                     | Kaštela,<br>Croatia      | 3rd IARPotHP International Conference                                                                                                                          | June 2017               | Presentation Title: Drawing Borders in the Fringe. The Shephelah During the Third and Second Centuries BCE                                                                          |
| Nitsan Shalom,<br>M.A.              | Sydney,<br>Australia     | Macquarie University                                                                                                                                           | February –<br>June 2017 | Visiting scholar                                                                                                                                                                    |
|                                     | Marburg,<br>Germany      | The Transition from the Achaemenid to the<br>Hellenistic Period in the Levant, Cyprus<br>and Cilicia: Cultural interruption vs Cultural<br>Continuity?         | October<br>2017         | Presentation Title: Changes in Settlement Patterns in Judah<br>in the Transition from the Persian to the Hellenistic Period                                                         |
| Abra Spiciarich,<br>Ph.D.           | Nicosia,<br>Cyprus       | The 13 <sup>th</sup> Meeting of Archaeozoology of South West Asia Working Group                                                                                | June 2017               | Poster Title: Identifying Dietary Customs in Zooarchaeology: Kashrut as a Case Study                                                                                                |
|                                     | Lausanne,<br>Switzerland | The Larger Context of the Biblical<br>Food Prohibitions: Comparative and<br>Interdisciplinary Approaches                                                       | June 2017               | Co-organizer; Presentation: Identifying Food Prohibitions in Zooarchaeology: Key Methodological Issues                                                                              |
|                                     | Boston, USA              | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Presentation Title: Animal Economy of Jerusalem in the 8 <sup>th</sup> century BCE in Light of 30 Years of Publications                                                             |
|                                     | Boston, USA              | Society of Biblical Literature Annual Meeting                                                                                                                  | November<br>2017        | Presentation Title : Chickens, Partridges, and the /tor/ of Ancient Israel and the Hebrew Bible                                                                                     |
| Marcio Teixeira<br>Bastos, Ph.D.    | São Paulo,<br>Brazil     | Digital Archaeology: New Ways to<br>Approach the Past, University of São Paulo                                                                                 | September<br>2017       | Presentation Title: Classical Archaeology and Digital<br>Humanities in Brazil                                                                                                       |
| Alexandra<br>Wrathall, M.A.         | Boston USA               | ASOR 2017 Annual Meeting                                                                                                                                       | November<br>2017        | Presentation Title: The Resettlement of Azekah:<br>The Iron Age IIA-IIB Ceramic Transition                                                                                          |

#### "Where are They Now?"

#### The International M.A. Program in Ancient Israel Studies: Archaeology and History of the Land of the Bible

#### Mark Cavanagh



Mark began his M.A. studies at Tel Aviv University in 2012. Following his first year and excavations at Timna and Tel Azekah, Mark began work on his thesis under the supervision of Erez Ben-Yosef and Dafna Langgut. Mark's research investigated the fuel sources at Timna, an important Iron Age I copper smelting site located in the Aravah Valley, through a microscopic analysis of the charcoal remains in refuse dumps. Besides contributing through his M.A. research, which he successfully completed with honors in 2016, Mark has also been an excavation supervisor for the Central Timna Valley Project since 2014.

While completing his M.A., Mark also began working as a research assistant in the Laboratory of Archaeobotany and Ancient Environments at Tel Aviv University, under the direction of his advisor Dafna Langgut. Through his lab work, Mark has contributed to current field research in sites all throughout the region, across all periods of its history, including a recent project reconstructing Herod the Great's gardens at sites such as Masada.

For his Ph.D studies, Mark will continue his work with Dafna Langgut and Erez Ben-Yosef. Mark's study will expand to other sites in the Aravah Valley and Negev Desert, and examine the complex relationship between the ancient desert peoples and their environment, including sustainability practices, plant domestication and cultivation, climate reconstruction, and trade networks.

#### Sarah Richardson



Beginning the M.A. program in 2013, Sarah had the pleasure of participating for multiple seasons in both Timna and Tel Azekah. In 2014, Sarah chose to pursue a M.A. thesis with Oded Lipschits. During her participation in the 2014 season at Tel Azekah, Sarah acquired the materials for her thesis regarding Late Bronze Age III pigments and artisan kits. While enrolled at Tel Aviv University, Sarah was able to expand her professional network and skillset as a team member of various excavations, both in and out of the field. During her time in the program, Sarah was fortunate enough to work with scholars from not only the department, but also from the Weizmann Institute of Science in Rehovot, where she analyzed materials for her M.A. research.

Following the completion of her M.A. (Honours), Sarah accepted a fully funded position to pursue her Ph.D. at the University of Manitoba. Now working in Manitoba, Sarah is currently focusing her research on the Southern Levant during the Early Bronze III period, with particular emphasis on the Shephelah during this period.

#### **Josh Errington**



Leaving behind the world of mechanical engineering in Australia, Josh joined Tel Aviv University in 2014 and in his first year, quickly jumped onboard several excavation projects between Jordan and Israel, i.e., Tall el-Hammam, Tel Jezreel, Tel Abel Beth Maacah, and Tel Azekah. Josh continued his International Masters under the supervision of Oded Lipshits, completing his masters thesis in 2016, on 'The Processes of Site Formation of Tel Azekah'. Expanding his field skills, Josh accepted the role of Assistant Surveyor with The Lautenschläger Azekah Expedition (2016).

In 2017, Josh joined The Masada Expedition as surveyor, before returning to Australia to commence his PhD study at Macquarie University, Sydney, Australia. Josh's current research on 'The Processes of Site Formation of the City of David Ridge, Jerusalem', is currently a joint institutional collaboration, under the supervision of Oded Lipschits and Yuval Gadot (Tel Aviv University) and Kyle Keimer (Macquarie University). Josh was recently been awarded scholarships from The Whitten Family and the Australian Friends of Tel Aviv University (AFTAU).


## 'Jerusalem Day' Scholarly Speakeasy

#### Alon Arad May 24, 2017

During the summer, The Sonia and Marco Nadler Institute of Archaeology, together with the popular Tel Aviv pub 'Hanasich' (The Prince) hosted an evening of open lectures. A spotlight series, the lectures focused on the history and archaeology of Jerusalem. The evening, hosted by Alon Arad and Naama Walzer (Tel Aviv University M.A. students), began with a lecture by Dr. Yuval Gadot, 'Jerusalem from a Birds Eye', as he introduced the audience to the long history of archaeological research in the city. Following Yuval, his student Helena Roth (Tel Aviv University Ph.D. candidate) lectured on Jerusalem during the Roman period. A dynamic period in Jerusalem. Helena's presentation focused on the city as a flourishing urban center, presenting the audience with a chance to experience the city through the eyes of ancient Jewish pilgrims. Shua Kisilevitz (Tel Aviv University Ph.D. candidate) closed the evening with the presentation of her research results from the excavation of an Iron Age temple in Moza, as a case study of the origin of cult in Iron Age Judah. The event was attended by members of the Institute as well as the public, and was a relaxed and enjoyable opportunity to relate the discoveries of Tel Aviv University scholars with the wider community.



### **'Researchers' Night' Scholarly Speakeasy** Alon Arad September 19, 2017

The Sonia and Marco Nadler Institute of Archeology participated in the Tel Aviv University and the European Research and Innovation Commission's 'Researchers' Night'. The event saw a series of short lectures presented in the campus pub, from a range of scholars from the Department of Humanities. Dr. Dafna Langgut gave a lecture on the arrival of the citrus fruit from east Asia to the Mediterranean, during the Roman period, and their transformation from ancient luxurious product, to their widespread growth and consumption today. The evening was closed by Dr. Guy Stiebel, who presented the audience with the origins of 'Leisure Culture' during Roman period. Dr. Stiebel's vivid presentation of leisure culture explored two closely intertwined spaces: the bathhouse and the banquet hall. Thank you to those who presented and those who attended the event in support of the Institute. The evening was another opportunity for Department members to share their discoveries and research passions with the wider community.



## New Studies in the Archaeology of Jerusalem and its Surrounding: The 11<sup>th</sup> Annual Conference

#### Yuval Gadot

October 18–19, 2017

*New Studies in the Archaeology of Jerusalem and Its Surrounding* is an annual academic conference, organised by The Institute of Archaeology at Tel Aviv University together with the Israel Antiquities Authority and the Department of Archaeology at the Hebrew University. The conference possesses a high academic and public profile, as each year new findings, as well as cutting edge research concerning Jerusalem's archaeology and history, are presented.

This year the conference marked 50 years of Israeli archaeology in Jerusalem. To celebrate this fact, the conference was enlarged to include an 'International Day'. The day allowed scholars from Israel and abroad to present and discuss the impact of archaeology on the city's landscape, and the ways in which archaeology is shaped by the radical pace of urban development in the city.

Several staff and students represented the Tel Aviv University archaeology department and Institute. Israel Finkelstein and

Benjamin Sass were invited to debate with Christopher A. Rollston over the question of literacy in Jerusalem during the Iron Age IIA period (10th - 9th centuries BCE). Alternatively, Guy Stiebel and Benjamin Isaac (from the Department of Classical Studies, Tel Aviv University), Alexander Wiegmann (Israel Antiquities Authority) and Yaron Rosenthal, presented a new and spectacular finding of a Roman Milestone, recovered on the road between Jerusalem and Bet Guvrin. Liora Freud presented new insights into the changes and continuity of pottery production traditions, following the destruction of Judah (586 BCE) up until the Persian takeover. Shua Kisilevtiz together with Dafna Langgut joined forces with scholars from the Israel Antiquities Authority and University of Haifa and presented new insigts into the burial customs during the Middle Bronze Age in light of the recent excavations at Manahat Spur, in the western neighborhood of Jerusalem.

## "News from the Trenches" New Discoveries and Innovations Conference

Alon Arad and Alexandra Wrathall October 26, 2017

On October 26<sup>th</sup> 2017, The Sonia and Marco Nadler Institute of Archaeology held its 7<sup>th</sup> Annual Conference for New Discoveries and Innovations in Excavations. Scholars, researchers, students, and archaeology enthusiasts from around Israel, were invited to be the first to hear about new discoveries, ideas, and endeavors, fresh from the expeditions of 2017.

In addition to the ongoing projects of the institute, the excavation directors of sites such as Timna, Ashdod-Yam, and Tel Beth-Shemesh, presented the latest on their most recent discoveries. The 2017 conference included an introduction to five new archaeological projects that began during the past academic year, e.g., Masada, Kiriath-jearim, Tel Shimron, Jaljulia, and the Givati Parking Lot. Attendees enjoyed the evening of lectures and coffee and cake in Gilman Building, as students past and present made the effort to join the conference day. Ultimately, the conference was a



great opportunity for members of the wider research and public community to connect and share in the current status of history and archaeology, and become excited for what lies ahead.

### Young Scholars Conference: Transcending Time Alexandra Wrathall, Bar Efrati, and Omer Ze'evi November 2, 2017

Hosted by Tel Aviv University, The Young Scholars of Archaeology Conference was a daylong event of presentations from young scholars (students of M.A. or Ph.D. status) from across Israel. The conference theme, 'Transcending Time', asked speakers to emphasise the methodologies that they employ in the study of specific archaeological material or phenomena. The methodological focus of the conference was designed to draw the students of various ancient periods together, in a bid to increase cross-disciplinary cooperation and discussion. The day

was a great success, with presentations from students of Tel Aviv University, University of Haifa, Bar Ilan University, and Hebrew University. Post-presentation discussion was lively and engaging, as speakers presented a range of methodologies, e.g., metallurgy, garbology, OSL analysis, archaeobotany, zooarchaeology, 3D modelling, anthropology, experimental archaeology, and surveying. Conference organisers are grateful to all those who attended and supported the event, which included colleagues, visiting students, and members of the public.





## **American School of Oriental Research 2017**

#### Alexandra Wrathall November 15–18, 2017

The 2017 Annual meeting of the American Scholars of Oriental Research Annual Meeting (ASOR) was once again attended by a range of Tel Aviv University academics. This year held in Boston, USA, presentations from 20 staff and students meant that there was a strong Tel Aviv University presence at the event. Speakers presented research from a range of periods, fields, and methodological approaches, emphasising the Department and Institute's diverse research community. The event was particularly commemorative this year, including the session 'Rethinking Israel', in honour of Israel Finkelstein's approaching retirement from his teaching post at Tel Aviv University. Israel Finkelstein's impressive



scientific work has acted as a catalyst to a broad range of archaeological and historical discussions, creating a lasting impact on academic discourse. The session was an opportunity for scholars and friends of Israel Finkelstein to respond to subjects he has written on, and reflect upon them from their own perspective. Finally, Israel Finkelstein was presented with a festschrift that included contributions from 36 colleagues and past students.



## **Society of Biblical Literature**

Alexandra Wrathall

November 18–21, 2017

The Society of Biblical Literature held its annual conference this past November in Boston, USA. A conference held in conjunction with ASOR, SBL is an opportunity for scholars of archaeology and biblical literature to discuss and debate. The extensive conference schedule included over 1,200 academic sessions and workshops, and is one of the largest events of the year in the fields of biblical scholarship, religious studies and theology. Once again the Tel Aviv University research community was out in force, as ten students and staff presented. Among the many sessions two were coordinated by Tel Aviv University scholars. Israel Finkelstein held a session dedicated to the study and research of Tel Megiddo, while Oded Lipschits led a session on new and recent insights into the history and archaeology of the Persian Period.



## Save the Date: Conferences of Community Interest

The Institute of Archaeology and Department of Archaeology and Near Eastern Cultures will host or co-host the following upcoming events, and invites those interested in the history and archaeology of the Near East, to attend.

## Sinergia Project: Administrative and Cultic Aspects of Centralization in Ancient Israel

Cult, Administration, and Ancient Israel

December 18–19, 2017 Language: English Location: Tel Aviv University Organizers: Sabine Kleiman, Erin Hall, Israel Finkelstein and Oded Lipschits (Tel Aviv University)

#### The Annual Aharoni Symposium

"A land whose stones are iron and out of whose hills you can dig copper" (Deuteronomy 8:9) Advancements in the Archaeology of Israel and the Ancient Near East through the Lens of Archaeometallurgy

March 8, 2018

Language: Hebrew and English Location: Tel Aviv University Organizer: Erez Ben-Yosef (Tel Aviv University)

#### Priests and Priesthood in the Near East: Social, Intellectual, and Economic Aspects

March 19–21, 2018 Language: English Location: Tel Aviv University Organizer: Michael Jursa (University of Vienna), Yoram Cohen (Tel Aviv University), and Shai Gordin (Ariel University / Tel Aviv University)

#### 'Ba-Merkaz'- In the Center Conference: Motion and Movement

Ancient Roads, Trade, Immigration, and Animals on the Move May 17, 2018 Language: Hebrew and English Location: Tel Aviv University Organizer: Guy D. Stiebel (Tel Aviv University) and Doron Ben Ami (Israel Antiquity Authority)

## PUBLICATIONS

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# Photo by Sasha Flit, at Kiriath-jearin

#### Publications of the Institute



#### **Tel Aviv:** Journal of the Institute of Archaeology of Tel Aviv University

Volume 44, Number 2, 2017

The Monumentality of Iron Age Jerusalem Prior to the 8th Century BCE Yuval Gadot and Joe Uziel

The Egyptianized Pottery Cache from Megiddo's Area J: A Foundation Deposit for Temple 4040 Matthew J. Adams

Radiocarbon Assessment of Early Bronze Arad: The 20 Year Lifespan of Stratum II Johanna Regev, Lior Regev, Eugenia Mintz and Elisabetta Boaretto

Further Evidence Regarding Hatshepsut at Serabit el-Khadim from Private Inscriptions Documented by the Tel Aviv University Expedition

#### Yosef Mizrachy

The Provenance of Philistine Pottery in Northern Canaan, with a Focus on the Jezreel Valley

#### Mario A.S. Martin

Metalworkers' Material Culture in the Early Iron Age Levant: The Ceramic Assemblage from Site 34 (Slaves' Hill) in the Timna Vallev Sabine Kleiman, Assaf Kleiman and Frez Ben-Yosef

Tel Aviv is available online at: www.tandfonline.com/loi/ytav

## AVATIONS OF PROTOHISTORIC SITES 1950s-1980s

#### Jacob Kaplan's Excavations of Protohistoric Sites 1950s-1980s

Monograph Series No. 36

#### Avi Gopher, Ram Gophna, Ruth Eyal and Yitzhak Paz

Jacob Kaplan was a dynamic field archaeologist and an original researcher of the Pottery Neolithic and Chalcolithic periods in the Levant who was not accepted by the mainstream scholarly community of his time. Today we know that he played an important role in shaping the archaeological sequence of the late prehistory of Israel. His groundbreaking achievement in the early 1950s was the discovery and definition of the Wadi Rabah culture-a major entity in the late Pottery Neolithic period. In Jacob Kaplan's Excavations of Protohistoric Sites-1950s to 1980s, the authors present some of Kaplan's unpublished field work and offer a broad canvas of the thoughts, theories and considerations that placed Kaplan in the forefront of Israeli archaeology of his time.



#### Mining for Ancient Copper: **Essays in Memory of Beno Rothenberg**

Monograph Series No. 37

#### Erez Ben-Yosef

The story of copper and the role it has played since the dawn of metallurgy more than 7,000 years ago is a remarkable, at times breathtaking, often inspiring tale of evolution and innovation; it imparts some of the greatest technological achievements of man and his persistent striving towards efficacy in the transformation of stone into metal. The 37 chapters of Mining for Ancient Copper: Essays in Memory of Beno Rothenberg, edited by Erez Ben-Yosef, present a variety of new studies related to copper in antiquity, with additional case studies spanning from the British Isles to Oman, Cyprus and Greece. Special emphasis is given to Timna and other copper ore districts of the Arabah Valley, which have been subjected to a surge of research in recent years. This new research is a direct continuation of Rothenberg's pioneering work at Timna, and similarly takes advantage of the extraordinary preservation of archaeological sites there to shed new light on copper production technologies and the societies behind them.

#### **EBSCO** Cooperation



The Publications Division of the Sonia and Marco Nadler Institute of Archaeology of Tel Aviv University is proud that it has entered into an electronic licensing relationship with EBSCO Publishing, the world's leading aggregator of full text journals, magazines, and eBooks. It is now possible to download Institute Monographs and Salvage Excavation Reports (from single pages to full documents) from EBSCOhost™ databases.

#### Rethinking Israel, Studies in the History and Archaeology of Ancient Israel in Honor of Israel Finkelstein

Edited by: Oded Lipschits, Yuval Gadot, and Matthew Adams

#### Published by Eisenbrauns

Israel Finkelstein is perhaps the best-known Israeli archaeologist in the world. Renowned for his innovative and groundbreaking research, he has written and edited over 20 books and published more than 300 research papers. Professor Finkelstein has served as director of the Sonia and Marco Nadler Institute of Archaeology and is the Jacob M. Alkow Professor of Archeology in the Bronze and Iron Age at Tel Aviv University. For the past two decades he has been co-director of the Megiddo Expedition and is currently co-director of the Mission archéologique de Qiryat-Yéarim. He is a member of the Israel Academy of Sciences and Humanities, and a correspondant étranger of the French Académie des Inscriptions et Belles Lettres.

Professor Finkelstein's work has greatly changed the face of archaeological and historical research of the biblical period. His unique ability to see the comprehensive big picture and formulate a broad framework has inspired countless scholars to reexamine paradigms that have been accepted for years. His trailblazing work covering the beginning of the Late Bronze Age through the Hasmonean period, while sometimes controversial, has led to a creative and refreshing approach that bridges archaeology with history, the social sciences, and the natural and life sciences.



This volume, dedicated to Professor Finkelstein's accomplishments and contributions, features 36 articles written by his colleagues and students in honor of his decades of scholarship and leadership in the field of biblical archaeology.

#### Bet Yerah Vol. III: Hellenistic Philoteria and Islamic al-Sinnabra, The 1933–1986 and 2007–2013 Excavations

Raphael Greenberg, Oren Tal, and Tawfiq Da'adli

#### Published by Israel Antiquities Authority Publications

The third and final volume of reports dedicated to the publication of the 1933–1986 excavations at Khirbat al-Karak (Kh. Kerak)/Tel Bet Yerah, describes the contiguous Hellenistic and Early Islamic remains excavated in the northern and southern parts of the site. These form an important component in the history of occupation on the mound, and make a significant contribution to the archaeology of both periods.

Following a brief consideration of the toponym Beth Yerah, Part I, Chapters 3–6, deals with the Hellenistic remains, with a discussion of stratigraphy and assemblages (Chapter 3), and a consideration of the ceramic typology, the figurines, a faience bowl, and coins (Chapter 4). Following this, a brief discussion and catalogue of imported stamped amphora handles is offered (Chapter 5), and an extended discussion of the architectural and historical contexts of Philoteria-Bet Yerah (Chapter 6).

Part II, Chapters 7–12, includes a historical introduction to al-Şinnabra (Chapter 7), and a detailed description of the architecture (Chapter 8). A discussion of the numismatic finds is presented (Chapter 9), as well as reports on the inverted siphon and bridge discovered just west of the mound (Chapters 10–12). A concluding discussion (Chapter 13) recapitulates and contextualizes the principle contributions of the volume to the long-term history of Tel Bet Yerah.

#### **Roman Jerusalem: A New Old City**

Edited by: Gideon Avni and Guy D. Stiebel *Published by Journal of Roman Archaeology* 

The aim of this book is to provide the latest archaeological data concerning Aelia Capitolina, its character, and its population. The book includes contributions from a range of scholars, each approaching Aelia Capitolina through differing approaches. The 13 chapters discuss a wide spectrum of themes and perspectives, including the process of the city's foundation, the whereabouts of the Roman camp and its military material culture, and the hinterland. The book also presents a new colour plan of Aelia Capitolina in the 4<sup>th</sup> century C.E..





#### **Faculty Publications**

#### New Studies in the Archaeology of Jerusalem and its Region: Collected Papers

Edited by: Yuval Gadot, Yehiel Zelinger, Katia Cytryn-Silverman, and Joseph (Joe) Uziel

Published by Israel Antiquities Authority Publications

This book unites the 19 papers which were presented at the "New Studies in the Archaeology of Jerusalem and its Surrounding" 2017 Annual Conference. Divided into chapters that are similar to the conference structure itself, the book brings to light subjects such as, writing and administration in Early Jerusalem, craftsmanship in Jerusalem and its reflection on society, Jerusalem during the Middle Bronze Age, and 'cultural openness' and 'resistance' as reflected in the material culture. Further to this, the book presents, for the first time, the results of excavations from beneath Wilson's Arch.



## Expressions of Cult in the Southern Levant in the Greco-Roman Period Manifestations in Text and Material Culture

Edited by: Oren Tal and Zeev Weiss

Published by Brepols Publishers

The arrival of Alexander the Great in the Southern Levant ushered in many changes, and the subsequent period saw many more upheavals, including the Roman conquest, the Jewish revolts, and the gradual Christianization of the Holy Land. Throughout this period, many local 'pagan', Jewish, and Christian cults and cultic places, dotted the local landscape of the Southern Levant, which today covers the area of Israel, Jordan, and parts of Lebanon and southern Syria. These cults underwent processes of profound change, but also preserved much of their older identities, while still interacting with each other.

This volume seeks to present these processes both synchronically and diachronically, along three different axes — cultic places, personnel, and objects. The common denominator shared by these three axes is the people whose beliefs and practices shaped religious behaviour in the Greco-Roman Southern Levant. The 18 articles in this volume investigate whether cultic practices formed a coherent cultural system. They consider the co-existence and competition of the different religious systems, analyzing them in terms of continuity, discontinuity, and change over an extended period of time, roughly from the arrival of Alexander the Great to the Imperial integration of Christianity (ca. late 4<sup>th</sup> century BCE – early 5<sup>th</sup> century CE). The approaches presented in the volume are varied and interdisciplinary, combining archaeological, philological, historical, and art-historical analyses of multiple bodies of evidence.





#### Faculty Publications: April 2017-September 2017

#### **Books**

- Avni, G. and Stiebel, G.D., eds. 2017. *Roman Jerusalem: A New Old City* (Supplement Series of Journal of Roman Archaeology 105). Portsmouth.
- Gadot, Y., Zelinger, Y., Cytryn-Silverman, K. and Uziel, J. eds. 2017. *New Studies In the Archaeology of Jerusalem and its Region: Collected Papers 11*. Jerusalem.
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- Tal, O. and Weiss, Z., eds. 2017. *Expressions of Cult in the Southern Levant in the Greco-Roman Period: Manifestations in Text and Material Culture* (Contextualizing the Sacred 6). Turnhout.
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#### **Chapters in Books**

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