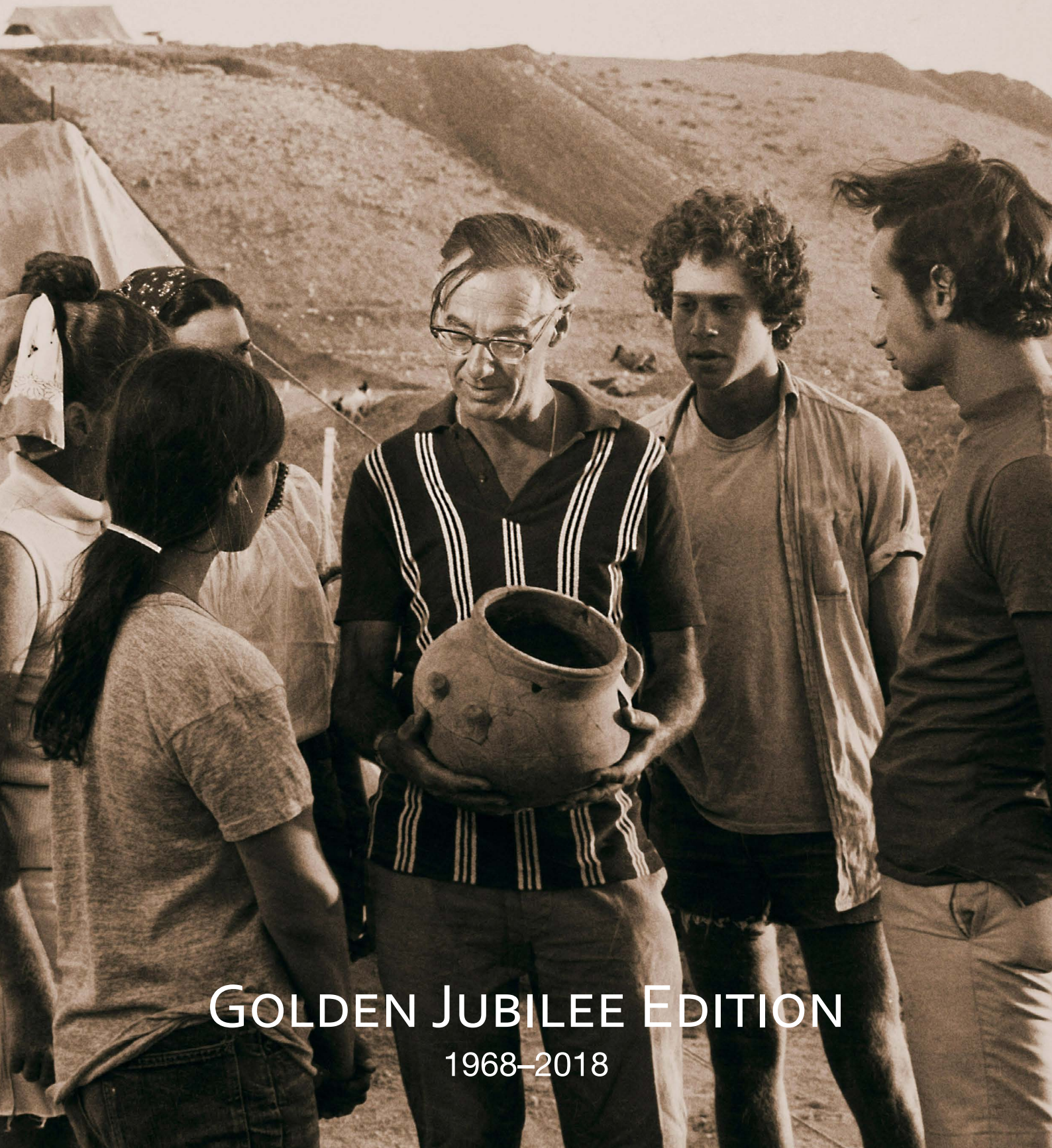


# TAU ARCHAEOLOGY

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 4 | Summer 2018



**GOLDEN JUBILEE EDITION**  
1968–2018

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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  
Number 4 | Summer 2018

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**Cover Image:** Professor Yohanan Aharoni teaching Tel Aviv University students in the field, during the 1969 season of the Tel Beer-sheba Expedition. (Courtesy of the Sonia and Marco Nadler Institute of Archaeology, Tel Aviv University).

Photo retouched by Sasha Flit and Yonatan Kedem.



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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)*

As the academic year comes to a close and we look to the coming summer of excavation and research, in this issue, we also stop to celebrate 50 years since the founding of the Sonia and Marco Nadler Institute of Archaeology.

We feel as though we are one more link, in a tradition of Institute and the Departmental leaders, committed to scholarly and teaching excellence. Yet more importantly, it is our goal to do so with positivity and camaraderie between academics, the people who are work in the Institute, and the students of the Department. We believe that good, informal, and open relations between all those who deal with archaeology, is an essential part that forms the unique place that we are all a part of.

Unlike 50 years ago (when the Institute was founded), modern archaeology has evolved to a far more complicated discipline, one that is executed in both the classroom and the field, and requires the integration and cooperation of numerous students, scholars and experts who work together to excavate, analyze, and interpret the multitude of excavation results and finds. The Department of Archaeology has been irrevocably changed and advanced thanks to the (past and present) role of the Institute.

Curating our own history, this issue focuses on the events and people that created the Institute and developed it over the past half a century. As the Institute is dedicated to publishing, readers are able to not only explore Institute facilities, but also journey through the process of publication. As scholars and contributors so regularly appear as simply names, this issue presents the opportunity to meet the faces and characters behind research.

Furthermore, we are also proud to present excavation summaries from the past six months, hear from projects that will excavate in the summer, and read the latest on travel, events, scholarships, and publications. We are proud of continued advancement of students, scholars, and research, and look forward to a successful summer 2018, and fresh 2018/19 academic year.

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

*Prof. Ran Barkai*  
*Chair, The Jacob M. Alkow Department of Archaeology*  
*and Ancient Near Eastern Cultures*





# FIELDWORK



# Tel Shimron, 2017

Megan Sauter, Daniel M. Master, and Mario A.S. Martin

Inhabited for over 5,000 years, Tel Shimron is the largest site in the Jezreel Valley. To better understand its history, we performed a comprehensive survey in 2016 and opened multiple excavation areas in 2017, with a team of up to 110 people, including 40 staff members and specialists.

Excavation in Grid 92 revealed several occupational phases ranging from the Middle Bronze Age through the mid-20<sup>th</sup> century CE. We found two phases of domestic architecture from the Middle Bronze IIB–IIC. These were covered by a Late Hellenistic–Early Roman phase, which revealed portions of three structures, one with a bread oven and a collection of near-complete cooking vessels.

Work in Grid 94 exposed several phases of a Late Hellenistic–Roman building of mixed domestic and industrial use. The coins, imported tablewares, and small perfume jars (*unguentaria*) recovered from the building demonstrate that the residents of Tel Shimron were actively engaged in trade with the Phoenician coast throughout the

Hellenistic period, while in the Roman period they turned their focus towards the Galilee and appear to have had fewer coastal connections.

Excavations in Grid 23/24 revealed two phases of occupation—Roman (c. 1<sup>st</sup>–4<sup>th</sup> centuries CE) and Byzantine/Umayyad (6<sup>th</sup>–8<sup>th</sup> centuries CE)—in a pair of buildings. One of the structures had a plastered pool, with finds that suggest it was a residential area. The plastered pool (probably a *mikveh*) and several stone vessel fragments (all from the Roman period) corroborate the Talmudic account that there was a Jewish settlement at Shimron.

The Tel Shimron Excavations are conducted by Wheaton College and Tel Aviv University, under the direction of Daniel M. Master and Mario A.S. Martin. Additional academic affiliates include Boston College, Brigham Young University and Cairn University, and is sponsored by the Museum of the Bible, Washington D.C.

Discover more about Tel Shimron at [telshimronexcavations.com](http://telshimronexcavations.com)



Members of the Tel Shimron project inside the plastered ritual bath (Courtesy of Mario A.S. Martin)



# The Western Slopes of the City of David (Giva'ti), 2018

Yuval Gadot and Yiftah Shalev

In July 2017 the Institute of Archaeology began a long-term cooperation with the Israel Antiquities Authority to excavate the area known to the public as the “Giva'ti Parking Lot”. The excavation is located in the north-western part of the ancient core of Jerusalem (City of David/Silwan) and on the eastern bank of the Tyropoeon Valley.

Over the past 15 years the area was dug by several expeditions, first by R. Reich and E. Shokrun and later by D. Ben-Ami and Y. Tchekhanovetz. These excavations yielded rich finds from several settlement layers (ca. the Early Iron Age to the Abbasid period). The central goal of the renewed excavations (directed by Yuval Gadot and Yiftah Shalev) is to expose and study the hitherto unknown layers of Jerusalem, i.e., the end of the Iron Age, Persian, and Early Hellenistic periods.

Four main areas have been excavated until now, Areas 1000, 5000, 3000, and 4000. Area 1000 is the primary area of focus, wherein excavations have exposed at least four architectural phases dating to the Persian, Early Hellenistic, and Late Hellenistic periods. Work here is under the field supervision of Efrat Bocher, Nitsan Shalom (Israel Antiquities Authority), and Helena Roth (Tel Aviv University).

Excavations in Area 1000 revealed the remains of what appears to be a large public building built with large dressed stones. When (eventually) completely exposed, these remains may shed new and surprising light on Jerusalem between the 5<sup>th</sup> and the 2<sup>nd</sup> centuries BCE.

Area 5000 is excavated in cooperation with international field schools. The first season of excavation was conducted in April 2018 in collaboration with Bonn, Heidelberg, and Warsaw universities. In its entirety, the project is a unique multinational collaboration between archaeologists, theologians, and Old and New Testament scholars. Areas 3000 and 4000 are small areas located to the north and to west of Area 1000 and are designed to probe underneath Late Roman architecture, in order to verify the existence of earlier remains. If found, these remains may help in determining the future of the excavation project.



*A group photo of Heidelberg-Bonn team (Courtesy of Yuval Gadot)*



*Students and team members in action in Area 1000 (Courtesy of Yuval Gadot)*



# Exploring the Medieval Landscape of Khirbet Beit Mamzil, Jerusalem, 2018

Omer Ze'evi, Yelena Elgart-Sharon, and Yuval Gadot

Located west of Jerusalem Kh. Beit Mazmil is a rural site dated to the Mamluk and Ottoman periods. The site is currently subject to excavation, under the direction of Bethany Walker (Islamic Archaeology Research Unit and Annemarie Schimmel Kolleg University of Bonn), Benjamin Dolinka, and Gideon Avni (Israel Antiquities Authority). This past May, while working under the assumption that sustainability at Kh. Beit Mazmil was dependent on its immediate vicinity, the authors were invited to explore the landscape around Kh. Beit Mazmil and collaborate closely with Bonn University and the Israel Antiquities Authority.

The Landscape Project is an expansive attempt to excavate terraces, plot fences, stone piles, stone huts (*Shomerot*), and earth pockets in order to extract and analyse a high number of OSL samples. Doing so will provide a high resolution 'OSL dating column' for the agricultural hinterland of Kh. Beit Mazmil. The intensive development of modern Jerusalem

has not left many areas suitable for this research. That aside, a detailed preliminary survey facilitated the identification of three primary areas of research: 'Terrace Hill', Nahal HaYovel, and Gan HaZikaron.

This first season of landscape excavations concentrated on Nahal HaYovel and Gan HaZikaron. There, teams were able to excavate an assortment of terraces and agricultural installations. In Gan HaZikaron, a large plot-fence was identified, with a highly terraced area on the southern bank and east of the fence. OSL results still withstanding, it is our belief that these results represent two main phases of agricultural activity, (1) a heavily terraced area, and (2) a restricted area, wherein the inner part of the plot was maintained periodically, while the outside was abandoned. It is our aim to return to these areas in the coming season, and expand our investigation into the agricultural hinterland of Kh. Beit Mazmil and Jerusalem.



Project member Yelena Elgart excavating the remains of a stone pile at Kh. Beit Mazmil (Photo by Omer Ze'evi)



The terraced Landscape of Gan HaZikaron. Note the massive fence that (according to our estimation) was added to the landscape some 300 hundred years ago, thus marking a significant change in land tenure (Courtesy of Yuval Gadot)



# Central Timna Valley Excavations, 2018

Erez Ben-Yosef and Benjamin Douglass

The 2018 Timna Valley excavation involved several areas of research: completing excavation of the graves of Site 35, investigating a potential cult site in their vicinity, expanding and completing an area on top of Site 34 (Slaves' Hill), surveying a new site near Site 2 (Mushroom Site), and probing Site 200 (Hathor Temple) for microarchaeological remains.

A previously excavated structure (related to copper production) on Slaves' Hill was again excavated in 2018, as the area was expanded so as to better understand the function and layout of the feature. In this area multiple small finds were discovered that are typical to excavations of Slaves' Hill, including a high density of organic material, textiles, and artifacts relating to copper production.

Within the Hathor Temple several small probes were opened to attempt to locate an area untouched by earlier excavations and reconstruction work. This endeavor proved successful, as we were able to locate undisturbed archaeological context and sample it for microscopic analysis. Excavations of two graves (opened in 2017) were completed with the aid of Hila May and her team from the Tel Aviv University School of Medicine. More than a dozen individuals were removed from the graves, as well as a number of interesting small finds, and preserved textile fragments attached to specific skeletons.

A structure situated on a hill above the graves was excavated, revealing hints of ritualistic function and a connection to the rising and setting of the sun and moon. Finally, a survey was conducted of the new site, tentatively named 'Crocodile Ridge'. The site revealed numerous new features and research

opportunities that will produce fresh insights and information into copper smelting during Late Bronze/Early Iron Age transition period in the Timna Valley. As the project looks to the future, research at Timna is expected to move back in time, shifting focus towards the earliest periods of activity in the valley e.g., Early Bronze and Chalcolithic periods. For more details visit the expedition website at: [archaeology.tau.ac.il/ben-yosef/CTV/](http://archaeology.tau.ac.il/ben-yosef/CTV/), or Facebook @CentralTimnaValleyProjectCtv.



Sunrise over the Edomite Mountains, as seen through the newly found shrine (Courtesy of Erez Ben-Yosef)



The 2018 Timna Valley Project team, including specialists, volunteers from abroad, and students of Tel Aviv University (Courtesy of Erez Ben-Yosef)

# Masada Expedition, 2018

Guy Stiebel

The second season of the Neustadter Archaeological Masada Expedition took place this past winter, during which the expedition focused on six areas on top of the desert site. Students of the Department of Archaeology and Ancient Near Eastern Cultures, as well as volunteers from all over the world, carried out the projects excavations of the National Park (INAPA) and the World Heritage (UNESCO) site.

The 2018 season saw the continuation of excavation in already established areas, and the creation of new probes. Particular emphasis was given to the themes of site formation, agriculture and horticulture, and digital documentation.

Work in the recently discovered complex north of the Byzantine Church (Area B) continued and expanded. In addition to the uncovering of the floor of the Herodian water cistern, major efforts were directed at continued excavation of the Byzantine structure that sealed the second Herodian cistern. Situated east of the Church, Area C was devoted to the excavation a limekiln, with  $^{14}\text{C}$  and OSL tests were carried out to establish its date of use. In Area A, evidence was found for the post-revolt occupation. Major findings included three phases within the revolt occupation, and a rich corpus of material remains, including a well-preserved wooden threshold found *in situ*.

Excavation of the Area D cave entrance continued, where a coin from the revolt was uncovered last year. The entrance was cleared to reveal a well-constructed opening to the cave and a bench. A rich pottery assemblage that was uncovered on the floor of the cave now awaits restoration. Efforts returned to Areas E and F as part of the project collaboration with the archeobotany team of Dr. Dafna Langgut. Probes revealed

that the pollen and micro-charcoal remains appeared to reflect the vegetation of the Herodian *veridarium*.

Register for our third season next winter, January 20 – February 15, 2019. Discover more about archaeology and excavation at Masada, head to our website [masadaexpedition.org](http://masadaexpedition.org), Facebook page (@MasadaExpedition), or email us at [masada.expedition@gmail.com](mailto:masada.expedition@gmail.com).



Students from Israel, Australia, and England collaborating in the field (Photo by Hai Ashkenazi)



Students of the Bachelors of Archaeology at Tel Aviv University listening to Director Guy Stiebel's tour of the site (Photo by Hai Ashkenazi)



Students from Area B during one of their infamous bucket lines. Students worked to maintain pace and precision during the excavation. (Photo by Hai Ashkenazi)



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# Tel Bet Yerah: Al-Sinnabra Palace and a Conservation Plan, 2018

Rafi Greenberg

The first excavation season of a joint project between Tel Aviv University Institute of Archaeology, The Hebrew University, and the University of Chicago was conducted in February 2018. Excavations were held at the Umayyad palace of Al-Sinnabra, on Tel Bet Yerah, under the joint direction of Tawfiq Da'adli, Donald Whitcomb, and Raphael Greenberg, with the assistance of Alon Arad and Veronica Morriss. The 2018 season was funded by the Max van Berchem Foundation (Geneva), the Oriental Institute, and the Bet Yerah Project. The identification of the Al-Sinnabra palace at Bet Yerah was only suggested a decade ago by Whitcomb, and confirmed in 2009 by Da'adli and Greenberg (as detailed in our 2017 publication, *Bet Yerah III: Hellenistic Philoteria and Islamic Al-Sinnabra*. IAA Reports 61, Jerusalem).

This season focused on the north end of the Umayyad enclosure, where we hoped to find the remains of the palace mosque (as no mosque had been identified in earlier excavations). Following the removal of earlier excavation debris and modern rubbish, we were surprised to find, just beneath the modern surface of the tell, a gravel and plaster pavement extending across the entire 60m façade of the enclosure. Further to this, the foundations of at least eight massive pillars aligned in two rows were recovered, which seem to belong to a hypostyle hall. Coins found on the pavement date to the



*The northwest tower of the Umayyad palace and stairs leading to the paved courtyard (Courtesy of the Tel Bet Yerah Project)*

7<sup>th</sup> century CE. Time will tell if this is indeed the mosque, or if there are further surprises in store for next year!

During the season the Israel Antiquities Authority implemented a comprehensive conservation plan in the northern part of Tel Bet Yerah. When conservation work is completed, visitors will be able to view the Early Bronze Age Circles Building (Granary), the adjacent paved street and plaza, and the foundations of Al-Sinnabra palace. The conservation plan completes the public outreach aspect of our work, which has accompanied the excavation and research projects since their inception in 2001.



*Students and scholars collaborating in the field, against the scenic backdrop of Tel Bet Yerah (Courtesy of Rafi Greenberg)*



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# Tel Hadid Expedition, 2018

Ido Koch

Adorned by generations-old olive groves, Tel Hadid sits atop a high hill that overlooks the Tel Aviv Metropolitan Area. Over three millennia of the site's settlement history has been sporadically explored during the last three decades. Exploration of the site has primarily included salvage excavations conducted during the late 1990s. A fascinating aspect of the history of Tel Hadid was revealed during these very excavations. Within the remains of an Iron Age II settlement, two cuneiform tablets were found, that were accurately dated to the first half of the 7<sup>th</sup> century BCE. These two legal documents refer to individuals who bear non-local (mainly Akkadian) names, and were interpreted as members of deportee communities, brought to the country by the Neo-Assyrian Empire. A similar scenario emerges from two tablets found over a century ago at Tel Gezer, where Aramean and Akkadian names are mentioned alongside a local name.

As such, the study of the remains at Tel Hadid holds great potential for the advancement of an archaeological understanding of dislocated communities. The dislocation to remote colonial margins forced groups (passively uprooted from their homelands) to reinvent their new home through language, narrative, and myth. The disruptive and disorienting experience of dislocation pressured these groups to adjust

their identity (or to form a new one). Textual reflections of such experiences, both ancient and modern alike, have been studied under the umbrella of postcolonialism. Yet the archaeology of such situations is rather limited.

Now, how different would be the behavior of these uprooted groups have been in comparison to their local neighbors, and how would it have materialized? What do we, as archaeologists, expect to find in the field? Could we identify differences in architecture, pottery assemblages, animal remains, botanical remains, or various other material remains?

With these questions in mind, the first season of the excavations at Tel Hadid is set to commence this spring. In addition, we aim at a high-resolution survey of its surface and a complete digital documentation of the site's landscape, including its many agricultural features. This is a joint project, headed by Tel Aviv University and the New Orleans Baptist Theological Seminary, under the direction of Ido Koch (Tel Aviv University), Eli Yannai, and Dan Warner (New Orleans Baptist Theological Seminary).

To discover more about Tel Hadid, visit our website, Facebook page ([@hadid.expedition](#)), or email us at [hadid.excavations@gmail.com](mailto:hadid.excavations@gmail.com).

Excavation Dates: May 28<sup>th</sup>–June 21<sup>st</sup>, 2018



Excavation surveyors Omer Ze'evi and Ronnie Avidov planning the 2018 season at Tel Hadid (Photo by Alexandra Wrathall)



# Tel Megiddo Expedition, 2018

Israel Finkelstein

The 13<sup>th</sup> season of excavations at Tel Megiddo will take place this coming summer, drawing volunteers from around the world. During this season we plan to operate in several areas. In Area K (located in the south-eastern sector of the site) excavations will continue of the Middle Bronze layers, with special attention paid to extracting samples for ancient DNA studies. This domestic area, rich in finds, has already produced fascinating information regarding the genetic background of its population. Recent studies have yielded information regarding the impact of droughts at the end of the Late Bronze Age, and Egyptian reaction to the crisis (for more, see the [New York Times](#) feature).

In Area S (located in the northern sector, near the gate and palaces of Megiddo), investigation of the monumental Middle Bronze fortifications will continue. Further to this, excavations will also continue in Area H (located near the Megiddo palaces), with the goal of exploring the possibility of the existence of additional royal tomb/s (to learn more, see the [National Geographic](#) article). Finally, we aim at investigating the famous six-chambered gate (the 'Solomonic' gate) of Area Z. Our goal is to collect

information about its date, and expose the gate below it, which has never been properly investigated. The Expedition will be staying in nearby Kibbutz Mishmar Ha'Emek. To discover more on the coming season and the site at large, head to [megiddoexpedition.wordpress.com/](http://megiddoexpedition.wordpress.com/), or Facebook [@megiddoexpedition](#).

Excavation Dates: June 24<sup>th</sup>–August 2<sup>nd</sup>, 2018



An aerial photo of Tel Megiddo (Courtesy of the Megiddo Expedition)



A hoard assemblage (beads, jewellery, and metal objects) from Tel Megiddo (Courtesy of the Megiddo Expedition)

# Tel Azekah Expedition, 2018

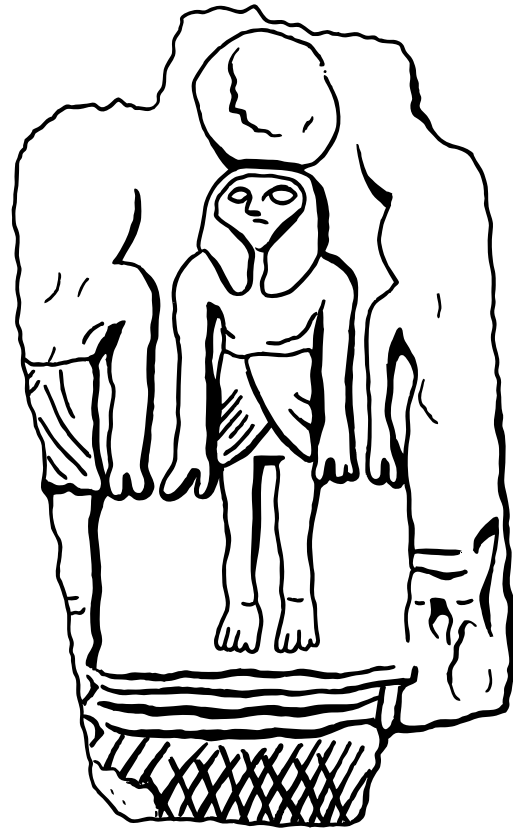
Oded Lipschits and Yuval Gadot

Following a one-year hiatus, the Lautechschläger Azekah Expedition is set to return to the field this summer for its sixth season. Up until this point in the project, excavations have revealed occupations of the site from the Early Bronze Age through to the Hellenistic Period. Under the direction of Oded Lipschits, Yuval Gadot (Tel Aviv University), and Manfred Oeming (Heidelberg University), a team of international participants and staff will target four primary sectors of the Tel i.e., Area N, Area E3 (upper), E3 (lower), and Area S1.

The team will return to Area N in 2018 to further explore the nature of a water system uncovered during the 2016 season. Area E3 (previously excavated as a single area) will be divided into two (upper and lower), so as to better understand the nature of the slope and its material remains, especially from the Middle and Late Bronze, as well as the Iron Age. Finally, the team will excavate Area S1 to continue to explore the Iron Age II destruction of Tel Azekah. The project will continue to integrate a range of archaeological methods and specialists, with the team including zooarchaeologists, petrographers, forensic anthropologists, and organic residue analysts.

To discover more about the Tel Azekah project, head to [azekah.org](http://azekah.org), our Facebook [@LautenshlagerAzekahExpedition](https://www.facebook.com/LautenshlagerAzekahExpedition), or Instagram [@azekahexpedition](https://www.instagram.com/azekahexpedition).

Excavation Dates: July 20<sup>th</sup>–August 16<sup>th</sup>, 2018



An artistic representation of a Late Bronze Age tablet recovered from Tel Azekah (Courtesy of the Tel Azekah Expedition)



Sunrise over the Elah Valley, the view from Area E during the 2016 season (Courtesy of the Tel Azekah Expedition)







# 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 Summer 2018:

Apollonia-Arsuf	April 29 – June 15
Tel Hadid	May 28 – June 21
Tel Megiddo	June 24 – August 2
Tel Azekah	July 21 – August 16
Jerusalem	September 10 – September 24





# SPOTLIGHT

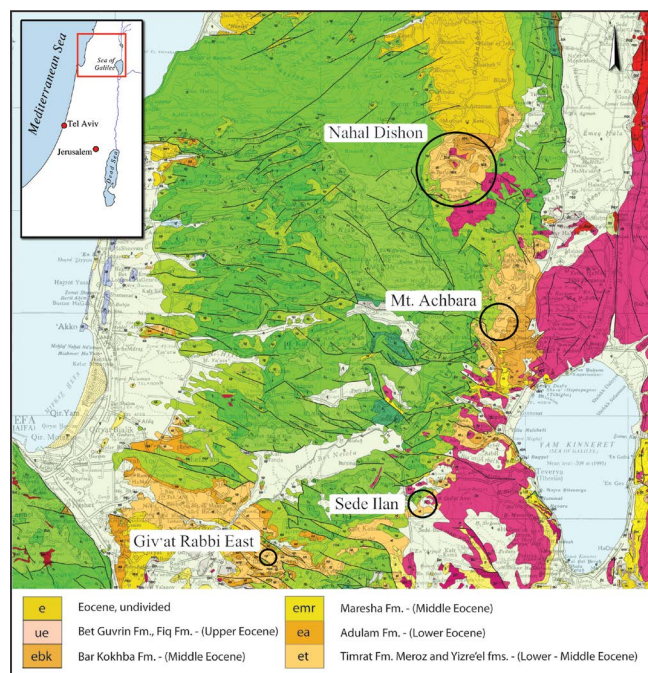


# The 'Flint Depot': A Multifaceted Study of Flint Extraction and Reduction Complexes of Prehistoric Northern Israel

Meir Finkel

The focus of my research is the study of Lower and Middle Paleolithic and (to a lesser extent) Neolithic/Chalcolithic flint extraction and reduction (E&R) sites. Following early works at the sites Mt. Pua and Sede Ilan, this study demonstrates that the Eocene Timrat Formation in north-eastern Israel (which appears as a land 'strip' west of and parallel to the Rift Valley) was a major source of prehistoric flint for the region and possibly beyond. The importance of this source is evidenced by three large-scale E&R complexes, which present evidence for intense prehistoric activities in the Dishon Stream, Mt. Achbara, and Sede Ilan.

The research approach combined several methods, each of which revealed new insights related to flint procurement. Field surveys aided by aerial photography facilitated the discovery that the Dishon Paleolithic E&R complex was much wider than previously thought. The largest known Neolithic/Chalcolithic axe/adze workshop in the Levant was also located in a specific area in Mt. Reihan, and presented a unique opportunity to study the early stages Chalcolithic and Neolithic bifaces *chaîne opératoire*. Surveys conducted 15km south along the Eocene Timrat Formation 'strip' identified an entirely new E&R complex in Mt. Achbara, 6km north of the Amud cave.

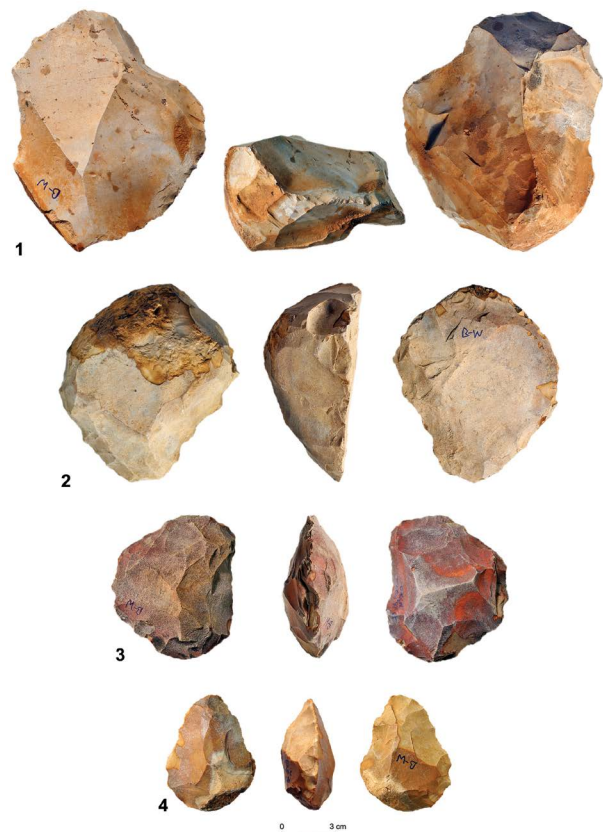


Geological map of Israel (1:200,000; Sneh et al., 1998), the Eocene Timrat Formation land 'strip' and the Dishon, Mt. Achbara, and Sede Ilan E&R complexes

A geochemical ICP-MS analysis of a substantial collection of flint debitage samples enabled first inter and intra-complex ICP-MS analyses. Comparison of the geochemical 'fingerprint' of flint debitage samples from the Dishon complex, and flaked flint items from three Paleolithic and three Neolithic/Chalcolithic occupation sites in northern Israel (located up to 20km away), demonstrated a high degree of correlation.

Measuring nodules, bifacial roughouts, and flaking debitage in Mt. Reihan Neolithic/Chalcolithic axe/adze workshop enabled the assessment of the reduction 'efficiency' in the site, the estimation of the total numbers of exported items, and ability to discuss methodological issues concerning the transportation of lithic materials from quarry/extraction sites to occupation sites. Altogether, this study provides an in-depth and multifaceted understanding of the prehistoric flint E&R phenomena in the Levant, and in some aspects, also in a global perspective.

*Meir's Ph.D. research is conducted under the supervision of Ran Barkai, Avi Gopher, and Erez Ben-Yosef.*



Artifacts from an E&R pile in the Dishon E&R Complex, (1) Levallois core; (2) core; (3 and 4) biface



# The Nexus of Cultures: The Central Shephelah during the Persian and Hellenistic Periods

Déborá Sandhaus

The period between the Persian and the Hellenistic administrations in the Southern Levant (4<sup>th</sup>–late 2<sup>nd</sup>/1<sup>st</sup> centuries BCE) is a major stage during which Phoenician, Idumeans, Judaeans, and Samaritans are active players within the formation processes of cultural, social, and ethnic identities.

The archaeological study of this period in the vicinity of the territory of the province of Judea and to some extent Idumea (with the exception of Marissa) has until now, remained elusive. Much of the information on this period originates from textual evidence, which transmitted an ideological message that was reflective of the social perspective of the elite, while the voice of the non-elite (most of the inhabitants) remained silent.

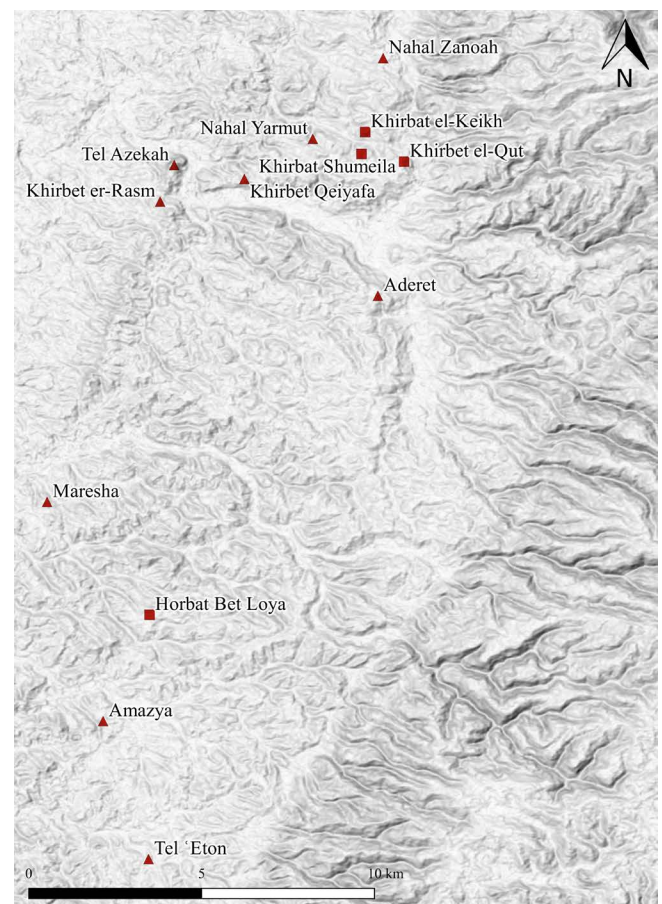
This study aims to trace the mechanisms involved in the formation process of the cultural, social, and ethnic identities of the inhabitants of the Central Shephelah. The active excavation of the Central Shephelah has provided an enormous amount of (previously inaccessible) data. As a border zone between different political entities, the Central Shephelah is a promising region that facilitates the evaluation of, encounters between various groups, and the symbolic dimension of material remains and their function in such encounters.

This research will address questions regarding the relationship between, material remains and human behavior, and the physical and cultural space of social expression. In order to do that, an attempt will be made to identify patterns of behavior that reflect this relationship in terms of ‘rejection and acceptance’ of new cultural traits over the processes of creation, and the definition and preservation of a self-identity.

Preliminary results have identified different ‘acceptance’ patterns of culinary and serving table habits north and south of the Elah Valley (an administrative border between Judea and Idumea). These results appear to reflect different strategies of border maintenance (cultural) between the inhabitants of the two

regions. Ultimately, this study will re-write the chapter on Judean and the Idumean history from the Persian to the Hasmonean periods. Yet this time, the historical reconstruction will be one voiced through the material remains of the inhabitants of the rural hinterland — an echo of the common people.

*Déborá is a Ph.D. candidate under the supervision of Oded Lipschits and Yuval Gadot.*



*A map depicting key sites in the Shephelah (Map by Assaf Kleiman)*



*A photo of the Elah Valley, Shephelah (Photo by Ram Eisenberg)*

# Archaeology of Cult and Aspects of Centralization in the Northern Kingdom of Israel

Erin Hall

My doctoral dissertation engages with several lines of research that are relevant to cult in the Northern Kingdom of Israel from the beginning of the Israelite monarchy to its end (ca. 722–720 BCE). Since historical developments should be considered through a long-term perspective, the study includes material and sites from the Iron I through to the late Iron IIB. The primary goal of the project is to consider the evolution and transformation of cult in the Northern Kingdom. Another important question is that of centralization in Ancient Israel. Although cult centralization is a complex social process that is not easily defined, scholars continue to believe that this process inspired several religious codifications and reforming policies in the Hebrew Bible.

The project employs multiple lines of inquiry and various methodological approaches. A central aim is to determine how cult can be traced and analyzed within the archaeological record. Similarly, another goal is to better understand processes of centralization in the Northern Kingdom through a consideration of sociological and historical approaches to the topic. Updating existing interpretations and dating of cultic assemblages is an important objective of the work. Since each cultic context fits into broader historical processes, every context is examined holistically and re-assessed in terms of function and purpose. Contexts are also analyzed against the background of their location and prominence

within their respective sites and time periods. Contexts are then compared synchronically and diachronically, and any patterns that emerge are considered in light of possible centralization and/or decentralization activities.

In regards to cult centralization, I aim to unpack what is meant by ‘centralization’ within the fields of archaeology and, to an extent, biblical studies. Based on preliminary results, it is possible to determine whether such processes took place within the archaeological record. From a sociological perspective, cult centralization may be enacted for various sociopolitical, economic and/or religious reasons—which may overlap. Preliminary results indicate that, although complex state formation occurred under the Omrides in the 9<sup>th</sup> century BCE, cult places close to the Samarian highlands were decentralized. The extent to which the Omrides regulated cult sites requires further study, although it is clear that the number of cult places in these regions declined dramatically during the 8<sup>th</sup> century BCE. This may be due to demographic decrease following the destruction of major Northern Kingdom sites by Hazael (ca. 841/840 BCE). The reduction in local cult activity may be linked to intentional ‘cult centralization’, as supra-regional cult places were erected in Tel Dan and Bethel during the Iron Age IIB.

*Erin is a Ph.D. candidate who specializes in cult in the Northern Kingdom of Israel, under the supervision of Israel Finkelstein.*



Iron Age IIA cult objects from Area Q at Tel Megiddo (Courtesy of the Megiddo Expedition)



A standing stone erected over late Iron I ruins in the southern end of Area Q (Courtesy of the Megiddo Expedition)



# The Hellenistic Military Architecture of Jerusalem during the 2<sup>nd</sup> century BCE: in Light of the Giv'ati Parking Lot Excavations

Ayala Zilberstein

The study of Jerusalem during the Hellenistic period was premised, until recently, on the research of local historical literature. The plethora of descriptions in the literature stands in contrast to the limited evidence of material remains dated to this period. The lack of archaeological evidence related to the daily realities and events in Jerusalem during the Hellenistic period has naturally limited the discussion.

During the last decade, a complicated sequence of the Hellenistic period was exposed in the excavation area of the Giva'ti Parking Lot, located on the western slope of the eastern hill of Jerusalem. This sequence includes various settlement phases dated to the 3<sup>rd</sup>–2<sup>nd</sup> century BCE, excavated by D. Ben-Ami (Israel Antiquities Authority) and Y. Tchekhanovetz (Israel Antiquities Authority). Recently, excavations at Giva'ti by Y. Gadot (Tel Aviv University) and Y. Shalev (Israel Antiquities Authority) have discovered earlier phases of this period.

The phase of the mid-2<sup>nd</sup> century BCE is entirely different from the other phases of this sequence. While the earliest and the latest phases reflect a residential quarter in this area of the city, the mid-2<sup>nd</sup> century phase is characterized by massive military architecture. The presence of structures indicates a dramatic change in the urban landscape of this area.

This research project focuses on the military architecture phase as a foundation for the discussion of Jerusalem during the 2<sup>nd</sup> century BCE. These remains include a monumental tower, a fortification wall, and a glacis (consisting of layers of constructional fills). The preliminary results of the spatial distribution analysis of the material remains, and the identification of two different fill assemblages, support the suggestion that; the glacis includes two separate phases (related to the fortification system) that date to the building processes within the 2<sup>nd</sup> century BCE.

This conclusion enables us to reopen unsolved historical and archaeological issues related to the urban development of Hellenistic Jerusalem. Furthermore, this conclusion pertains to discussions that surround the events of the Hellenistic period. The suggestion by Ben-Ami and Tchekhanovets, to identify the fortification remains as part of the famous Seleucid Akra, will also be investigated in light of the evidence. The results of this research may also contribute to the critical reading and evaluation of primary historical sources, such as descriptions in 1–2 Maccabees and the works of Flavius Josephus.

*Ayala's Ph.D. research is devoted to the enigma of the Hellenistic Akra, and is under the supervision of Guy Stiebel (Tel Aviv University) and Doron Ben Ami (Israel Antiquities Authority).*



A section of the Giva'ti Parking Lot glacis, wherein the layers of the glacis' formation are clearly represented (Courtesy of Ayala Zilberstein)



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# Andirons and Hearths in the Kura-Araxes Culture

## In Memoriam: Sergey Ishoev

Sergey Ishoev had just completed a full draft of his Master's thesis when he suffered a fatal fall from the roof of his home on the first day of the 2017–18 academic year. The following is a brief report on his work, tragically cut short.

Sergey spent his first summer as an archaeology student at the Tel Bet Yerah field-school in 2009. From that time onward, he developed an all-consuming interest in the south Caucasian (or Kura-Araxes) origins of the 'Khirbet Kerak people', whose presence in the Levant was first recorded in the 1944–1945 excavations at Tel Bet Yerah (Khirbet el-Kerak). Like Sergey, the Khirbet Kerak people were migrants in the Levant from the distant north. Tracing their origins became a personal quest, one that took Sergey back to modern Armenia, where his father's family originated. One of the trademark products of the Khirbet Kerak culture was the horseshoe-shaped pot support, long considered to be a portable form of the typical fixed hearth found in the ancestral homeland of the Khirbet Kerak people (between eastern Anatolia and the Caspian Sea). As the hearth was the focus of the Kura-Araxes house, it was widely assumed that the portable hearth (or andiron) would be a central feature of Khirbet Kerak life in the Levant as well.

Being of a practical turn of mind (having studied engineering and held two day-jobs as a technician to support his young family), Sergey experimented with self-made andirons and explored their possible use. This research took him in two main directions: (1) a detailed chronological and technical study of hearths and pot-supports in the Kura-Araxes homelands, and (2) a careful technical analysis of the andirons found at Tel Bet Yerah, using 3D Solid Edge engineering software to understand their design and use-life.

In a nutshell, Sergey's conclusions show that Kura-Araxes pot-supports (including the horseshoe andiron) were designed



*Sergey Ishoev, who first contributed as a member of the Bet Yerah team in 2009 (Photo by Alon Arad)*

to complement the changing forms of the fixed hearth. Not only this, he also demonstrated that they could also be used outside the hearth, in which case they would serve to stabilize pots during the distribution of cooked food. The Bet Yerah andirons, however, were nearly always used outside the hearth, and their breakage patterns are consistent with such use. This discovery dovetails perfectly with what we know about Khirbet Kerak food consumption: in contrast to the platter-using local tradition, where participants in a meal would 'lean in' to snatch their roasted portions from a collective dish, Khirbet Kerak people consumed their cooked stews in small, personal bowls and mugs.

*Sergey's M.A. thesis was approved by the Department and University in April 2018, and will be available online through the Institute Library. We hope to soon publish the main results of his work in a scientific venue.*



*Sergey excavating at Tel Bet Yerah during the 2011 season (Courtesy of Alon Arad)*



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# Brothers at Deir el-Medīna

Deborah Sweeney

Ancient Egypt was keenly organized around inheritance from father to son. The emotional dimensions of this dynamic are prominent in Egyptian texts, as men often mentioned their fathers and sons in inscriptions and graffiti. Brotherhood and mutual support between other male relatives were less prominent, and thus their implications in ancient Egyptian culture are less known.

The village of Deir el-Medīna was home to the workmen and artists who built and decorated the tombs of the kings and queens of Egypt (ca. early 15<sup>th</sup>–early 11<sup>th</sup> centuries BCE). It is an ideal place to investigate brotherhood in ancient Egypt. To enable tomb-builders to be near their work, the village was built at a remote desert site near the Valley of the Kings. Much genealogical information is available from the site, as dry conditions led to the preservation of all types of documents: administrative texts, personal letters, legal records, votive stelae, and tomb inscriptions.

The villagers were buried in rock-cut tombs that they themselves built, decorated, and carved into the slope of the hill to the west of the village (early 13<sup>th</sup> century BCE onwards). The images in these tombs and their chapels form the basis of my current investigation into representations of brotherhood in tomb decoration. Typically, the tomb owner's

brothers and sons are depicted participating in offering to gods and deceased relatives and participating in the funeral. One son would perform the crucial ritual of 'Opening the Mouth', believed to restore to the dead in the afterworld all the physical abilities that they had enjoyed in this life. Although tomb owners represented their children in terms of sons and daughters, they themselves would also experience this reality as siblings, with all the cooperation and competition this might entail.

However, these are general tendencies. In practice, families differed widely and decorated their family tombs accordingly. For example, the sculptor Qen never mentions his brothers in his tomb. Instead, the brothers of his wife Henutmehyt are depicted carrying tomb equipment and supervising the oxen drawing the bier in his funerary procession. Perhaps he was born outside Deir el-Medīna with no family in the village, and his in-laws substituted for brothers? However, a son of his other wife Nefertari is always represented performing the Opening of the Mouth, and Nefertari is often given pride of place in the tomb and on other family monuments, so it is likely that she was Qen's first wife.

*This research was supported by the Israel Science Foundation (Grant No. 803/16).*



A view of Tombs hill, Deir el-Medina, Luxor West Bank, Egypt (Photo by Roland Unger)



# The 'Alona Project: Tracing the Invisible Hand of Ancient Agriculture

Yuval Gadot and Dafna Langgut

The 'Alona Project is an interdisciplinary research attempt to evaluate the magnitude, frequency, and timespan of human interference in the natural environment, for the purposes of agricultural production. This subject is currently at the forefront of human-environment interaction studies.

A previous study conducted in the highlands of Jerusalem demonstrated that the building of terraces for dry farming must be socially and economically contextualized, if the motivations of ancient farmers are to be explored. In this study we wish to go one step further, and explore the land-use patterns that were practiced before terracing took over. To achieve this, we have identified a human-induced landscape. On the one hand, this landscape (based on initial results) was exploited as early as the first millennium BCE (Iron Age) and maybe even earlier (Middle Bronze Age, first part of the second Millennium BCE), but on the other hand, was not intensively terraced, and thus preserved earlier agricultural activities.

This chosen landscape is located within the agricultural hinterlands of Jerusalem (ca. 5km north-west of the ancient city). The area is characterized by diversity in the nature of the underlying rock formation, which is clear even to the naked eye. Employing an explicit interdisciplinary approach, proxies from geography, archaeology, archaeobotany, and paleogeomorphology are integrated. Soil in-fills of agricultural installations will be dated using Optically Stimulated Luminescence (OSL). Accordingly the primary research objectives are to:

- (i) Establish an accurate chronology for the agricultural activities in this area.
- (ii) Identify the type of crops cultivated in this region over time.
- (iii) Describe the mode of agriculture prior to the terraced landscape.
- (iv) Attempt to distinguish between natural and anthropogenic soils.

At this point in the project we have conducted two short field seasons. The first was dedicated to a high-resolution, systematic survey of the slope, which was lead by Arian Goren and Nitsan Ben-Melech.

The second field season was a short one-week excavation of manmade and natural features. Work included the excavation of two stone piles, a watchtower, and a winepress. Initial pottery analysis proves that (at the very least) the watchtower dates to the Iron Age IIC period (7<sup>th</sup> century BCE). Excavations are led by Nitsan Ben-Melech, and aided and executed by numerous students of the department. Our excavations

are conducted in cooperation with local community-based organizations that are dedicated to the cultural heritage of the site. Thanks to their efforts, volunteers from the neighborhood joined us for the excavations and the Mayor of Jerusalem also paid the team a visit.

*This study is conducted together with Naomi Porat (Israel Geological Survey) and Uri Davidovich (Hebrew University).*



*Department students Eden Tabacznik and Macy Moore, excavating an Iron Age tower (Courtesy of Dafna Langgut)*



*Department student Jacquie Zaluda explaining to Nir Barkat, the Mayor of Jerusalem, the goals of the project (Courtesy of Dafna Langgut)*



# INSTITUTE FACILITIES





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# A Brief History of the Department and Institute of Archaeology: An Interview with Gabriella Bachi

Alexandra Wrathall

This past month we had the privilege to sit with Gabriella Bachi, the first ever Institute Chief Librarian and Collection Curator. Surrounded by the faces of former students, who studied during her time and are now well-known professors, we spoke with Gabi about the foundation of the Institute.

To understand how the Institute started, it is best to go back 50 years, to the beginning.

The Department of Ancient Near Eastern Studies was formed in 1962 under the direction of Prof. Shmuel Yeivin. Yet in 1968, as Yeivin approached retirement, Yohanan Aharoni was called to take his place. Already a professor at the Hebrew University, Aharoni agreed to accept the position at Tel Aviv on one condition, that in addition to leading the Teaching Department, he would establish an Institute of Archaeology. The notion behind the creation of an Institute was, that it would lead field excavations, and possess all the facilities necessary for archaeological research.

With his request for an Institute was granted, Aharoni began to develop the foundations of the Institute of Archaeology (later named: *The Sonia and Marco Nadler Institute of Archaeology*). The teaching staff of the existing department would join the Institute and contribute to its development through their research. Fuelling early Institute research, Aharoni brought unpublished material from his past excavations (such as Arad and Tel Lachish) from the Hebrew University. Doing so allowed the newly formed Institute faculty to begin research and work immediately.

As Aharoni began to develop his team, his first call was to Moshe Kochavi, his devoted student and assistant. Kochavi moved to Tel Aviv University as an excavator in the Institute and lecturer in the Department. The early team included: Gabriella Bachi (archaeologist and librarian), Esther Yadin (registrar, who later worked with Kochavi on the Tel Aphek and the Land of Gesur/Golan projects), Shmuel Moskowitz (surveyor), Esther Mann (registrar and later first Editor of *Tel Aviv*), and Naomi Schechter (first Drafting Studio Head). Together at the Hebrew University, this early team already worked with Aharoni and Kochavi on their projects. Naomi Nadav joined the staff as pottery restorer. Following Aharoni to the new institute, this cohesive team would go on to create individual legacies within the history of Southern Levantine archaeological research.

When Aharoni first approached Gabriella Bachi to join the Institute, she was working on the publication of excavations at Tel Ashdod with Moshe Dothan, and completing her studies for an M.A. in Librarianship at the Hebrew University. Bachi

was invited to build the archaeological library of the Institute, and work began in November 1968.

The Institute developed a restoration laboratory, wherein ceramic material from excavations could be assembled and reconstructed. Several scientific laboratories were developed to specialize in the study of material remains e.g., archaeozoology, archaeobotany, physical anthropology, chemistry, and metallurgy.

Moving to Tel Aviv University, Gabi started to order books for the library. Speaking of her early years, we asked Gabi what memories she is most fond of. Replying, she notes,

“While I always enjoyed the fieldwork, the opportunity to create a library was very interesting. When I accepted the position, I had just finished in the school of librarianship, where we were not really taught how to build a library. As such, developing the library was a satisfying process. Later in the 1990’s, as Collection Curator, I very much enjoyed the opportunity to have a leading role in Institute exhibitions.”



Gabriella Bachi exploring the new collection room in 204 (Photo by Sasha Flit)





Liora Freud (Institute Collection Coordinator), Nirit Kedem (Administrative Manager of the Institute of Archaeology, centre) and Gabriella Bachi (first Chief Librarian and Collection Curator, right) (Photo by Sasha Flit)

Following the example of the Hebrew University (which had several specialist libraries) the directorate of Tel Aviv University chose to build one central library for all fields of the humanities. As a result, it was challenging to overcome the initial opposition to the development of an archaeology library. The aim of the *Archaeology Library* was to serve as a research library for the primary subject of the Institute: the archaeology of Israel. Soon the library expanded to serve the Department as well, with the initial purchase of dictionaries for the study of Ancient Near Eastern languages. Gabi adds,

“... we always had a limited budget for the acquisition of new books; other sources were donations and an ‘publication exchange’ with other institutions.”

With the first formation phase of the Institute complete, Aharoni announced his second goal: to operate a single excavation as a central excavation of the Institute, where all the staff of the Institute and the Department would participate, regardless of their personal/independent research focus or speciality. With that, the first season (1969) of the Tel Beer-Sheba Excavation began. Yet although the goal of the project

was to bond the newly assembled members of the Institute and wider Department, indeed the opposite appeared to be the case. Graduate students and several scholars who wanted to work on their own projects opposed the mandate of forced project participation. Although Aharoni’s dream of a mandatory project eventually dissolved, his attempt to create a collaborative relationship between scholars preserved. To this day the camaraderie and collaborative nature of the current faculty is one of the Institute’s greatest research strengths.

Finally, the timely publication (only two years after the 1971 end to the first expedition) of Beer-Sheba I (1973) worked to solidify the publishing culture at Tel Aviv University. Here, it was essential to Aharoni that excavation reports be published quickly, so that publications could have a valuable impact on scholarly discourse and research.

When asked, ‘What is it like to return to the Institute?’ Gabi, who retired more than 15 years ago, sits and pauses. Reflecting, she offers,

“It’s strange, once it was like home, now I hardly meet a face that I know. But it is only natural — for as we know, time passes and things change.”



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# Yohanan Aharoni: 50 Years of the Institute of Archaeology

Boaz Gross and Alexandra Wrathall

A man of many roles and contributions, to those at Tel Aviv University, Yohanan Aharoni is most notably known as 1968 founder (and first Head) of the Institute of Archaeology. A catalysing force for research in Israel, Aharoni's vision for an academic space that catered to both teaching and research, set the foundations for the current landscape of broad and interdisciplinary research at Tel Aviv University.

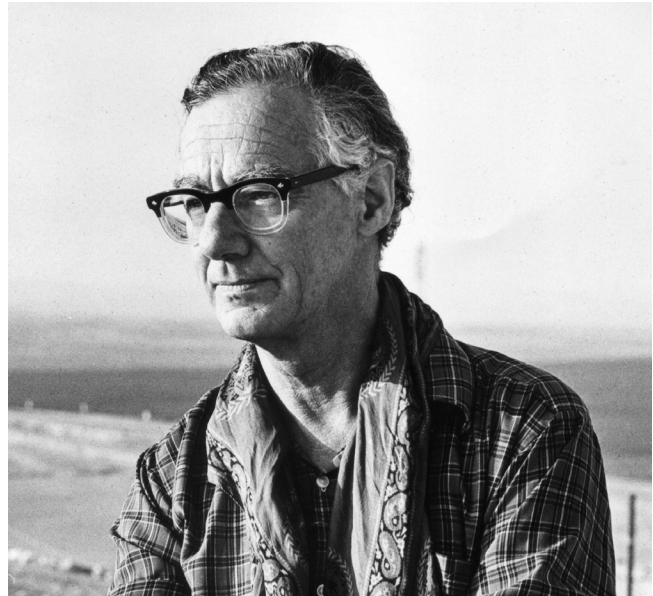
Born Hans Yosef Ahronheim in 1919 Germany, Aharoni first moved to Israel at age 14. As a member of the early state of Israel he was integrated into Kibbutz (Alonim) life and pursued studies in education, literature, Bible, and Jewish history. In 1944 following several years of study Aharoni decided to enrol at the Hebrew University, wherein he met Professor Benjamin Meisler (later Mazar), who became his teacher and advisor. Following the submission of his Ph.D., Aharoni became a young lecturer at Hebrew University.

In 1968 he was invited by Shmuel Yeivin (Head of Department of Ancient Near Eastern Studies) to be Head of the Department of Archaeology at Tel Aviv University. While Aharoni accepted the offer, he had a non-negotiable condition of acceptance: the establishment of a research Institute. Agreeing, Tel Aviv University gave Aharoni the tools and funds necessary to establish specialist research laboratories for the analysis of archaeobotanical, metallurgical, and zoological finds. Further to this, Aharoni founded the Institute's Library for the specific use of the departments' scholars and graduate students.

Yet just as it is now, it was then - to research means little without a publication. As such Aharoni also established the *Tel Aviv Journal of Archaeology (Tel Aviv)*. The first issue ever included the results of the first three seasons of Aharoni's excavations at Tel Beer-Sheba. Since Aharoni, the journal has enjoyed editorial leadership under several notable Israeli archaeologists, and continues to publish innovative and thorough research.

Central to Aharoni's career were his many field projects. These include his survey of the Upper Galilee during his Ph.D. research, his participation in the large-scale excavations at Tel Hazor (with Yigael Yadin), the Judean Desert Expedition, and excavations (under his direction) at Ramat Raḥel and Tel Arad (all under the auspice of HUJI). Upon the establishment of the TAU Institute of Archaeology, an early vision of the Institute was Aharoni's insistence that all members excavate annually on a shared project: Tel Beer-sheba. It is unsurprising then that the first Institute publication, Beer-sheba I (1973), is littered with names of notable Tel Avivian scholars from various fields of expertise.

During his 12-year study of the Beersheba–Arad Valley Aharoni achieved his masterpiece: site-specific excavation, regional



Yohanan Aharoni in the field at Beer-Sheba (Courtesy of the Institute of Archaeology, Tel Aviv University)

research, long-term settlement processes, and historical geography. It was during the same project that Aharoni initiated the exploration of two nearby sites (Tel Malḥata and Tel Masos), as part of his interest in regional archaeology.

Aharoni served as the head of the Tel Aviv Institute of Archaeology until his untimely death in 1976. Diagnosed with cancer of the lymphatic system, he died at the early age of 56. Aharoni's sudden passing meant that much of his work remained unpublished. Since then, members of the institute have brought Aharoni's excavations to final publication i.e., Ramat Raḥel (Lipschits, O., Gadot, Y. and Freud, L. 2016. Ramat Raḥel III: Final Publication of Yohanan Aharoni's Excavations [1954, 1959–1962]. Winona Lake) and Tel Beer-sheba (Herzog, Z. and Singer-Avitz, L. 2016. Beer-Sheba III: The Early Iron IIA Enclosed Settlement and the Late Iron IIA–Iron IIB Cities. Winona Lake). Z. Herzog, L. Singer-Avitz and I. Koch are currently reading Aharoni's excavations at Tel Arad for final publication.

Yohanan Aharoni's work is, to this day, one of the founding pillars of Israeli archaeology, as his combination of aerial archaeological methods, historical knowledge, unique understanding of the Bible and Ancient Near Eastern cultures, and vision for academia – continues to shape scholars of the next generation. Put best by his student and colleague, the late Moshe Kochavi,

**“An exact archaeological survey, excavation of selected sites discovered in the survey, the collation of direct knowledge of the region, and its remains with historical texts: this is in essence the methodology of Aharoni.”**



# Restoration Laboratory

Head of Laboratory: Yafit Wiener

As archaeology in motion, the Restoration Laboratory is where broken vessels find new life. A core component of the institute, the lab provides the space and specialists necessary for the restoration of ceramic material excavated by archaeological expeditions of the Institute and Department.

Identifying patterns and connections, the specialists of the restoration lab process material in a systematic order. First, all 'restoration material' of a project is brought to the tables, alongside a list of loci and a 'map' (top-plan) of the area from which material was removed. List in hand, specialists first identify like-pieces, locate and mark connections, and then begin to glue and reconstruct the vessel. Once a vessel has been glued, gypsum is applied to the 'gaps' between pieces to provide the stability necessary for handling of the restored vessel. While sherd material can provide a great deal of information, reconstructed vessels provide an unparalleled opportunity to better view the material as it once appeared and functioned.

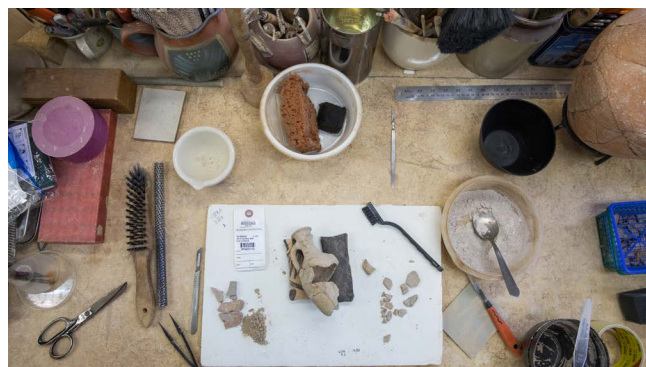
Host to regular tours and visitors, Yafit is familiar with the common misconception that they restore "puzzles". At the mentioning of this, Shrimit expands

*"restoration would only be like a puzzle if first, you took ten puzzles and mixed them all together, then take 40% of the pieces and throw them away – along with the picture of the puzzle on the box!"*

Emphasising the challenges of the material, Yafit also notes that the varying condition of pottery pieces can also hinder the restoration process. When it is not possible to reconstruct an entire vessel, the team collaborate together to create the most complete profile of a vessel possible.



*Restoration technician Shimrit Salem as she works on restoring a juglet (photo by Sasha Flit)*



*Tools of the restoration process (Photo by Sasha Flit)*

Archaeology is rarely ordered or simple, and in keeping with that, neither is the restoration process. Yet for the restoration team, this is what they enjoy most about their work,

*"the complexity of it, and the reward! The idea that we are working with vessels that are thousands of years old brings a unique reward to everyday in the lab".*



*The restoration team at work: from right Yafit Wiener, Debora Stein, and Shimrit Salem (Photo by Sasha Flit)*



# The Laboratory of Archaeometallurgy and Archaeomagnetic Research

Head of Laboratory: Erez Ben-Yosef

The Laboratory of Archaeometallurgy and Archaeomagnetic Research is engaged in two main research avenues: (1) the study of metals, their production technologies and their role in ancient societies (archaeometallurgy), and (2) the study of the magnetic properties of archaeological materials, in order to address issues related to chronology and site formation processes (archaeomagnetism).

## Projects

### 1. Archaeometallurgy

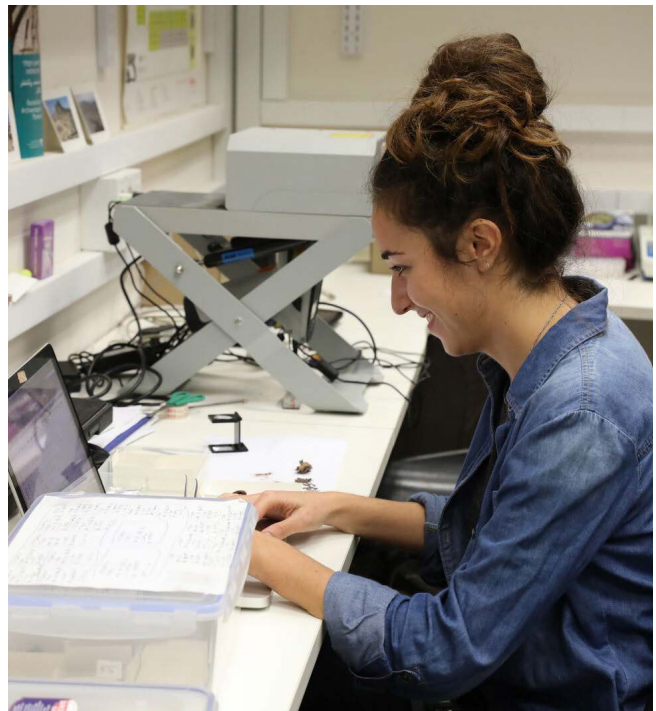
The main focus of our current research is on extractive copper metallurgy, including all aspects of the production of metal from ore (the entire *chaîne opératoire*). This research involves field work in the Timna Valley, one of the best-preserved ancient copper ore districts in the world, and analytic studies on the various finds. Spanning more than seven millennia, the fantastic archaeological record of mining and smelting at Timna constitutes an excellent 'field laboratory' for the study of technological evolution and innovation. Our project follows in the footsteps of Beno Rothenberg and the Aravah Expedition, whose research at Timna in the 1960s–1970s fundamentally contributed to the development of archaeometallurgy as a well-established research discipline.

Discover more on the [Central Timna Valley Project \(CTV\)](#).

### The Levantine Archaeometallurgical Research Collection

As part of our research on extractive metallurgy in the Southern Levant we assemble materials from various contexts, including

ore, technological ceramics (furnace and tuyère fragments, crucibles, bellows and bellows pipes, etc.), and slag. Currently, the most comprehensive collection is of slag samples, which represent smelting technologies from the late 5<sup>th</sup> millennium BCE (Chalcolithic) to the 2<sup>nd</sup> millennium CE (Late Islamic). The collection is under the curation of Omri Yagel, a Ph.D. student in the Department.



Vanessa Workman processing results and finds of the Timna project (Courtesy of Erez Ben-Yosef)



Erez Ben-Yosef has developed the laboratory over the past five years, ensuring researchers are able to access the latest tools in sampling and analysis (Courtesy of Erez Ben-Yosef)





Specialist equipment is employed by the lab to ensure a quality resolution of final results (Courtesy of Erez Ben-Yosef)

## 2. Archaeomagnetism

The main focus of our current research is the improvement of the Levantine Archaeomagnetic Compilation (LAC), in order to enhance its application as a dating reference in archaeological studies. This research is based on collaborations with the Paelomagnetic Laboratories of Ron Shaar (Institute of Earth Sciences, the Hebrew University), Lisa Tauxe (Scripps Institution of Oceanography, University of California, San Diego), the Israel Antiquities Authority, and multiple archaeological projects spanning the entire chronological sequence from the Pottery Neolithic to the Ottoman periods (prior to the PN applicable materials are rare, as the experiments are based predominantly on baked clay). Studies on various chronologically-based archaeological questions are integrated into the overall research design, which aims to contribute high quality data to the archaeomagnetic reference curves. For a recent example related to the Egyptian Old Kingdom and the Arabah copper production click [here](#)).

Access more detail on the [Levantine Archaeomagnetic Compilation \(LAC\)](#) here.

### The Levantine Archaeomagnetic Research Collection

As part of our collaborative efforts to improve the Levantine Archaeomagnetic Compilation (LAC), we sample materials from various archaeological contexts to be further investigated in the Paeomganteic laboratories. The collection includes pottery, slag, baked mudbricks and heat-impacted (pyrotechnological) installations (furnace, kiln, ovens, etc.), with both oriented samples for full vector analysis (directions and intensity) and un-oriented samples (for intensity only). As archaeological excavations are destructive by nature, sampling is practiced constantly, and immediately following the discovery of suitable materials. The collection is curated by Yoav Vaknin, a Ph.D. candidate in the Department.

## Facilities/Equipment

- \* Field Recording Equipment (dGPS, Total Station, Photography Drone)
- \* GIS Center (with extended 3D analyzing)
- \* Optical Microscopy
- \* pXRF Niton XL3t
- \* Full Archaeomagnetic Field Sampling Kit (including drill)
- \* Rock and Slag Pulverizing Equipment (Jaw Crusher Retch BB100, tungsten components; Vibratory Disc Mill Retch RS200 tungsten components)
- \* pXRF and Archaeomagnetic Sample Preparation Equipment



Erez Ben-Yosef (right) working with Ph.D. candidate Omri A. Yagel (left) on a metal object (Courtesy of Erez Ben-Yosef)



# Laboratory of Archaeobotany and Ancient Environments

Head of Laboratory: Dafna Langgut

Five years ago in 2013, the *Laboratory of Archaeobotany and Ancient Environments* was established at the Institute of Archaeology. The lab presents the opportunity for researchers and students to utilize the potential of archaeobotanic and ancient environ research, to construct in-depth archaeological and historical realities. As such, this multidisciplinary laboratory focuses on two main research fields:

**Archaeobotany:** The identification of botanical remains from archeological contexts: agricultural practices, diet, plant usage, ancient gardens, seasonality of site occupation, plant migration, and wooden implements.

**Paleo-environment:** The reconstruction of past vegetation and climate conditions, and tracing evidence of ancient human-environment relationships, e.g., human migration out of Africa and the beginning of plant domestication.

Our lab conducts studies based on the identification of **micro-botanical remains** (such as pollen grains, spores, and parasite remains), as well as macro-botanical remains – principally wood and charcoal. The lab is host to a number of practicing specialists, as well as Ph.D. and M.A. students, and guest scholars and researchers. The archeobotanic team is fortunate to collaborate with a number of projects and archaeological expeditions.

Integrating botanical remains into archaeological questions is at the front line of this discipline. The lab is currently involved in several projects such as:

1. *Herod's Exotic and Prestigious Royal Gardens:* The project includes an archaeobotanical investigation conducted in several Herodian sits, e.g., Herodium, and Ceserea. The study is funded by the Israel Science Foundation, which was awarded to D. Langgut.
2. *The Alona Project:* Tracing Iron Age Agricultural Methods (together with Yuval Gadot).
3. *The Neubauer Near East Paleoclimate Project:* The study focuses on the climate history of the Bronze and Iron Ages and is funded by the Neubauer Foundation, grant awarded to I. Finkelstein and D. Langgut.
4. *Vegetation and Climate Reconstruction of the Epipaleolithic Hula Basin (~20–10,000 YBP):* Based on palynological analyses (together with Gonen Sharon, Tel Hai College).
5. *A Flower in the Desert:* An exploration of the vegetation of Masada, funded by the Porter Foundation award to D. Langgut and G. Stiebel.

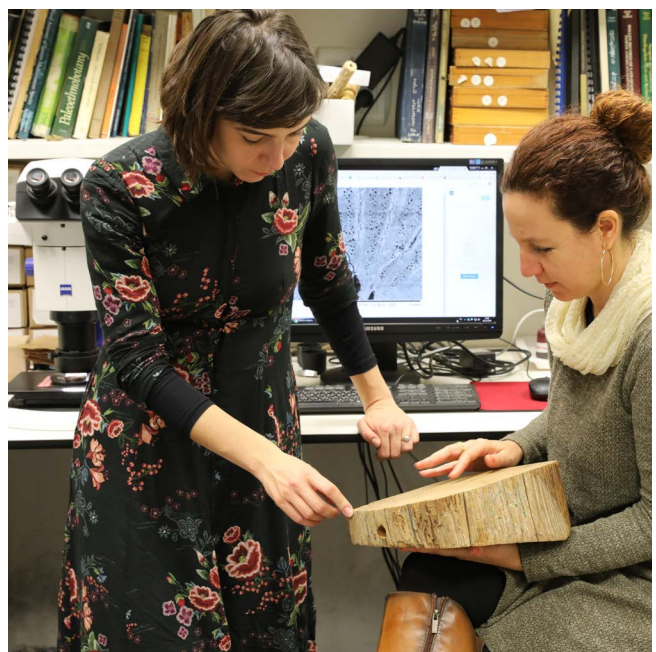
Students of the lab are able to access equipment and facilities such as:

- \* Chemical hood
- \* A range of microscopes
- \* Relevant reference collections (wood thin section, charcoal, and pollen)

The archaeobotanic collection is curated at the Steinhardt Museum of Natural History.



Dafna Langgut and Valentina Epstein collaborating in the lab (Courtesy of Dafna Langgut)



Helena Roth and Dafna Langgut collaborating over wood samples both under and out-of the microscope lens. (Courtesy of Dafna Langgut)



# Laboratory of Archaeozoology

Head of Laboratory: Lidar Sapir-Hen

The archaeological study of animal remains (bones, horns, and teeth) focuses on human subsistence behavior, and on the relationship between human and animals in the past. The field sheds light on the development of past diets, past agricultural and food production systems, and on relationships between humans and their ancient environment. Further to this, archeozoology may also elucidate the cultural decisions and biases of past populations, and the various aspects of social complexity. When analyzed, the consumption patterns of different societies are related to local environment, culture, ideology, class, and status. Currently, the lab is involved in projects at Tel Megiddo, Tel Azekah, Timna, Jerusalem, Ahihud and more.

The research in the lab includes studied periods ranging from the Early Neolithic to the Roman period. Major projects include:

1. Society and Economy of the Late Bronze and Iron Ages
2. Subsistence Economy and Culinary Practices in Jerusalem and its Hinterland in the Iron Age and Persian and Hellenistic Periods
3. Social Status, Ethnicity, and Animal Economy at Late Bronze/Iron Age Copper Smelting Sites
4. Hunting, Herding, and Landscape Modification at the Dawn of Animal Domestication

Researchers and students in the archezoology lab use a comparative collection of animal remains to analyze material recovered from archaeological excavations. The lab presents scholars and researchers with the ability to integrate archeozoological research into site wide analyses, while also providing students with the space and tools necessary to cultivate an interest and specialize in the field.

The archaeobotanic collection is curated at the Steinhardt Museum of Natural History

Members of the Laboratory: Ph.D. candidate: Abra Spiciarich. M.A. students: Shirad Galmor, Liony Namdar. Pre-proposal M.A. students: Wenrui Fan. Lab Assistant: Yulia Makoviychuk.



A sample of the available reference collection (Photo by Sasha Flit)



Students and researchers work to process and analyse the assemblage material of a number of department excavations (Photo by Sasha Flit)



Abra Spiciarich (left) and Lidar Sapir-Hen (right) working on animal remains (Photo by Sasha Flit)

# Use-Wear Analysis Laboratory

Heads of Laboratory: Ran Barkai and Natalya Solodenko

In 2017, a Use-Wear Analysis Laboratory for the ‘functional analysis of prehistoric stone tools’ was established at the Institute of Archaeology. The equipment for the lab was purchased thanks to a joint grant scheme of the Israel and India Academies of Sciences, granted to Ran Barkai, entitled ‘The First Global Culture: Lower Paleolithic Acheulean Adaptations at the Two Ends of Asia’. The study of ‘use-wear’ and ‘residue’ can inform on substances that tools came into contact with, i.e., meat, plants, and bones, as well as the way tools were used, e.g., to cut, pound, and scrape. Through this it is possible for scholars to learn more about human behavior and activities.

The new Use-Wear laboratory is equipped with three new microscopes: stereomicroscope, metallographic microscope, and the light polarization microscope. The laboratory is operated by Natasha Solodenko, a Ph.D. candidate working on her dissertation entitled: ‘Use-Wear

Analysis of Two Late Lower Paleolithic Lithic Assemblages: Case Studies from Revadim Quarry and Qesem Cave’, under the supervision of Ran Barkai and Cristina Lemorini (University of Rome). The lab is host to Flavia Venditti, a Post-Doc researcher (University of Rome) working with Ran Barkai on a research project entitled: ‘Microscopic and Experimental Approaches towards Understanding the Use of Small Flakes produced by means of Recycling at Acheulean Revadim site (Israel)’.

The new lab provides the opportunity for students and scholars to conduct cutting-edge research of prehistoric stone tools (and their use) at Tel Aviv University, and participate in currently active exciting and innovative research projects. Aside from research, the lab also facilitates the education of a new generation of students in current technological and experimental procedures, with the hope of raising a new generation of Israeli use-wear analysts.



Students and scholars analyse flint tools on the tables of the laboratory (Photo by Sasha Flit)



Flavia Venditti (front centre) and Natasha Solodenko (standing centre) examining flint objects at a high magnification with the metallographic microscope (Photo by Sasha Flit)



Yafit Kedar performing a typo-technological analysis of flint material of the Late Acheulean culture, from Jaljulia, Israel (Photo by Sasha Flit)



# Ancient DNA Laboratory

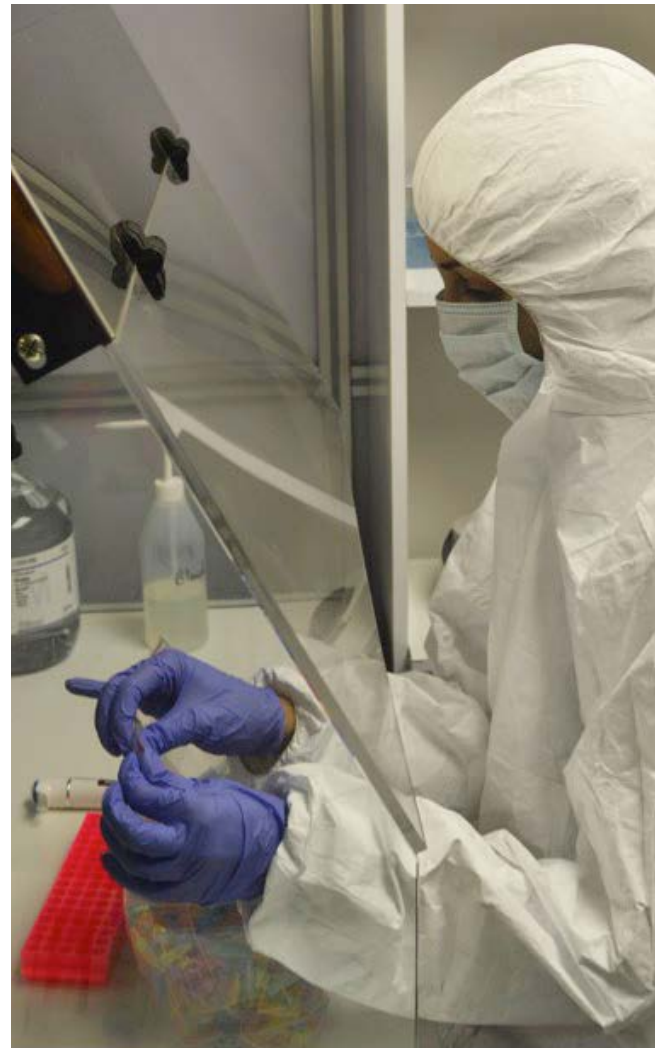
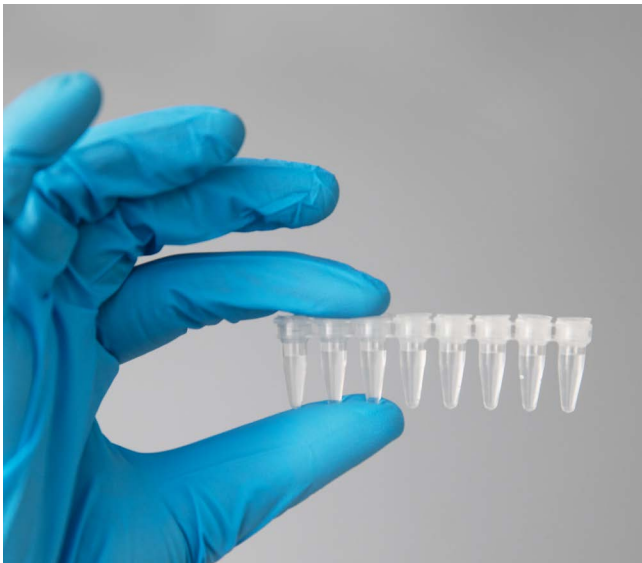
Head of Laboratory: Meirav Meiri

The Ancient DNA Laboratory in Tel Aviv University is specialised in extracting DNA from bio-archaeological finds such as bones, teeth, hair, seeds, and many other substances. Our focus on the DNA of animals and plants allows us to shed further light on their history. DNA research addresses a variety of questions regarding the evolutionary relationships between species, population movements, domestication, and the impact of environmental changes on demography.

Working with ancient DNA can be very challenging as DNA degrades with time, and hot and humid climates enhance degradation processes. Therefore, the extraction phase is done in a clean lab, where we take great measures to reduce modern DNA contamination and cross contamination between samples. That includes among other things, a regular use of bleach and UV light before and after the procedures.

Among the multiple projects currently active within the lab, the **mobility of cattle and pigs in the southern Levant and the Aegean Basin** is an ongoing one. One of the results of this project that caught us by surprise was the discovery of European pigs, which were first brought to the Levant in the Iron Age (possibly by groups of Sea Peoples), and their major impact on the local modern wild boar population. Other projects that we are involved in relate to the mobility of goats in the Negev highlands, and ancient grape seeds in early Christian settlements in the Negev.

As part of our work we collaborate with many other specialists such as archeozoologists, archaeobotanists, archaeologists, and bioinformatics. Doing so allows us to draw the 'big picture', and better reconstruct the past. Personally, the opportunity to work on a molecular level, and draw conclusions on wide questions that relate to evolution and migrations, fascinates me, and I consider myself very fortunate to work in this field.



A lab technician processing DNA samples recovered from archaeological contexts (Photo by Uri Roll)

# Photography Studio

Studio Head: Sasha Flit

Photography plays two core roles in the Institute, first in the form of field documentation, and the second, for the documentation of finds for publication. Sasha Flit is the Institute photographer and as such works in and out of the field. Sasha visits Institute and Department excavations during their seasons to document areas under excavation. During an excavation it is essential that regular, professional quality photos are taken during the process of excavation. Beginning at dawn (for this is the best light) Sasha works closely with field archaeologists to capture necessary squares, structures, loci, and features.

Inside the studio, Sasha collaborates with projects and students to specially document finds and objects. Whether large ceramics and stone objects, or small beads and flint tools, Sasha's lens captures the best angle through which to view the material. The photos Sasha takes are later published in articles and excavation reports and are essential to the development of the discipline of archaeology.



Head Institute Photographer Sasha Flit (Photo by Omer Ze'evi)

# Drafting Studio

Studio Head: Yulia Gottlieb

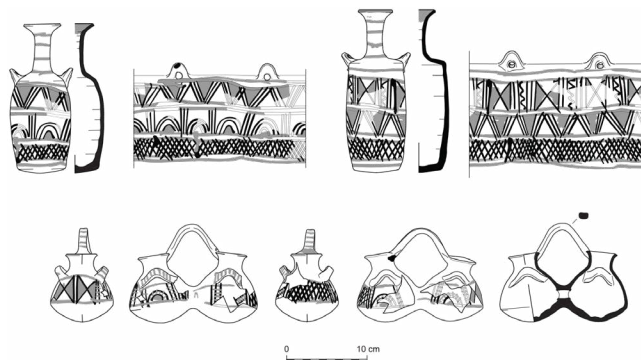
The Drafting Studio is a core element in the publishing process, as the studio team provide illustrations of archaeological material. The team of specialists draw finds and artifacts ranging from large ceramic vessels, to figurines and flint. Drawing to scale, the drafting lab use a combination of 'measuring equipment' (stands, rulers, scales) to ensure that all illustrations are to scale. After an item has been proportionally drawn, drafters then focus on capturing surface treatments such as decoration, slip, or burnish. Illustrators employ a combination of artistic eye and archaeological experience, as well as collaborate with researchers, to produce accurate results.

Once a number of items (collection/assemblage) have been drawn the team assemble all images into 'plates'. These are then submitted for the purposes of publication (articles/books/excavation reports). The creation of plates is an essential component of a scientific report, as it allows readers to independently, and accurately, analyse material. The reward in the drafting lab is the chance to bring renewed beauty to a find, for when illustrating restored ceramic material in particular, the cracks and breaks that form the profile fade away. Illustrations provide an alternative dimension through which material remains can be examined and shared.

Studio team: Yulia Gottlieb, Itamar Ben-Ezra, Ami Branner, Naama Garon, and Ada Perry.



Itamar Ben-Ezra at work in the Drafting Studio (Photo by Sasha Flit)



A cylindrical bottle reound in the late Iron I destruction of Tel Megiddo, a fine example of late Canaanite Bichrome decoration (Courtesy of the Megiddo Expedition, drawn by Yulia Gottlieb)



# Archaeology Library

Chief Librarian: Alexandra Shavit

Arguably the epicentre of the Institute of Archaeology, the Archaeology Library is a core pillar of Institute and Departmental research. Established in 1968 as an essential tool of the Institute, the Library began in the basements of Gilman. Armed with shelves, a budget for books, and enthusiastic students, Gabriella Bachi (the first Chief Head Librarian) assembled the first-ever collection. This was possible as the Archaeology Library developed relationships with other Institutes around Israel and the world, establishing a 'book-exchange' between publication houses. The history of the library (as a part of the Institute) is why, to this day, the collection places emphasis on materials for archaeology and ancient near eastern cultures.

From there the collection grew and eventually moved to the second floor space it now occupies. Although the library is now open to all students, when it first opened it was intended as an exclusive tool for researchers and graduate students. It is for this reason that current rules limit book loans to a single night for students (B.A., M.A.) and a week for graduates (Ph.D., Post-Doctoral) and staff members.

Tucked away in a corner of the reading room is a plaque that attests to the Institute's memory, and dedication of the room. *The Efrat-Tirtza Yeivin Reading Room* was named after prehistorian and Institute scholar Efrat Yeivin. A member of the Institute (daughter of Prof. Shmuel Yeivin), Efrat's sudden and untimely death (1975) had a deep impact on the faculty and cohort. Although few remain in the department who remember Efrat personally, her memory quietly preserves in the silence of library.

Now, the library is under the direction of Alexandra Shavit, growing and expanding its collection in thanks to generous



Chief Librarian Alexandra Shavit tending to shelves in the Archaeology Library (Photo by Sasha Flit)

donors and the *Friends of the Institute of Tel Aviv*. When asked how she would describe the role of the library Alex offers,

“We are the ‘human reference point’ for research. Our staff, many of whom are students themselves, are here to channel the research questions of library patrons into searchable material. For some we assist research, for others, we teach them *how* to research.”

We invited Alex to comment on what she feels is the most common misconception people have about the library,

“...the idea that what we do is boring, that all librarians are spinsters, when really, our work is fascinating! We have the privilege of sharing the research process with students and scholars. We are constantly growing *with* our cohort, providing a personal touch and supportive system for students to trust and rely on. After all, how else will we continue to fill the shelves with new books, if we do not aide the next generation of authors?!”



Rahel Ushki studying in the Archaeology Library (Photo by Sasha Flit)

# Publications Department

Director of Publications: Myrna Pollak

During the process of excavation a site goes through major deconstruction; it is taken apart area by area, studied, drawn, analyzed from its largest to its smallest and seemingly most insignificant elements. Once the maps and plans are prepared, the pottery and small finds examined, photographed, drawn and scaled, and the relevant excavation reports written, the excavators (henceforth referred to as authors) bring their fully digitized work to the Publications Department to be reconstructed into a book.

The department has three book series: (1) The Monograph Series, which is primarily reports of Institute excavations; (2) Salvage Excavation Reports; and (3) Tel Aviv Occasional Publications. In addition to these, the department issues *Tel Aviv: The Journal of the Institute of Archaeology of Tel Aviv University* bi-annually. The monographs are co-produced abroad with Pennsylvania State University Press, while *Tel Aviv* is a co-publication of Rutledge Publishers, with all 45 volumes available online. All other department publications are accessible online with EBSCO.

Months before the editing process starts, our department begins to plan for its arrival. We work together with authors to present material in the most scientifically accurate (yet reader-friendly) manner, ensuring that chapters follow in an organized and logical manner. What's more, we help organize graphics and determine whether any artwork is missing, extraneous, or of poor quality. It is only then that we are ready to begin editing and assembling the mosaic.

*Tel Aviv* is prepared with articles submitted by scholars from around the globe. The editing is rigorous, and in many cases our drafts go back and forth numerous times for clarifications and corrections, so that we get it just right. When collaborating with our authors at home, we sit, deliberate, and resolve issues one by one.

The publications department includes several levels of editors. Israel Finkelstein is the Editor in Chief of the Monograph series and of *Tel Aviv*. Israel is responsible for maintaining the high level of content of our books and raising our journal to world status. Myrna Pollak is the Director of Publications and manages all publishing issues, which includes creating and maintaining Institute co-publishing arrangements with major publishers abroad for the publication and dissemination of our publications (print and online). Myrna is also the Chief Editor for all manuscripts. Noa Evron is our Graphics Editor, and is the person who processes all graphics as she works with the authors and studio drafts-people to ensure the quality of maps, plans, drawings, and photos, and ultimately creates layouts for all publications. Nitsan Shalom is our Scientific

Editor, and reviews all our texts to ensure that material is scientifically/archaeologically sound.

The first book published by the department was *Beer-sheba I: Excavations at Tel Beer-sheba—1969–1971 Seasons*, by Yohanan Aharoni in 1973. Forty-three years later, we published the final excavations at Beer-sheba in Ze'ev Herzog and Lily Singer-Avitz's three-volume *Beer-Sheba III: The Early Iron IIA Enclosed Settlement and the Late Iron IIA–Iron IIB Cities*. As the Institute's excavations goes on, so too does the publication of its books. *Ramat Rahel IV*, the follow-up volume to *Ramat Rahel III*, is now in our pipeline, and *Megiddo VI* is also well on its way to publication.

The active publication of research and excavations is essential to the advancement of scholarship. As Myrna notes,

'I believe that all of us in the department enjoy our work and its contribution to research. We are the midwives who aid in the birthing of books. While sometimes the labor is painful and complications set in, you can be sure that we all have broad smiles on our faces when the book is finally delivered, fresh and gleaming from the printer'.



Myrna (left), Nitsan (centre), and Noa (right) collaborating over an edition of *Tel Aviv* (Photo by Sasha Flit)



# PEOPLE





# International Women's Archaeology Club

Noa Rantzer

For over 45 years, the Institute of Archaeology and the Department of Archaeology and Ancient Near Eastern Cultures have offered a course in the Archaeology of Israel to a mixed group i.e., spouses of diplomats, members of the International Women's Club, and local residents who seek quality lectures on the ancient history of Israel and the region in English.

The organisation was formed when a group of diplomats' spouses convinced the late Itzhaq Beit-Arieh to organize the series, the program subsequently developed a life of its own. Now in 2018 over 100 people register each semester to arrive at the doors of Gilman Building at 9:00 each Tuesday morning to listen to lectures by a range of speakers. Lecturers include the very best of the local archaeological community, as well as visiting scholars and archaeologists from abroad. The lectures present members with the opportunity to engage in the latest research on the Southern Levant. The series parallels the academic year and in addition to lectures, members can embark upon regular field trips to various places from across the country.

A dynamic series, each semester is themed to create cohesion between lectures. Key themes recently explored include, Archaeology Across the Boundaries of Time and Place; Seafaring, Maritime Trade and Ancient Cultures in the Mediterranean Sea; Jerusalem and Judea, Recent Discoveries in the Archaeology of Israel, Jewish, Christian, Muslim, and Archaeology of Tel Aviv and its Vicinity.

## Summer 2018 Theme: Jerusalem

Each semester includes a series of 13 lectures, which approach the chosen theme from various aspects. Among the speakers we have heard from, Israel Finkelstein, Ronny Reich, Oded Lipschits, Joe Uziel, Dafna Lanngut, Beatrice St. Laurent and many more. During the second semester, the theme is continued, and still running until the last week of the



Members of the IWC enjoy tours from leading scholars (Photo courtesy of Noa Rantzer)



Tour of the Ceramic Pavilion at the Eretz Israel Museum (Photo by Noa Rantzer)

semester. The final lecture of the series will be presented by M. Omer Ben-Jacob, who will give a different and dynamic perspective on archaeology in the digital age.

## Tours

Each semester includes two tours. During the first semester we hosted a tour to Jerusalem: wherein we visited the David Tower Museum and Israel Museum, with special guidance from the museum staff. The second tour was to Erez-Israel Museum in Tel-Aviv. We visited three pavilions and were toured by Irit Ziffer (curator of the Ceramic and Metal Pavilion), Henrietta Eliezer-Brunner (curator of the Glass Pavilion), and Eitan Ayalon (who established the "man and his work" pavilion). During the second semester, we visited the Western Wall's Tunnel with the guidance of Avraham Solomon, who excavates in the site as a leading archaeologist of the Western Wall Heritage Foundation. Our next tour will also be to Jerusalem with Dan Bahat. Further details will be announced in the future via the course website: <https://www.iwcarchaeology.com/> and further information sent to the mailing list, [marilyn@netvision.net.il](mailto:marilyn@netvision.net.il).

Course Coordinator: Noa Rantzer, [noarantz@gmail.com](mailto:noarantz@gmail.com).

The lectures are opened to the public. Attendees simply need to register for each lecture individually or for the full semester. Payment is by cash or check at the lecture hall entrance.

## Summer Tours:

At semester end, from the 17 – 21 of June 2018, the IWC will have a tour to the Galilee. The guide will be Yosef Stepansky, a field archaeologist and a professional tour guide. The group will visit in many archaeological sites such as the Montforte crusader castle, Tel Kabri, and Tel Jezreel.



# Visiting Academics

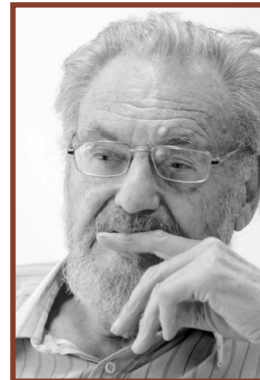
The Department and the Institute were honored to host visiting scholars from abroad during their time at Tel Aviv University, and appreciate their contribution to student and research life during their stay.



## Jakob Wöhrle

University of Oldenburg, Germany

Invited by: Oded Lipschits



## Adrian Tanner

Memorial University of Newfoundland, Canada

Invited by: Guy Stiebel and Ran Barkai



## Margreet Steiner

Presentation Title: The 'Cypro-Phoenician' Juglets in Transjordan

Invited by: Oded Lipschits



## Maciej Waclawik

Uniwersytet Jagielloński, Poland

Presentation Title: Cultural and Economic Meaning of the Negev in the Byzantine Period

Invited by: Oren Tal



Institute collection room, Photo by Sasha Flit

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# Post-Doctoral Research in Focus

Tel Aviv University welcomes collaboration and research development with scholars from around the world. The Institute's Post-Doctoral position provides the platform for such networking and scholarship. Post-Doctoral nominees are chosen based on the scholarly relevance of their speciality, and ability to collaborate with Department and Institute members. Applications are open and available from November, 2018. For more information, contact Nirit Kedem ([niritshi@tauex.tau.ac.il](mailto:niritshi@tauex.tau.ac.il))

## The Middle Euphrates Cuneiform Archives of the Late Bronze Age: The Emar Scribal Traditions and the Tell Hadidi/Azu Texts

Eduardo Torrecilla

Under the direction of Yoram Cohen, it is my privilege to be one of the 2017–2018 post-doctoral fellows at the Sonia and Marco Nadler Institute of Archaeology. Our research focuses on the Late Bronze Age cuneiform archives, discovered during the 1970s and 1980s in the Middle Euphrates (current Syria). The primary archive of our study is Emar on the Euphrates River, where over 1,000 tablets (Syrian and Syro-Hittite style) were uncovered. Further to this, we also evaluate and study texts from nearby Ekalte and Azu.

Our first goal was an analysis of the contradictory features of a strange group of Syrian-type tablets from Emar i.e., ASJ 14 311, AuOr 5 15, E 180, RE 81, and TBR 13. These texts included a set of witnesses who were probably deceased when the tablets were produced. Our analysis confirmed that these 'Problem Documents' are not the original conveyance deeds, but are instead renewed and/or reworked copies of older (and now lost) tablets. This aspect of our study will be published shortly in an international journal (*Aula Orientalis*).

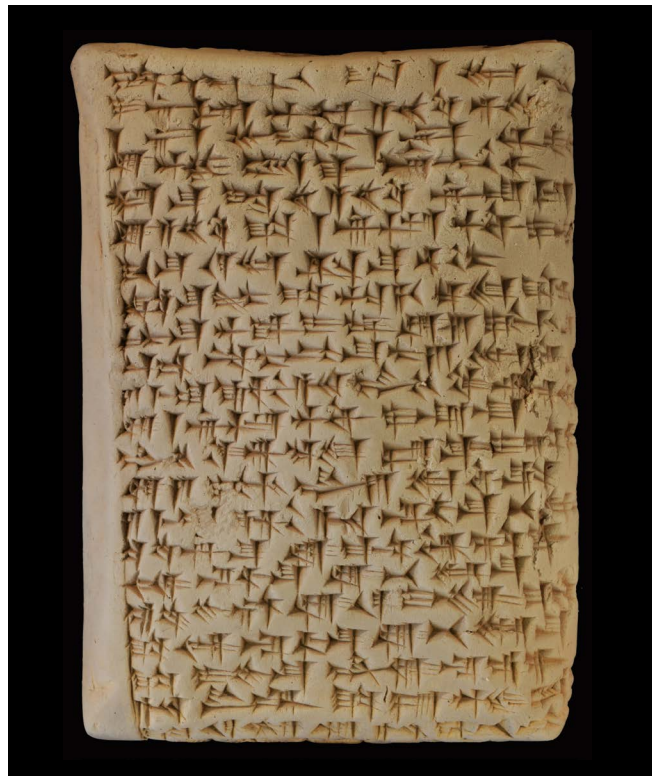
Our next research step is to analyze tablets from the city of Azu so that they may be contextualized chronologically. Our focus is on not only the individuals attested to in the texts, but also on various socio-economic and cultural aspects. We have compared the data of the Azu tablets to those of texts from Emar and Ekalte, as we suspect that they belong to the same period. The tablets (which were found in the same house) belonged to a private archive of a man named Huziru. So far, we have reconstructed three generations of this man's family.

Our results will no doubt shed further light on the ongoing debate regarding the dating of Middle Euphrates archives during the Late Bronze Age.

*Eduardo Torrecilla (Ph.D. in Assyriology, University of Castilla-La Mancha), holds a postdoctoral fellowship at the Sonia and Marco Nadler Institute of Archaeology, Tel Aviv University. Eduardo can be contacted via email at [edtogi@hotmail.com](mailto:edtogi@hotmail.com).*



Eduardo Torrecilla (Courtesy of Eduardo Torrecilla)



A tablet from the city of Emar: it tells of a royal gift given to a citizen for his heroic deeds. (Courtesy of Cohen and Viano, KASKAL 13 [2016])



# Discovering Archaeobotany: Meet Mark Cavanagh

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

A graduate of Tel Aviv University and alumnus of the International MA program of Archaeology and History in the Land of the Bible (2013/14), Mark Cavanagh has had a wide and varied experience in archeology. Mark's work as a part of the Central Timna Valley Project has allowed him to combine the physical and botanical sciences with archaeology, and evolved his career to include the analysis of charcoal samples taken from different areas of various copper smelting sites (across a range of periods). Now a Ph.D. candidate and working across a number of sites, Mark is a participant in a broader study of flora during the Herodian period (under the supervision of Dafna Langgut).

### How did you first get into archaeobotany?

Early into my Masters degree I was introduced to Ramat Rahel and Dafna's work reproducing the gardens of the Persian period at Ramat Rahel palace, based on the pollen she was able to extract from the plasters from the pools there. It was a very clever application within archaeology of a scientific technique derived from a completely separate discipline, in this case botany and palynology.

### In your opinion will this method (pollen examination) become a prominent tool in archaeology in the future?

This application of microarchaeological techniques, and the ability to derive such significant historical and archaeological insights (from an otherwise seemingly minuscule find) is perhaps what drew me to my own work with wood and

charcoal. Though wood and charcoal may not always be preserved, due to their organic nature, when available, they can provide all varieties of information on aspects of the ancient environment, the relationship between ancient peoples and their environments, trade, resource management, etc.

### What projects are you involved with now?

Since finishing my M.A., I have worked as a member of the Laboratory of Archaeobotany and Ancient Environments, on a number of projects and sites from all over the region, and dating to periods from as early as the Mesolithic and as late as the Napoleonic era. One of the largest projects I've been able to work on has been aimed at reconstructing the gardens of Herod according to pollen and charcoal data. I've looked at materials from a number of palatial Herodian sites and have been able to participate in excavations, such as the recently renewed excavations at Masada directed by Guy Stiebel. Next, I will continue my research in the Aravah desert as part of my Ph.D. here at Tel Aviv University. I think it's safe to say that I'm enamored with the desert: the Aravah, and Timna, are beautiful, harsh landscapes that were not easily bridled by the ingenuity of man, and whose ecosystems exist in a very delicate balance.

*With its unique location and history, Israel provides a great opportunity for aspiring archaeologists. For additional information about the International M.A. Program at Tel Aviv University, please visit: [archaeology.tau.ac.il/internationalMA/](http://archaeology.tau.ac.il/internationalMA/) or Facebook: [@archaeologyandhistoryofthelandofthebible](https://www.facebook.com/archaeologyandhistoryofthelandofthebible)*



Mark Cavanagh managing public interest in archaeology during excavations at Masada 2017 (Photo by Hai Ashkenazi)

## Scholarships

Name	Name of Scholarship / Award	Donor/Grant Committee	Academic Status
Ayala Amir	Excellence in Studies	Rosenfeld Family Scholarship	Ph.D.
	Excellence in Studies	Department of Archaeology	Ph.D.
Banjamin Douglas	Excellence Award	Eastronics	M.A.
Danilo Giordano Rabell	Excellence Award	Friends of the Institute of Archaeology	M.A.
Eli Itkin	Excellence Award	Department of Archaeology	M.A.
Yafik Kedar	Excellence Award	Department of Archaeology	M.A.
Vannesa Linares	Excellence in Studies	Rosenfeld Family Scholarship	Ph.D.
	Excellence Award	Gerda Henkel Stiftung	Ph.D.
Linoy Namdar	Excellence Award	Department of Archaeology	M.A.
Helena Roth	Excellence Award	Rosenfeld Family Scholarship	Ph.D.
Zvi Smit	Excellence Award	Eastronics	M.A.
Elisa Vanzetti	Excellence Award	Friends of the Institute of Archaeology	M.A.
Omer Ze'evi	Excellence Award	Jacob Shriebman Scholarship	M.A.
Ayala Zilberstein	Excellence in Studies	Institute of Archaeology	Ph.D.
Nahshon Zsanton	Travel Scholarship	Department of Archaeology	Ph.D.

## Students Abroad

Name	City and Country visited	Excavation / Conference / Workshop	Date	Academic Status
Chen Antler	Oxford, UK	Academic Workshop	February 2018	M.A.
Mark Gavanagh	Boston, USA	American School of Oriental Research (ASOR)	November 2017	Ph.D.
Boaz Gross	Boston, USA	American School of Oriental Research (ASOR)	November 2017	Ph.D.
Assaf Kleiman	Boston, USA	American School of Oriental Research (ASOR)	November 2017	Ph.D.
Sabine Kleiman	Munich, Germany	International Congress on the Archaeology of the Ancient Near East	April 2018	Ph.D.
Vanessa Linares	Tübingen, Germany	Laboratory Collaboration	January 2018	Ph.D.
Helena Roth	Boston, USA	American School of Oriental Research (ASOR)	November 2017	Ph.D.
	Boston, USA	Archaeological Institute of America	January 2018	Ph.D.
Debora Sandhaus	Boston, USA	Archaeological Institute of America	January 2018	Ph.D.
Abra Spiciarich	Boston, USA	American School of Oriental Research (ASOR)	November 2017	Ph.D.
	Boston, USA	Society of Biblical Literature (SBL)	November 2017	Ph.D.



Sara Shachar Lev (right) President of the Friends of the Institute of Archaeology, Tel Aviv University, presenting Ayala Zilberstein (left) with a Scholarship Award (Photo by Sasha Flit)



# EVENTS



## Bringing Home Animals

ADRIAN TANNER

First edition 1979



Ran Barkai and Adrian Tanner at the Ba' Merkaz Conference (Photo by Omer Ze'evi)



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# Cultic and Administrative Aspects of Centralization in Ancient Israel: Archaeological and Biblical Perspectives

Sabine Kleiman, Erin Hall, and Katharina Pyschny

December 18<sup>th</sup>–19<sup>th</sup>, 2017

On December 18<sup>th</sup> and 19<sup>th</sup> the Singeria Project 'The History of the Pentateuch: Combining Literary and Archaeological Approaches' organized a conference hosted at Tel Aviv University. The conference theme addressed the topics of cult activity and cult/administrative centralization during the Iron Age and the Persian periods. Our organizational approach to the conference was to provide equal weight to archaeological, biblical, and historical studies on the topic, and to provide a methodological synthesis of these approaches. The two-day conference featured innovative papers by lecturers from Israel, Germany, Switzerland, and the United States. The speakers presented new archaeological evidence, reflected upon the methodological understanding of cult centralization in the archaeological record, and examined evidence and motivations for centralization in the biblical text. The organizers want to hereby thank all presenters and participants for interesting lectures and the lively discussions pursued during this conference.

Collaborating Universities: Tel Aviv University, University of Lausanne, University of Zürich, Bar Ilan University, and Union College (New York).



Collaborating Universities included Tel Aviv University, University of Lausanne, University of Zürich, Bar Ilan University, Union College (New York) (Photo by Alexandra Wrathall)

## Prehistory Research Trip to Punjab, India, 2018

Ran Barkai and Aviad Agam

February, 2018

Within the framework of a ISF-UGC grant, a collaboration between Ran Barkai and Parth Chauhan (Indian Institute of Science Education and Research Mohali, Punjab, India) was established, titled 'The First Global Culture: Lower Paleolithic Acheulean Adaptations at the Two Ends of Asia.' As a part of this collaboration, Ran Barkai along with three students from the Prehistory Laboratory, Tamar Rosenberg-Yefet, Bar Efrati, and Aviad Agam, visited the Research Institute in Mohali, in February 2018.

During this visit, the Tel Aviv University team heard from members of Chauhan's research lab. The Indian team presented their studies, which focused on the Paleolithic period in India. We in-turn were able to present our own research projects, and observe the archaeological material present in their lab. A particularly memorable experience was our field trip to explore their area of research in the Shivalik Valley. This visit is the second out of several planned joint visits, which will be accompanied by mutual academic conferences and publications.



Students of Tel Aviv University collaborating at Indian Institute of Science Education and Research Mohali (Courtesy of Bar Efrati)



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# Israeli-Indonesian Collaboration

Alexandra Wrathall  
May, 2018

The Institute and the Department were delighted to host Agus Santoso and his students from the Moriah Theological Seminary (Sekolah Tinggi Teologi Moriah) and Matana University, Indonesia. The Indonesian delegation enjoyed the opportunity to tour the Institute facilities, and explore the varied research approaches of the Department. Oded Lipschits was host to the delegates, presenting a lecture on the history and archaeology of the region. The visit was also a key opportunity for Jenry Elrich Cornelis Mandey to meet the academic community, as he will soon undertake his Doctoral degree at Tel Aviv University.

Following a tour, delegates presented a delightful concert in the Restoration Lab of the Institute. There, delegates set up a portable piano and sung a series of hymns and classic songs for the enjoyment of the Institute and Department at large. Singing a message of peace, the event was a

positive and exciting opportunity to connect. The Institute looks forward to the future potential of this academic partnership as we look to a summer full of excavation and untapped research potential.



Oded Lipschits touring the Indonesian delegation (Photo by Sasha Flit)



The team from Indonesia performed a series of hymns and songs centred around peace and collaboration (Photo by Sasha Flit)



Members of the Institute and Department gathered in the restoration lab to listen to the live concert (Photo by Sasha Flit)

# Aharoni Day: Advancements in the Archaeology of Israel and the Ancient Near East through the Lens of Archaeometallurgy

Erez Ben-Yosef

March 8<sup>th</sup>, 2018

This year the Annual Aharoni Day conference celebrated the publication of the monograph 'Mining for Ancient Copper: Essays in Memory of Beno Rothenberg' (edited by Erez Ben-Yosef). Divided into three sessions, the conference focused on (1) The Metallurgical Revolution (Chair: Erez Ben-Yosef), (2) New Studies (Chair: Naama Yahalom-Mack), and (3) Cultic and Social Aspects of Ancient Metallurgy (Chair: Uzi Avner). The conference structure allowed for scholars from across the field of archeometallurgy to present on a range of subjects, methodologies, results, and historical reconstructions. Conference attendees heard from 13 presenters from Israel and around the world. In sum the event was a productive exercise in collaboration and research, and conference organizers and the institute wish to thank all those presented and attended.

"A land whose stones are iron and out of whose hills you can dig copper" (Deuteronomy 8:9)



Conference presenters at the days end (Photo by Sasha Flit)

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

Shai Gordin and Yoram Cohen

March 19<sup>th</sup>–21<sup>th</sup>, 2018

The international conference *Priests and Priesthood in the Near East: Social, Intellectual and Economic Aspects* was held by the Department of Archaeology and Ancient Near Eastern Cultures and the Sonia and Marco Nadler Institute of Archaeology at Tel Aviv University. The conference played host to 25 participants from eight different countries.

The conference dealt with priestly communities in the ancient Near East, affording vistas also westwards to the Greek and Roman World, and eastwards to India and Japan. Our specialists on priestly traditions in India and Medieval Japan offered a fresh and provocative discussion of the issues at hand, as well as a *longue durée* perspective of the priestly classes of society.

Our overall goal was to investigate how individual and collective identities of priests were fashioned: we wanted to discuss how priests defined their role and aspired to integrate into a particular social, economic and religious environment. We also asked by which the means priests manipulated socio-political matrices in order to gain status or wealth.

The conference proceedings will be published in the near future. Those interested in accessing the conference online can do so on YouTube and the TAU Webcast.

The conference was generously funded by the Fritz Thyssen Foundation, the Fund for the Advancement of Humanities and Social Sciences in Israel (The Israel Academy of Sciences and Humanities), and Tel Aviv University.



Shai Gordin opening the conference proceedings (Photo by Sasha Flit)



# 11<sup>th</sup> International Congress on the Archaeology of the Ancient Near East

Alon Arad

April 3<sup>rd</sup>–7<sup>th</sup>, 2018



The 11<sup>th</sup> ICAANE was held at the Ludwig-Maximilians-Universität, Munich, Germany. The old university complex (located in the heart of Munich), was a picturesque setting for over 600 lectures, presented by an excess of 700 scholars from more than 40 countries. The Congress covered all aspects of the archaeology of the Near East and was a vital opportunity for the exchange of ideas on the archaeology of the region.

The Tel Aviv University Archaeology Department was represented by a number of students and scholars who presented their research, ranging from the Early Bronze Age Tel Bet-Yerah (Alon Arad, Nadeshda B. Knudsen, and Mark Iserlis together with Raphael Greenberg), through Late Bronze Age Tel Azekah (Sabine Kleiman, Yuval Gadot, and Oded Lipschits), to the Late Medieval period (Bethany Walker and Yuval Gadot).

## Lectures by TAU Scholars:

Arad, Alon: High-Resolution Study of the Early Bronze III 'Plaza' at Tel Bet Yerah (Khirbet Kerak) and its Implications for Migrant/Indigenous Interaction

Iserlis, Mark and Greenberg, Raphael: Contact Between First Dynasty Egypt and Specific Sites in the Levant: New Evidence from Ceramic

Knudsen, Nadeshda B.: What was the Purpose of Figurines? Reflections on the Possible Significance of Zoomorphic Figurines from Tel Bet Yerah

Walker, Bethany and Gadot, Yuval: Agricultural Terracing and Rural Revival in Late Medieval Palestine

Kleiman, Sabine; Gadot, Yuval; and Lipschits, Oded: Disaster in Context – Investigating a Late Bronze Destruction Layer at Tel Azekah (In the workshop: Reconstructing Destruction: New Trajectories in the Macro- and Micro-Archaeological Research of Destruction Layers in the Ancient Near East)

Sandhaus, Dèbora: Nysa-Scythopolis: Test Case for Destruction and Abandonment Processes (In the workshop: Reconstructing Destruction: New Trajectories in the Macro- and Micro-Archaeological Research of Destruction Layers in the Ancient Near East)

Shahack-Gross, Ruth; Forget, Mathilde; Shaar, Ron; Homsher, Robert; Hassul, Erez; Ebert, Yael; Marco, Shmuel; Nowaczyk, Norbert; Finkelstein, Israel; Agnon, Amotz: Destruction by Fire: The Importance of Understanding Construction Methods and the Effect of Heat on Mud Bricks (In the workshop: Reconstructing Destruction: New Trajectories in the Macro- and Micro-Archaeological Research of Destruction Layers in the Ancient Near East)

## Ba'Merkaz Conference

Guy Stiebel

April 26<sup>th</sup>, 2018

The first ever Ba'Merkaz Conference was held at Tel Aviv university in cooperation with the Institute of Archaeology, the Department of Archaeology, and Ancient Near Eastern Cultures of the University, along with the Centre District of the Israel Antiquities Authority. The conference was a collaboration, organised by Guy Stiebel (Tel Aviv University) and Doron Ben-Ami (Israel Antiquities Authority). The event is set to establish an annual arena in which each year a single theme will be put in the centre, to be examined from varied disciplines, paradigms, and methods.

This year focal point was theme of movement, motion and mobility: of people, societies, animals, and plants, as well as that of material remains. Scores of new research and discoveries were presented, as well as cutting-edge technologies in the fields of physical anthropology, archaeozoology, archaeobotany and field archaeology alike. The keynote was a symposium devoted

to the life-time scholarly work of Adrian Tanner, Memorial University, Canada led by Ran Barkai. Conference organisers were delighted at the events great attendance, and grateful to those who presented.



Tel Aviv University Rector speaking at the event (Photo by Omer Ze'evi)

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# 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.

## 19<sup>th</sup> International Congress of Classical Archaeology

Judaea/Palaestina and Arabia: Cities and Hinterland in Roman and Byzantine Times

May 21<sup>st</sup>–May 25<sup>th</sup>, 2018

Language: English

Location: Bonn University, Germany

Organizers: Oren Tal (Tel Aviv University), Achim Lichtenberger (Westfälische Wilhelms-Universität Münster), Zeev Weiss (The Hebrew University)

[https://events.uni-koeln.de/frontend/index.php?page\\_id=745&v=List&do=0&day=34&q=Panel+8.6](https://events.uni-koeln.de/frontend/index.php?page_id=745&v=List&do=0&day=34&q=Panel+8.6)

## New Studies in the Archaeology of Jerusalem and its Region: The 12<sup>th</sup> Annual Meeting

New Archaeological Discoveries and Research in Jerusalem and its Surroundings

October 11<sup>th</sup>, 2018

Language: Hebrew and English

Location: The Hebrew University, Jerusalem

Organizers: Yuval Gadot (Tel Aviv University), Joe Uziel, Yehiel Zelinger (Israel Antiquities Authority), Orit Peleg and Oren Gutfeld (The Hebrew University)

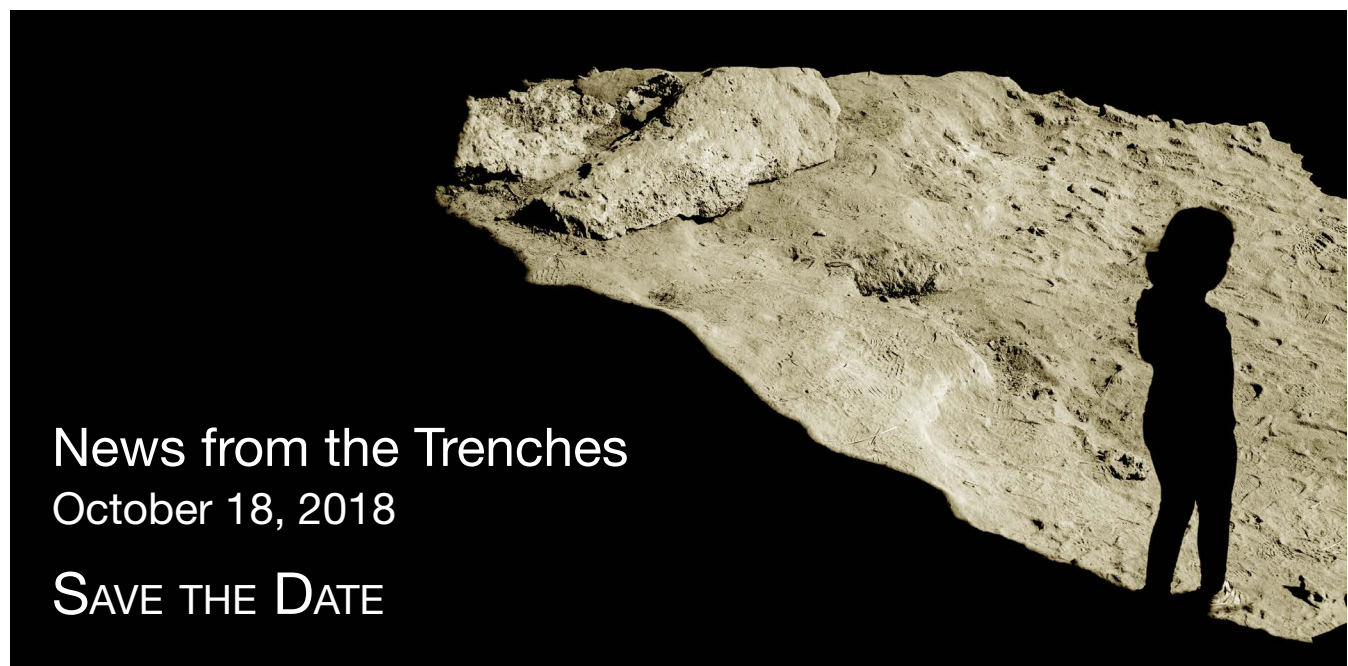
## News from the Trenches

October 18<sup>th</sup>, 2018

Language: Hebrew

Organizers: The Institute of Archaeology of Tel Aviv University

Location: Tel Aviv University, Tel Aviv



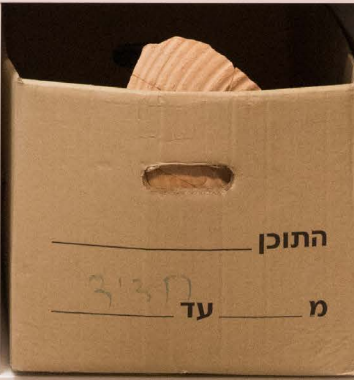
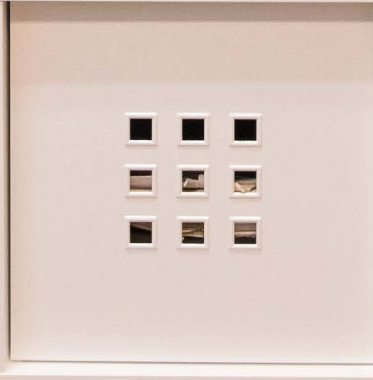
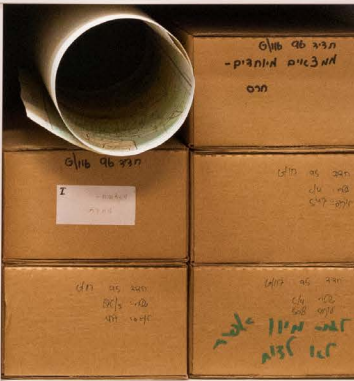
News from the Trenches

October 18, 2018

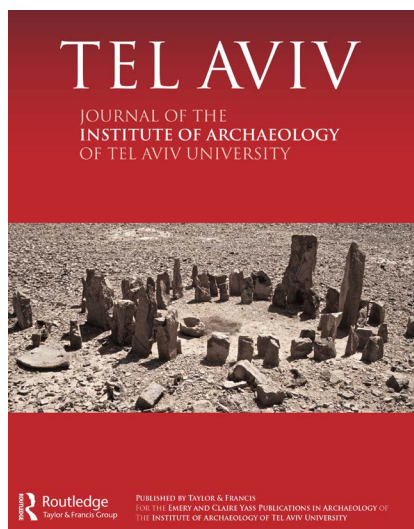
SAVE THE DATE



# PUBLICATIONS







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

Volume 45, Number 1, 2018

Decade of Archaeological Exploration on  
the Temple Mount

Yuval Baruch, Ronny Reich and  
Débora Sandhaus

Protohistoric Developments of Religion  
and Cult in the Negev Desert

Uzi Avner

The Archaeology and History of the Negev  
and Neighbouring Areas in the Third  
Millennium BCE: A New Paradigm

Israel Finkelstein, Matthew J. Adams,  
Zachary C. Dunseth and Ruth Shahack-Gross

Game of Thrones: Solomon's 'Succession  
Narrative' and Esarhaddon's Accession  
to the Throne

Nadav Na'aman

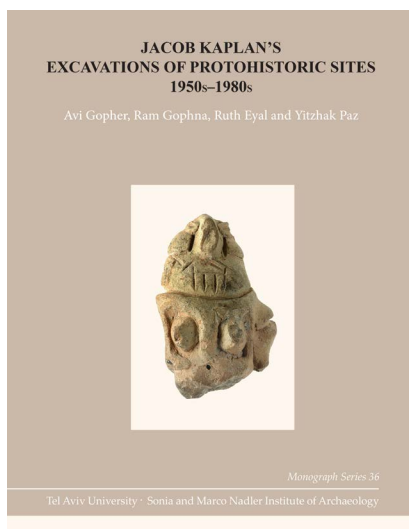
The Date of the Gihon Spring Tower in  
Jerusalem

Ronny Reich

Probing the Byzantine/Early Islamic  
Transition in the Negev: The Renewed  
Shivta Excavations, 2015–2016

Yotam Tepper, Tali Erickson-Gini, Yoav Farhi  
and Guy Bar-Oz

Tel Aviv is available online at:  
[www.tandfonline.com/loi/ytav](http://www.tandfonline.com/loi/ytav)

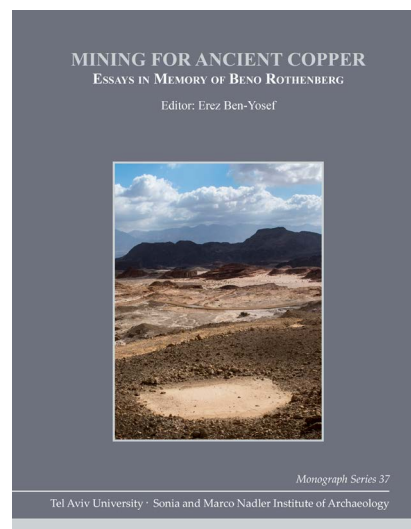


## Jacob Kaplan's Excavations of Protohistoric Sites 1950s–1980s

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



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## 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

Number 4 | Summer 2018



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**UNIVERSITY** תל אביב

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