

# TAU ARCHAEOLOGY

The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures The Sonia and Marco Nadler Institute of Archaeology The Lester and Sally Entin Faculty of Humanities | Tel Aviv University Number 6 | Summer 2019

# TAU ARCHAEOLOGY

Newsletter of

The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures The Sonia and Marco Nadler Institute of Archaeology The Lester and Sally Entin Faculty of Humanities Number 6 | 2020

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



Chair of the Department, Prof. Yuval Gadot (left), and Director of the Institute, Prof. Oded Lipschits (right)

As we close a year of extraordinary research, teaching, learning, and overall advancement, it is our pleasure to launch the 2020 Newsletter and to summarize our achievements of 2019. We are delighted to welcome a number of new students from Israel and abroad to the halls of Gilman. Nearly a decade after its inception, new changes to the International Masters of Archaeology program have seen it further integrated into the department as a whole, allowing for greater dialogue between the student bodies. Further to this, our 2019 focus on interdisciplinary collaborations with other departments, particularly the Arts Department, as well as Middle Eastern History and African Studies, has led to several exciting and productive projects. We are also thrilled to hear of several colleagues who received significant research grants this past year, and look forward to the many future discoveries to come from them.

A visual diary of the efforts of a community, our sixth issue is a tribute to the jubilee of Aharoni Day, our Institute conference dedicated to the continual re-examination and exploration of the ancient past. In 2019 the conference was dedicated to a jubilee celebration, and included a range of presentations related to the history of archaeological research by past and present Tel Aviv University scholars and students. In this issue, readers are able to learn of the academic history of the department and institute, consider updates on current research, evaluate summaries of a year of excavations, as well as discover the latest advancements made by students. As in past issues, feel free to review our past events, note upcoming conferences for 2020, and meet our 2020 post-doctoral candidates.

Even a quick perusal of our 2019 issue brings to light the passion and commitment of the Tel Aviv University archaeological community. Sustained interdisciplinary collaborations of students and scholars with those who work in other fields continue to fuel a new age in archaeology. We are incredibly proud of the efforts of our entire department and institute, and we look forward in anticipation to what we will collectively achieve as we gaze into the future.

Prof. Yuval Gadot Chair, The Jacob M. Alkow Department of Archaeology and Ancient Near Eastern Cultures

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



## AHARONI DAY The 50th Anniversary of the Department and the Institute of Archaeology

The following is a collection of abstracts related to presentations from Aharoni Day, 21 February 2019, presented here in the format of past research, current research, and hopes for the future

#### **A Fable about Stray Cats** Opening Remarks of the Annual Symposium Israel Finkelstein

How time flies! Without fully noticing, I have become an elder of the tribe. In one way or another, I have accompanied the Tel Aviv University Department and Institute of Archaeology for 49 of their 50 years, and can now look back with satisfaction and a bit of amusement. In what follows, I have no desire to summarize, or to present an "authorized" history of the Department and Institute. Rather, I wish to propose several observations on the first 50 years.

25 years ago, when I assumed the office of Chairperson of the Department of Archaeology and Ancient Near Eastern Civilizations, I decided to clean out the drawers in the office. I found a memo written a short while earlier (probably in the late 1980s), which had been distributed among faculty members of the time. In the memo, the author expressed his/her insights on the future of the Department and the Institute. According to his/ her insights, neither the Department nor the Institute would be able to contend for the leading role among Israeli universities and hence, faculty members should aim at preserving the Department's number two position.

I was dumbfounded. I and other young researchers in the Department could not see the lure of being second. For us, there was a single goal: to reach the top of the pyramid, here in Israel and worldwide. Indeed, a short while later the Department and Institute managed to fulfill this objective. Obviously the processes that brought this about were already in motion before the discovery of the memo, and perhaps they had been there from the very beginning, but the change of mind-set was no doubt part of what came to pass.

The "Great Leap Forward" was the result of a combination of factors. First came the sociology of academic life: the concentration of a group of young scholars, who could be described as "hungry stray cats." They needed to fight for recognition based on the merit of their studies, rather than on fame of institution and kin. Free of "tradition" they strived for innovation, aware that mental fixation is one of the greatest shortcomings in scholarly life. In this sense, one cannot escape noting the location of the university in Tel Aviv—the open, liberal, multi-cultural city. This must have had an impact on the study and research atmosphere in our Department and Institute.

No less important, from its earliest days Tel Aviv University was free of the traditional, rigid atmosphere that characterized old institutions of the 19th and early 20th centuries CE. For many of our faculty, the relationship between professor and post-graduate student was open and non-hierarchic, with critical discussion conducted on all themes, including the views of the professor. Obviously, such an approach fertilizes critical research. It is no coincidence or sheer luck, therefore, that our post-graduate students have exceled in quality and quantity. The open research atmosphere and the massive incorporation of students in field projects and publications have increasingly attracted top-quality young people, who later disperse to other institutions here and abroad.

In the field of Bronze and Iron Age archaeology, a critical approach is vital, especially in the case of historical reconstruction, that is, when dealing with the relationship between archaeology and text-first and foremost the Bible. In the 1970s a "window of opportunity" opened in this field that enabled a departure from the conservative approach, which until then had characterized Israeli research of Ancient Israel. There were several reasons for this shift. First, the diffusion of research to more than one institution weakened the stature of local doctrinal figures who dominated conservative thinking. Second, a "critical trend" developed in other academic fields within the humanities. Third, a renewed interest in German biblical research developed, following years of antagonism with German culture after the Shoah. Fourth, the broader atmosphere of Israeli society changed from "a nation under siege" to a country confident in the resilience of its society and culture. This made it easier to investigate the great myths at the core of its identity.

Indeed, a school of critical study of archaeology and the biblical text developed at Tel Aviv University. The Tel Aviv School was fiercely attacked by conservative researchers in Israel and abroad (in the latter, mainly academics of an evangelical background), but was praised in critical biblical scholarship circles (primarily in Europe). This process had an important byproduct-a turnaround to the methods of world archaeology. Archaeology was no longer taken as an illustration of a pre-told history based on literal reading of the text; rather, it came to be treated as an independent discipline, one that draws its methods from the fields of anthropology, ethnology, history, and, recently, the exact and life sciences. To be candid, the revolution transpired when the role models evolved from Albright and his students in the evangelical seminaries to figures such as Wellhausen, Noth, and Alt in biblical exegesis; Braidwood, Adams, and Binford in archaeology; and Bloch, Braudel, and their associates in the Annales School of History. In short, some of us understood the need to distance ourselves from the school of thought that still lingered from the 1925 Monkey Trial in Tennessee.

Instead of praising individual researchers who follow our school of thought, I will note several archetypes of academics who oppose our camp. First is the researcher who devotes his/her life to preserving and maintaining conservatism. Then there is the academic who manipulates data in an effort to achieve preplanned results, which serve non-research agendas. Third is the ignoramus who is proud of his/her ignorance and makes it a case for a crusade against open-minded scholarship. Finally comes the self-declared powerhouse, who viciously attacks scholars in the authoritative voice of a preacher, only to later present those same theories as his/her own.

In reviewing the processes that transpired in the Department and Institute, special attention should be given to administrative and public aspects of academic life. In an ideal world, university departments are evaluated and then promoted or degraded on the basis of merit, that is, the quality of faculty-member research. Yet in the real world, things often happen as a result of connections in the corridors of university power, of the ability to raise money, and of presence in the media. Dominance in the (global) media advanced the standing of the Department and Institute in Israel and abroad. Several of us acknowledged the importance of the magic cycle: high-flying students  $\rightarrow$  high quality research  $\rightarrow$  strong presence in the media  $\rightarrow$  ability to obtain funding from agencies and individuals  $\rightarrow$  high-flying students... In archaeology, with its inevitably expensive fieldwork, it is difficult to execute high-quality research if one of the above components is missing.

A suitable illustration of what has happened at the Institute of Archaeology comes from our Publications Department. Needless to say, publications are the flagship of any research institution, and as such we have four publication tracks: our journal *Tel Aviv*, the Monograph Series (mainly excavation reports), our

new series of thematic monographs, titled Mosaics: Studies on Ancient Israel, and Salvage Excavation Reports. Though I have not checked thoroughly, my feeling is that there are few departments of archaeology that can present a similar publication record. Our journal Tel Aviv is nicknamed-by some fondly, and by others sarcastically-Pravda (in Russian "the truth," meaning "Journal of the Party"). Tel Aviv was launched 45 years ago as a godforsaken journal that had to struggle for survival against the more prominent journals of the time. According to the Scientific Journals Ranking (SJR), Tel Aviv has for several years now cemented its role as a leading journal among those dealing with the archaeology of the ancient world. In fact, in 2015 it was ranked No. 3 amongst *all* archaeology journals worldwide! How did this happen? Without disclosing business strategies, let me just say that for many years the editors and members of the editorial board of Tel Aviv have been researchers who have had clear views on the importance of stimulating research appetite and who have not succumbed to the politically correct nonsense that dictates the conduct of most scholarly journals. Hence, while the nickname "Pravda" is amusing, it is not truly accurate. The journal has been characterized by openness, innovation and thematic flexibility, in contrast, for instance, from a well-known journal abroad, which was managed for many years according to an "old-boys" system and therefore deteriorated to the point of near extinction. This journal came back to life when new editors turned to some of Tel Aviv's editorial methods.

The above has been achieved against all odds. Personally, I must admit that I have always been privileged. At the same time,



#### Photo by Sasha Flit

on the broader institutional level, things were not always easy. First, the university did everything in its capacity to extinguish our little center of excellence. The university leadership has always declared respect and devotion, but at the same time, the axe was raised with no mercy. Only connections, begging, relentless lobbying and judicial trickery saved us from annihilation. But who are we to complain? The dream of every university administrator is to run an institution without students and researchers so that the budget remains perfectly balanced. As this solution is somewhat difficult to achieve, and since many university administrators do not have the vision or courage to take tough decisions on promoting or demoting departments according to merit, they turn to cutting across the board. Consequently, departments of excellence active on the world stage and those that compete for leadership among institutions located between Hederah and Gederah are treated as equals.

In short, while the necessary tool required to cultivate centers of excellence is a merit-oriented policy, university administrators instead promote democratic institutions and equality, forgetting that in academic life, merit and equality are an oxymoron.

Moreover, in every university there are first-rate scholars and those who are not exactly beacons of talent, or, to put it simply -mediocre. The crucial question here is: who sits on decisionmaking committees? The danger is clear and imminent: while good scholars concentrate on research and have no time to waste sitting at boring committee meetings, mediocre faculty members have enough time to dedicate and pursue strong agendas. Their goal is to advance those who are lesser than them—a self-assured trick that allows them to feel important. They loathe excellence, which casts long shadows on their own work. To highlight this unfortunate reality I pose a rhetorical question: when one position becomes available, who gets it—leaders of research or committee sitters?

The scholarly weak populate other positions of power. They edit journals and advise funding agencies, advancing mediocrity under the guise of "good governance." Make no mistake: a research proposal can (and should) be evaluated according to a researcher's publications and a one-page summary; there is no need for a boring 60-page proposal that nobody reads. I know of game-changing research proposals that were time and again denied funding by a national science foundation of a country, while trivial proposals of no importance, submitted by researchers who never publish results of their work, were lavishly funded. Turning to journals, they are replete with meaningless, repetitive articles loaded with jargon, while good studies that divert from the party line face brigades of "old-boys" reviewers. At least in the non-empirical fields, the peer-review system is a golem that rose against its creator. In many cases peer reviews are aimed at sanctifying brain-dead theories, protecting the warm swamp of the old frogs, and blocking new ideas, especially of young scholars. After all, who needs a mid-life change of mind?

Despite these grim realities, we have managed to survive the weak bureaucrats, mediocre faculty members, old-boys protecting academic mafia bosses, and petty jealousy. Yet we must not rest on our laurels. We must be vigilant to preserve what we have achieved and strive relentlessly for still better scholarly work. Can we do this? Only the 100th anniversary of the Department and Institute in the year 2069 will tell.



Photo by Yafit Wiener

#### **Thoughts on the 50 years to Come** Closing Remarks of the Annual Symposium Oded Lipschits

Looking back at the long road that archaeology has traveled over the past fifty years, one observes that our field progresses in small steps and with clear direction. This is a predictable development, one that lacks any dramatic revolutions—from fieldwork and documentation methods that emerged from the naïve and innocent archaeology of the early days of the State of Israel and the Tel Aviv University Sonia and Marco Nadler Institute of Archaeology, to the less innocent and naïve archaeology of today, which has become increasingly interdisciplinary and computerized and seeks to draw upon a variety of alternate fields. Despite all this, the basics of our profession remain unchanged: pick axes, hoes, locus cards, top plans, sections, pottery baskets, restoration, illustration, photography, and publication. This was, and in many ways remains, the reality of archaeological work.

Both then and now, the most difficult problems in archaeology include securing enough storage space to store our finds and then later locating our finds when the time comes for analysis and publication. Both then and now, the problem lies in finding the balance between the speed and fun of the field work (constantly producing new finds) and the lengthy amount of time it takes to process, conserve, analyze, and ultimately publish these finds.

What, then, is the secret to our growing and flourishing Institute now in its fiftieth year? Does this mean that we can envision a similar future for the coming fifty years? Can we prepare ourselves for it, knowing that we will be ready? Will we still be a growing and flourishing institute fifty years from now?

After serving for nearly 10 years as the Head of the Institute, I can only hope that we are preparing ourselves well; that we are keeping our finger on the pulse, implementing the necessary support systems, and raising the required resources. Yet mainly, we can only hope that we are prepared for field developments to move in unexpected directions, and that we are flexible enough to change our direction along with them.

Our preparation (as I have tried to steer it over the last few years, and will continue to do so in the years to come) is two-pronged: the technical and the human, that is to say, the archaeological facilities around us and the people that are at their center.

#### The Facilities around Us

For me the technical side is of particular importance, but is not the most important. It is clear to everyone that in the future we will move closer towards a huge "dataset" produced through small areas of excavation. It is obvious that technology will play a greater role in our research, that the various sciences will become (even more than now) an inseparable part of every excavation square, that

the technology behind documentation and recording will improve, and that we will all be forced to run vast and complex systems of documentation and analysis. The Institute of Archaeology plays a crucial part in all of this, by laying down a research framework and support system that will enable scholars to do all of this (and more) in each and every project.

The Institute of Archaeology of Tel Aviv University was initially founded as a "proper accompanying support system" for the study of the past. Many students and scholars do not know (and to many others it seems obvious) that the support the Institute offers its researchers is unique in Israel and worldwide. Though this has meaning for the facilities themselves, it also has huge financial meaning for the way in which the Institute is able to accompany the researcher from field excavation to final publication. The Institute "envelopes" the researcher in resources, providing invaluable services such as restoration, illustration, photography, editing, production of the final publications, and the actual in-house publication. The role of the Institute is to allow for this support system to exist, and that is why as we look to the future, we will now build additional laboratories such as a Laboratory for Petrographic Analysis and a Laboratory of Metallurgical Services, i.e., cleaning, handling and preserving of metals. We have allocated budgets for the purchase of new recording equipment that will serve various Institute projects, and we have begun the process of acquiring a 3D scanner for pottery vessels that will assist in the drawing and publication of finds and can be developed into a new field of research on its own. We will continue to improve the equipment of the photography lab, increasing the ability of our illustrations studio to deal with the workload of drawing and illustrating and strengthening our publications department, so that our research will be published at the highest quality.

I have no doubt that this structure is one of the tiers that has brought the Institute to where it is today. Looking forward to the coming fifty years, if we want to continue to evolve we must continue to improve and develop this support system. This, however, is only one aspect—and not the most important one.

#### The People Who Are at the Center

I believe that by now it is clear to everyone that there are no more "lone wolves" in archaeology, that is to say, archaeologists who work alone or with a small staff, run large excavations, and at best publish their findings alone or with the same small staff. The archaeology of the academic world will move towards (1) extremely small-scale and focused excavations that will focus on very specific research questions, and (2) large-scale excavations that are run by very large teams of students and experts, and are published by research groups rather than individuals.

In this context the Institute plays a defining role in setting the path for future researchers and projects, and I believe that projects such as Qesem, City of David, Tel Azekah, Tel Megiddo, Timna, Tel Beit Yerah, Ashdod-Yam, Masada and Tel Hadid, as well as the metallurgy, archaeozoology, and archeobotany labs, are innovative and groundbreaking in the way that they conduct their research as large research groups. Within these research teams, students (entering at the B.A. level, and collaborating at M.A. and Ph.D. levels) have an important role in field excavation, material analysis, and final publication, whether as part of their M.A. or Ph.D. dissertations or within the framework of the final publications and reports. Each of these projects has an abundant number of students and a plethora of researchers, with many partners recognized in the various publications produced. Each of the expedition offices and laboratories hosts students who sit and work, and have the chance to view how our faculty members execute their research and work and advance as part of a research collective. It is here, amongst the material and fellow researchers, that a new generation of researchers can be raised.

It is clear to all that the role of different specialists in a variety of fields will become increasingly meaningful in every excavation. A handful of experts in every excavation will no longer be sufficient. Every project will have to train students who will become specialists across a broader variety of subjects, even if it is clear that they will in turn continue on their own independent path and that we will need to train new students in their stead.

It is my belief that over the last several years, the motto of the Institute of Archaeology in Tel Aviv University is that it has become the place where students train themselves in various fields of study and receive independent research tools. Further to this, it is also the place where they learn first and foremost how their individual studies are incorporated into the greater picture, that they are a part of this greater picture, and that they can grow far beyond their specific specialty. I have no doubt that it is our role in leading the Institute to push our research staff to discover, train, and hire large teams of students, and to turn them into experts who can handle, study, and publish the wide spectrum of fields that modern archaeology encompasses. This brings me to the heart of the matter, which is, in my view, the key to the position that this Institute has achieved and our greatest challenge in the fifty years to come. For me, the key lies in the selection, support, and development of our staff members—the researchers of the Institute.

As is the case with every unit or sports team—the right blend of people, and their quality, is the key to success.

Those holding key positions in the academic world have a great temptation to hire their own people, those close or familiar to them, people who will serve them and their research, people who will not threaten them with their quality, vigor, curiosity, and achievements. This could be a recipe for disaster and collapse, or it could be the key to success.

Excellent researchers are curious people, who seek to constantly evolve, develop, and lead important research projects, as well as to spearhead innovative and groundbreaking studies. However, truly outstanding researchers are also good and positive people, and they are the ones who draw new students, win research grants, and continue to bring forth the advancement and development of the field.

It is a difficult wheel to set in motion, and in order for it to succeed, it is necessary to gather this critical mass of excellent researchers, who will not be swallowed up, stopped, or intimidated, and who will not have to struggle for survival, either in the academic world or in their personal lives. These researchers need to feel safe and supported, and we need to provide them with all that is necessary for them to run forward, grow, study, innovate, and discover and at the same time, we need to raise the next generation of students. We are fortunate to have such a team of scholars in our Institute, and this is the most important component of our success.

As such, this is, in my view, our greatest challenge for the fifty years to come. If we are smart enough to find the next generation of scholars who will continue to conduct research in this manner and will live up to the standards that have been developed here over the years—this, in turn, will attract the best students from Israel and worldwide, who will continue to run research projects and innovate. In fifty years' time, at the Institute's centennial celebration, we will evaluate whether we have been successful in meeting this challenge.

## Yohanan Aharoni as a Forerunner in Research Methods and Biblical Criticism

Zeev Herzog

The 50-year anniversary of the establishment of the Institute of Archaeology at Tel Aviv University is an apt moment to appreciate Yohanan Aharoni's pioneering contribution to archaeological research methods and his critical approach to biblical historiography. Aharoni's impressive list of achievements is further highlighted by his early death in February 1976 at the age of 56.

Historical Geography: Aharoni established the method of historical geography as an academic discipline, the principle methodology of which is the systematic "surface survey." He applied this method in his survey of the Upper Galilee in 1954–1955, which resulted in his Ph.D. thesis and book titled *The Settlement of the Israelite Tribes in Upper Galilee* (Jerusalem, 1957; Hebrew). This approach was followed in his surveys of the Negev, which effectively provided a prototype for "regional research" (later dubbed "spatial archaeology"). The resulting excavation projects under Aharoni's direction were conducted at Tel Arad (1962–1967) and Tel Beer-sheba (1969–1976), and followed by his research partners and students Moshe Kochavi, Aharon Kempinski, Volkmar Fritz, and Itzhaq Beit-Arieh. Thus, the Beer Sheba–Arad Valley became one of the most densely explored regions in Israel.

Extensive Site Exposure: Aharoni criticized the Kenyon-Wright "stratigraphic sections method" in archaeological excavations and advocated for the "extensive exposure" approach, which aimed at the exposure of complete architectural units and restorable ceramic assemblages. Most modern excavation projects now apply a combined approach of wide exposed areas and selected stratigraphic sections. As an aid to the recording of the wide areas of exposure he initiated the use of "balloon photography."

Recording and Registration Method: In *Beer-sheba I* (1969) Aharoni published a detailed description of his applied method at Tel Beer-sheba. This was the first case in creating a "locus card," a practice that incorporated all the available data of a single locus, including a graphic description, a summary list of all baskets, field photographs, and the illustrations and photos of objects assigned to the locus. This has become the common registration procedure today, but Aharoni should be credited with its conception.

Multidisciplinary Scientific Methods in the Institute of Archaeology: Upon moving from the Hebrew University of Jerusalem, Aharoni created a revolutionary type of archaeological institute, containing variegated scientific units. Scholars affiliated with Tel Aviv University's Institute included metallurgists such as Alexanderu Lupu and Benno Rothenberg, archaeolzoologist Shlomo Hellwing, archaeobotanists Yoav Waisel and Nili Liphschitz, palynologist and geologist Aharon Horovitz, geologist Yehoshua Itzhaki, and chemist Zvi Gopher. Again, while this approach is shared today by many institutes, it was innovative and unique in Israel of the late 1960s. Further to this, Aharoni arranged for the entire technical staff of the Institute to serve all the excavation projects of the Institute's members, unlike the system in Jerusalem, in which each expedition must employ its own technical workforce.



Tel Arad temple area during its exposure; at center: the top of the sacrificial altar; upper left: the cult niche (photo courtesy of the Tel Arad Expedition)



The cult niche of Tel Arad temple as exposed; the stele and the two incense altars were laid down as part of the dismantling of the temple (photo courtesy of the Tel Arad Expedition)



Tel Beer-sheba after extensive conservation and restoration project by Israel Nature and Parks Authority (1995–2014) (photo courtesy of Israel Nature and Parks Authority)

Site Preservation: Aharoni was the first to initiate efforts in the preservation of the exposed remains at Tel Beer-sheba, already during the process of excavation. Numerous attempts to preserve the mudbrick were tested, with a method finally developed that included protecting (or replacing) the old brick with new ones, fired in a kiln to ensure that they remained weather-resistant.

Summer School: Aharoni was the forerunner in converting the archaeological dig into an academic summer school. Scholars from other universities (mainly in the United States) brought with them groups of students who participated in the excavation. They earned credit for their own studies in field archaeology (in the dig proper) and in the archaeology of Israel (in afternoon and evening lectures). This method supported the budgeting of the dig, and provided us with intelligent and enthusiastic excavators. This scheme also became the common format of academic excavations.

Criticism of Biblical Archaeology: While Aharoni was undoubtedly one of the "fathers" of the discipline of "biblical archaeology," he did not hesitate to express critical views of events described in the biblical historiography that were contradicted by his archaeological observations. As early as the 1950s he argued (contrary to Yigael Yadin) that the settlement process of the Israelites in Canaan took place *before* and *not after* the conquest of the Canaanite cities, contrary to the biblical sequence. In his attempt to identify the Canaanite strongholds of Arad and Horma in the Negev (that prevented, according to biblical tradition, the direct journey of the Israelites into the land), he realized that no Late Bronze Age remains whatsoever were present in the region. This led him to the extraordinary statement that: "First of all it has become clear that the tradition about the encounter of these tribes at the time of their arrival with the King of Arad... *is not well founded historically*" (*The Land of the Bible, Historical Geography*, Philadelphia, 1979: 215).



Tel Arad temple after conservation and restoration work conducted by Israel Nature and Parks Authority (2015); at left: stairs leading down to the underground water reservoir (photo courtesy of Israel Nature and Parks Authority)

#### **Archaeology of Ontologies**

Ran Barkai

Indigenous hunter-gatherers view the world differently than WEIRD (western, educated, industrialized, rich, and democratic) societies do. As in prehistoric times, they depend upon intimate relationships with elements such as animals, plants, and stones for their successful adaptation and prosperity. The desire to maintain the perceived world order and to ensure the continued availability of whatever is necessary for human existence and wellbeing compelled equal efforts to please these other-than-human counterparts. Relationships of consumption and appreciation characterized human nature as early as the Lower Palaeolithic, and to some extent the archaeological record reflects such ontological and cosmological conceptions.

Anthropological and archaeological thinking regarding the relations between indigenous groups and the world in which they live indicates that past and present hunter-gatherers were not simply exploiting natural resources. These societies view the world as composed of other-than-human persons potentially capable of thinking, feeling, and making decisions. The human world is just one of many, and humans are expected to live side by side with the other entities, to maintain good relations with them, and to pay them respect in order to ensure world order and wellbeing.

This worldview had an important expression in the seeming duality of humans perceiving animals as both "other-than-human persons" and "equal co-habitants" of a shared habitat, while also hunting and consuming these animal-persons. These appear to be universal conceptions, shared to some extent by all past hunting societies, as well as by all present ones prior to contact with WEIRD societies. Further to this, such a worldview is reflected in activities both mundane and sacred. A recurrent idea in recent indigenous societies is that prey animals willingly make themselves available to humans only if the hunters demonstrate appropriate behavior towards them. In return, humans are obliged to treat the hunted animal with respect, to waste nothing of the carcass, and to follow strict customs regarding the use and disposal of the inedible remains.

These universal traits of the ontological relationships between hunters and their prey should be sought in prehistoric archaeological assemblages of all chronologies and might be reflected in the extensive exploitation of animal carcasses at archaeological sites, e.g., in the shaping of selected inedible animal bones into tools and the insertion of animal bones in rock cracks within decorated caves, among many other examples. I would not expect this to be the case at every archaeological site where humans interacted with animals, and much of the evidence of such an ontological stance may not have been preserved. I am confident, however, that the body of evidence will grow if archaeologists are more open to the possibility of unearthing it. Then, common terms such as "ritual," "symbolism," "ceremony," "deposits," "caches," "art," and "ornaments" might be better understood within this ontological framework. The anthropocentric worldview so characteristic of WEIRD societies would be best discarded and replaced with a more cosmoscentric approach that better lends itself to reconstructing past human engagements with the world.



A handaxe made from an elephant bone; a cosmological bond between the butchering tool and the butchered animal as a token of consumption and appreciation (photo provided by Ran Barkai)



Collected patinated colourful items from Qesem cave: Lower Paleolithic humans collected artefacts shaped by their ancestors and re-shaped them, most probably as a token of appreciation and connectedness (photo provided by Ran Barkai)

# The Southern Coastal Plain under the Empires and the Excavations at Ashdod-Yam

#### Alexander Fantalkin

The southern coastal plain of Israel played a significant role within the framework of the Neo-Assyrian empire. Various sites located along this sensitive border-zone have produced an abundance of archaeological evidence dated to advanced stages of the Iron Age (8th–7th century BCE). In this presentation I sought to clarify certain aspects of imperial control over the region, in light of the ongoing publication of archaeological data, i.e., Ashkelon, other coastal sites, and the renewed excavations at the site of Ashdod-Yam.

In recent years (mainly as a result of excavations in Ashkelon) a new paradigm has begun to emerge with regard to the role of the Neo-Assyrian empire in the affairs of the "Land of the Philistines" and those of the Southern Levant more generally. Considering the idea of "port power" (which was developed originally for entirly different geo-political localities and are not necessarily suitable for the Southern Levant), it is argued that the Neo-Assyrian empire exercised minimal influence over Ashkelon's booming Mediterranean port, which served as the main hub of a well-integrated regional economic system. This system is presented as unconnected to Assyrian policies, but instead related to independent processes geared to create a single multi-layered economic entity, which connected Judah and Philistia to a wider Mediterranean world, with Phoenicia as the driving force behind these developments.

The problem with these interpretations is that archaeological remains attesting to Ashkelon's prosperity come solely from levels that should be dated to the late 7th century BCE, i.e., from the period of Egyptian domination at the site. More so, to single out Ashkelon as the major trading hub of the Southern Levant during the Neo-Assyrian period is unjustified, for although

it was an important trade station, it was just one of many such focal points that consisted of contemporary harbor sites of the southern coast, such as Yavneh-Yam, Ashdod-Yam, Ruqeish, and Blakhiya. This network of communications extended to the north, and its emergence and maintenance during the period of Neo-Assyrian domination cannot be considered to be unrelated to deliberate imperial policies, especially the desire to be involved in, and obtain a share of, revenues from the trade among Phoenicia, Philistia, and Egypt.



Aerial view of the Iron Age acropolis at Ashdod-Yam, looking south (photo by Skyview)



Aerial photograph of Ashdod-Yam taken in 1944 (provided by Alexander Fantalkin)

## Judean and Edomite Influence Zones during the Iron II–III, in Light of Beit-Arieh's Excavations in the Beer Sheba Valley

Liora Freud

Archaeologist Itzhaq Beit-Arieh excavated and published five sites in the Beer Sheba Valley: Tel Ira, Horvat Uza, Horvat Radum, Tel Malhata, and the Edomite shrine at Horvat Qitmit. These are in addition to Tel Masos, Aroer, Arad, and Tel Beer-sheba that were excavated in the past.

Results of these excavations indicated that the northwestern part of the Beersheba Valley has little Edomite influence. Most of the pottery vessels were imported from Judah and therefore these settlements are considered Judahite. In contrast, in the southeast of the valley, the Edomite influence is stronger. The large quantity of pottery vessels with Edomite parallels (most of which were produced from local loess soil), along with the types of vessels brought from Judah and the coast, as well as figurines, ostraca, weights, etc., indicated that the residents of the southeast of the valley have stronger affinity to Edomite culture than to Judah and the coast. Based on the argument that a massive Edomite presence in the Negev could have occurred only when Judah was weakened following the Assyrian withdrawal, Beit-Arieh determined a short duration for Horvat Qitmit in the late 7th–early 6th century BCE. Others challenge this date, claiming that the site at Qitmit should be dated earlier, to the Assyrian domination, when Arabian trade prospered and the Edomites adopted a significant role in it. This is in keeping with an interpretation of Qitmit as a road temple for nomadic tribes.

Our re-dating of the site at Qitmit to the first half of the 7th century BCE was also the result of a comparison of the pottery analyses of Tel Malhata to Horvat Qitmit. However, the similarity of the material culture between Tel Malhata and Qitmit proved that the shrine was not detached from its surroundings, and that its finds were locally made and may have served nomads passing through. It seems that the same culture attributed to the Edomite tribes was present mainly in the southeastern part of the Beersheba Valley from the late 8th to early 6th century BCE.



Anthropomorphic jar-shaped statues and a variety of humans and animal figurines from the Edomite shrine in Horvat Qitmit (photo by Avraham Hay)

# The Gate to the Mountain Ridge: Three Decades of Research at Tel Beth-Shemesh and What Next?

Shlomo Bunimovitz and Zvi Lederman

Tel Beth-Shemesh has been thoroughly excavated twice in the early part of the 20th century CE, and was considered exhausted for further excavations. Yet its location in the Sorek Valley (the gate to the central mountains and the border between the Kingdoms of Judah, Philistia, and Israel), as well as the numerous biblical sources that refer to its involvement in crucial historical episodes, called for a modern research attempt at the site.

In 1990 we initiated a long-term project of renewed excavations at Tel Beth-Shemesh, which continues to this day. Our efforts yielded impressive finds related to key issues in the archaeology of the Bronze and Iron Ages in the Southern Levant and the eastern Mediterranean. Due to limitation of space we shall mention but a few of them.

The exposure of a unique sequence of four Iron I settlements at the site (Levels 7–4, 12th–mid-10th centuries BCE), revealed an unbreakable continuation of Canaanite material culture remains that was accompanied by the deliberate avoidance of Philistine ethnic markers. We therefore suggested that Canaanite resistance to Philistine expansion led to the emergence of a cultural-political border on the eastern periphery of Philistia.

"A view from the border" also further stands behind our interpretation of the new array of public buildings, e.g., stables, underground water reservoir, large granary, and more, which was established over the rural site of Tel Beth-Shemesh in the

beginning of the Iron II (Level 3, mid-10th–9th centuries BCE). Apparently, these symbols of a central government attest to the emergence of the mountainous Judahite polity, which hastened to ensure the loyalty of the Canaanite border community at its western border.

Turning to the Bronze Age, in addition to the re-discovery of the massive wall and gate of the Middle Bronze town (17th century BCE), our most important find is a rare Late Bronze Canaanite palace from the el-Amarna period (Level 9, 14th century BCE). Sealed under a heavy destruction layer, dozens of pottery vessels (some containing a variety of plant remains) were found. Of special importance are: (1) two unique Late Minoan IIIA1 cups originating from the famous "Palace of Minos" in Knossos, Crete, (2) a commemorative scarab of Amenhotep III, and (3) a unique plaque figurine, presumably of a female ruler presented as a male. The latter may represent "The Lady of the Lionesses," a queen who expressed her concern in Amarna Letters 273-274 about the insecure conditions at the Sorek Valley around Tel Beth-Shemesh. These finds led to new insights concerning Aegean chronology, Amenhotep III's relations with the Aegean and Canaan, royal gift exchange in the Late Bronze, and more. Our future work at Tel Beth-Shemesh will seek to expose further sectors of the palace.



Aerial view of the re-excavated Middle Bronze gate at Tel Beth-Shemesh (photo by Sky View)



Assemblage of drinking vessels from room L1556 of the Late Bronze palace at Tel Beth-Shemesh, including two Late Minoan IIIA1 decorated cups (photo by A. Fogel)

## Tel Aviv University Institute of Archaeology and the Study of the Shephelah

Ido Koch

The Shephelah has been a part of the archaeological research of Tel Aviv Institute of Archaeology since its proto-history until now. Generations of Tel Aviv archaeologists were trained across and throughout the various projects conducted at the region over the last five decades (and even earlier).

The founder of the Ancient Near Eastern Studies Department, Shemuel Yeivin (see TAU Archaeology Newsletter Issue 4), led his team at Tel Erani during the 1960s in search of biblical Gath (and cf. the name of the neighboring town, Kiriath Gath). Though biblical Gath was not found, Yeivin's team unearthed key finds related to the remains of the Early Bronze Age (ca. 35th–25th centuries BCE).

Of crucial importance is the Tel Aviv University fieldwork at Tel Lachish and the associated publications. The initial exploration of the site by Yohanan Aharoni, the founder of the Institute of Archaeology, resulted in the publication of *Lachish V* (1975). Later, during the 1970s, a long-term project was conducted under the direction of David Ussishkin, who further refined the existing stratigraphy and chronology, developed major insights into the Late Bronze Age (ca. 16th–12th centuries BCE) and the Iron Age (ca. 12th–early 6th centuries BCE), and presented a

comprehensive publication across several volumes. Efforts at Lachish also led to important developments in standard Israeli archaeological practice, most notably the introduction of shadenets and sandbags.

Now, as the Institute continues its presence in the Shephelah, so too does it continue to contribute to the legacy of Tel Aviv University and its work in the region. Two Tel Aviv University expeditions have been active in the Shephelah in the last decades: Tel Beth-Shemesh (co-directed by Shlomo Bunimovitz and Zvi Lederman) and Tel Azekah (co-directed by Oded Lipschits, Yuval Gadot, and Manfred Oeming). Tel Azekah remains provide a wealth of information related to the terminal Late Bronze Age, local interactions with Egyptians, and developments during the Iron II (10th-early 6th centuries BCE). The excavations at Tel Beth-Shemesh shed necessary light on the nature of the Iron I (ca. 12th-10th centuries BCE), explore themes such as local identity and resistance, and inform on the definition of "ceramic horizons," for while we were once confined to Lachish IV, III, and II, more recent work at Tel Beth-Shemesh and Tel Azekah have provided a key transitional phase such for the Iron IIA-IIB transition, and beyond.



Tel Azekah, looking northwest (courtesy of Oded Lipschits)

#### Present and Future Trends in the Zooarchaeology Laboratory Lidar Sapir-Hen

Current active research in the laboratory is based on faunal remains retrieved from various excavations of Tel Aviv University's Department of Archeology and Institute of Archaeology, as well as of the Israel Antiquities Authority. Several zooarchaeological collections are analysed by research students (at the Ph.D. and M.A./M.Sc. levels), who study assemblages that date from the early Neolithic (ninth–seventh millennia BCE) through to the Ottoman period (16th–20th centuries CE).

A major project of ours focuses on the changing interaction between humans and animals in prehistoric periods (tenth-sixth millennia BCE). This project includes the study of faunal remains from several prehistoric sites, with the aim of understanding prehistoric change in the way of life of past societies and the ways in which it affected social perceptions as well as natural resources. Additional major foci of research in the laboratory consider the social complexity and division of labor in early societies, attitudes toward self-definition and identity, and the interactions between urban centers and their hinterland. This includes studies such as: (1) subsistence economy and culinary practices in Jerusalem and its hinterland (see in this newsletter); (2) social status, ethnicity, and animal economy (Tel Megiddo, Timna, Tel Azekah, Kiriath-jearim, Tel Hadid); (3) identity and survivorship mechanisms in extreme environment (Masada); (4) urban environment and foodways (Caesarea); and (5) economy and society in the Islamic and Ottoman periods (7th–20th centuries CE).

In August 2019, the Zooarchaeology Laboratory moved to its new habitat in the research building of the Steinhardt Museum of Natural History. The laboratory includes working stations for several students, in addition to a central working area that is dedicated towards joint examination, analyses, and discussion of finds. The space is equipped with microscopes of various scales, measurement equipment, and a comparative collection of modern specimens. An area dedicated to extraction of stable isotopes (carbon, nitrogen, and oxygen) from bones and teeth is now being established. The collaboration between several scholars from various disciplines, such as ancient DNA and stable isotopes, helps to extend the potential of archaeological studies. As caretakers of an essential collection, the laboratory is a center for visiting scientists and provides a foundation for collaborative work.



Dr. Lidar Sapir-Hen and Ph.D candidate Linoy Namdar examine zooarchaeological finds in the laboratory (photo by Amit Etya)



Modern specimens used as a comparative collection, aiding in the identification of zooarchaeological finds (photo by Amit Etya)

#### Recent Developments in the Field of Palynology Dafna Langgut

This presentation dealt with recent developments in the field of palynology at the Tel Aviv University Institute of Archaeology. The two main achievements of recent years, in my opinion, are: (1) the increased sampling resolution of palynological investigations for paleoclimate reconstructions, which is a development that enables the identification of short-climate events in addition to general trends, and (2) the strengthening of collaboration between palynologists and archaeologists.

A good example is a study that I recently conducted together with Raphael Greenberg related to the beginning and spread of olive cultivation across the Mediterranean. Conflicting testimonies have been expressed regarding the geographical origins and timing of olive domestication. Since genetic studies and macro-botanical remains point in different directions, we turned to another proxy—the palynological evidence. We employed a fossil pollen dataset composed of high-resolution pollen records obtained across the Mediterranean Basin (covering most of the Holocene). The pollen data derived mainly from contributors (palynologists who work across the Mediterranean and were co-authors on the paper, recently published in *The Holocene*). Human activity was indicated when (1) olive pollen percentages raised fairly suddenly, (2) they were not accompanied by an increase of other Mediterranean broad-leafed trees (with similar habitat requirements), and (3) when the rise occurred in combination with consistent archaeological and archaeobotanical evidence. Based on these criteria the results demonstrated that the Southern Levant served as the locus of primary olive cultivation as early as ~6,500 years BP, and that a later, early/mid-sixth millennium BP cultivation process occurred in the Aegean (Crete) (either as an independent large-scale management event or as a result of knowledge and/or seedling transfer from the Southern Levant). From these two areas of origin, olive cultivation spread across the Mediterranean, with the emergence of olive horticulture in the Northern Levant dated to ~4,800 years BP. In Anatolia largescale olive horticulture was palynologically recorded at ~3,200 years BP, on mainland Italy at ~3,400 years BP, and on the Iberian Peninsula at mid-/late third millennium BP.



Suggested dates in years (BP) for the beginning of olive horticulture in the Mediterranean region (provided by Dafna Langgut, base map: Google Earth)

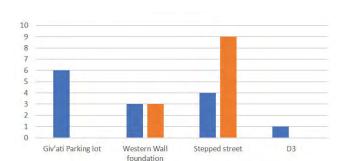
## Large History, Excavation Hammer, and a Small Microscope: Jerusalem in Current Archaeological Research

Yuval Gadot

Jerusalem has been excavated now for over 150 years, and it is time that our generation must ask itself the question: what can we do in the field that justifies further excavations? True, in Jerusalem there is always the chance of finding a spectacular public building or facilities that no-one suspected even existed. This is always thrilling, but as a research strategy, this is not enough. For an excavator in Jerusalem the annoying question often asked by visitors at archaeological sites—"Haven't they already found everything?"—cannot be overlooked. Thankfully the "third scientific revolution in archaeology of the 21st century CE" (as it is often referred to by archaeologists) offers researchers multiple tools and methods that bring knowledge that was unreachable only a generation ago. Novel research avenues now allow us to ask new questions and, at the same time, to readdress old ones.



Documented section into the many sub-layers making up the Early Roman landfill; careful study of the components of each of these layers enabled us to reconstruct household activities and food habits of people living in Jerusalem (photo provided by Yuval Gadot)



Statistical charts for oil exploitation during the Early Roman period for all excavated areas of the City of David (image provided by Yuval Gadot)

There are many examples of implementing science-based archaeology in the archaeology of Jerusalem over the last few years. One such example enabled us to develop our understanding of power relations and urban planning in Jerusalem of the 1st century CE, at a time when the city was mostly populated by Jews, but was governed by Roman procurators. During this era the western slope of the Kidron Valley (the eastern slopes of the City of David) were devoted to garbage disposal. Treating the garbage as a mirror for everyday practices in the city, the excavators who dug into the landfill systematically collected microscopic as well as macroscopic data. For example, animal and fish bones were utilized for exploring dietary practices and regulations as well as regional connections. Alternatively, pottery vessels and botanical remains such as burnt wood aided us in evaluating the domestic nature of the garbage, as opposed to landfills associated with cult practices.

These are just two examples of how the collection of data and the integration of science-based disciplines into archaeological research assists in addressing social and economic questions in different historical periods. They also exemplify the advantages of joint interdisciplinary research.

### **Classical Archaeology at Tel Aviv University**

Moshe Fischer

Classical Archaeology began at Tel Aviv University in 1965 as the Division of Classical Archaeology at the Department of Classics, co-founded by the late Mordechai Gichon and Shimon Applebaum. In 2006 the Division joined the Department and Institute of Archaeology. The main aim of the Division was a teaching and research program that combined Classical philology and history with Classical archaeology. The guiding principles of the Division were the teaching of the main fields of Classical archaeology and history and a consideration of their impact in the East.

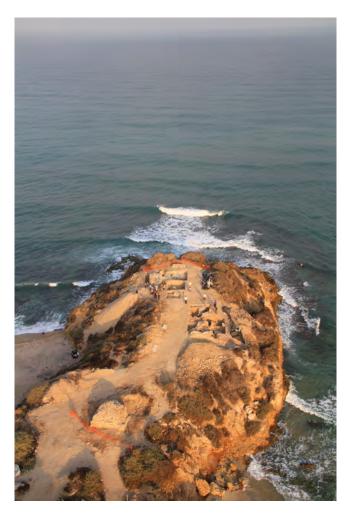
Two major research programs were developed in the early years: the Roman Limes research (including the organization of the 1967 International Limes Conference in Tel Aviv) and the archaeological excavations at En Bogeg, directed by Mordechai Gichon and Moshe Fischer. The final reports of the latter have been published in two volumes. Since the early 1970s the Division of Classical Archaeology has carried out several main archaeological excavations, such as Meşad Tamar (1973–1977), Emmaus, Horvat Mesad, Horvat Aged (1977-1980), and Horvat Zikrin (1982–1989). Several projects have been published (such as Horvat Mesad), while others are in preparation. From the 1970s onward, excavations at Apollonia (since 1976; with Israel Roll and Oren Tal) and Yavneh-Yam (since 1992; with Moshe Fischer) have become the primary training and research excavations. Their results have been published in several reports and numerous articles. These two sites highlighted the central role played by Mediterranean coastal harbor cities in the diffusion of Greco-Roman culture in the area.

An additional primary project of the Division of Classical archaeology was the study of Roman roads and milestones in Roman Palestine. In 1970 Mordechai Gichon formed the Israel Milestone Committee (IMC) as a branch of the International Curatorium of the Corpus Miliariorum, and in 1976 he initiated and founded the Israeli Committee of the Study of Roman Roads and Milestones. The activity of this project included excavations and surveys along roads, as well as some of their settlements, and the milestones erected alongside them. To date, two volumes have been published by Benjamin Isaac, Israel Roll, and Moshe Fischer, presenting the full picture of two main Roman roads in the country, i.e., the Caesarea– Scythopolis (Beth Shean) road and the roads between Jaffa and Jerusalem.

Another field of interest and research is the study of the impact of Classical architecture and decoration in the Land of Israel, including the use of imported marble (as reflected by typological and laboratory examinations). Moshe Fischer of the Division of Classical Archaeology has been active within the foundation of the International Association of the Study of Marble and Other Stones (ASMOSIA) in 1988 in Pisa. This activity has been emphasized by the publication of a concluding book and numerous studies on this issue, effectively placing Roman Palestine on the map of the Mediterranean marble industry and trade.

Alongside the fieldwork and its associated research is the numismatic research that has been part of the Division's scientific program. The late Alla Stein-Kushnir and Arieh Kindler were active in both teaching and publishing numismatic research. This activity was later developed by Oren Tal.

Over the years the Division of Classical Archaeology of Tel Aviv University has trained numerous students and scholars by emphasizing the connection and interaction between the Classical (Greek and Roman) world and the Southern Levant.



Harbor fortress of Yavneh-Yam (photo provided by Moshe Fischer)

## In the Footsteps of Pharaoh in Canaan and Sinai: Egyptology in the First Generation of the Institute for Archaeology and ANE Cultures

Deborah Sweeney

The first generation of Egyptologists at Tel Aviv University was cut off from Egypt itself by the conflict between Egypt and Israel. Instead, they researched areas that were available to them, such as the interconnections of Egypt with Canaan. Raphael Giveon published Egyptian objects discovered in Israel, scarabs in particular. Giveon interpreted Twelfth Dynasty (ca. 1640–1532 BCE) scarabs with Egyptian names and titles as evidence for an Egyptian administrative presence in Canaan during that period. This theory has since been disproven, and the scarabs are now viewed as later imports, probably robbed from Twelfth Dynasty tombs in Egypt during the Second Intermediate Period (ca. 1640–1532 BCE).

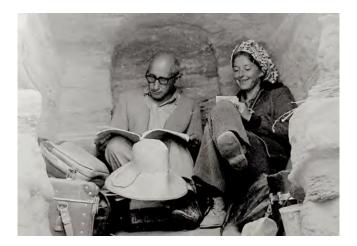
Other Egyptologists specialized in fields that did not involve access to Egypt. Mordechai Gilula carried out pioneering work on the grammar of the Coffin Texts, solving numerous grammatical puzzles, including identifying a totally new negative form and explaining its use. Raphael Ventura specialized in documents from Deir el-Medina, home to the workmen and artists who built and decorated the royal tombs in the Valley of the Kings.

Their archaeological colleagues at Tel Aviv, such as Shemuel Yeivin, Ram Gophna, and Benno Rothenberg, also explored Egyptian relations with Canaan, providing a broader context for the Egyptian material from their excavations. Anson Rainey applied his knowledge of ancient Egyptian and Egyptian culture in his work on the Amarna letters and historical geography.

In 1967, everything changed. Israelis now had access to the Sinai, where the ancient Egyptians had mined turquoise and copper and left official and personal inscriptions. Tel Aviv University was involved in several projects in the Sinai in the late 1960s and 1970s. Benno Rothenberg's survey discovered new sites, such as the huge copper-processing area at Wadi Nasb. The main Tel Aviv project, however, was at Serabit el-Khadem, a remote mining site where the Egyptians had built a temple in honor of the royal cult and to Hathor, patron goddess of natural resources outside Egypt. The temple was begun in the Middle Kingdom, and enlarged in the New Kingdom (ca. 1971–1812 BCE and late 16th century BCE–ca. 1144 BCE).

Itzhaq Beit-Arieh's work at the mines led to the discovery of two new Proto-sinaitic inscriptions (the earliest alphabetic script in the Levant), discovered at Serabit el-Khadem by Hilda Petrie in 1905. By contrast, Giveon headed a project to record all the inscriptions from the temple and surrounding area. Flinders Petrie had excavated the temple in 1905, and many of the inscriptions had been published by Alan Gardiner, Eric Peet, and Jaroslav Černý, but the Tel Aviv inscriptions recorded and discovered many new scenes and texts (mostly fragmentary). Giveon published a number of significant items, and others were included in Yossi Mizrachi's M.A. thesis. Sadly, Giveon died before he could complete his planned publication of all the Egyptian inscriptions. In his stead, I have been working on this project over the years.

Upon the signing of the peace agreement with Egypt, the Egyptologists of Tel Aviv University finally fulfilled their lifelong ambition to visit Egypt. Giveon formed friendships with Egyptian colleagues and hoped to excavate in the Delta, but died before the project came to fruition.



Raphael Giveon and Shuli Kislev working at Serabit el-Khadem (photo provided by Deborah Sweeney)



Raising a stele back into place at Serabit el-Khadem (photo provided by Deborah Sweeney)

## The Hittites and Their Past: Forms of Historical Consciousness in Hittite Anatolia

Amir Gilan

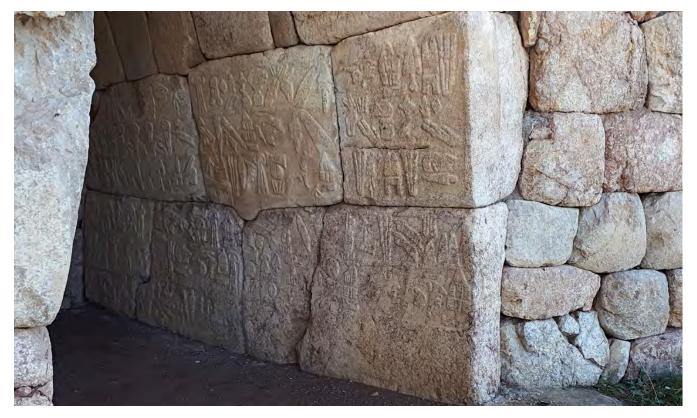
This past Aharoni Day I presented my current project, *The Hittites and Their Past—Forms of Historical Consciousness in Hittite Anatolia*, funded by the Israel Science Foundation. The project is the first large-scale study of historical consciousness in Hittite Anatolia. It strives to explore the various modes and strands of tradition by which the past was reconstructed, represented, and utilized throughout the history of the Hittite Kingdom.

Unlike their Egyptian or Babylonian contemporaries, who were well aware of the great antiquity of their civilizations, Hittite scholar-scribes could only look back on a relatively short past. With time, however, they began to learn how to explore and to utilize their own past. My research shows that in Hittite Anatolia, commemoration of the distant past primarily took place in ritual action, not in historical writing.

Hittite historiography, one of the most elaborate of its kind in the ancient Near East, was only marginally engaged with the distant past. The so called "Annals" mainly depicted contemporary history, portraying events of the reign of the current king or of his one or two predecessors. They were written for contemporaries,

but especially for future generations, conveying a distinct notion of historical consciousness: awareness of the importance of the deeds chosen for depiction. Most of the historical introductions to the state treaties likewise depict a relatively contemporary history. The more distant past was the subject of literature rather than of historiography, either in the form of Mesopotamian literature in translation or in the form of more local compositions. Yet it was in ritual action, that the memory of the distant past was primarily preserved and explored.

Religion often provides ample opportunities to encounter, interact, or imagine the past, presenting a plethora of narrative and non-narrative alternatives to historiography and literature. In Hittite Anatolia, religion offered itself as a vehicle for exploring the past in various forms, These included, among others, dramatic performances, the narration of local etiologies and foundation myths, the veneration of deceased members of the royal family or the meticulous maintenance of local shrines and ancient cults, documented throughout Hittite history.



A hieroglyphic Luwian inscription of King Šuppiluliuma (photo by Lidar Sapir-Hen)

## Big Data and Data Mining: New Tools for the 21st-Century Assyriologist

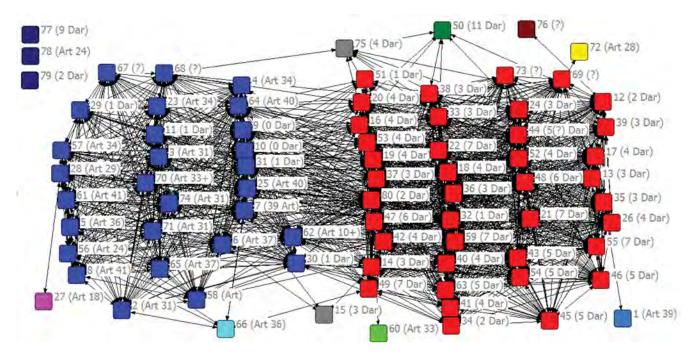
Shai Gordin

Assyriology at the dawn of the 21st century CE is caught in a constant methodological struggle. How does one balance rigorous, sometimes extremely time-consuming or repetitive, philological research with new tools devised by the crossdisciplinary research of the "Digital Humanities"? A recent scholarly estimate of ancient corpora places the attested word count of Cuneiform texts at around 14 million. Not merely a source of "Big Data," cuneiform texts are our main cultural source regarding some of the most prominent civilizations of the ancient Near East, from the Akkadian empire of Sargon in the third millennium BCE to the Assyrian, Babylonian and Persian empires of the first millennium BCE. Thus, it is relevant to the early history of mankind and the history of ancient Israel in its cultural context.

Most cuneiform documents remain unpublished; however, with fewer than 500 experts in Assyriology and related fields worldwide, the challenge remains one of scale and resources. Major changes in digital access to the cuneiform corpus came about following the completion of the *Chicago Assyrian Dictionary* (*CAD*) and most recently the *Reallexikon der Assyriologie* und Vorderasiatischen Archäologie (*RIA*). But the searchable cuneiform corpus will eventually become available through large-scale implementation of linguistically tagged or lemmatized texts. Spearheading this initiative (though not solely) are the Open

Richly Annotated Cuneiform Corpus portal (ORACC) and the Humboldt Foundation-funded Official Inscriptions of the Middle East in Antiquity (OIMEA), using ATF-encoding technology to incorporate lemmatized transliterations, their metadata, and lexica. The advantage of ORACC-related projects is their open-source scheme and correspondence with international standards of text encoding in XML, such as OpenDoc and the Text Encoding Initiative (TEI).

In my lecture I identify the interface between cuneiform studies and the Digital Humanities as one pertaining now (and in the near future) to three major trends: (1) visualization problems: preservation, reconstruction and accessibility of documentary sources, which usually includes some form of scanning, photography or both, in 2D+ or 3D technology; (2) linguistic and content-related problems: automated or partly automated transcription and translation of ancient languages. This is an area with potential for Big Data mining using models of Natural Language Processing (NLP), Machine Learning, or Artificial Intelligence. It is also the most complicated aspect, given the lexical and semantic complexity of the cuneiform script and Akkadian language; and (3) historical problems: representation and analysis of large amounts of economic, geographical, or social data.



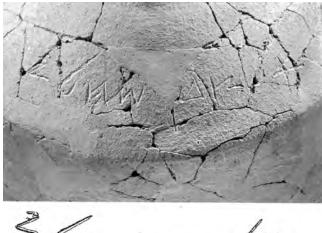


### The West Semitic Alphabet in the 10th and 9th Centuries BCE: A Transformed Picture Arising from Recent Discoveries

**Benjamin Sass** 

Not long ago, the known texts of Iron Age IIA (ca. 950–800 BCE) chiefly comprised inscribed monuments created at the end of the period. It is only in the last 15 years or so that non-monumental Iron IIA inscriptions began to emerge, most of them in excavations at Tel Rehov and Tell eş-Şafi/Gath, primarily on pottery vessels, and they have transformed much of our former understanding of the alphabet's development prior to the 8th century BCE. In 2013, Israel Finkelstein and I published a first synthesis of these stratified inscriptions, and in due course followed it with several additional works (all available on "Academia"). On Aharoni Day, I presented a 12-point summary of the results of this endeavor and their contribution to the debate on the chronology of the alphabet in the early first millennium BCE.

Of these 12 points, I present here three that are fundamental. (1) The key outcome of our studies is the dating of the alphabet's transition from pre-cursive Proto-Canaanite to the cursive alphabet-variants (Aramaic, Hebrew, and Phoenician) around the transition from early Iron IIA to late Iron IIA. It is the first time that this dating, ca. 900 BCE, can be gauged on the strength of stratified inscriptions. Further to this, we propose the attribution of this remarkable leap forward to the contemporaneous foundation of numerous West Semitic states (well attested by Assyrian sources), with their



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accelerated development of the alphabet in administrative ink documents. (2) A resulting insight is that the monumental inscriptions on stone in the West Semitic alphabet cannot be earlier than ca. 900 BCE, since some letter-shapes in each one of them (often most shapes) betray cursive models. (3) Lastly, as the total of letter-forms at each site implies, the Gath cursive in the 9th century BCE may have been a Phoenician–Hebrew hybrid (just as the long-known alphabet variant of Philistia in the 7th century BCE), and the cursive of 9th-century BCE Tel Rehov—an Aramaic–Hebrew hybrid.



Iron IIA-late. Tel Rehov inscription 7, cursive: 'Işdq šhly (from Erls 30: 304, reproduced by permission of A. Mazar, Tel Rehov Excavations, the Hebrew University of Jerusalem)

## **Emergence of the Critical Approach to Biblical Historical Research**

#### Nadav Na'aman

My lecture focused on the emergence of the critical approach to biblical historical research. This approach developed in Europe, primarily in Germany, in the second half of the 19th century CE. However, an extended period elapsed before Israeli (and American) research recognized and applied it to the study of ancient Israel.

*From Nomadism to Monarchy* (1990) was the first book published in Israel to systematically compare the conquest stories of the Bible with archaeological evidence. But the real turn in research occurred when scholars began critically examining the history of the United Monarchy. Scholars had previously presumed that the biblical tales of Saul, David, and Solomon were an accurate reflection of the period to which they were assigned in biblical historiography. It was taken as fact that the biblical accounts simply paraphrased the histories of the three kings. Critical examination of the results of archaeological excavations and surveys changed this picture, demonstrating that there was no historical basis for the accounts of a major, prosperous Levantine kingdom. It also became clear that alphabetic writing in the Judahite highlands began only in the 9th, and proliferated in the late 8th and 7th centuries BCE. Hence, writing of historiographical works in Jerusalem took place hundreds of years after the related events and only marginally reflected the reality of events of the 10th century BCE.

An important observation current in recent research is the differentiation between the "historical" and "biblical" Israel. The designation of a unified people of Israel did not antedate Assyria's annexation of the region in 720 BCE. The designation "sons/men of Israel" refers in biblical historiography to the entire population of ancient Israel, whereas the Assyrian annexation of the Kingdom of Israel took place when the inhabitants of Israel and Judah were still known by diverse and distinct names. It was only when Judahite authors started writing massive "historical" compositions that they began to refer to this imagined ancient ethnic entity under the collective name "Israel." It was only then that they began to describe its inhabitants as the people of YHWH.

The main conclusion that emerged from the discussion is that scholars must recognize the limitations of biblical historiography as a historical source, and that a critical approach must always be applied when studying the biblical text.



József Molnár, Abraham's Journey from Ur to Canaan (1850)

## STUDENT SPOTLIGHT

Abstracts related to presentations delivered on Aharoni Day 2019 by students



## The Growth of Social Complexity: Society and Economy in the Judaean Highlands during the Intermediate and Middle Bronze Ages

Helena Roth

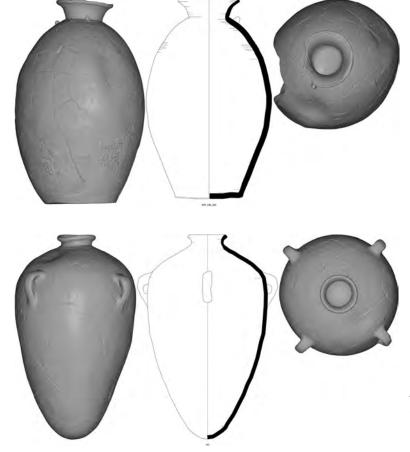
This study considers the primacy of Jerusalem as an urban center during the Middle Bronze Age (ca. 1900–1550 BCE) and investigates this notion through a regional study. This includes an integration of the urban and (more so) the rural components of Jerusalem's socio-political system during the Intermediate Bronze Age (ca. 2500–1900 BCE). Such integration preceded the age of urbanism and the subsequent MBA, thus effectively marking its peak. The socio-economic infrastructure, origin, and development of social complexity and urbanism are thus reconstructed.

The main site of this study is Nahal Repha'im, a large potters' village located in the hinterland of Jerusalem, which was occupied during both periods. Reconstruction of the socioeconomic organization of its households is facilitated by a spatial analysis of finds, which reflect wider regional processes of the urban system of Jerusalem.

With the help of the "Dynamic Systems Approach," the reconstruction of the chaîne opératoire, and the use of macro

and micro analyses of ceramic fabrics, various stages of the production of pottery can be traced. The transmission of techniques occurs within a social group, from the potter to the apprentice, and through repetitive motoric practice. As a result, pottery-making traditions are preserved over generations within a social group, while differing groups follow different traditions. When applied to Naḥal Repha'im, continuity in traditions indicates the continuous presence of a single social group in the region, while the emergence of different techniques across the periods relates to the presence of different social groups.

Vessels examined this far are largely characterized by elements of continuity, such as the use of coils and the wheel (fashioned rims and necks). Changes include the introduction of the fast wheel, and the "upside-down" construction of the lower body and base, possibly rooted in the growth of social complexity and the specialization of craftsman, or in the entry of new social groups. Further analysis of the hundreds of finds from Naḥal Repha'im will further illuminate the question of the identity of the founders of the urban system in the region of Jerusalem.



An IBA storage jar from Naḥal Repha'im (scans conducted by Ortal Haroch, in the National Laboratory for Digital Documentation and Research, at the IAA)

An MBA storage jar from Naḥal Repha'im (scans conducted by Ortal Haroch, in the National Laboratory for Digital Documentation and Research, at the IAA)

## Beyond the Visible—Burial Offerings in the Second Millennium BCE in Light of Residue Analysis of Ceramic Vessels

Ayala Amir

Burial practices, which include the laying of various objects alongside the dead, were already present in prehistoric eras. Grave goods occasionally held practical aspects, but otherwise they appear to have held symbolic meaning, i.e., supplies for the afterlife, provisions for the way to the world of the dead, etc. Among grave goods, pottery is the most common find. These vessels were used as a receptacle for various organic materials, from a range of flora and fauna. Organic matter exposed to an aerobic environment decomposes by means of various organisms and is not preserved over the years. Therefore, vessels found in the archaeological context of burial are usually discovered devoid of their original contents, which cannot be identified through traditional archaeological techniques.

In this study I intend to use organic residue analysis to identify the organic materials placed in vessels that served as burial offerings in the Middle Bronze Age (1950–1550 BCE). Decomposing organic matter leaves organic residues, biomolecular components of the original material, preserved in the wall of the vessel. By applying appropriate extraction, separation (chromatographic), and

identification (mass spectrometric) techniques, the preserved and altered biomolecular residues can be revealed and identified. Hence, the molecules found in vessels may serve as "chemical fingerprints" of the source material.

The research of burial offerings in antiquity has to date relied only on the typology of ancient vessels and archeological contexts, in order to interpret the archeological, anthropological, and theological aspects of burial customs. As a result, archaeological discussions on the relationship between the contents of ancient graves and the populations who used them were carried out without any additional information regarding the contents of vessels found in tombs. Thus, a crucial aspect of life (or rather, death) was absent, and it was not possible to reconstruct a complete picture of this matter. The current research aims to bridge this gap in our understanding of Middle Bronze Age society, and in doing so, to expand the archaeological research of burial customs and the "Cult of the Dead" during this period and the various groups that buried their dead alongside the offerings.



The interior of Tomb 50 at Megiddo, looking toward the south corridor (courtesy of the Megiddo Expedition)

### A Computational Approach to Chronological Debates Eythan Levy

Chronological debates are extremely complex, as they involve a large web of entangled data, such as historical dynasties, archaeological strata, ceramic types, and foreign imports. Further to this, in most chronological debates, "base hypotheses" are not always clearly differentiated from interpreted facts, resulting in a lack of rigor and a risk of circular reasoning.

In my Ph.D. dissertation, I propose a formalized notion of the "chronological network," comprising chronological sequences and a wide set of possible synchronisms between their components. These components (e.g., reigns, strata, ceramic types) can be further given all sorts of prior constraints, such as known or approximated start dates, end dates, and durations. With such a formalized chronological network, one can use the computer to answer several questions, such as: Are the data consistent, or do they feature a contradiction? What is the most precise range that can be computed for each date and duration? How does a local change (e.g., changing a king's dates) affect the other components of the network?

We have developed a computer application called ChronoLog, which allows us to encode a chronological network and to

answer these questions. This computational approach brings greater rigor into chronological debates, by explicitly laying down all the base chronological hypotheses and avoiding hidden assumptions and circular reasoning.

We apply this computational methodology to the study of chronological debates related to the Iron Age (11th–early 6th centuries BCE) in the Levant. For example, we have examined the date of appearance of Bichrome Philistine pottery at Megiddo, and encoded a large chronological network comprising three stratigraphic sequences, three Egyptian dynasties, one ceramic type, and the sequence of local archaeological periods. Over 100 synchronisms and 100 date and duration constraints have also been encoded, and several variants have been considered. The results of this first case study advocate for a late appearance (late 12th/early 11th century) of Philistine pottery at Megiddo. Further case studies we wish to address are the date of the campaign of Pharaoh Shoshenq I (biblical "Shishak"), and the chronology of Greek and Aegean ceramic imports in the Southern Levant.

## Olive-Oil Production in the Sorek Valley during the Neo-Assyrian Period

Débora Aymbinderow

During the annual Aharoni Day, I presented the plan of my Ph.D. dissertation, under the supervision of Oded Lipschits and Ido Koch. The aim of the research is to analyze developments in the production of olive oil in the Sorek Valley during the Iron II (ca. 8th–7th centuries BCE), in light of the political and social history of the Southern Levant under the hegemony of the Neo-Assyrian empire. Three sites situated in the Sorek Valley are at the center of this study: Tel Beth-Shemesh, Tel Batash/Timna, and Tel Miqne/Ekron. The idea is to examine the technological and structural developments of the olive-oil industry, while focusing on the social implications of such developments. This is in view of the long history of the olive-oil industry in the Southern Levant. The research is based on archaeological and textual sources such as epigraphic, Assyrian, and biblical texts.

At the center of my research is Tel Miqne, the site of Philistine Ekron. In the excavations, 115 olive-oil presses were exposed.

The olive presses were built around the settlement on the fringes of the site, and it seems that this is evidence of meticulous urban planning. This is the largest olive-oil production center ever to be excavated in the ancient Near East. In addition, other interesting finds were uncovered at the site, such as a monumental building, a royal inscription, ostracons, and silver ingots.

One of the issues that will be examined in the work is the various interests that were apparently based on the foundation of the industrial centre in Ekron. Such variables include a consideration of (1) the local elite of Ekron, who could benefit from surplus production and promote urban development; (2) the merchants (apparently Phoenicians) who traded in olive oil; (3) Egypt, which was an importer of olive oil from the Southern Levant for thousands of years; and (4) the Assyrian Empire, which could collect tax on the trade of olive oil.

#### Destructions and Carinations: Anatomy of the Neo-Assyrian Western Frontier (8th–7th centuries BCE) Liora Bouzaglou

After more than several decades of intensive research into the Neo-Assyrian domination of the Levant (8th-7th centuries BCE), many issues regarding this phenomenon still need to be clarified. The hegemonic modalities of the Assyrian Empire were often modeled in accordance with modern imperialistic conceptions. Moreover, the Bible was employed as a deformed prism through which the interpretation of the archaeological realities of the Iron IIB-C, as well as Assyrian royal propaganda, has contributed to the creation of the image of a destructive and devastating empire. We often find the term Assyrianization applied to Israel and Judah and even to the whole Southern Levant, understood as an enforced adoption of Assyrian imperial culture, and as a systematic integration of the conquered regions. These historiographical constructions therefore deserve a systematic reevaluation, beginning with strong archaeologically-based foundations: stratigraphy and ceramics of the Iron IIB-C.

First, a revaluation of the stratigraphy is warranted due to the numerous destruction layers attested during the Iron IIB, of which many were almost automatically attributed to Assyrian campaigns, without consideration of other possible agents. A reassessment will allow a new archaeological image of the destructions, reoccupations, abandonments, and reconstructions during the Assyrian domination. Second, the reevaluation of different aspects of pottery production and consumption is necessary. These changes in the socio-political organization from autonomous kingdoms to annexed provinces and tributary states of the Assyrian Empire should be expressed in many aspects of the material culture, but first and foremost in the manufacture of ceramics. Did the Assyrian occupation import new ceramic practices? Did the production of ceramics remain local despite the deportation of craftsmen over the whole empire? When did Assyrian-style ceramics appear in the Levantine archaeological record, and how were they made?

In order to disentangle and reconstruct the local cultural responses in an imperial context, as well as the mechanisms of imitation, adoption, and adaptation of pottery, different methodological approaches are necessary. Applying petrographic, mineralogical, and technological analyses, alongside other analytical methods to various ceramic collections from the western frontier of the empire will provide, hopefully, new material for supplying the Assyrianization of Southern Levant.



Graphic illustration of the combination of methods applied to "Assyrian-style" vessels (image provided by Liora Bouzaglou)

#### On the Shoulders of Giants: Theoretical Aspects and Archaeological Evidence for the Existence and Manifestation of Ready-made Concepts and Techniques during the Palaeolithic Period Bar Efrati

During the 2019 Aharoni symposium, I had the great opportunity to present the subject of my Ph.D. research in a short communication. The presentation was within the framework of a special and unique session of short "TEDlike" presentations, aimed at presenting the current and future works of the students studying and researching at the Institute and Department of Archaeology. All the presenters of this session received a scholarship for their participation.

My Ph.D. research, under the supervision of Prof. Ran Barkai and Prof. Avi Gopher, aims to show (both theoretically and technologically) that concepts and techniques of what we term "ready-made" according to modern art existed before modern times, and more specifically during the Palaeolithic period, as a mode of perceiving and interacting with the world.

"Ready-made," a definition from modern art, describes art created from the modification of objects that already have/had

a non-art function. The theory is examined in what I argue to be a technological manifestation of this world view: the phenomenon of collecting modified patinated flint items made by past human societies, and their further modification and recycling to new tools by later groups.

During my presentation, I presented the idea of my research subject to the participants, but most importantly, I enjoyed the process and the presentation. As I stated in the opening lines of my presentation: I made a dream of mine come to life. As a semi-participant in the world of art for many years, I have managed to integrate tools from my knowledge and experience as an artistic creator into my archaeological work and research. This presentation was my opportunity to share the ideals of this integrated research of mine to the people who have taught me what archaeology is for the past seven years.

For that, I am grateful.



Recycled patinated flint item from Qesem Cave (photo by Sasha Flit)

#### **Between Chronology, Terminology and Concept**

#### Nahshon Szanton

Jerusalem is a unique site whose history has been documented in several varied and rich forms. For this reason, for the past 150 years, researchers have linked most of the city's archaeological research to historical data. This phenomenon is repeated in the study of every other historical city, but it seems that the case of Jerusalem is one of the most prominent.

It should be noted, however, that the connection between archaeological and historical research has often created prejudices or perceptions that have been established without necessarily any real evidence. One of the most striking examples of this connection is the intensive use of Josephus' accounts of the period between the reign of Herod until the destruction of the city in 70 CE (the end of the Second Temple period). This period in research was given several names: from the "early Roman period" to the "Herodian period" (ca. 1st century BCE-1st century CE). Giving a name to a period reflects (and sometimes may establish) a mood that can indicate the point of view, as well as the social, cultural, political and other interpretations, of contemporary researchers. The stabilization of the use of the "Herodian period" reflected and confirmed the view that Herod and the Herodian dynasty were directly responsible for the "magnificent city of the East."

There is no doubt that Herod was indeed the dominant and most influential figure in the Land of Israel in the early Roman

period. Even his heirs, mentioned in the descriptions of Josephus, received a short monarchy. In fact, however, from 6 CE Judah became a Roman province, and this historical fact has implications for the problems and issues that dealt with the urban development of Jerusalem—i.e., who planned and initiated, who financed, or who carried out any construction project in the city? These questions, at the heart of my Ph.D. dissertation, have so far been answered in one simple and almost natural way—the Herodian dynasty.

In recent years, the archaeological research of the city in the 1st century CE has undergone a significant change, not only in relation to the constantly growing database, but also in our understanding of historical sources, especially the identity of those responsible for the extensive construction activity. In this context, the extent of the involvement of the Roman authorities is evident, as part of the "imperial construction tradition" in the provinces, which was run by the Roman procurators. These data and insights allude to the need to change a paradigm and to a large extent abandon the usual term "Herodian period." Moreover, it seems that parallel to the exposure of the ancient strata of the city, which are constantly being studied, a layer of research knowledge and a set of assumptions has emerged, which also requires periodic reexamination and critique.



Coin of the Roman governor who ruled Judea under Emperor Tiberius in 30/1 CE (Pontius Pilate), found sealed under the stepped street in Jerusalem (photo by C. Amit, courtesy IAA)



A close look at one step of the street (photo by A. Peretz, courtesy of IAA)

## **Blind Test Evaluation of Consistency in Macroscopic** Lithic Raw Material Sorting

Aviad Agam and Lucy Wilson

This study sought to undertake a blind test of raw material classification of archaeological material taken from the Acheulo-Yabrudian site Qesem Cave (Israel), and was aimed at evaluating and increasing the reliability of macroscopic raw material analyses. Following a brief tutorial process, twelve students (with various degrees of experience and familiarity with the Qesem material) sorted 100 randomly-selected flint pieces into flint types, which were based on a previously established data base. Lucy Wilson of the University of New Brunswick, Canada (who has regularly performed lithic raw material research for more than 30 years), and Aviad Agam (who has been studying raw materials since 2013 under the

instruction of Lucy Wilson) performed the same test. The two then compared the 14 sets of results, using Wilson's results as an anchor. The results show that experience strongly affects the reliability of the macroscopic classification, as the participants who were more experienced with the Qesem material achieved higher correlations with Wilson's results. More generally, blind tests were demonstrated to be a valuable instrument in the process of raw material studies, effectively pin-pointing repetitive inconsistencies, and thus allowing for the fine-tuning of the classification scheme, which in turn improves the reliability of classification.

## The First Evidence of Vanillin in the Old World: Its Use as a Mortuary Offering in Middle Bronze Age Canaan

Vanessa Linares

In my research, four small ceramic juglets, once used as containers for offerings in an elite MB III (ca. 1650–1550 BCE) masonry tomb uncovered at Tel Megiddo in the Jezreel Valley, were tested using organic residue analysis. Notably, residues of vanillin, 4-hydroxybenzaldehyde, and acetonvanillone were identified in three of the four juglets examined. These residues are the major fragrance and flavour components of natural vanilla extract. To date, it has been commonly accepted that vanilla was domesticated in the "New World" and subsequently spread to other parts of the globe. The results shed new light on the first known exploitation of vanilla in an "Old World" context (including local uses), the significance and employment in

mortuary practices, and possible implications for understanding trade networks in the ancient Near East during the second millennium BCF.

The Department of Archaeology and Ancient Near Eastern Cultures presented me with an award contributed by the Rosenfield Family for my work, which was recently published in the Journal of Archaeological Science: Reports.

## Object's Biography: Production, Distribution, and Function of Middle and Late Bronze Age Scarabs in the Ayalon and Yarkon Basin

Noa Ranzer

My research focuses on the appropriation of scarabs (a common Egyptian seal-amulet) from the second and first millennia BCE by the locals in the Southern Levant during the Middle and Late Bronze Ages (ca. 2000–1150 BCE), under the supervision of Yuval Gadot and Ido Koch.

Following Kopytoff's theory of "Object's Biography," the manufacture processes related to the scarabs are examined (*chaîne opèratoire*), alongside their distribution, and their various uses. 3D scans and stereo-microscope photos are utilized to aid in the identification of the different techniques of manufacturing. The purpose of identifying the various steps of manufacture is to distinguish between different workshops, and to provide a technical-knowledge-based criterion for the differentiation of locally made scarabs from those produced in Egypt. Doing so will effectively supplement the existing criteria of typology and iconography. The use of the scarabs will be examined according to the contexts in which they were found.

For example, if a scarab was placed next to the neck or head (with other beads and amulets), the assemblage probably served as a necklace, whereas if a scarab was found on/near the finger, it was probably originally part of a ring.

The theoretical paradigm of postcolonialism supports the examination of the archaeological remains in the Southern Levant during the Middle and Late Bronze Ages from a local perspective. Postcolonialism studies aim to change the distinction between "center" and "periphery," and seek to identify local practices from a local perspective by way of the material remains. Throughout all periods the Southern Levant can be characterized by unique assemblages, which integrate both objects and practices of neighboring regions. The scarabs are an effective test case for the observation of the ways in which local people selectively chose specific objects from the regions surrounding them, entangled them with local practices, and integrated them into their own culture.

### Kiriath-jearim in the Roman Period

Yana Kirilov

The research analyses archaeological and historical aspects of Kiriath-jearim during the Roman period, under the supervision of Israel Finkelstein and Guy Stiebel. The site is located west of Jerusalem, near the village of Abu Ghosh, and is presently excavated by Tel Aviv University and Collège de France under the direction of Israel Finkelstein, Thomas Römer, and Christophe Nicolle. The first excavation season indicated that the main occupation of the site occurred during the Iron IIB–C and the Roman period. Massive walls exposed at the top of the mound are interpreted as part of a rectangular compound. Based on ceramics and OSL-dating, the construction of this prominent

feature dates to the Iron II. The settlement was reused and renovated during the Roman period, when the site may have been transformed into a Roman army camp. An alternative interpretation considers the remains as part of a large Roman villa. Understanding the nature of Kiriath-jearim during the Roman period will shed light on the history of the region, and perhaps even on Jerusalem. If Kiriath-jearim was indeed the location of a Roman camp, the analysis will contribute to a greater understanding of the military system in the Jerusalem area and more broadly, in Judea, and of the configuration of military camps in the eastern Roman Empire in general.

### **Burials from Horvat Tevet and Tel Shaddud**

Jordan Weitzel

My M.A. research focuses on burial habits in the early Iron Age, under the supervision of Omer Sergi and Oded Lipschits. Historically, this is a period in which mortuary evidence has been poorly attested. Yet recent salvage excavations at two hinterland sites in the Jezreel Valley, Horvat Tevet (Iron I) and Tel Shaddud (Iron IIA), have yielded two of the largest cemeteries known from these periods, and thus provide an opportunity for a reassessment of the issues related to Iron Age burial practice in northern Israel and beyond. This research will contribute to the existing field of research by comparing Iron I and Iron II graves (of the same region), in the hopes that it will illuminate aspects of continuity and change between the two periods. Of particular focus will be an exploration of social structures and identity during this period (as reflected by the burials), and whether such processes were affected by Omride expansion into the Jezreel Valley (as manifested by the construction of an administrative building at Tevet). Moreover, this evidence will be placed in a comparative discussion on both an interand intra-regional level to better address the major questions surrounding Iron Age burial practices i.e., the lack of known Iron I burials, the use of burial practices as an ethnic marker, and beliefs associated with the dead and afterlife during this period.



Iron IIA burial of an adult male with vessels placed near the head and legs (photo provided by Danny Kizner)



Iron I burial of an adult male with a storage vessel placed near the head (photo provided by Omer Sergi)



# Apollonia-Arsuf Excavation Project: The 2019 and Summer 2020 Seasons

Oren Tal

The Israel Science Foundation (ISF) Personal Research Grant, titled "Contextualizing the Architectural Language of the Military Orders: Reconstructing the Frankish Castle of Arsur in Light of its Recently Discovered Chapel," is now in its third year. The project aims to identify and locate (for the first time) the two religious institutions of Arsur: the castle chapel and town church. To reinforce the archaeological evidence of our assumption (regarding the location of the Hospitallers chapel), we have launched an excavation along the full length of the façade of the castle's western halls, located below the castle courtyard level.

The town and castle of Arsur have been the subject of extensive and ongoing excavations and research since 1977. The castle is situated at the northern end of the walled town and was built in 1241 CE by a member of the Ibelin family. The castle was later leased (in 1261 CE) to the Order of St. John (Hospitallers), which refortified both town and castle. This occupation continued until their eventual destruction (following a siege) by the Mamluks (March–April 1265).

We have maintained our ongoing goals during the 28th (2019) season: to uncover the architectural and sculptural elements buried close to the floor level, and expedite the preservation and conservation of the castle's western façade (which will likewise include a means by which we can slow the deterioration of the sea cliff). We will follow the above goals during our forthcoming 29th (2020) summer season. By now, many such architectural and sculptural elements have been retrieved, and they constitute a significant contribution to the reconstruction of the original layout of the *donjon* in its later stage under the Hospitallers. Our proposed reconstruction of the castle chapel will largely be based on the analysis of the decorative architectural items of the Crusader period found thus far.

To learn more about the Apollonia-Arsuf Excavation Project, head to:

https://en-humanities.tau.ac.il/archaeology/excavations\_and\_ Projects/current\_excavations/Apollonia-Arsuf



View of Area F at Apollonia-Arsuf: An orthophotograph of the castle western fortifications (scan provided by David Zell, www.see3d.co.il).

### Tel Azekah 2019 Season

Oded Lipschits, Yuval Gadot, and Manfred Oeming

The Lautenschläger Azekah Expedition returned to Tel Azekah for a seventh season between July 20 and August 15, 2019. Tel Azekah is located in the Shephelah, on the northernmost tip of a ridge that separates the Shephelah's high hills (eastwards) and moderate hills (westwards). In the four-week 2019 season, four areas (N1, E3 Upper, S1, and W1) were excavated by 85 expedition team members and staff, under the direction of Prof. Oded Lipschits, Prof. Yuval Gadot (Tel Aviv University), and Prof. Manfred Oeming (Heidelberg University).

Excavation efforts of the current expedition are predominantly centered on the upper mound. Area N1 was opened with the goal of exploring the northern face of the mound and developed as a wide exposure of the area and a partial section of the northern slope. Area E3 Upper is part of the eastern section of the site, and is focused on the Late Bronze Age remains, as well as on the nature of the Hellenistic citadel (and what lies below it). Area S1 was opened to provide a southern section of the site and to aid in the development of the overall stratigraphy of settlement activity. Area W1 was opened with a similar intention

as Area S1, intended to provide a chronology of settlement on the western face of the upper mound.

Overall, the 2019 season at Tel Azekah saw developments across all four areas. Excavation efforts shed further light in particular on the Late Bronze III (ca. 12th century BCE) destruction, the Iron IIA settlement (ca. late 10th–9th century BCE), and the Iron IIB destruction (ca. late 8th century BCE). Further analysis of material remains may also reveal new insights in relation to the Iron IIC (ca. 7th century BCE). In 2020 the team hopes to return to the tel to continue excavation efforts in N1, E3 Upper, S1, and W1, and to launch new areas of exploration in the southern section of the upper mound.

To discover more about Tel Azekah and how to join the team in July 25–August 20, 2020, head to Azekah.org, or Facebook @TheLautenschlägerAzekahExpedition.



End of the season group photo (photo provided by Oded Lipschits)

# Tel Beth-Shemesh 2019: A Unique Iron Age I Temple Unearthed

Shlomo Bunimovitz and Zvi Lederman

The retreat of the 20th Egyptian Dynasty from Canaan and the settlement of Philistine immigrants in the southern Coastal Plain and the Shephelah during the 12th century BCE was accompanied by destruction and desertion of multiple prominent sites. This underlines the great importance of our exposure of a sequence of four Iron I settlements (Levels 7–4, ca. 1200– 950 BCE) at Tel Beth-Shemesh, which have revealed both an unbreakable continuation of Canaanite material culture, as well as a deliberate avoidance of Philistine ethnic markers. It appears as though the Canaanite resistance to Philistine expansion raised a cultural–political border on the eastern periphery of Philistia.

A conspicuous find in Level 5 (ca. 1100–1050 BCE) is a unique building, apparently a temple (according to its plan and contents) that is accompanied by a towering round *bama* (high place). The temple consists of a square room (8.5 × 8.5 m) with well-constructed walls. The room is divided into several activity areas: in the northern section two large boulders have their flat tops carved into a round groove and a gutter, as though to receive libations. A low partition wall isolates an elongated chamber at the western end of the room. Numerous bones recovered from within the chamber may hint that animals were slaughtered on

the large flat stone that rests on the partition wall. At the opposite corner of the room a stone bench built along the southern wall is positioned to face a raised stone table made of a large and heavy fieldstone with a flat upper face. A fine assemblage of decorated ceramic goblets, chalices, and pixides, as well as faience goblets and a large number of beads, were found on the room's floor. Notably, objects of domestic use, e.g., cooking pots, jars, grinding stones are entirely absent here.

It was discerned that the temple was covered by a series of black layers that were ultimately identified as dung heaps. One may assume that the hostile Philistine neighbors of Tel Beth-Shemesh were responsible for the intentional desecration of the sacred place by turning it into an animal pen, and for the repeated destruction of the Iron I settlements at the site. Yet a series of "cooking corners" built in Level 4 (ca. 1050–950 BCE) over the temple seems to indicate that its memory was celebrated in communal gatherings long after its demise. Moreover, one may relate the later narrative about the arrival of the Ark at Tel Beth-Shemesh (1 Samuel 6:13–15) to the memory of the Iron I temple at the site.



Aerial view of the Iron Age I temple at Tel Beth-Shemesh (photo provided by Zvi Lederman)



Inside the Iron Age I temple at Tel Beth-Shemesh: One of the two large boulders with flat top carved into a round groove and a gutter to receive libations (photo provided by Zvi Lederman)

# The Salvage Excavation at Tel Beth-Shemesh (East): Conclusions

Boaz Gross

The salvage excavations at Tel Beth-Shemesh (East) took place from May 2018 until early 2020. The excavation was directed by Boaz Gross and Aharon Tavger (Tel Aviv University), assisted by Yoram Haimi (IAA), and was conducted by Israeli Institute of Archaeology on behalf of the Sonia and Marco Nadler Institute of Archaeology at Tel Aviv University. In the 400 squares that were excavated, a large stratified site was exposed, encompassing every historical period from the Iron Age (ca. 7th century BCE) to the modern era (20th century CE).

Excavations of this scale were previously unheard of in modern Israeli archaeology, yet over the past few years this has begun to change due to the terms established by the Israel Antiquities Authority to allow current infrastructure and housing development. Despite the logistic and methodological shortcomings of such massive salvage excavations, they have several clear advantages, such as the ability (1) to expose, discern, and document town planning and development, and (2) to trace grand-scale changes in settlement patterns over millennia.

In Tel Beth-Shemesh these elements are manifest in the identification of a rural and agricultural center that was active during the Iron IIC (ca. 7th century BCE) and the following Persian (ca. 5th–4th centuries BCE) and early Hellenistic periods (4th–3rd centuries BCE). This phase of settlement at the site was previously unknown to research. Later, during the Hasmonean period (ca. 2nd–1st centuries BCE), the town became a Jewish

village that included a single monumental structure, which may be a rare example of a late Second Temple period synagogue (1st century BCE–1st century CE). This Jewish town was abandoned at some point during the Bar-Kokhba revolt (2nd century CE), as is evident from the abundance of underground hideout systems.

In the Late Roman and Byzantine periods (5–7 centuries CE), the settlement evolved into an industrial zone, one that produced olive oil, wine, and ceramic storage jars, and was most likely part of a monastic economic system. The grand structures of the Byzantine periods were modified to domestic units during the early Islamic period (ca. 7th–10th centuries CE) in the form of a wealthy town, which even survived and recuperated from the great earthquake of 749 CE, only to be mysteriously abandoned during the 10th century CE.

The last phase is represented by a densely populated Mamluk and Ottoman period village, which was founded in the 15th century CE and abandoned in the early 19th century CE. The excavation of this village is one of the expedition's greatest achievements, as it is probably the largest and most thorough archaeological investigation of a settlement from these periods in Israel. To conclude, the salvage excavation at Tel Beth-Shemesh, despite the innate shortcomings of its nature, provided unique and valuable information regarding the history of the region throughout 2700 years.



A monumental building, suggested to be a 2<sup>nd</sup> Temple period synagogue (photo provided by Boaz Gross)



Aerial view of the excavation site, February 2019, looking north (photo provided by Boaz Gross)

### Khirbet Beit Mazmil

Omer Ze'evi-Berger and Nitsan Ben-Melech

Khirbet Beit Mazmil is situated on the watershed between the Refaim and the Soreq catchment areas, on one of the tallest hills in the Jerusalem environs. The site (a farmstead near Jerusalem) has been almost continuously inhabited since the Late Byzantine period (5th–7th centuries CE), changing over time in form and function. The Kh. Beit Mazmil Excavation Project is a collaboration between the University of Bonn (Germany), Israel Antiquities Authority, and Tel Aviv University (Israel), and is funded by the German–Israeli Fund for Scientific Research and Development. The excavation at the khirbeh is under the senior direction of Prof. Dr. Bethany Walker, and it recently completed its fifth and final season. The site will now be conserved as part of a community garden.

The earliest identifiable construction effort at the site is a vaulted complex from the Mamluk era (13th–16th centuries CE), including domestic and industrial zones. It is notable that these structures make use of earlier wall stubs. According to the pottery and small finds associated with this phase it is possible that the settlement was a *gasr*—a small rural estate, constructed under

the endorsement of the state. During the Ottoman period (16th– 20th century CE), parts of the vaulted complex were converted into domestic spaces. A drystone complex was constructed towards the end of the Ottoman period, effectively reusing parts of the vaulted structure (most probably as a seasonal farmstead).

Alongside the excavations in the site there were two short-term excavations, conducted along the terrace systems located on its nearby agricultural lands. These excavations relied on OSL samples for the dating of the terrace systems. Pollen and phytolith samples were collected to aid the identification of the crop types cultivated in the area. The results of excavations in both the settlement and the nearby terraces were integrated with information derived from historic texts. Such an approach allowed us to outline a complete economic unit. In applying this multidisciplinary approach, this project aims to study life in the rural hinterland of Jerusalem from Late Antiquity to modern times, and to consider the motivations underlying the adoption of terracing as an economic strategy.



The vaulted complex at Kh. Beit Mazmil (photo provided by Omer Ze'evi-Berger)

# Tel Bet Yerah 2019

Raphael Greenberg

The final season of excavations of Tel Aviv University's Tel Bet Yerah Archaeological Project was conducted in February 2019, with additional work in October of that year. As in 2018, this was a joint venture of the Bet Yerah team, headed by Raphael Greenberg, with Tawfiq Da'adli of the Hebrew University of Jerusalem and Donald Whitcomb of the Oriental Institute of the University of Chicago. The goal of the seasons was to expand our understanding of the Umayyad palace of al-Sinnabra, built in the mid-7th century CE and abandoned less than two centuries later.

In 2018 we identified remains of a plastered courtyard and several pillar bases north of the fortified palace enclosure. The new excavations established that the plastered court extended along the entire northern façade of the enclosure, and that its eastern half was occupied by a large pillared hall, of which only the foundations have survived. There were at least two phases of construction during the brief existence of the hall, which is tentatively identified as the palace mosque. Massive foundations were found of a porch, which would have offered extensive views to the north, east and south, as well as of a broad passageway that ran along the eastern façade of the palace. The palace foundations have been incorporated in the extensive conservation plan designed and carried out by the Israel Antiquities Authority, which will allow public access to the Early Bronze Age Circles Building and the al-Sinnabra palace at the northern end of Tel Bet Yerah. Ongoing research on Early Bronze Age Bet Yerah (ca. 3600–2500 BCE) and Islamic al-Sinnabra (ca. 650–800 CE) continues to be sponsored by the Israel Science Foundation and the Max van Berchem Foundation in Geneva.



Al-Sinnabra: The pillared hall north of the fortified enclosure, looking east (photo by Sasha Flit)



Conservation of the Early Bronze Age Circles Building (at right), and the Umayyad palace (center), with the new pillared hall to its north (left), looking east (photo by Slava Pirsky)

# Tel Hadid: 2019 Season

Ido Koch, Eli Yannai, and Dan Warner

The second season at Tel Hadid was conducted in June–July 2019, co-directed by Ido Koch (Tel Aviv University), Eli Yannai (formerly of the Israel Antiquities Authority) and Dan Warner (New Orleans Baptist Theological Seminary). Excavation staff members included students from Tel Aviv University and New Orleans Baptist Theological Seminary; participants were students from Tel Aviv University. New Orleans Baptist Theological Seminary, and the local community. That season we also hosted a community excavation, as part of an outreach program in collaboration with the Hevel Modi'in Regional Council, with the participation of 3rd and 4th graders from Ben-Shemen and Modi'im elementary schools. The joint project concluded a successful season, in which we were able to further explore the multifaceted history of the site across four areas of excavation.

Our aim to unearth remains from the Iron Age settlements at the lower terrace was achieved in Area AAU, where Iron IIC pottery (including some complete vessels) were found at varying levels across the area, above and below mudbrick wash. Our plans are to expand the study of this area in order to gain a better understanding of the circumstances for the deposition of such a rich assemblage in this part of the site.

A series of walls located along the slope of the higher mound first triggered our curiosity when they were detected during our 2018 survey. In 2019 we decided to excavate the uppermost of these walls. The results of the first season produced an initial understanding of the development of the slope of the higher mound and yielded an impressive find: a structure made of large walls, with two rows of large and roughly hewn stones forming a corner. The fill inside the structure includes late Hellenistic pottery sherds exclusively. It appears that this structure had been built along with another structure (to its west), only partially explored during the excavation season: a stepped wall built of very large field stones and roughly hewn stones. In our third season, to take place in 2020, we plan to further explore these features in an effort to better understand their relations.

Lastly, further down the slope we identified a large (and partly exposed) wine-press complex. This area was selected to accommodate a community outreach in collaboration with the Hevel Modi'in Regional Council. After one season of excavation, evidence was found to support the dating of the press to the Byzantine period. Other key discoveries include the uncovering of small portions of a mosaic floor in situ, as well as a section of the "floor makeup," consisting of pottery sherds and plaster. In the center of the wide surface we uncovered a square screw-base made of stone. To the east, an intermediate vat was uncovered with a partially preserved mosaic floor. Channels were also unearthed connecting the wide surface, the intermediate vat, and the large collection vat. As of yet, we do not fully understand the function of the compartments or whether they were used for storage, pre-treatment of the grapes, initial crushing, or a combination of the three. Furthermore, the complex seems to be even larger than what was initially suspected, as the first indications of what might be additional circular installations were identified around it. With such a diverse range of contexts, finds, and questions, we look forward to what is certain to be a great 2020 season!

Discover more about the Tel Hadid Project online at hadidexpedition.org

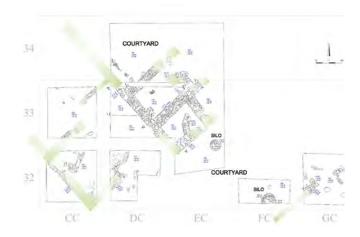


Tel Hadid, looking northeast (photo by Omer Ze'evi-Berger)

### **Tell Izțabba (Nysa-Scythopolis) Excavation Project: September 2019 and February 2020 Seasons II–III** Oren Tal

The German-Israeli Foundation (GIF) funded project "Tell Iztabba (Nysa-Scythopolis): High-Resolution Hellenistic Settlement Archaeology and the Reassessment of the Formation of the Decapolis" (along with Achim Lichtenberger of the University of Münster) completed its first three field seasons in February and September 2019 and February 2020. Located close to Beth She'an (and within the Beth She'an National Park) Tell Iztabba is one of the key Hellenistic sites in the Southern Levant.

The current study aims to conduct a new and comprehensive archaeological investigation of the site (Tell Iztabba, East) by means of survey and geophysical prospections, and we have thus far generated a new site plan that enables digital modeling and a careful analysis of the site gridded town plan. Moreover, with the completion of our trial archaeological excavations, we have gained a more intimate knowledge of the Seleucid settlement at the site, as excavations unearthed a multitude of domestic remains that provide valuable information on this shortlived site. The finds retrieved during our recent investigations support the assumption that the site is a ca. 170 BCE Seleucid foundation of Antiochos IV, named after his daughter Nysa, and destroyed by John Hyrcanus I in 108/107 BCE. The focus of our project concerns several aspects, including (1) the precise date of the Hellenistic (that is, Seleucid) foundation, (2) the process of the site's crystallization as part of a Roman Decapolis, (3) similarities and differences with other such Hellenistic foundations in Palestine and the Levant, and (4) the diet of the inhabitants of the Seleucid-founded site through the analysis of animal bones, botanical remains, and residues recovered from small and large pottery containers.





Area C of Tell Iztabba during the September 2019 season: orthophotograph and plan (image created by Slava Pirsky)

# **Giv'ati Excavations**

Yuval Gadot and Yiftah Shalev

In 2019, we held a year-long season of excavations at Giv'ati Parking Lot, in which finds from as early as the Iron IIA and as late as the Abbasid period were unearthed. In Area 10 we were able to expose additional parts of Building 100, a public structure that was heavily destroyed in the Babylonian destruction of 586 BCE. In Area 35, at the western edge of the site, we exposed a paved street dating from the Byzantine period, along with its infrastructure. Cist pits from the Abbasid period, some built and others dug into the ground, were found cutting into the earlier street. Similar pits were also found in Area 70, where we also exposed the eastern edge of a Late Roman villa. Finally, in Area 50 we continued to expose domestic activities dating from the Hellenistic period. There are a number of goals for our 2020 fieldwork. Our main goal is to try and trace the northern continuation of the buildings described above. We are also planning to clarify the nature of some man-made rock-cut features at the eastern edge of the site.

In 2019 we hosted a group of 15 volunteers, organized by the "VFI, Volunteers for Israel" group, who worked together with a group of students from the department on their study-dig. Our 2020 calendar is even fuller, with a group of theology students from the University of Bonn (March 22–April 3), two additional groups organized by VFI, and a study-dig for Tel Aviv students and other international students (August 29–September 10).



On-site Pottery Sorting Class for the Students (photo provided by Yuval Gadot)



TAU student Yotam Roten holding a bucket full of animal bones collected from a refuse pit dating to the early Hellenistic period (photo provided by Yuval Gadot)

# Economy and Society in Historical Periods in Jerusalem

Lidar Sapir-Hen

The laboratory of zooarchaeology at Tel Aviv University is carrying out a comprehensive study of the economy and society in historical periods in Jerusalem, as reflected in the faunal remains. The long-term research focuses on three main themes: (1) temple town and its periphery: animal economy in Jerusalem and its hinterland during the 8th–6th centuries BCE, (2) economic, social, and ritual practices in Jerusalem in the 8th–2nd centuries BCE, and (3) the people behind the garbage of the early Roman period (1st century BCE–1st century CE).

These studies are based on the identification and analysis of several faunal assemblages from Jerusalem and its hinterland by the zooarchaeology laboratory group, and on the results of their comparison to previously published assemblages. The results reveal a complex picture of the economy, which is related to economic and social factors, as well as religious practices. It appears as though the urban growth of Jerusalem (which began during the 8th century BCE) necessitated reliance on outside sources of food.

These outside sources, the periphery sites, provided the main city with animals and their byproducts (in addition to other supplies, such as grains and wine). These connections are evident in later periods too. Additionally, social complexity of Jerusalem is reflected in the differential access of the various social sectors to animals and/or their meat. It seems that a "re-distribution of meat" system operated, favoring residents near the temple, while some neighborhoods did not enjoy this status and relied on selfproduction of meat and some level of small-scale agriculture. Further to this, the study of animal bones aids in the identification of different practices within the city during the early Roman period. It distinguishes between daily secular activities and cultic endeavors. Finally, an ongoing study regarding the development of Jewish dietary practices still awaits results and should further contribute to the current discussion on this topic.



An assemblage of animal bones under study in the Laboratory of Archaeozoology (photo by Sasha Flit)

### Kiriath-jearim 2019

Israel Finkelstein

The second season of the Vlad and Sana Shmunis excavations at Kiriath-jearim took place in the summer of 2019. The excavation is a joint project of Tel Aviv University and the Collège de France and is directed by Israel Finkelstein, Thomas Römer and Christophe Nicolle. Work continued in the areas that were excavated in the first season, in the summer of 2017. The most significant achievements of the second season are as follows:

- The northern support wall of the elevated Iron Age platform has now been exposed (Area A). The finds provided evidence backing the OSL dating of the platform's construction to the first half of the 8th century BCE.
- It has now become clear that the second, parallel monumental wall in the north dates to the Hellenistic period, in the mid-2nd century BCE, and that it was rebuilt in the early Roman period, in the 1st century CE.
- Additional evidence for the three main periods of activity at the site—in the Iron IIB–C, late Hellenistic and early Roman periods—has been assembled in the southeast (Area B).

- A unique installation dating from the Iron IIC, ca. 600 BCE, and possibly related to cult activity was unearthed on the eastern slope of the site (Area C).
- Ground penetrating radar and magnetometer studies seem to indicate that the southern support wall of the elevated platform was located under the parking lot of the modern convent.

It appears that in all three main periods of activity Kiriath-jearim had a similar role: controlling the road that led from the coast to the highlands, that is, dominating Jerusalem. This is true for the construction of the platform by the Northern Kingdom in the days of Jeroboam II, the attempts of the Seleucids to quell the Hasmonean revolt in the 2nd century BCE and the attack of the Romans on the capital of Judah in 70 CE.

Regarding the Iron Age, the 2019 excavations illuminate the territorial disposition in the first half of the 8th century BCE, shedding light on the relations between Israel and Judah and on the Ark Narrative in the Books of Samuel.



Aerial view of the Kiriath-jearim, looking south (photo provided by Israel Finkelstein)

### Masada 2020 Guy D. Stiebel and Boaz Gross

Masada is situated on a remote rocky mountain on the western shores of the Dead Sea. The site, largely built as a royal getaway palatial fortress of Herod the Great (37–4 BCE), played a crucial role in the first Jewish Revolt against the Romans (66–73 CE), and became the most remote Byzantine monastery in the Judaean Desert (5th–7th centuries CE). The site remained forgotten for centuries until European and American explorers of the early 19th century CE began to describe the mountain in their traveling monographs. Thereafter, with the birth of Zionism, the hike and climb to the site became a rite of passage for Jewish youth, and then the symbolic destination of Israel Defense Force soldiers during their training, symbolizing the last stand of Jewish rebels against the Roman Empire.

In 2017, Tel Aviv University's Neustader Family Masada Archaeological Expedition was launched and has so far carried out four excavation and survey seasons on the mountain and its environs. The initial goals of the renewed excavations were to examine unexplored aspects of life on the mountain (throughout its occupational phases), to shed new light on siteformation processes, as well as the surveying and mapping of its environs and the trails that lead up to the mountain. A joint archaeozoological and archaeobotanical research project, together with Lidar Sapir-Hen (Tel Aviv University) and Dafna Langgut (Tel Aviv University), will offer, for the first time, insights into the mountain communities' consumption habits. A joint project with Langgut has already illuminated the Herodian agricultural and horticultural activity at the arid site. The use of new archaeological methods and technologies has allowed us to explore the diversity of the communities that inhabited the mountain and shed light on their cultural material. The latter consists of rarely preserved items of organic material and numerous jewelry, such as gemstones and metal objects. Research to date has allowed for the introduction of a new paradigm regarding the occupation of the site during the period of the Great Revolt, one that frames it as a "refugee camp." Highresolution excavation methods facilitated the reconstruction of the daily lives of displaced populations. New approaches like this enable the exploration of themes such as identity, gender, and status.

Finally, the Christian narrative of the site has progressively unfolded as we have discovered an unstudied water cistern originally constructed in the Herodian period, which was reused during the Byzantine period. Solitude caves currently associated with hermits, who lived atop the site, have also been examined. In addition to the archaeology of an individual hermit, we have recently deciphered an intriguing Aramaic inscription and a graffito, noting the name of Christ.

The expedition is proud to have hosted multiple young Tel Aviv University scholars throughout the seasons, to provide a fieldschool for both Israeli B.A. and International M.A. students, and to have the devotion and hard work of dozens of volunteers from around the world. To learn more about how you can work atop the mountain, head to https://masadaexpedition.org/ or Facebook at @MasadaExpedition.



A dwelling from the Great Revolt located inside a Herodian palace storeroom in Area A. Note the procession of IDF soldiers climbing to the site through the Roman siege ramp for an induction ceremony (photo provided by Boaz Gross)

# Megiddo 2020

Israel Finkelstein

The 14th season of excavation at Megiddo will take place in June and July 2020 under the direction of Israel Finkelstein, Matthew J. Adams and Mario A.S. Martin. The main goals of this season are as follows:

- To continue the stratigraphic excavation in Area K, with exposure of Middle Bronze layers, including burials, which play a central role in the Megiddo team's ancient DNA study.
- To continue the stratigraphic excavation in Area S, with exposure of early Middle Bronze layers. The goal here is to substantiate the history and layout of the site in the later

phases of the Early Bronze, Intermediate Bronze and early Middle Bronze Ages.

- To open an area adjacent to the six-chambered Iron Age gate, and to verify the stratigraphy of this area, with its superimposed gates.
- To open an area in the center of the site, where remains of an ashlar-built structure can be seen on the surface.
- To finish exploring the Iron IIC remains located to the west of the Assyrian palace, which seem to reveal evidence for the presence of Greek mercenaries.



The complex of Late Bronze and Iron Age gates (photo provided by Israel Finkelstein)

### The Tel Moza Expedition Project: Excavating an Administrative and Cultic Iron II Center near Jerusalem

Shua Kisilevitz and Oded Lipschits

In 2012–2013, a monumental Iron Age temple complex (late 10th–early 9th century BCE) was discovered at Tel Moza near Jerusalem during the course of salvage excavations carried out by the Israel Antiquities Authority. The site, identified as the biblical Moza mentioned as a city in the territory of the tribe of Benjamin (Joshua 18:26), served as a local economic and administrative center for the storage and redistribution of grain.

The rich assemblage of cultic artifacts and architectural remains at the site include anthropomorphic and zoomorphic figurines, a cult stand decorated with a pair of lions or sphinxes, a stonebuilt altar, a stone-built offering table, and a pit filled with ash and animal bones. The unique nature of the finds demonstrate the need to return to the site and continue the excavation of the temple complex, this time as an academic research project free of the inherent constraints of a salvage excavation. This was the impetus for the launching of the Moza Expedition Project in the spring of 2019, on behalf of the Sonia and Marco Nadler Institute of Archaeology at Tel Aviv University, under the direction of Shua Kisilevitz and Oded Lipschits.

The 2019 excavation season consisted of small-scale probes designed to address specific research questions that arose in the course of the study of the previously excavated remains. Among the finds of this season were the discovery of a sequence of four floors in the temple courtyard spanning the Iron IIA–Iron IIC (late 10th–ca. 7th centuries BCE) and the discovery of an earlier Iron IIA cult structure sealed below the temple complex

and tentatively dated to the 10th century BCE. The discovery of monumental cult structures, and continuity in the construction of cult structures within the Iron IIA, are unparalleled in the archaeological record of the region of Judah and Israel. The study of the economic function of the site in tandem with its religious function strengthens the notion that a local polity emerged in the Moza region in the 10th century BCE and possibly hails the formation of the Kingdom of Judah later in the Iron II (during the late 9th–8th centuries BCE).

The second excavation season will take place between March 22 and April 2, 2020, and will comprise a team of some 50 participants, including staff and students from Charles University (Czech Republic), Universität Osnabrück (Germany), and UCLA.



The 2019 excavation team in the temple courtyard (photo provided by Shua Kisilevitz)



Built installation abutting a stone column base belonging to the earlier Iron IIA cult, looking northwest (photo provided by Shua Kisilevitz)

# Horvat Tevet in the Jezreel Valley: Royal Estate from Omride Israel

Omer Sergi and Karen Covello-Paran

Horvat Tevet is situated in the eastern Jezreel Valley, 15 km east of Megiddo. Four main occupational phases were observed during trial excavations conducted by Karen Covello-Paran (2012) and Yoav Tsur (2018) on behalf of the Israel Antiquities Authority, and during salvage excavations conducted by Omer Sergi and Rachel Lindemann (July 2018 and March–June 2019) on behalf of the Sonia and Marco Nadler Institute of Archaeology of Tel Aviv University and Israeli Institute of Archaeology.

The earliest occupation (dated to the LB I, ca. late 16th–15th centuries BCE) includes a small structure that was probably used as a rural sanctuary. The Iron I (ca. 11th–early 10th century BCE) and the Persian period (ca. 5th–4th century BCE) are represented by cemeteries, containing simple pit burials in the Iron I and cyst burials in the Persian period, which indicate the site was inhabited by local kin-based communities, whose subsistence economy was related to the nearby fields. The Horvat Tevet Iron I and Persian period cemeteries are among the largest ever found, and will potentially enrich our knowledge of burial practices in these periods and their social, political, and religious implications.

The main occupational phase is dated to the late Iron IIA (9th century BCE), when a large building, measuring ca. 20 × 20 m and built of well-hewn ashlar blocks, was erected on the summit of the site. The building consists of a central pillared hall flanked by auxiliary rooms on three sides (north, south, and west) and courtyards. Storage jars are the most dominant vessel type retrieved from the building, indicating that one of its functions was the collection, storage, and redistribution of agricultural products. The presence of stamp seals is a further indication that literate officials visited the site.

The erection of the industrial and administrative center at Horvat Tevet is contemporaneous with the establishment of the Omride hegemony in the Jezreel Valley and the formation of the Israelite kingdom. Hence, it seems that Horvat Tevet was a royal estate in the service of the Omride rule. Like other royal centers of the Omride dynasty in the region, the agricultural estate of Horvat Tevet came to an end in a heavy conflagration in the late 9th century BCE, probably at the hand of Hazael, King of Aram-Damascus. Horvat Tevet provides us with a rare opportunity to conduct a systematic study of the archaeological expression of palace-clan relations, thereby illuminating the economic materialization of political hegemony within a kin-based society.



The late Iron IIA monumental administrative building in H. Tevet, note the large ashlar blocks of the central pillared hall and surrounding walls (photo provided by Omer Sergi and Karen Covello-Paran)

# **TAU Archaeological Expedition to Timna: Phase II**

Erez Ben-Yosef

Our ongoing project in the ancient copper ore district of Timna Valley is changing its focus. After five years of excavation of the smelting camps from the Late Bronze (ca. 13th-early 12th centuries BCE) and the early Iron Age (ca. 12th-9th centuries BCE) in the center of the valley, we aim this year (2020) to explore much earlier metallurgical sites. These include Early Bronze Age (third millennium BCE) remains of copper-smelting activities that were based on the natural draft. As such, they are located on hilltops on the outskirts of Timna Valley, where stronger winds blow in the afternoon. The research on early smelting technologies will be accompanied by a regional thematic survey, aimed at documenting the archaeological landscape between Timna Valley and the Yotvata oasis, the nearest water source to the ancient mines. This area of ca. 35 km<sup>2</sup> is rich in archaeological sites from multiple periods, many of which were never documented before. The survey is part of the Ph.D. research of Assaf Holzer, who previously worked on Early Bronze Age "desert kites" (hunting installations) located in the survey area. The fieldwork is conducted with the assistance of the Israel Nature and Park Authority, which manages the nature preserves that cover most of the region.

It was Benno Rothenberg who first recognized the importance of the Timna region for the study of ancient metallurgy. The mostly pristine landscape (fortunately only minimally disturbed by modern mining activities) holds evidence of thousands of years of copper exploitation history. The results of our work until now add to our understanding of some 500 years of this history (around the turn of the first millennium BCE) and contribute to discussions related to social processes and historical issues of the south (the emergence of early Edom, "King Solomon's Mines," and more). It is now our aim to extend the chronological scope of our research, and to explore mining and smelting technologies—and the societies they represent—within the *longue durée*.

To discover more Timna and how you can join, head to Facebook at @CentralTimnaValleyProjectCtv



Work in the expedition's camp during the early evening (photo provided by Erez Ben-Yosef)



Exploring the archaeologically-rich landscape of Timna Valley (photo provided by Erez Ben-Yosef)



# **Events**

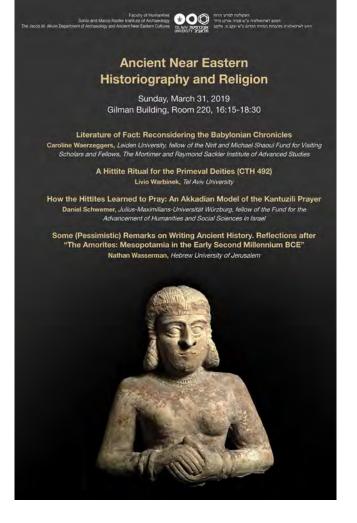
# Ancient Near Eastern Historiography and Religion

Amir Gilan | March 31, 2019

The international conference "Ancient Near Eastern Historiography and Religion" hosted four lecturers. Prof Dr. Caroline Waerzeggers of Leiden University, fellow of the Nirit and Michael Shaoul Fund for Visiting Scholars and Fellows, presented a talk on the historicity of the Babylonian chronicles, titled Literature of Fact: Reconsidering the Babylonian Chronicles. Dr. Livio Warbinek, the 2018-2019 Sonia and Marco Nadler Institute of Archaeology post-doctoral fellow, presented a study of the Hittite Ritual for the Primeval Deities (CTH 492). Prof. Dr. Daniel Schwemer of the Julius-Maximilians-Universität Würzburg, fellow of the Fund for the Advancement of Humanities and Social Sciences in Israel, presented a fragmentary forerunner to a famous Hittite prayer in a paper titled How the Hittites Learned to Pray: An Akkadian Model of the Kantuzili Prayer. The last speaker was Prof. Dr. Nathan Wasserman of the Hebrew University of Jerusalem. His paper was titled Some (Pessimistic) Remarks on Writing Ancient History. Reflections after "The Amorites: Mesopotamia in the Early Second Millennium BCE."

### In the Center II: Memory May 29, 2019

The second annual "In the Center" conference, a collaboration between the Institute of Archaeology of Tel Aviv University and the Israel Antiquities Authority Central District, was held under the leadership of Dr. Guy Stiebel and Dr. Ido Koch (Tel Aviv University) and Dr. Doron Ben-Ami, Dr. Yotam Tepper, and Dr. Amir Gorzalczany (Israel Antiquities Authority). The theme this year was "Memory in Archaeology and Ancient Text." In this instance, memory is conceptually understood as created, preserved, and erased by peoples, across various parts of Israel and ancient Near Eastern cultures. The day consisted of four sessions and included participants from a range of levels such as junior and senior scholars, alongside Ph.D. candidates and faculty members. The sessions were geared to move through various "types" of memory, with (1) Shaping of Memory, (2) Collective Memory, (3) Topography of Memory. Students and young scholars were afforded the opportunity to present research pertinent to the theme during a (4) TED-style session.





# **News from the Trenches**

### November 7, 2019

Always a highlight in the events schedule is the much anticipated "News from the Trenches" conference. The conference allows scholars to share the results of their various archaeological projects from the past year. This conference exemplifies the broad range of research and scholarship within the department. It is an unparalleled opportunity for scholars and students alike to hear the most up-to-date research of the Institute of Archaeology of Tel Aviv University in one place.

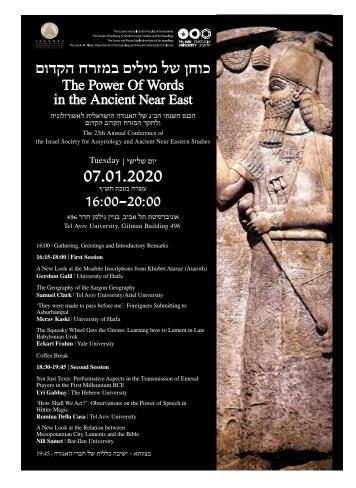


### The Annual Conference of the Israel Society for Assyriology and Ancient Near Eastern Studies

Amir Gilan | January 7, 2020

The 23rd Annual Conference of the Israel Society for Assyriology and Ancient Near Eastern Studies was hosted this year by the Sonia and Marco Nadler Institute of Archaeology. Held on Tuesday, January 7, 2020, at Tel Aviv University, the conference, titled "The Power of Words in the Ancient Near East," was dedicated to original and innovative studies on Assyrian and Babylon literature, religion and iconography, Hittite magic spells, and Moabite inscriptions.

Among the speakers were leading Israeli scholars, as well as young scholars at the very beginning of their academic careers. This year the guest speaker of the Israel Society for Assyriology and Ancient Near Eastern Studies was Prof. Eckart Frahm of Yale University. The conference was an overall success, and we look forward to the many future contributions such collaboration will garner.



# Mass Deportations: To and From the Levant during the Age of Empires

Ido Koch | January 8-9 2020

This past January the Institute of Archaeology hosted a conference dealing with the one of the most important phases in the social history of the Levant—the mass translocations of peoples by the Mesopotamian empires during the ca. 8th–6th centuries BCE. The Assyrian and Babylonian empires consolidated their rule through the uprooting of hundreds of thousands of peoples and their deportations to the imperial heartlands and to the margins of the colonial networks, breaking social structures that had been formed over centuries. The most famous and discussed case is the deportation of the Jerusalemites by the Babylonians in the early 6th century BCE.

The aim of the conference was to explore various aspects of the phenomenon of mass deportation through several perspectives: archaeological, historical, and textual. Among the topics discussed were the available sources; the importance of the deportations to the imperial system; the life of the deportees in their new homes (such as changes in social structures, practices, and ideology); the relations with the locals; and the memories of the deportations and their accumulation across the generations.

### Mass Deportations: To and From the Levar during the Age of Empires January 8–9, 2020 Aviv University, Gilman Building Wednesday | January 8 Introductory Remarks Ido Koch | Tel Aviv University Thursday | January 9 Part 1: Imperial Perspectives Imperial Perspectives Continuity and Change: Assyrian and Babylonian Deportation Precices Karen Radher | Ludwig Maximilian University of Munich Between Monumental Landscape and Borderland: Using Occupied Populations to Manage the Land under the Babylonian and Achaemenid Empires Shai Gordin | Ariel University Instrument of the Statement of the S Part 3: Deportees in the Levant The Intellectual Background of Assyrian Officials and Assyrian Deportees in the Levant Eckart Frahm | Yale University 9:00 9.45 In Search of Deportees in the Southern Levant Ido Koch | Tel Aviv University 10:30 Coffee break Coffee break In the Neighborhood of the Defeated: Everyday life in Neo-Assyrian Dan Yffat Thareani | Hebrev Union College Jerusalem The Assyrian Interests in the Western Part of the Province of Samaria—A Case Study from Khallat es-Sihtji and its Vicinity Gilad Itach | Israel Antiquities Authority Union Experiment Development Hold case I Abdied March 1012 11:00 Architecture and Images: Contextualizing Sennacherib's Deportations from the West Laura Battini | CNRS, UMR 7192 – Collège de France 11:15 11:45 12.00 Part 2: Deportees in Mesopotamia Socio-economic and Cultural Issues in the History of the Israelites and Judean Exiles in Mesopotamia Ran Zadok | Tel Aviv University Identifying Assyrian Deportees at Ashdod and Ashdod-Yam? Alexander Fantalkin | Tel Aviv University 12:30 14:00 13:15 Lunch break The Impact of the Babylonian Deportations and of the Persiar Period "Return" on the Local Material Culture in Judah Oded Lipschits | Tel Aviv University 14:45 A Sketch of the Life of the Golah in the Countryside Angelika Berlejung | University of Leipzig 15:30 Memories of the Assyrian Exile in Persian-Period Yehud Yigal Levin | Bar Ilan University 15:30 Messaging Brothers in Distant Lands: Examining Biblical Texts in Light of Judean, Samarian and Diaspora 15:45 16:15 Target Audiences Cynthia Edenburg | The Open University of Isra 16:30 Concluding Discussion 16:30 Isaiah 40-66: Evidence for Integration into Babylonian Sc

of Judahite Exiles? Shawn Zelig Aster | Bar Ilan University

Ezekiel among the Exiles: Judean and Mesopotamian Nature Imagery (Literary and Iconographic) Utilized by a Dislocated, Peripheral, Judean Prophet Dalit Rom-Shiloni | Tel Aviv University

Did the Book of Ezekiel Emerge from a Refugee Camp? An Investigation Casev A. Strine I University of Sheffield

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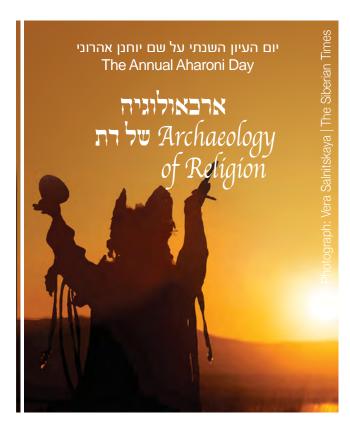
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Coffee Break

### The Annual Aharoni Day: Archaeology of Religion

Ido Koch | March 5, 2020

This year the Annual Aharoni Symposium is dedicated to the "Archaeology of Religion," which aims to present up-to-date research approaches from around the globe, as presented by experts who deal with the archaeology of the Maya, tribal Ethiopia, proto-historic China, paleolithic Europe, and Iron Age Southern Levant. These approaches challenge previous perspectives that once treated religion as a static structure - sometimes considered to be the most fundamental in the essence of collective identityand prefer it be understood as a flexible meshwork of agents and structures that constantly change and modify to accommodate changes in society. Expressions of such flexibility include the appropriation of practices and beliefs, their entanglement in the local context, and the rearrangement of existing ideas and practices. Framing approaches to the archaeology of religion in this way offers scholars new approaches and answers to traditional concepts and questions.



### **Department Seminar**

### Avi Gopher

Technological innovations were and remain a central and rich area of study in archaeology. The path that mankind has taken from hunter gatherers to a post-modern lifestyle is paved with technological innovations: knapping technologies; control of fire; domestication of plants and animals; collection and transportation of water; the emergence of urban settlements; pyro-technologies for creating pottery and later metallurgy; stone weapons and later metal weapons; transportation technologies; and finally, the invention, and later printing, of the written word. All of these were crucial innovations that were adopted and have shaped our lives and societies to the present day. The series focused on technological innovation through the various periods in our area. The lectures dealt with technological innovations that led to existential questions about technology and society: Can we control technology? Does technology control us, and does it determine the future of our lives and the societies in which we live? And how much do new and changing technologies detract from our values, our world views, and the ideals of society?



**גיל חקלאי** | החוג לארכאולוגיה ותרבויות המזרח הקדום, אוניברסיטת תל-אביב ההיסטוריה המוקדמת של תכנון אדריכלי בלבאנט: על גיאומטריה ויחידות מידה ועל יחסי אדם-עולם

### **Upcoming Events**

 In the Center III – Time

 May 21, 2020

### The Annual Colloquium of Tel Aviv University and Charles University: Cities, Villages and Regions in the Biblical Period

June 10, 2020



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

### Volume 46, Number 1, 2019

Restoring Line 31 in the Mesha Stele: The 'House of David' or Biblical Balak? Israel Finkelstein, Nadav Na'aman and Thomas Römer

Samaria and Judah in an Early 8th-Century Assyrian Wine List Nadav Na'aman

Khirbet Kerak Ware (Kura-Araxes) Andirons at Tel Bet Yerah: Functional Analysis and Cultural Context

### Sergey Ishoev and Raphael Greenberg

Vegetation History and Human Impact on the Environs of Tel Megiddo in the Bronze and Iron Ages: A Dendroarchaeological Analysis

Mordechay Benzaquen, Israel Finkelstein and Dafna Langgut

Two Cypriot Pithoi from Late Bronze Age Tel Burna Itzhaq Shai, Chris McKinny, Matthew Spigelman, David Ben Shlomo, Avshalom Karasik, Dvory Namdar and Joe Uziel

Tel Beth-Shemesh: Iron IIA Judahite Pottery Typology and Finger Impressed Jar Handles

Shlomo Bunimovitz, Dale W. Manor, Shawn Bubel and Zvi Lederman

The *Imlk* and 'Private' Stamp Impressions from Tel Beth-Shemesh: An Added Dimension to the Late 8th and Early 7th Century BCE History of the Site Oded Lipschits

Masons' Marks of Antiochia Hippos Arleta Kowalewska and Michael Eisenberg

A 1st–2nd Century CE Assembly Room (Synagogue?) in a Jewish Estate at Tel Rekhesh, Lower Galilee

Mordechai Aviam, Hisao Kuwabara, Shuichi Hasegawa and Yitzhak Paz

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### Nahshon Szanton, Moran Hagbi, Joe Uziel and Donald T. Ariel

The Iron Age Gates of Megiddo: New Evidence and Updated Interpretations Israel Finkelstein, Matthew J. Adams, Erin Hall and Eythan Levy

The Alleged 'Beth David' in the Mesha Stele: The Case Against It Nadav Na'aman

The Throne and the Enthroned: On the Conceived Human Image of Yahweh in Iron II Jerusalem

### Tallay Ornan

A Locally-made Scaraboid from Khallat es-Siḥrij Near Tel Aphek and Its Neo-Assyrian Connection

### Baruch Brandl and Gilad Itach

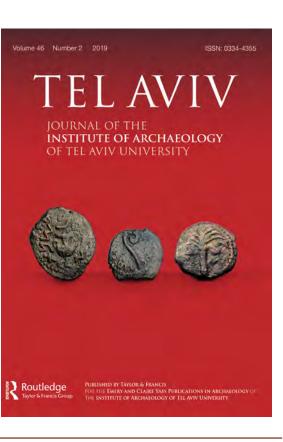
Late Bronze and Iron Age Livestock of the Southern Levant: Their Economic and Symbolic Roles

### Lidar Sapir-Hen

The Excavations beneath Wilson's Arch: New Light on Roman Period Jerusalem

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### TAU ARCHAEOLOGY

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