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Four Decades of Intensified Neolithic Research in Jordan

Gary O. Rollefson

When I first came to Jordan in 1978, it was as a young(er) post-doc with ambitions to explore the oldest evidence of human presence in the Kingdom: the study of the Lower and Middle Paleolithic periods ranging from 1.5 million to about 40,000 years ago, which had been only recently explored with any depth in Azraq in the eastern part of the country and in the Wadi Hisma area just north of Wadi Rum in southern Jordan, and I was eager to join in the effort. Three years later following an excavation season at Lion Spring at the southern edge of South Azraq, I returned to ACOR just in time to attend a reception following one of ACOR's presentations on Jordanian archaeology. Among the people attending the lecture was Professor Khair Yassine from the University of Jordan, who was the director of the Tell al-Mazar project that mostly treated the Iron Age, but he was a polymath when it came to archaeology. Khair asked me if I might be interested in looking at a lithic scatter on the outskirts of Amman, and of course I accepted his invitation to travel to the site the following week. The site turned out to be 'Ain Ghazal—a lithic scatter, indeed.



Late Neolithic (ca. 5400 B.C.) shepherd's hut built of basalt slabs at the southern base of Mesa 4 ("Maitland's Mesa"), Wadi al-Qattafi. Mesa 1 is in the background (all photos and images courtesy of Gary Rollefson, unless otherwise noted).

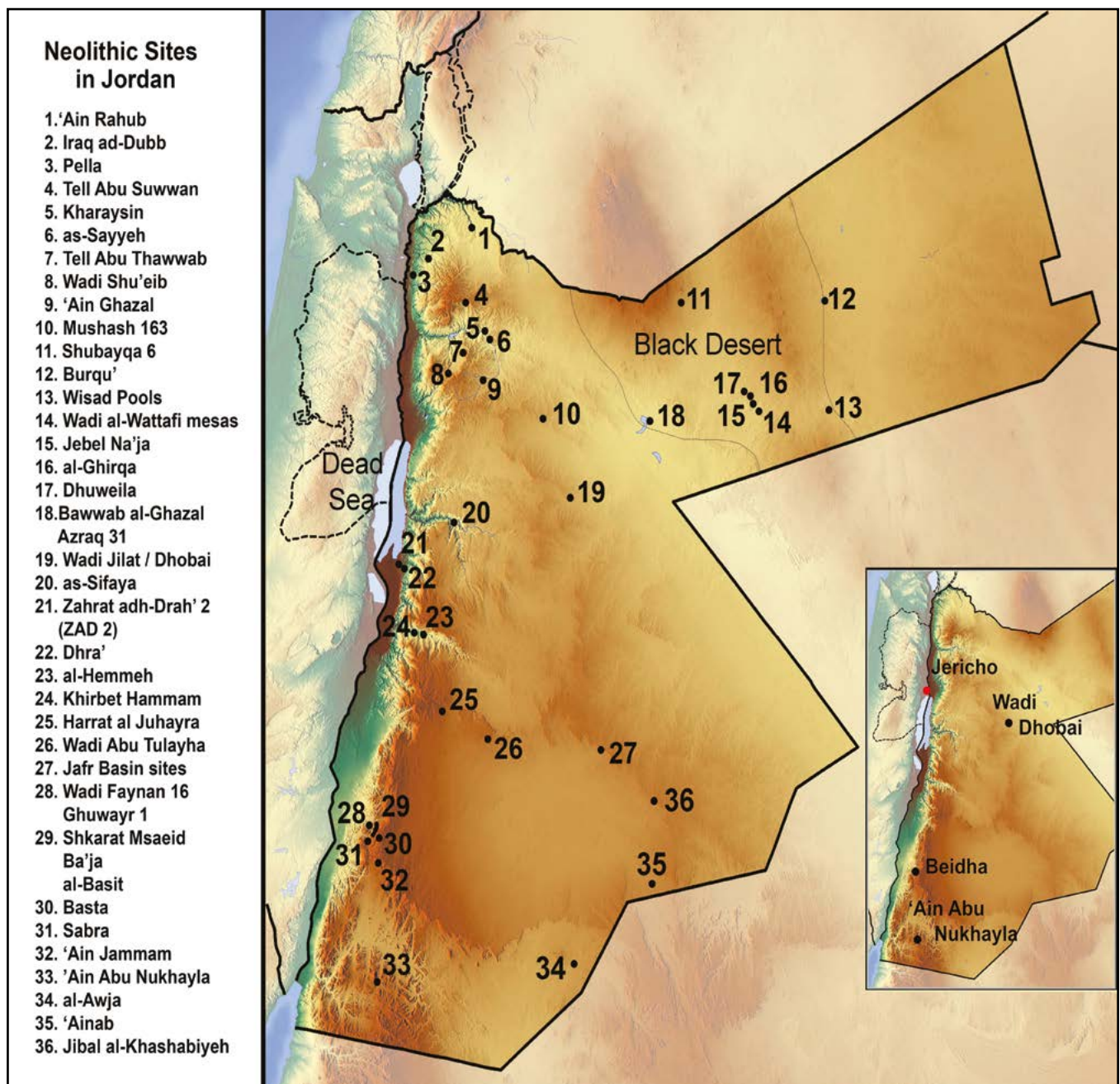
The difference between the Late Acheulian and the Pre-Pottery Neolithic was stark. One of the first things we noted on that first visit was a human skeleton eroding out of the bulldozer cut from under a red-painted plaster floor, and that kind of excitement was not happening at Lion Spring. Actual houses, solid, with built-in hearths; clay figurines of people and animals; jewelry and other ornaments; and of course, stone tools exquisitely fashioned in a flint of almost satiny smoothness. I had stumbled into a prehistoric paradise of almost unlimited imagination. The later discovery of human skulls with faces recreated in plaster, and then the plaster statues themselves, added to a thrilling adventure and professional challenge that was unexpected for a farm kid from Iowa.

When Barbara Porter asked me this year if I would write a contribution about the development of Neolithic research in Jordan for the *ACOR Newsletter*, I was honored, but I also felt that

since I had been in Jordan for four decades, both my experience with the Neolithic and my close ties with Jordanian, Canadian, American, European, Japanese, and Australian colleagues would make it not a difficult assignment. Well, overconfidence like this should be avoided. Over my forty-plus years here, the amount of publication on Jordanian Neolithic research fills library shelves, and condensing that into a 4500 word synopsis was a Sisyphean task. Consequently, what appears below is necessarily abbreviated, devoid of most details, and somewhat biased. But I hope that for the reader who is not a specialist in the Neolithic Revolution, I have put what we used to know before 1980 and what we think we know now in clearer perspective.

The Way It Was

When Kathleen Kenyon began publishing the results of her excavations at Jericho in the 1950s, she initiated a seismic shift in



Map of excavated Neolithic sites briefly discussed in the text. Inset: principal sources of information on Neolithic Jordan pre-1980s

Chronological list of major periods of the Neolithic

Pre-Pottery Neolithic A (PPNA)
9600–8800 B.C.

Early Pre-Pottery Neolithic B (EPPNB)
8800–8350 B.C.

Middle Pre-Pottery Neolithic B (MPPNB)
8350–7500 B.C.

Late Pre-Pottery Neolithic B (LPPNB)
7500–6900 B.C.

Pre-Pottery Neolithic C (PPNC)
6900–6500 B.C.

Pottery (or “Late”) Neolithic (LN)
6500–5000 B.C.

the world’s understanding of the character of the Neolithic period. For more than a half century prior to her research, the Neolithic had been defined on the basis of two technological changes. One was the production of sharp edges on stone tools (especially axes) by grinding the flint rather than chipping it into final form (thus the “New” Stone Age). The second defining transformation was the emergence of ceramic technology that appeared to occur simultaneously. The reasons for those cultural modifications seemed to center tautologically on the views that they made life easier and more efficient.

But Jericho challenged those views. The deep stratigraphic sequence revealed that the Neolithic developments were very complex and slow to materialize, including the manipulation of plants and animals, architecture, and sophisticated symbolic and ritual practices long before polished stone axes and clay pots arrived on the scene. Jericho became the embodiment of the Neolithic Revolution “type site.” This term connotes a “central place” that virtually acted as an ur-ancestor of all other Neolithic settlements in the southern Levant, if not the entire Near East.

Before 1980, little was known about the Neolithic in Jordan. Only four sites had been investigated to any appreciable degree, including two in the Wadi Jilat (also known as Wadi Dhobai). Diana Kirkbride undertook six excavation seasons at Beidha during the late 1950s and 1960s (a final season occurred in 1983). Despite many similarities with Jericho, Kirkbride remarked on some distinctive, “unique” architectural aspects in terms of form and function at Beidha that set it apart. The notion that Jericho was the source of “cultural DNA” for the Levant was challenged, a “type site” defiance that was substantiated by the honeycomb arrangement of curvilinear dwellings at Kirkbride’s test excavations at contemporaneous ‘Ain Abu Nukhayla in Wadi Rum.

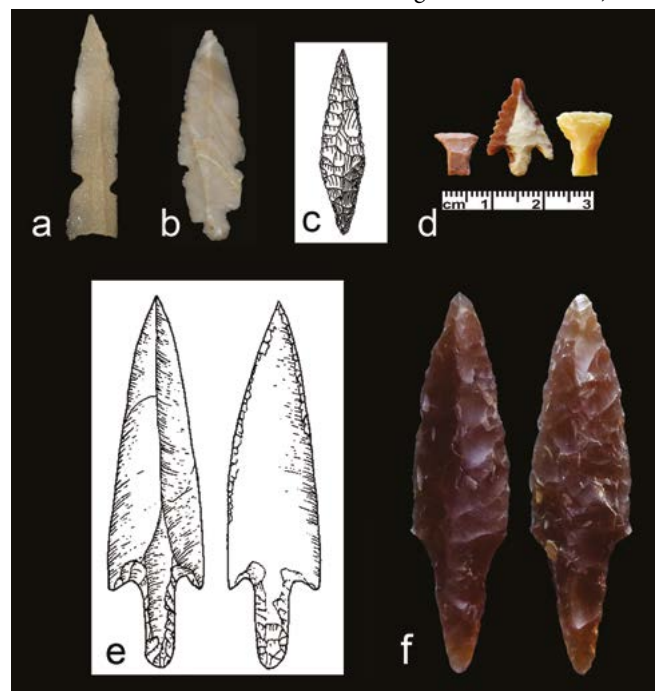
The pace of Neolithic field research in Jordan was lethargic during the first three quarters of the 20th century. The roster of sites was lacking in chronological depth (see chart): except for a small sounding by Crystal Bennet at Dhra’, not a single Pre-Pottery Neolithic A settlement was known; only a portion of the Pre-Pottery Neolithic B sequence had been found; and no Pottery Neolithic sites had been recorded. In general, it might be said that only 800 years from the 4600-year span of the Neolithic (less than 20 percent) were accounted for even superficially in Jordan.

Notably, there were gaps in this chronology at Jericho. The village was abandoned at the end of the PPNA, but re-occupied during the MPPNB, a gap of 450 years represented by the EPPNB (see chronology at left). At the end of the MPPNB, Jericho (and according to Kenyon, the entire southern Levant) was abandoned again for nearly a thousand years, which Jean Perrot called the *hiatus palestinienne*, or the “missing millennium,” and was only re-occupied when pottery-making people from the northern Levant entered the southern regions.

The Pre-Pottery Neolithic A (PPNA)

The PPNA is the earliest phase of the Neolithic, a period when hunting still provided meat and animal products, while the cultivation of plants, such as wild cereals and legumes, accelerated a process that eventually created artificial crops that relied on humans to propagate them. The period was typified by oval houses and a notched arrowhead type called the al-Khiam point. In the late 1970s and 1980s, research began to show considerable diversity in site types, sizes, and duration. Many of the newly identified PPNA sites were temporary hunting camps, such as at Sabra 1 near Petra, or seasonal settlements represented by the cave-and-terrace situation at Iraq ad-Dubb (“Bear Cave”) in the upper Wadi al-Yabis. Architecture at the village of Shubayqa 6 in the Safawi area near the beginning of Jordan’s “panhandle” extending through the Black Desert included several skillfully built dwellings, with low walls, a centrally built hearth, and a well-constructed flagstone floor; the houses indicate a settlement that, while not permanent, was repeatedly occupied, probably during and immediately after the rainy season.

Dhra’ and Zahrat adh-Dhra’ 2 (ZAD 2) are two small PPNA settlements close in terms of space (5 km separates them on the Wadi Kerak alluvial fan at the eastern edge of the Dead Sea) and



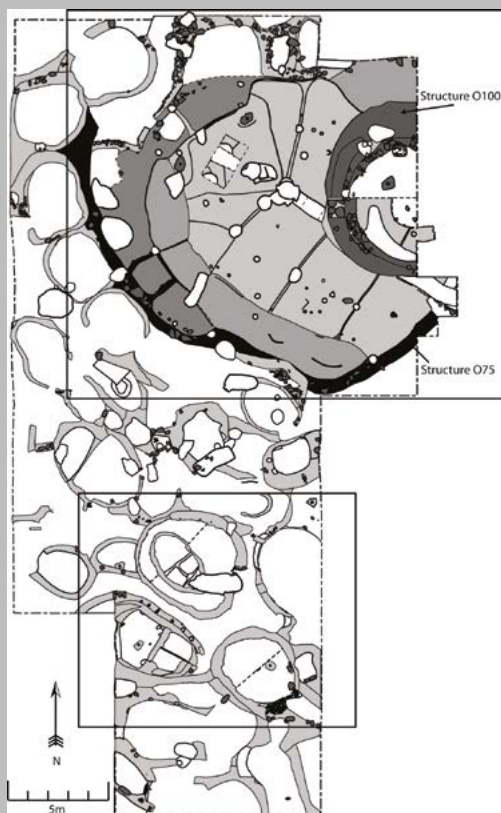
Arrowheads popular during various phases of the Neolithic, all at the same scale: a) PPNA al-Khiam point from Azraq Wetlands; b) EPPNB Helwan point from Abu Hudhud in the Wadi Hasa; c) Amuq point common in MPPNB, LPPNB, and PPNC, but decreasing in size through time; d) Late Neolithic Haparsa point flanked by two transverse arrowheads; e) MPPNB Jericho point, probably a dart point, not an arrowhead; f) Byblos point, MPPNB, LPPNB, PPNC, and LN, decreasing in size through time

Wadi Faynan 16 (WF16)

Bill Finlayson

There was very limited knowledge of the PPNA in Jordan when the site of WF16 was identified in 1996. Excavations at Jericho had indicated considerable social complexity, but subsequent work suggested Jericho was exceptional, and that most PPNA sites were small villages with populations reliant on cultivation of wild plants and hunting, primarily of gazelle. It was assumed that any site in the south of Jordan would be marginal to this simple proto-agrarian society.

WF16 revealed a complex and dynamic architectural sequence with a dense network of stone and mud buildings being constantly modified and adapted. Large scale open area excavation provided an entirely new perspective on PPNA settlement. WF16 is dominated by a large communal structure (O 75), with an open central area surrounded by tiers of benches. Adjacent buildings included small workshops (one devoted to bead manufacture), and storage buildings, characterized by mud plaster floors built on wooden rafters raised above the ground on stone supports. A wide range of burial practices was identified, including single primary burials of infants and adults, the burial of painted skulls, and long bones wrapped in gypsum-lined baskets. Far from being a marginal aspect of a simple peasant society, excavations at WF16 have shown that even towards its southern limits, the PPNA was a vibrant and multifaceted society with people living in close-knit communities structured to work together and share resources.



Top plan of excavations at PPNA Wadi Faynan 16. Structure O 100 is a later PPNA construction on top of the floor of Structure O 75 (courtesy of Bill Finlayson and Steven Mithen).

time (ZAD 2 is probably several centuries younger), yet that is where the similarities end. In the cluster of Dhra' structures, houses were oval in shape, relatively small (approximately three meters in maximum dimension), and with walls of stone and mud. One semi-subterranean building was distinctive: the floor was raised with notched upright stones to support floor joists about 35 cm above ground level. The structure evidently served as a communal granary for cultivated barley, wheat, and legumes. One cubic meter of wheat is equivalent to 790 kg, and the granary dimensions represent 4 m³, or four metric tons of the cereal. A household of five members would need one ton of wheat, thus the granary would have satisfied four households. This, in turn, strongly suggests that the village was inhabited during the entire year. More than 641 al-Khiam and other PPNA arrowhead types were recovered, although use-wear analysis indicates that perhaps only 175 were actually used in the hunt; the others were apparently bits for bow drills to bore holes in stone, shell, bone, and wood.

By contrast, ZAD 2 produced only 11 arrowheads, and it is likely that the settlement did not engage intensively in hunting. Well-used grinding stones imply that the shelters in which people lived were used often, if not permanently; there was no evidence of storage facilities. The architectural style was unlike the elliptical houses of Dhra': low semicircular walls with broad openings 6–7 m wide that define but do not enclose a space. The striking differences between the aggregate information from ZAD 2 and Dhra' indicate very divergent exploitation strategies of the two populations.

Jericho was impressive not only for the deep chronology of the mound, but for its size and inferred social complexity, as well: the PPNA layers covered up to four hectares, and the encompassing ditch, stone wall, and massive stone tower implied a social hierarchy that controlled the necessary labor for those constructions. Sites in Jordan were generally small, usually around a half hectare or less. Wadi Faynan 16 (WF16) was exceptional in this regard, spread across one hectare or more. Excavation of a 600 m² trench exposed more than 25 structures, most in the range of 10–15 m² in area. One massive structure (O 75) stood out. This 325 m² arena-like building had three tiers, two of which were essentially broad benches looking down on a central floor. Clearly, O 75 was the product of communal effort.

Ritual activities played a visible role in PPNA settlements. Burials were commonly encountered in Jordanian PPNA sites, as were specific postmortem treatments of the dead. Practices of skull removal were found at WF16, Dhra', and possibly at ZAD 2, for instance. One PPNA settlement, al-Hemmeh in the Wadi al-Hasa, was relatively rich in burials that were concentrated in special mortuary buildings that featured subfloor stone cists in which children and adults were often seated upright and partially plastered in place.

The Early Pre-Pottery Neolithic B (EPPNB)

Near the end of the tenth millennium B.C., a new technology began to influence how blades were formed for use as arrowheads and other tools. Naviform ("boat-shaped") cores had striking platforms at opposite ends of long, thin cores from which mass-produced long and very standardized blades were produced, likely by specialists. Accompanying this technological change were large arrowhead types that gradually replaced the diminutive al-Khiam points with more elaborately made Helwan points and, eventually, tanged Byblos points. Architecture also changed from curvilinear

buildings to rectangular shapes with rounded corners. This “EPPNB package” first arose in northern Syria, but after several centuries it had made its way to the southern Levant.

Based on the presence of Helwan and al-Khiam points as well as the use of naviform blade technology, there were claims for EPPNB sites at Wadi Jilat 7 and at Abu Hudhud in the Wadi al-Hasa. Unfortunately, there were no C14 dates to substantiate the EPPNB assertions, so the situation remained moot. Recent excavations at Harrat al-Juhayra 202 (HJH 202), near the Desert Highway south of Jerf ad-Darwish, revealed a circular house with a partially enclosed exterior terrace that produced 257 arrowheads, half of them Helwan and 20 percent each al-Khiam and Tanged points. In addition, four radiocarbon dates from HJH 202 ranged between ca. 8600 to 8000 cal B.C., confirming its EPPNB age. Recent work at ‘Ainab, near the Saudi border, is producing similar data.

Middle Pre-Pottery Neolithic B (MPPNB)

In some respects, this period might be considered the “Classic Neolithic,” in the sense that goats, sheep, and cattle had become domesticated, as were several species of wheat, barley, lentils, peas, and chickpeas. The subsistence economy was highly productive, and population throughout the region grew at a steady pace (ca. 0.17 percent per year). Architecture in northern Jordan was rectilinear, although in the southern region houses maintained a circular plan at ‘Ain Abu Nukhayla in Wadi Rum, Beidha, and Shkarat Msaeid; one exception to the architectural pattern in the south is at Ghwayr I, just upstream from WF16; here the C14 dates fall in the MPPNB range, but the rectilinear buildings have a distinctive LPPNB flavor to them.

Communal buildings continued in the south, but none have been found in northern Jordan so far. At Beidha one quasi-circular structure had a floor almost 65 m² in area, far greater than the rest of the buildings, and there is evidence to indicate the building was ceremoniously burned to the ground. A communal building (“Unit F”) at MPPNB Shkarat Msaeid, about eight kilometers north of Beidha, was not abnormally larger than the domestic houses around it, although all but one of the more than 70 burials were found beneath the floor or within walls of the structure; clearly this was a sacred building for the inhabitants of the village.

The MPPNB was also the phase when ritual and symbolism flourished: in the northern part of Jordan burials beneath house floors were common, as was the practice of plastering human skulls



Typical MPPNB ‘Ain Ghazal burial beneath a house floor. After a certain period to allow for decay of soft tissue, the burial was reopened, the skull removed, then plastered, and presumably put on view.

(Tell Abu Suwwan, ‘Ain Ghazal), although in southern Jordan skulls were not plastered. The plaster statuary from ‘Ain Ghazal was probably associated with an ancestor cult. Symbolism also flourished throughout the region in the form of animal and human figurines, probably associated with fertility, curing, and magic.

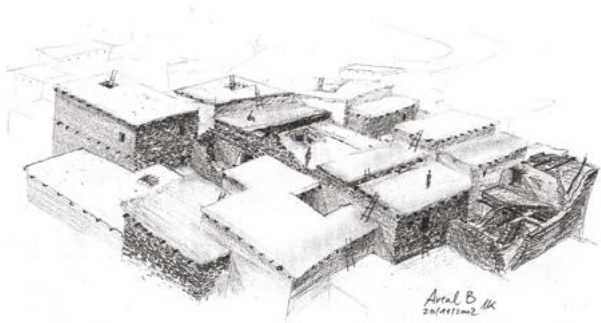


MPPNB plaster statue (H 84 cm) and bust (H 32.4 cm) from the 1983 cache at ‘Ain Ghazal; there were 26 such figures in the cache. Eight more statues were recovered from a badly damaged cache in 1985, including three two-headed examples (photo by Peter Dorrell and Stuart Laidlaw, Institute of Archaeology, University College London).

The Late Pre-Pottery Neolithic B (LPPNB)

One phenomenon sets the LPPNB apart from the rest of the Neolithic: a catastrophic depopulation of the Jordan Valley, the West Bank, and Israel that ushered in the first half of the “missing millennium” at Jericho. The reason for this sudden and devastating collapse remains unknown (but it is unlikely due to climate change), but its consequences are well documented. The population of MPPNB ‘Ain Ghazal may have reached as high as 900 inhabitants by 7500 B.C., but within a couple of generations the settlement doubled to around 1,800 people and the size of ‘Ain Ghazal increased from 5 hectares at the end of the MPPNB to ca. 15 hectares at the end of the LPPNB. The era of the “megasilites” was felt throughout the length of Jordan, and the effects also impacted the eastern and southeastern deserts. Other megasilites in the north included Tell Abu Suwwan (10 hectares, perhaps), Wadi Shu‘eib (14 hectares), as-Sifiya in the Wadi Mujib, and Kharaysin, between Zarqa and Jerash, the largest of them all at 25 hectares. Except possibly for as-Sifiya, all the northern megasilites were originally MPPNB in age (and PPNA and EPPNB for Kharaysin). Notably, every major wadi system in the north hosted at least one megasilite. Khirbet Hammam in the Wadi Hasa is 6–7 hectares in extent and falls at the lower end of the megasilite range.

In the south, new settlements were established for the first time at the megasilite level: Basta (14 hectares), Ba‘ja (only a few hectares but with typically dense multistory housing of the megasilites), al-Basit in Wadi Musa (10 hectares), and ‘Ain Jammam, just beneath the escarpment below Ras an-Naqb (8–10 hectares). Whether there remained small LPPNB agricultural villages in Jordan is not known for certain, but so far none have been found. Altogether, by the end of the LPPNB there were some 20,000 people living in an area that had probably hosted only a third of that number at the end of the MPPNB.



Reconstruction of multi-story housing complexes in Area B of LPPNB Basta (drawing by Moritz Kinzel, with permission)

Except for Khirbet Hammam, the standard form of housing was multi-story “apartment” complexes that probably housed extended families that acted as single economic units of production and consumption. Communal buildings (“temples” and “shrines”) appeared at ‘Ain Ghazal and Tell Abu Suwwan probably due to a change from a focus on individual corporate kinship groups to community-based ritual systems. Skull removal and plastering disappeared in Jordan, as did ancestral cults represented by statuary. Recent excavation of a juvenile burial at Ba’ja indicates a social hierarchy within corporate kinship groups, and perhaps this has a bearing on how megasites were controlled: by a council of powerful corporate kin representatives.

The huge populations in the megasites demanded a lot of food and keeping herds of sheep and goats threatened the agricultural food chain. Herds were taken farther and farther away from the northern megasites. Bones of domesticated sheep and goats were found at LPPNB Bawwabat al-Ghazal in South Azraq, perhaps reflecting the pressures on large settlements to the west. How this might relate to the establishment of later Neolithic hunter-herder populations in the eastern deserts remains under discussion.

A new “domesticate” arose during the LPPNB in the more arid parts of Jordan: the control of water. At Wadi Abu Tulayha, at the northwest rim of the Jafr Basin, several stone barrages were constructed across the wadi to slow runoff during the rainy season. Some of the water was channeled past a deep sludge tank into an enormous (ca. 18 m long and 2 m deep, with highly variable width) stone-built cistern adjacent to the wadi and about 30 m from the domestic buildings. As water slowed behind the barrages, soil from upstream was deposited, eventually creating a broad field whose soil retained moisture far into the growing season. Four other sites on the floor of the Jafr Basin also used this method of water harvesting. Cisterns to collect runoff water are also attested at Ba’ja.

Rock art is notoriously difficult to date, but when the decorated stones are used in a construction directly associated with datable material, the uncertainty is eliminated. This was the case for the village at Wadi Abu Tulayha, where a columnar piece of stone bearing a pecked image of a cheetah was uncovered as part of a wall; several other animal representations were also found at the site. In the basalt desert of northeastern Jordan, a hunting group at a small LPPNB camp at Dhuweila etched figures of three human figures wearing headdresses and carrying weapons. Other stones incorporated into the walls included several gazelle figures.

As populations grew in the eastern and southeastern deserts of Jordan, new methods of hunting arose in order to feed the escalating demand for food. Mass killing especially of herds of



Aerial view of one of 1400 kites in Jordan's Black Desert. The enclosure is about 200 m in diameter; the circular nodes are the killing pits (photo by David Kennedy, APAAME_20090928_DLK-57, courtesy of APAAME).

gazelles (though other herd animals as well) was made possible by creating large traps of stone into which animals panicked by hunters and their dogs were driven. From the perspective of early 20th century airmail pilots, the plans of the traps and the guiding walls that led to them resembled children's kites, and the name has stuck. Scores of gazelles could be killed at a time, providing large amounts of meat and skins. The earliest kites were constructed by

SEBAP: Significance of Jibal al-Khashabiyeh fieldwork results

Wael Abu-Azizeh

Fieldwork undertaken by the French-Jordanian South Eastern Badia Archaeological Project (SEBAP) allowed first the discovery of the first evidence of “desert kites” at Jibal al-Khashabiyeh in the south-eastern desert of Jordan, away from their main concentration area in the basalt Harra landscape. Excavations provided valuable information that allowed us to clarify the architectural layout and to confirm the hunting function of these Late Prehistoric mega-structures. The results provided the first indisputable evidence for pushing back the use of these sophisticated hunting strategies to the Neolithic period (Final PPNB [PPNC]).

In parallel, a number of sites evidencing a homogeneous cultural entity have been identified in close spatial connection to the “desert kites.” The evidence indicates that these camps represent hunting stations directly related to the use of the “desert kites” in a Final PPNB [PPNC] chronological timeframe. The identification of this first occurrence of occupation remains associated with the “desert kites” constitutes an unprecedented discovery in the Near Eastern arid margins, and an invaluable opportunity for a better understanding of these mass-hunting strategies, and their socio-cultural background, in a Neolithic chronological context. The evidence points towards the rise of innovative and specialized hunting strategies in the Near Eastern arid margins using fixed and large-scale infrastructures in the landscape, outside of the so-called “Fertile Crescent,” as early as the end of the 7th millennium B.C.

LPPNB hunters at Dhuweila where one of the guiding walls was used in the construction of a stone-built shelter. Once considered to be a hunting device restricted to the basalt fields of southern Syria, northeastern Jordan, and northwestern Saudi Arabia, recent research at Jibal al-Khashabiyeh in southeast Jordan has discovered kites made of limestone dated to the final phase of the LPPNB or the earliest century of the PPNC.

The Pre-Pottery Neolithic C (PPNC)

The drain on local resources around the LPPNB megasites was unsustainable, and the large population centers collapsed around 6900 B.C., initiating the last half of the *hiatus palestinienne*. Some megasites (especially in the south) were abandoned utterly, and northern ones suffered major population decreases; the inhabitants at 'Ain Ghazal are estimated to have decreased by 90 percent. At PPNC sites, the specialized naviform blade technology disappeared and arrowheads became much smaller. Architecture reverted to single family houses, and the ubiquitous lime plaster used for floors in the PPNB period died out. Perhaps 15,000 people at the LPPNB megasites were uprooted, scattered across the landscape to new and less elaborate settlements, including the Jordan Valley and the steppe and desert of eastern and southern Jordan. While 'Ain Ghazal still had around 300 residents, new settlements in the steppe, such as J13 and J25 in the Wadi Jilat, may have had fewer than 25 residents in only a handful of insubstantial dwellings that indicate impermanent habitation. Although caprine herding was important, hunting regained importance in the acquisition of meat. The earliest C¹⁴ dates at Wisad Pools fall into the recent end of the PPNC period as well as at Burqu' 27, marking an eastward extension of people who relied on a hunter-herder subsistence economy.

Elements associated with ritual and symbolism, so rich in the MPPNB and LPPNB, apparently diminished considerably in the PPNC. Sizeable fragments of three incised limestone slabs from Jilat 13 have been suggested as possible statues, although too much is missing to support this interpretation. Human and animal figurines occur at PPNC sites, but they are rare and generally poorly fashioned. At the Awja 1 site near the southern border with Saudi Arabia, a camp with four to five large rectangular stone structures fronts on a "panel" of eight feline figures (probably cheetahs) created using stone slabs set on edge to form the outlines that are up to 2.75 m long from nose to tip of curled tail. How these figures fit into a symbolic calendar is enigmatic, but a limestone pillar bearing a pecked cheetah was found at LPPNB Wadi Abu Tulayha.



"Panel" of eight feline figures formed by stone slabs set on edge at Awja 1 (courtesy of Sumio Fujii, with permission)

The Pottery Neolithic/Late Neolithic (LN)

The end of Kenyon's missing millennium is marked by the reoccupation of Jericho by groups who made pottery. It was Zeidan Kafafi who, in addition to his research in the PPN sites of 'Ain Ghazal, Wadi Shu'eib, and Khirbet Hammam, fundamentally defined the Late Neolithic Yarmoukian culture in Jordan, demonstrating the Pottery Neolithic was a direct descendant of the PPNC and not the result of a migration of Pottery Neolithic groups from the northern Levant. Although Late Neolithic 'Ain Ghazal was relatively large (ca. 8 hectares?), housing density was diffuse, so that even over this area the population was probably 500 or fewer residents. Other large LN settlements may have been situated in the Jordan Valley but have been hidden beneath large tell sites, as was the case at Pella. Most LN sites were much smaller, often small hamlets (such as 'Ain Rahub near Irbid) or isolated farmsteads with a few buildings dispersed onto terraces of wadis (like Tabaqat al-Bûma in the Wadi Ziq'lab). Dhra' was reoccupied, but unlike many of the LN sites in northern Jordan that had a distinctive Yarmoukian pattern of "banded herringbone incisions," its pottery resembled the ceramics from Jericho.

While LN agricultural settlements slowly increased in number and size, the basalt desert in northeastern Jordan underwent a profound surge in settlements during the 7th and 6th millennia B.C. Most of the sites were tiny, ephemeral, temporary, and home to only a couple of families (e.g., Jebel Na'ja, Dhuweila, and camps around Burqu'), although a few may have hosted ten families or more (al-Ghirqa). But there are strikingly large LN sites in the Black Desert as well: at the foot of the mesas in the Wadi al-Qattafi there are estimated to be more than 600 permanent structures (probably seasonally but repeatedly occupied), and across the plateau at Wisad Pools there are probably more than 300 structures built of massive basalt slabs with a similar pattern of residence. In addition to these two, there are at least four more "megasites" visible on Google Earth in the eastern reaches of the Black Desert. There is no clear evidence that the structures are all LN in age, nor can it be determined how many were inhabited contemporaneously within the sites, nor can it be determined how many sites were occupied at the same time. Even so, it can be concluded that an enormous amount of effort was expended to provide shelter on a seasonal basis.



Pottery Neolithic (ca. 6500 B.C.) three-room "long house" from 'Ain Ghazal

Charcoal and pollen from Wisad Pools have revealed a landscape that included copses of oak and tamarisk trees (and possibly other genera) in addition to a broad spectrum of grasses, including marsh bulrushes and probably reeds; marshland is also indicated



Aerial photo of Mesas M-5, M-6, and M-7. At the base of M-5 and M-7, there are more than 330 structures built of basalt slabs, not counting animal enclosures (photo by David Kennedy, APAAME_20080909_DLK-0285 courtesy of APAAME).

by *Lemna sp.* (duckweed) pollen. The subsistence economy was based on hunting and herding in a much more heavily vegetated

countryside, and a heavy reliance on using kites for mass slaughter of gazelles continued into the Bronze Age and beyond; opportunistic agriculture may have been practiced, although there is no hard evidence for this.

The construction of kites was probably an annual task for part of the residential season. It has been calculated that one “average” kite could be built by ten people in two months; since there are about 1400 kites in the Black Desert, there would have been ample labor and time to build many of them during the Late Neolithic.

Concluding Remarks

What has been covered here is merely the briefest sketch of the astounding results of the past 40 years of Neolithic research in Jordan. Of course, the past 40 years in Israel, Palestine, Lebanon, and Syria have also been productive for understanding the ways human groups changed in their lifestyles during the Neolithic period, and altogether the composite picture demonstrates the cultural similarities across the entire Levant. This summary is a portrayal of how diverse and complex the individual social responses to Neolithic challenges have been.

Neolithic project directors and co-directors whose work provided source material for this article*

Wael Abu-Azizeh	Nazi Fino	Moritz Kinzel	Mohammad Najjar	Denise Schmandt-Besserat
Ted Banning	Sumio Fujii	Ian Kuijt	Hans Nissen	Veronica Seton-Williams
Karin Bartl	Andrew Garrard	Hamzeh Mahasneh	Jane Peterson	Alan Simmons
Marion Benz	Hans Georg Gebel	Cheryl Makarewicz	Christof Purschwitz	Mohammad Tarawneh
Alison Betts	Donald Henry	Ahmad al-Malabeh	Leslie Quintero	John Waechter
Rémy Crassard	Juan Ibañez	Anthony McNicoll	Tobias Richter	Mohammad Waheeb
Phillip Edwards	Zeidan Kafafi	Mujahed Muheisen	Gary Rollefson	Alexander Wasse
Bill Finlayson	Stephan Kempe	Maysoon al Nahar	Yorke Rowan	Philip Wilke

*All projects are conducted under the aegis of the Department of Antiquities of Jordan

ICHAJ 14 in Florence

Barbara A. Porter and Nizar Al Adarbeh

The 14th International Conference on the History and Archaeology of Jordan (ICHAJ) took place in Florence during the period of January 21–25, 2019 under the patronage of H.R.H. Prince El Hassan bin Talal. It was co-organized by the Department of Antiquities of Jordan (DOA) and the University of Florence with the collaboration of the Center for Ancient Mediterranean and Near Eastern Studies (CAMNES). Most of the academic program took place on the university campus. However, the very special plenary opening was conducted in the grand Salone dei Cinquecento in the Palazzo Vecchio. ICHAJ 14 was entitled “Culture in Crisis: Flows of People, Artifacts & Ideas” (see www.ichaj.org for the program as well as remarks by H.R.H. Prince El Hassan and other speeches, including keynote by Øystein LaBianca). Such conferences are major endeavors in need of supporting partners, which for ICHAJ 14 included the Municipality of Florence, the Italian Ministry of Foreign Affairs, the Italian Agency of Development and Cooperation, and UNESCO.

ACOR has been involved with ICHAJ from the outset in 1980 in Oxford, and in 2007 organized in partnership with the DOA, ICHAJ 10 in Washington, D.C. For ICHAJ 13 in Amman at Princess Sumaya University for Science and Technology in May 2016, as well as for ICHAJ 14 in Florence, several individuals from Jordan received scholarship grants from ACOR’s USAID SCHEP (Sustainable Cultural Heritage Through Engagement of Local Communities

Project) in order for them to participate (i.e., present papers, attend events, network etc.). This fits under the SCHEP component of CHR (Cultural Heritage Resources) Institutional Development and Knowledge Sharing. Indeed, ICHAJ is considered an important strategic venue for CHR professional career development for Jordanians. The final decision as to the selection for SCHEP scholarships was based on arduous committee efforts with the DOA and led to 14 individuals, mostly from a younger generation (6 from DOA, 2 researchers affiliated with the University of Jordan, 4 involved with partner institutions—such as the PDTRA—and 2 professors). Approximately 370 people participated officially, representing some 20 different countries.



Plenary Session in the Palazzo Vecchio with Michele Nucciotti as Master of Ceremonies. Prince El Hassan Bin Talal in center flanked by from left Giovanni Curatola, Giorgia Giovanetti, Yazid Elayyan (Acting Director General of the DOA), Ambassador Fabio Cassese and from right Guido Vannini, Constanza Farina, and Øystein LaBianca



Many SCHEP scholarship recipients at the Conference Gala; back row from left: Mohammad Al Shebli, Qais Tweissi, Aven Qatameen, Duha Al Hwayan, Farah Abu Naser; Sereen Al Shoubaki, Adeib Abu Shmeis, Amjad Awad, Enas Qasem and front row from left: Nizar Al Adarbeh (SCHEP COP), Jack Green (ACOR Associate Director), Khaled Al Bashaireh; Jihad Haron (SCHEP Deputy COP/CHR Development Lead), and Yousef Abu Ali; recipients missing from photo: Bushra Nabas, Tariq Al Mhairat, and Mohammed El Khalili (photo courtesy of Qais Tweissi)

On January 24, there was a special morning event called “Culture in Crisis affected countries: the experience of Italy, Jordan and UNESCO in preserving Cultural Heritage,” and in the afternoon three workshops took place. One focused on SCHEP and was concurrent with that on EAMENA (Endangered Archaeology in the Middle East and North Africa). In the SCHEP workshop, two presentations provided information on SCHEP evolving models, namely community engagement by Nizar Al Adarbeh and site stewardship by Jihad Haron. Four SCHEP-supported sites were presented, each with certain key aspects in mind—Umm al-Jimal (Bert de Vries); Wadi Rum (Kaelin Groom and Casey Allen); Madaba Regional Archaeological Museum Project (Doug Clark and Marta D'Andrea); and the Temple of the Winged Lions in Petra (Jack Green and Franco Sciorilli). The last workshop session entailed presenting the Bayt Ras Tomb Project with most members of the international consortium taking part. This was the first large public forum in which the specialists were able to share their findings about this spectacular tomb in northern Jordan to a wide audience. The conference also afforded the chance for consortium members to meet together and discuss future plans. Such breakout sessions—as well as casual conversations—play an important role in sharing knowledge and ideas about the heritage of Jordan.



Bayt Ras Tomb Project conference participants gathered at the end of the workshop session (standing from left): Ahmad Lash, Aven Qatameen, Amjad Bataineh, Nizar Al Adarbeh, Jack Green, Giorgio Sobrà, Pierre-Louis Gatier, Jean-Sylvain Caillou, Claude Vibert-Guigue, Julien Aliquot, Guiseppe Delmonaco; seated from left Soizik Bechetoille-Kaczorowski, Jihad Haron, Giovanna De Palma, Barbara Porter

The overall impression of participants was that ICHAJ 14 in Florence was a great success. The many organizers and student assistants are to be commended.



Prince El Hassan with student volunteers on the evening of the Thursday Evening Gala in the Istituto degli Innocenti



H.E. Yazid Elayyan delivering remarks at the Plenary Closing Session on Friday, January 25 in the Aula Magna del Rettorato of the University of Florence (photo by Anna Vannini)



University of Florence conference organizers, Guido Vannini, Michele Nucciotti, and Elisa Pruno with Barbara Porter at final conference lunch (photo by Anna Vannini)



Hanadi Al Taher, DOA conference coordinator, and Basem Mahamid with their son Faris at closing lunch gathering (photo by Anna Vannini)

ACOR's 50th Anniversary Celebration in Washington, D.C.

Starling Carter, Development Officer

On April 4, 2019, ACOR gathered many of its long-time supporters and friends together at The George Washington University in Washington, D.C. for a final celebration marking ACOR's 50th anniversary in Jordan. This special occasion was an opportunity for old friends to reunite, for new friends to be welcomed, and for ACOR to celebrate its achievements alongside many of the people who have made our work possible, including representatives of USAID, the U.S. Department of State, CAORC, the National Endowment for the Humanities, and other supporting partners, along with individual supporters, former fellows and colleagues, and members of the Board of Trustees, past and present.



Randolph B. Old, Abdelalah Al Khatib, Barbara A. Porter, and Edward W. Gnehm, Jr. at ACOR's 50th Anniversary Celebration in Washington, D.C. (all photos by Erika Nizborski-Spencer)

During formal remarks, ACOR's Board Chairman Randolph B. Old, ACOR Director Barbara A. Porter, Board First Vice President Abdelalah Al Khatib, and Ambassador Edward "Skip" Gnehm, Jr., all spoke of the deep and lasting relationships ACOR has formed in Jordan. Throughout the past fifty years, ACOR is proud to have worked closely with Jordanian and American partners, fostering personal and professional connections that have lasted in some cases for decades. A slideshow of digitized images from the ACOR Photo Archive played in the background at the event, showcasing some of Jordan's most stunning sites, beautiful landscapes, and kind people.



CAORC and ACOR staff photo; from left, Katie Jost, Starling Carter, Jack Green, China Shelton, Glenn Corbett, Arcelia Jackson, Nisreen Abu Al Sheikh, and Barbara Porter



ACOR's newest publication, *50 Years in Jordan*

At this April event, ACOR also debuted its newest publication, *50 Years in Jordan*, a visually-driven booklet that tells the story of ACOR and some of the organization's most noteworthy accomplishments and activities over the past half-century. We were thrilled to be able to present this booklet for the first time to this special group. It is now available to all of our friends and supporters on the ACOR website.



Board members and spouses on The Elliott School rooftop terrace: Morag Kersel and Yorke Rowan and Anne Aarnes and David Sprague

On behalf of everyone at ACOR, we extend our deepest thanks to those who joined us for this special evening. It truly was a fitting cap to a lively year of anniversary celebrations, special lectures, and more (for a recap of our 2018 events in Amman, see Blog posts on the ACOR website, as well as *ACOR Newsletter* Vol. 30.1). The ACOR family remains deeply grateful for the support of this community over the past fifty years, and also wishes to thank those who were not able to join the celebrations in person, but have served as integral parts of the ACOR community, whether it be for a period of decades or months. Your support means the world.

ACOR's 50th Anniversary Honor Roll of Donors is now online, as well as within our new publication, *50 Years in Jordan*. See www.acorjordan.org for more information.

Temple of the Winged Lions Publication Project

Jack Green

The first half of 2019 saw continued efforts take place at ACOR on a publication project for the Temple of the Winged Lions, which I have been directing as the current TWLCRM Initiative Director and ACOR Associate Director. This important first to fourth century A.D. Nabataean temple in Petra was first excavated by archaeologist Phillip C. Hammond as part of the American Expedition to Petra (AEP) from 1973 to 2005. Hammond's excavations were published in the form of preliminary reports, specialist studies, and summary articles, as well as interim publications of excavations and surveys for the period 1973–1990.

Following the important work of the AEP at the site, the Temple of the Winged Lions was subsequently the focus of continued documentation, excavation, conservation, site development, educational outreach, and publication preparations as part of the Temple of the Winged Lions Cultural Resource Management (TWLCRM) Initiative (2009 to present), implemented by ACOR in partnership with the Department of Antiquities of Jordan and the Petra Development and Tourism Region Authority, and with various levels of funding support, including from ACOR USAID SCHEP and the U.S. Ambassadors Fund for Cultural Preservation (AFCP).



TWL Publication Fellow Pauline Piraud-Fournet in the ACOR garden (all photos courtesy of Jack Green)

Thanks to ACOR's Publication Fund, Pauline Piraud-Fournet, the Temple of the Winged Lions Publication Fellow and specialist in Nabataean archaeology and architecture, was based at ACOR for six months from February to July. She is affiliated with University of Paris IV-Sorbonne and the Institut Français du Proche Orient (Ifpo). This period provided Pauline the time to assess a wide range of bibliographical material, unpublished reports, and archives related to work conducted to date at the Temple of the Winged Lions. Her fellowship resulted in a written report and assessment of the AEP archive and published literature in relation to the Temple of the Winged Lions, allowing for an identification of new or continued areas of focus for research. In particular, this ACOR fellowship enabled the identification of key areas for future study and publication, including a significant number of artifacts from the temple which can help ascertain a fuller understanding of religious and daily life activities, and also a detailed architectural study of the Temple along with an assessment of the conservation history of the site.



Intern Safa' Jdoudeh discussing rehoused TWL plans with Jack Green

In addition, TWL Publication Project Trainee Safa' Joudeh, a recent graduate from Hashemite University in architecture, helped advance the project through creating a full and detailed inventory and rehousing of drawings from the AEP archive, as well as coordinating the scanning of documents that were not already digitized, including some oversized items that required the use of special off-site scanning equipment. This furthered the extensive digitization efforts carried out between 2012 and 2015 by Chris Tuttle and Tali Erickson-Gini. Safa' had already spent several months as an intern, assisted by CIEE student volunteers Libby Trowbridge and Gabe McGill, helping ACOR document and inventory the many artifacts and architectural fragments collected during the sifting of the dumps at the Temple of the Winged Lions, largely between 2012 and 2018. You can read about Safa' and Libby's work online on the ACOR Blog (May 2019).



Pauline and Qais Tweissi discussing TWL architectural plans

We thank those involved in the project as all these efforts help move ACOR closer towards applying for grant support for final publication efforts. This work will hone future research questions and identify areas of future need to bring a final TWL publication to fruition.

For past published updates on the TWLCRM Initiative, see lead articles in recent ACOR Newsletters (24.2, 25.2, 26.2, 27.2, 28.2, and 29.2) on the ACOR website.

Fellows in Residence (January–June 2019)

NEH Post-Doctoral Fellow

Bridget Guarasci, Anthropology, Franklin & Marshall College;
Ecologies of War: Restoring Iraq's Marshes in Counterinsurgency
CAORC Post-Doctoral Fellow

Kimberly Katz, History, Towson University; Law and Society:
Jordanian Rule in the Hebron District 1951–53
CAORC Pre-Doctoral Fellows

Julia Gettle, History, Brown University; Popular Politics in Greater
Syria: Marxism and the Clash of Nationalism, 1948 to 1970

Amy Karroll, Near Eastern Languages and Cultures, University
of California, Los Angeles; Between Collapse and Mobility:
Environmental Refugees in the Third Millennium B.C. Southern
Levant

Kenneth W. Russell Fellow

Craig Harvey, Roman Archaeology, University of Michigan;
Humayma Excavation Project



Kimberly Katz



Julia Gettle



Amy Karroll



Craig Harvey



Bridget Guarasci (right) with May Muzaffar

Public Lectures at ACOR (January–June 2019), now on YouTube and ACOR's Website

Feb. 25–Stephen Bourke (University of Sydney), “Pella@40: The
2019 Field Season at Pella in Jordan,” co-hosted with the Embassy
of Australia in Amman

March 13–Győző Vörös (Hungarian Academy of Arts),
“Machaerus@50: Book Launch of the Final Report on the
Herodian Citadel”

April 13–Micaela Sinibaldi (Honorary Research Fellow, Cardiff
University and Glassman Holland Research Fellow at The Albright
Institute of Archaeological Research, Jerusalem), “Islamic Bayda
Project: Archaeology of Settlement in Post-Urban Petra,” co-
hosted with CBRL's British Institute in Amman; also streamed
live on Facebook for remote audiences



Győző Vörös and Noémi Vörös-Bak with Machaerus volumes on sale at the
time of the lecture



Micaela Sinibaldi flanked by Carol Palmer, British Institute Director, and
Barbara Porter, ACOR Director, before the lecture



Australian Ambassador Miles
Armitage and Stephen Bourke
receiving guests before the lecture

**For more
information about
our public lectures
and fellowships,
including how to
apply,
see our website
acorjordan.org**

In Memoriam: Marilyn McNamara Schaub (1928–2018)



Marilyn in the field (photo courtesy of Helen Schaub)

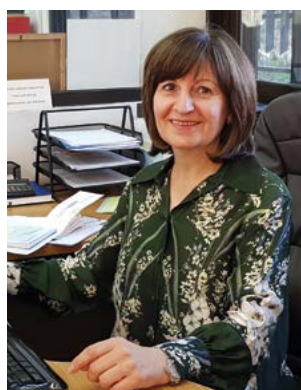
The course of my Mother's life changed in 1966, when she was studying at the École Biblique in Jerusalem. After growing up in a large and loving Irish Catholic family in Chicago, she pursued the life of a biblical scholar and professor as a member of the Dominican Sisters of Sinsinawa. She received her Ph.D. in 1957 from the University of Fribourg in Switzerland and set out for post-graduate study in Jerusalem after a few years of teaching at Dominican University in Illinois. Her dissertation focused on the notion of friendship in St. Augustine's writings, and friendship was not only her academic interest but one of her true gifts. It extended from lifelong connections with grade-school classmates to deep mentorship for many of her students.

During her time in Jerusalem, she was introduced to Tom Schaub, also a member of the Dominican order, and they were asked to participate in an excavation at Tell er-Rumeith, Jordan. That experience led to a passion for archaeology for both of them as

well as to a marriage and lifelong partnership of 46 years. During her decades as a professor in the Theology Department at Duquesne University in Pittsburgh, Marilyn taught courses on Near Eastern Archaeology. She also played a key role as Tom took on a decades-long commitment as co-director of the Expedition to the Dead Sea Plain (EDSP) at Bab edh-Dhra and Numayra. She served as registrar on numerous expeditions and lent her administrative and editing expertise to every grant and publication that the Expedition undertook. My parents interacted with ACOR in many ways over the decades and were regular supporters and friends to ACOR. Marilyn chose to honor ACOR with a legacy gift which reflects their commitment over the years.

Helen Schaub

New ACOR Administrator—Zovinar Mananian



Zovinar (Zovi) Mananian joined ACOR in June as the Administrator. This position is key to the smooth running of ACOR and entails working with many different people. Before joining ACOR, Zovi spent over 25 years working within the hospitality industry inside and outside of Jordan, mainly with Marriott Hotels. She started her career as a secretary and gradually worked her way up into senior management positions. Her various prior roles have included Reservation and Revenue Director, Rooms Operations Director, and Executive Assistant Manager. Zovi's assignments within Marriott Hotels took her to Egypt, Hungary, Portugal, Romania, and the United Arab Emirates. In Jordan, her home country, she has worked in Amman, the Dead Sea, and Petra. The field of hospitality fueled her passion for travel and for being exposed to different cultures. She obtained her two-year Private Secretary's Certificate from the United Kingdom as part of a scholarship funded by Jordan Medical Services due to her performance while working for many years at the King Hussein Medical Centre, prior to shifting careers. Zovi is a valued new ACOR staff member.

ACOR 2019–2020 Fellowship Awardee Updates

National Endowment for the Humanities Post-Doctoral Research Fellowship

Christine Sargent (Anthropology, University of Colorado Denver) *Medicine, Technology, and Uncertainty: Navigating Pre-Natal Diagnosis in Jordan*

ACOR Jordanian Travel Scholarship for ASOR Annual Meeting in San Diego

Mohammad Alazieze (University of Jordan, Aqaba) *Preservation versus Use: A Comparison of Tourism Stakeholders' Value Perceptions toward the Petra World Heritage Site*

Sahar al Khasawneh (Faculty of Archaeology and Anthropology, Yarmouk University) *Luminescence dating of a transitional Chalcolithic/Bronze Age site in Jordan*

ACOR MESA Travel Fellowship

Kimberly Katz (Department of History, Towson University) *The Crime of Returning Home: Palestinians and the Israel-Jordan Border in the 1950s*

Why I Care About ACOR

Lawrence T. Geraty



Larry Geraty on an ACOR field trip to Machaerus in 1984 (courtesy of ACOR Photo Archives)

Like Barbara Porter, my experience in Jordan began pre-ACOR. During our growing-up years, our fathers served in Lebanon—her dad as U.S. ambassador from 1965 to 1970 while mine was president of Middle East College from 1951 to 1960. Those were my teenage years. I well remember my first visit to Jordan, watching Glubb Pasha training his Jordanian troops, being baptized in the Jordan River at the traditional site of Jesus' baptism, swimming at the Dead Sea before there were any facilities to shower, climbing down into Cave IV at Qumran, rounding the Mount of Olives and catching my first sight of Jerusalem's Dome of the Rock, driving down the King's Highway to Petra in my dad's '51 Studebaker and staying in Nazzal's Tent Camp.

Fast forward to when I was in graduate school at Harvard and helped Siegfried Horn plan the first season of excavation at Hisban, intended for June 1967, which of course had to be postponed until the following summer because of the Six Day War. Though Rudy Dorneman served in 1968 as ACOR's first Amman Annual Professor Director, Siegfried succeeded him in 1970–71, and other Hisban team members followed (Bas Van Elderen, Hank Thompson, and Bert de Vries). In terms of intertwined staff, our Hisban team lost our great cook, Mohammad Adawi, to ACOR! Thus, I was involved with ACOR from the very beginning. I formally joined the Board in 1976 along with Nancy Lapp, and thus served with every Board President since the first, John Marks, who was followed by Walt Rast, Gough Thompson, Ed Harrell, Bob Coughenour, Jim Sauer, and Artie Joukowsky. I became Board Secretary-Treasurer and then Vice President. In 2002, when I became ASOR President, I decided it was best to resign my position at ACOR so as to serve all ASOR centers without favoritism.

Since the late 1960s, ACOR has provided crucial support for American archaeologists working in Jordan. Its library, hostel,

office, fellowships, and invaluable network were all lifelines for an increasing number of American projects, many of them outgrowths of the Hisban or Madaba Plains Project (MPP), which I directed from 1973 to 2000. Dig directors that got their start at Hisban and Umayri included both Jordanians and Americans. Among the former were Ghazi Bisheh, Nabil Khairy, Lutfi Khalil, and Zeidan Kafafi. Americans who went on to direct their own projects included Jim Sauer, Bert de Vries, Sten LaBianca, Larry Herr, Doug Clark, Randy Younker, Bastiaan Van Elderen, John Lawlor, Harold Mare, Robin Brown, Tom Parker, Bjørnar Storfjell, Don Wimmer, Tim Harrison, Gloria London, Bruce Routledge, David Hopkins, Gerry Mattingly, Kent Bramlett, and Chang-Ho Ji. Michèle Daviau from Canada and Udo Worschech from Germany also got their start at MPP and Hisban, respectively. Of course, Hisban's most famous staff member was His Royal Highness Prince Raad himself! And what would ACOR have done through the years without his steady support and that of our Jordanian hosts on the ACOR Board and at the Department of Antiquities. Most of these archaeologists and their friends have made their home at ACOR or benefitted from its facilities and services at one time or another.

During my tenure on ACOR's Board, I served as chair of the search committee that brought Pierre Bikai to ACOR as Director and Patricia Bikai as Grants Manager (later Associate Director), and both Jim Sauer and Artemis Joukowsky as Board Presidents. I would argue that all of these leaders were crucial for helping to make ACOR what it is today. Recently, I have chosen to establish the Geraty Travel Endowment to support student travel and accommodation at ACOR, as I have seen the role that ACOR has played in introducing students to Jordan and providing mentorship.

As I look back over ACOR's history—now surpassing fifty years—and remember those who have contributed to its success, notably also the organization's valuable staff, none has done more than Director Barbara Porter. As she retires from office, I thank her for her leadership and friendship. She leaves ACOR in its current position of pre-eminence. That said, no one succeeds alone. The donors and supporters who have been ACOR's philanthropists deserve much of the credit. I sincerely hope that includes everyone who reads this newsletter. The generosity of those who have benefitted from ACOR and who believe in its mission remains necessary to further ACOR's mentorship for future generations. As the saying goes, "put your money where your mouth is!" Then there will be no limit to ACOR's continuing leadership and success!



Larry Geraty with H.R.H. Prince Raad bin Zeid at ACOR, soon after the Hisban 50th Anniversary Celebrations in summer 2018

ACOR Annual Appeal Results 2018 and 2019

Funds and Endowments	Fiscal Year 2018	Fiscal Year 2019
Annual Fund	\$384,919*	\$143,678**
Annual Library Support	\$10,672	\$14,204
Roger and Aina Boraas Memorial Library Fund	\$3,000	\$30,000
ACOR General Endowment	\$3,645	\$3,012
ACOR Jordanian Graduate Student Scholarship Fund	\$19,025	\$1,785
Anne C. Ogilvy Memorial Library Endowment	\$1,900	\$200
Pierre and Patricia Bikai Fellowship Endowment	\$350	\$725
Bert and Sally de Vries Fellowship Endowment	\$600	\$1,625
Frederick-Wenger Jordanian Educational Fellowship Endowment		\$353
Geraty Travel Scholarship Fund		\$11,655
Jennifer C. Groot Memorial Fellowship Endowment	\$3,623	\$5,987
Harrell Family Fellowship Endowment	\$3,215	\$1,200
Burton MacDonald and Rosemarie Sampson Fellowship Endowment	\$50	\$25
Kenneth W. Russell Memorial Fellowship Endowment	\$450	\$250
James A. Sauer Memorial Fellowship Endowment	\$2,175	\$3,150
ACOR Middle East Studies Association (MESA) Scholarship Fund	\$1,000	
Petra Church Conservation Initiative	\$775	\$796
Temple of the Winged Lions (TWLCRM) Initiative	\$525	\$450
Total	\$435,923	\$219,095

*Including Joy M. Hebert's legacy gift of \$261,917 (see ACOR Newsletter 29.2, p. 10)

**Including Marilyn M. Schaub's legacy gift of \$23,766

Donations to ACOR (January–June 2019)

General Donations to the Annual Fund

Susan Ackerman; Georg and Verena Alpers; Betty Anderson; Björn P. Anderson; Elaine English Austin and Phil Austin; Clare Bebbington; Tom and Francesca Bennett; Virginia and John Bennett in honor of David Bennett; Geoff Coll; Bonnie Lee Crosfield; John Dolan; Anne and Stewart Dunn; Paul Fitzpatrick; Marie-Henriette Carre Gates and Charles Gates; Patty Gerstenblith; Bridget Guarasci and Mani Potnuru; John Hale; Gemma S. Hall; Timothy P. Harrison; Steve Harvey; Jo Jagoda; Paul and Brenda Katerberg; Ayub Khan, Lawrenceville School (through the auspices of Cara Hyson); Stephen Lintner and Pamela Johnson; Helen Lovejoy; Drew W. and Carol P. Luten; Joan Porter MacIver and David MacIver; Lawrence and Judy Mandel; Laura Mazow and Benjamin Saidel in memory of Megan Perry's Mother; Pangburn International (through auspices of Wendy Pangburn); Junaid Quadri; Jennifer Ramsay; Ann Boon Rhea; Marilyn McNamara Schaub (legacy gift); Edwin A. Schick; Warren C. Schultz; Doug and Catherine Silliman; John and Theresa Sprague; John G. Turner and Jerry G. Fischer; Carolyn Waldron; Theresa and Thomas Whetstone

Annual Fund Donations in honor of Barbara A. Porter

Elizabeth Bartman and Andrew P. Solomon; Nina Dodge; Herbert Krosney; Thomas C. Ragan; Nancy Webster

Annual Fund Donations for Library Support

The Council on International Educational Exchange (CIEE); Nita Dawson; Meryle A. Gaston; Connie Manning; John P. Oleson; Jean A. Peyrat; Herb Krosney in honor of Barbara A. Porter

Annual Fund Donations for the Roger and Aina Boraas Library Fund

Marcia Boraas; Roger Boraas; Miriam Boraas Deffenbaugh and Ralston Deffenbaugh

ACOR General Endowment

Barbara Reeves

Jennifer C. Groot Memorial Fellowship Endowment

Kelly Low in honor of John P. Oleson; Barbara Reeves; Peter and Penelope West in memory of Jennifer C. Groot

James A. Sauer Memorial Fellowship Endowment

Bonnie Lee Crosfield; Peter and Sylvia Sauer in memory of James A. Sauer

Anne C. Ogilvy Memorial Library Endowment

Meryle A. Gaston

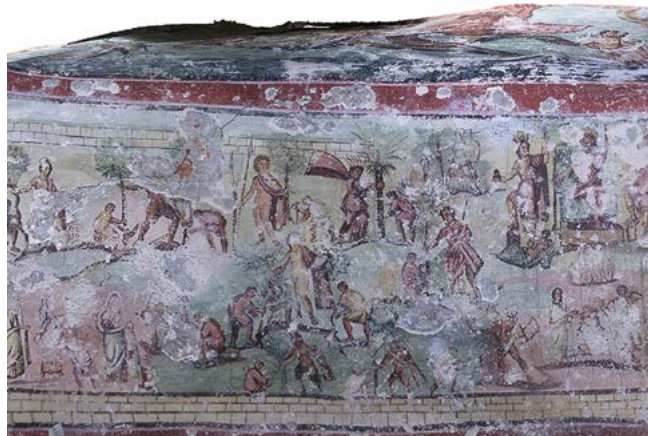
Donations to the ACOR Library (January–June 2019)

Adeib Abu Shmeis; Takuro Adachi; Russell Adams; Nizar Al Adarbeh; Karen Asfour; Zaki Ayoubi; Mamdouh Bisharat; Ghazi Bisheh; Gail J. Buttorff; Janine A. Clark; Bert de Vries; Steven E. Falconer and Patricia L. Fall; Piero Gilento; Seymour Gitin; Jack Green; Abdul Aziz Hameed; Tim Healing; Institut français du Proche-Orient (through the auspices of Michel Mouton); Joan Porter MacIver; Luigi Marino; The National Agency for Cultural Heritage Preservation of Georgia (through the auspices of Director Nikoloz Antidze); Barbara A. Porter; Gary O. Rollefson; The Royal Marine Conservation Society of Jordan (through the auspices of Exec. Director Ehab Eid); Robert Shick; Warren C. Schultz; The Sulaymaniyah Museum (through the auspices of Director Hashim Hama Abdulla); Herbert Stetzenmeyer in memory of Robert H. Smith, Director of the Wooster Expedition to Pella 1967–1985; Juan Manuel Tebes; Claude Vibert-Guigue; Sebastian Watta; Karyn Wesselingh; Noor Ziadat

ACOR “Archaeology in Jordan” Published



2016 AND 2017 SEASONS



AIJ Newsletter cover. Image detail of wall painting from Bayt Ras Tomb (orthographic photo by Soizik Bechetoille-Kaczorowski/Ifpo Amman)

Archaeology in Jordan (AIJ) is a biannual open access (OA) newsletter published online by ACOR. It is aimed at raising scholarly awareness of archaeological and cultural resource management projects being carried out in Jordan and making this information accessible to a wider audience. ACOR published the first issue of *Archaeology in Jordan* in November 2018, covering 2016 and 2017 field seasons. It was edited by Barbara A. Porter, Jack Green, and China Shelton; the layout was undertaken by Starling Carter and the design by Jawad Hijazi. This resource contains 50 project reports from 89 contributors. It can be downloaded free from the ACOR website in low and high resolution versions: www.acorjordan.org/archaeology-jordan-aij/

Previously the “Archaeology in Jordan” Newsletter edited by ACOR staff and affiliates was published in the *American Journal of Archaeology* (AJA) by the Archaeological Institute of America (AIA) between 1991 and 2016. All 22 past editions are open access on our website or through AJA Online: www.ajaonline.org

Plans are currently underway for *Archaeology in Jordan: 2018 and 2019 Seasons*. For information and queries regarding submissions, please write to acor@acorjordan.org or visit the ACOR website.

ACOR’s U.S. office now has this permanent address:

**209 Commerce Street
Alexandria, VA 22314-2909
+1 (703) 789-9231
usa.office@acorjordan.org**

**Your support keeps ACOR going.
To donate to ACOR, you can mail a check to
our new Alexandria office or donate via credit
card on our website, www.acorjordan.org.**

April 2019 Board Meeting

The ACOR Board of Trustees’ annual spring meeting took place at The Elliott School of International Affairs at The George Washington University in Washington, D.C. on April 6. Randolph B. Old presided. Two evenings before the final official ACOR 50th anniversary event was held there, and many old friends of ACOR were present. At this meeting Debra Foran and Guillaume Malle were elected to be members of the Board and Anne Dunn stepped down. The head of the firm Development Resources Inc. (DRI) provided a brief about the search process for the next ACOR Director.

ACOR Trustees

Class of 2020: Mrs. Anne H. Aarnes (Secretary); Mr. Ahmad Abu Ghazaleh; Mr. Geoff Coll; Mrs. Anne M. Dunn; H.E. Mr. Claus Gielisch; H. E. Mr. Edward W. Gnehm, Jr.; Dr. Mary Ellen Lane; Mrs. Jenna de Vries Morton; Mr. David Nickols (Treasurer); Mr. Randolph B. Old (President); Dr. S. Thomas Parker (Second Vice President)

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Ex officio: Dr. Barbara A. Porter

To stay up to date on happenings at ACOR, follow us online:

Website: www.acorjordan.org — the ACOR blog, announcements, and general information

Facebook: www.facebook.com/acorjordan — the most important updates, such as events, closures, and publications

Twitter: @acorjordan — brief daily updates and event recaps

Instagram: @acorarchives — highlights from the ACOR Photo Archive Project

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