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Jordan During the Neolithic: A “Central Bus Station”?

The theme of this volume is “Crossing Jordan,” focusing on the many peoples and cultures that have at one time or another passed through the Kingdom. One era to examine the ancient role that Jordan played in cross-cultural communication is with the Neolithic Period (ca. 9,700 to 4,900 cal. BC), because, in one sense, the modern world, good and bad, could never have occurred without the “Neolithic Revolution” paving the way for increasingly complex human behavior (McCarter 2007; Simmons 2007b). For most of our tenure on Earth, humans efficiently subsisted by hunting and gathering. Then, around 10,000 years ago, some people took a momentous first step towards a dramatically new way of life. They adopted farming, built villages, and became reliant on domesticated plants and animals: for the first time, humans had control over their food. Thus the Neolithic essentially set the stage for subsequent cultural development, freeing people from the daily quest for subsistence, and yet at the same time placing previously unknown demands upon them, and often having unintended consequences. Amongst the first places that this occurred was Jordan, which has rich record of Neolithic heritage.

While the Neolithic often is viewed as an economic stage, perhaps more significant were the social and ideological changes resulting from a dramatically different way to make a living. Not only was food as a commodity viewed differently, but by establishing settled and permanent villages, expanding human populations were now forced to interact with one another and their environments in ways never before witnessed. This had to have resulted in very different world views, and indeed, the late French pre-historian Jacques Cauvin (2000) went so far as to call the Neolithic “the birth of the gods”. However one interprets the Neolithic, there

is no denying that it forever changed the fabric of human life.

The Neolithic appears to have first occurred in the Near East. While earlier research sought to define a common geographic origin, contemporary views have made it clear that there is no one Near Eastern “core” center, but rather multiple regional zones of concurrent Neolithic activity (e.g., *Neolithics* 2003, 2004). The “Levantine Corridor”, which contains numerous Neolithic sites and includes much of Jordan, contains some of the oldest settlements known. Jericho, of course, is one of the most prominent of these, providing an initial foundation for our knowledge of the Neolithic and the establishment of the basic chronological framework that is still used: that is, Pre-Pottery Neolithic A (PPNA), Pre-Pottery Neolithic B (PPNB), and Pottery Neolithic (Kenyon 1957). Later research showed Jericho to be atypical, with settlements such as Bayḏa in southern Jordan perhaps being more representative. So, Jordan always has played a pivotal role in Neolithic research. One might even view the southern Levant as a sort of “central bus station”, meaning that multitudes of people have always passed through this critical region. Certainly this analogy is appropriate for the Neolithic, where it is increasingly clear that life was far more complex than we originally thought. This contribution highlights some of the contributions that Jordan has contributed to our understanding of this tumultuous time.

It is in Jordan where we find some of the earliest permanent Neolithic settlements. During the PPNA, Jericho was one of the first villages established. After many years of wondering if the PPNA actually existed, or if Jericho was simply an anomaly, recent research throughout Jordan has documented several PPNA sites, ranging from villages such as

adh-Dhrā', "hamlets" like Wādī Faynān 16, and specialized sites, such as Iraq ad-Dubb cave (Simmons 2007b: 86-120). So, what is now modern Jordan has a long tradition of settled village life.

One aspect of the Neolithic is its rich ritual behavior, as reflected by architecture, artifacts, and human remains, particularly those from the PPNB. Documenting such behavior, however, is no easy task, and we must remember that during the Neolithic, the "sacred and the profane" may not have been as separate as they are in many modern contexts (Abay 2003: 21). Regardless, some of the most spectacular evidence for likely ritual behavior comes from the southern Levant. Architecturally, nothing matches the sheer magnitude of Jericho, particularly in its massive walls and tower. Whether or not these had primary ritual significance is debated (e.g., Ronen and Adler 2001), but certainly some degree of ritualistic behavior likely was associated with these features. Other sites have structures that also hint at ritual behavior. For example, at 'Ayn Ghazāl, some buildings have been interpreted ritually, perhaps even including a temple (Rollefson 2000: 174-178). At smaller sites, such as Ghuwayr I, there also is evidence for ritual structures, such as an elaborate room containing several niches. Ghuwayr I also has an outdoor stairway and possible "theater" complex fronting an open plaza. While this may not have been oriented towards ritual behavior, it certainly demonstrates a considerable commitment to community activity (Simmons and Najjar 2006: 84-86). At nearby Ba'ja, the site itself is so isolated as to suggest a ritual function (Gebel 2002: 126). Despite these elaborations, however, it is curious that thus far the Levant lacks the spectacular ritual architecture seen in Anatolia, at both settlements such as Çatalhöyük and specialized sites, such as Göbekli Tepe.

In addition to architecture, the Neolithic also contains abundant ritual artifacts, including masks, fine points, figurines, and unique human "statues". Female figurines are common and play a major role in Cauvin's (2000) ideologically-driven model, as do cattle, both in the form of bull figurines and actual cattle remains embedded within architectural features. He believed that these two entities embodied the "goddess and the bull". Certainly among the most spectacular ritual artifacts are the magnificent statues from 'Ayn Ghazāl. We can only guess as to their true function, but they, and their more poorly preserved counterparts at Jericho, clearly had

considerable ritual significance (e.g., Schmandt-Besserat 1998).

Human remains also inform us about ritual, since death is so commonly associated with ideological beliefs. A common PPNB burial theme was to bury individuals beneath house floors and then to later decapitate them. Often, the skulls were then plastered in a human likeness, possibly for public display. The full significance of this is debated, but some sort of ancestor veneration likely is involved. Rarely were children treated specially, but at Ghuwayr I we recovered an infant beneath a floor with a single shell ornament — perhaps an earring or a necklace. On the floor above the burial were several offerings, including sheep skulls, a cow bucrania, and other artifacts. Clearly, this child was someone important, giving us a poignant look at Neolithic ritual (Simmons and Najjar 2006: 89-90). What seems clear is that the treatment of the dead during the PPNB was a complex, ritually-laden phenomenon associated with social memory (e.g., Kuijt 2001).

Another aspect of the Neolithic is the elaboration of social organization. This, again, is difficult to archaeologically document, but social hierarchies must have been complex. Large groups of people living in confined quarters had to develop new ways to deal with both daily interactions and long term planning, and much recent research attention is devoted to this (e.g., Kuijt 2000). While many believe that society was still organized in roughly egalitarian ways, it is likely that the need to control and monitor increased populations led to issues of power and prestige during this time. And yet, we see very little evidence for violence throughout the Near Eastern Neolithic. Perhaps increased leisure time and the development games alleviated some of the stress resulting from social crowding. It is clear that the emergence of craft specialists, resource allocators, and ritual practitioners occurred during the Neolithic. Curiously, however, there is little burial evidence for actual status differentiation. Perhaps during this time when humans were still experimenting with communal living, they sought to achieve a balance between equality and social status.

A phenomenon that seems concentrated in Jordan was the development of "mega-sites" during the PPNB (Beinert, Gebel and Neef 2004; Simmons 2007b: 175-197). Starting with 'Ayn Ghazāl in the early 1980s, a series of absolutely huge settlements

are now documented. These dwarf even Jericho, often covering 15 or more acres. While some were occupied into the Pottery Neolithic, most were abandoned, and a settlement pattern of smaller villages increasingly reliant on agropastoralism came to characterize much of the subsequent Pottery Neolithic in the southern Levant. Understanding these mega-sites and their role within a wider society has re-written what we know of the Neolithic.

We also now know that the Neolithic encompassed a much wider “world” than previously believed and that trade was important. Imported goods, like obsidian, occur at many Jordanian sites. Given recent discoveries extending the early Neolithic as far as Cyprus (Peltenberg and Wasse 2004), it seems evident that Neolithic peoples throughout the Near East had consistent contact with one another. Given this, it is clear that “crossing Jordan” has a long history, extending at least back to the Neolithic. Thus, given the major role that Jordan played and the likely transmission of both ideas and actual populations, the concept of a Neolithic “central bus station” is reinforced.

Related to this, another elusive aspect of the Neolithic relates to defining ethnicity and boundaries, difficult tasks even in the modern world. But, it is probable that ethnically distinctive, perhaps even “tribal”, territories emerged during the Neolithic. It certainly is clear that there is no single “Neolithic” culture; far more likely are interaction spheres composed of people with distinct ethnic identities who shared a common heritage (e.g., Kozłowski and Aurenche 2006). One can only wonder if some of the rich ethnic diversity that we see today in the modern Near East had its origins during the Neolithic.

Thus, it is obvious that substantial, and irreversible, accomplishments occurred during the Neolithic. And yet, despite all of the positive contributions, there also were negative consequences. One of these was the acceleration of ecological impacts. Indeed, we have argued that at some of the mega-sites, the residents literally ate themselves out of their environments by over farming and overgrazing (Rollefson 1996; Simmons *et al.* 1988). And yet, the resilience of the Neolithic also is evident: an adaptive strategy likely occurred at these sites that set the stage for the traditional division of Near Eastern society into “the desert and the sown”: that is, during the Neolithic pastoral economies probably took emerged in tandem with that of settled vil-

lages (e.g., Köhler-Rollefson and Rollefson 1990).

Some have painted a fairly depressing picture of Neolithic life. A recent characterization is rather grim:

“...settlements...were undoubtedly ...polluted with...rotting organic matter and human waste... Flies and mosquitoes transmit ...infections... rats bring hemorrhagic fevers; wild dogs and other carnivores carry rabies; and wild cats bring toxoplasmosis...Clearing...the land...may have encouraged...tetanus, malaria, and...Stock rearing may have been another major source of human disease ...tuberculosisThe Neolithic was certainly not a Garden of Eden but a world where...people knew that they were forever confronted with the Four HorsemenBdeath, famine, disease, and the malice of other men” (Akkermans and Schwartz 2003: 78-79).

I suspect this is an over-wrought picture. For example, development of so-called “crowd diseases” may have had their origins in the Neolithic (e.g., Diamond 2002), but their massive viral transmission likely occurred after the Neolithic, when population levels of both humans and animals were magnified. There is little question, however, that the Neolithic took a toll on human health, although, again, the data are somewhat equivocal. For example, diseases may have increased with sedentism and agriculture, but people also may have lived longer, if less healthy, lives (e.g., Eshed *et al.* 2004; Peterson 2002; Smith 1998: 68).

After all, if life was as dismal as some characterizations, it seems unlikely that village society would have persevered. Given the duration of many Neolithic villages, the advantages of living in them must have outweighed the disadvantages. And, while it is tempting to see the Neolithic’s end as a failure brought about by growing populations, humanly induced ecological deterioration, and climatic change, it also is important to remember that settlements such as ‘Ayn Ghazāl were occupied for over 2,000 years. By modern estimates, that is an impressive track record, rather than a collapse!

While necessarily abbreviated, this essay has shown that Jordan has much to contribute to a more thorough comprehensive of the tumultuous events that defined the Neolithic. We still have many unanswered questions, but contemporary research has now pushed beyond simple “where, when, and why” questions. By way of closing, what are new perspectives that contemporary and future research

should take in examining this period? While there are several answers to this question, the following seem particularly important (Simmons 2007b: 264-279).

Research on the Neolithic has gone through a series of theoretical paradigms. Initial studies focused on establishing base-line data, providing a chronological and cultural historic record. Subsequent research was more problem oriented, usually focusing on issues such as finding the origins of agriculture or the oldest Neolithic settlement. Theory is now more refined, and several processual perspectives characterize much contemporary research. These include middle-range critical theoretical examinations of site structure, mortuary and ritual practices, regional interaction, household composition, gender, and artifact analyses. While the social realm is receiving much attention, there also is a continuing emphasis on clarifying human and environmental interactions. Much of this has to do with achieving a better understanding of climatic changes and geomorphic positioning on the landscape. There are, of course, still more prosaic but necessary studies being conducted on the Neolithic as well. These relate to the detailed analysis of both chipped and ground stone, as well as architectural patterning.

The theoretical directions of much research have increasingly incorporated post-processual orientations as well, focusing on social agency and symbolic issues. As one example, consider Cauvin's (2000) view of the Neolithic as nothing less than the birth of religion. The sort of heavily post-processual research perhaps best characterized by the re-excavations at Çatalhöyük (e.g., Hodder 2006), however, are generally not found in Jordanian Neolithic studies.

Coupled with increased theoretical sophistication, methodological improvements have greatly enhanced our understanding of the Neolithic. These involve more careful excavation and data recovery procedures, and refinements in other disciplines that confirm the need for true interdisciplinary collaboration. As but one example, geomorphic analyses allow regional models and environmental reconstructions, resulting in a better comprehension of the Neolithic and how land/use practices have altered the environment. Other applications that have benefited archaeology include more precision in absolute dating, residue analysis from ground stone, and genetic studies of both floral and faunal

remains. Combined, these provide powerful tools for better interpreting the Neolithic and will direct research trends for years to come.

Finally, I would like to mention the issue of preservation, conservation, and tourism. Protecting the fragile heritage that Neolithic peoples left to the modern world has not received much attention. Resources are limited for conservation and preservation, and funds frequently are directed towards the more impressive ruins of later antiquity. However, the Neolithic badly needs preservation. Perhaps the most notable success in this perspective has been Çatalhöyük, where public presentation is integrated into the project. In Jordan, attempts at both preservation and site presentation also have been made at a few sites, but on a much more limited scope. Tourism is one avenue for increasing preservation funding. For example, on a modest scale, we have constructed a simple archaeological park at Ghuwayr I (Simmons 2007a), and plans are underway for a regionally based Neolithic Heritage Trails program. Likewise, at Bayḍa, replicas of Neolithic dwellings and simple signage (Dennis 2003) enhance visitors' experiences at the site. All of this ties in to increased eco-tourism. But, more needs to be done.

In conclusion, without the security of village life and surplus provided by food production during the Neolithic, subsequent cultural achievements, reflected by the development of the spectacular urban cultures of the Near East, and ultimately culminating in contemporary society, would simply never have occurred. Thus, in contemplating the Neolithic, we must achieve a balance. This requires realizing that it set in motion some of humanity's most spectacular achievements, while at the same time understanding that much of the pollution and over-crowding in contemporary society also was an ultimate Neolithic consequence. Extracting the nuances of the Neolithic is difficult — unsealing the secrets of these past ancestors is no easy task. However, continued and innovative research will yield answers to many elusive questions during this tumultuous era. This is why it is an exciting time to be conducting research on this milestone in human history. Only the future will tell if this ultimately was a successful undertaking, but one thing is certain: we would not be here today without the Neolithic.

Bibliography

Abay, E. 2003. The Neolithic Figurines from Ulucak

- Höyük: Reconsideration of the Figurine Issue by Contextual Evidence. *Neolithics* 2: 16-22.
- Akkermans, P. and Glenn, S. 2003. *The Archaeology of Syria: From Complex Hunter-Gatherers to Early Urban Societies (ca. 16,000-300 BC)*. Cambridge: Cambridge University Press.
- Bienert, H.D., Gebel, H.G. and Neef, R. (eds.). 2004. *Central Settlements in Neolithic Jordan*. Berlin: ex Orient.
- Cauvin, J. 2000. *The Birth of the Gods and the Origins of Agriculture*. Translated by T. Watkins (originally published in 1994). Cambridge: Cambridge University Press.
- Dennis, S. 2003. The Experimental Reconstruction of a Pre-Pottery Neolithic B Structure at Beidha A Visual Introduction. *Levant* 35: 39-48.
- Diamond, J. 2002. Evolution, Consequences and Future of Plant and Animal Domestication. *Nature* 418: 700-707.
- Eshed, V., Gopher, A., Gage, T. and Hershkovitz, I. 2004a. Has the Transition to Agriculture Reshaped the Demographic Structure of Prehistoric Populations? New Evidence from the Levant. *American Journal of Physical Anthropology* 124:315-329.
- Gebel, H.G. 2002. Walls. Loci of Forces. Pp. 119-132 in H.G. Gebel, B. Hermansen and C. Jensen (eds.), *Magic Practices and Ritual in the Near Eastern Neolithic*. Berlin: ex Orient.
- Hodder, I. (ed.). 2006. *Çatalhöyük Perspectives: Themes from the 1995-99 Seasons*. Oxford: David Brown.
- Kenyon, K. 1957. *Digging up Jericho*. London: Benn.
- Köhler-Rollefson, I. and Rollefson, G. 1990. The Impact of Neolithic Subsistence Strategies on the Environment: The Case of ‘Ain Ghazal, Jordan. Pp. 3-14 in S. Bottema, G. Entjes-Nieborg and W. Van Zeist (eds.), *Man=s Role in the Shaping of the Eastern Mediterranean Landscape*. Rotterdam: Balkema.
- Kozowski, S. and Aurenche, O. 2005. *Territories, Boundaries and Cultures in the Neolithic Near East*. Oxford: British Archaeological Reports.
- Kuijt, I. (ed.). 2000. *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*. New York: Kluwer Academic/Plenum.
- Kuijt, I. 2001. Meaningful Masks: Place, Death, and the Transmission of Social Memory in Early Agricultural Communities of the Near Eastern Pre-Pottery Neolithic. Pp. 80-99 in M. Chesson (ed.), *Social Memory, Identity, and Death: Intradisciplinary Perspectives of Mortuary Ritual*. Washington D.C.: American Anthropological Association.
- McCarter, S. 2007. *Neolithic*. New York and London: Routledge.
- 2003. Supra-Regional Concepts I. *Neolithics* 2: 32-37.
- 2004. Supra-Regional Concepts II. *Neolithics* 2: 21-52.
- Peltenburg, E. and Wasse, A. (eds.). 2004. *Neolithic Revolution: New Perspectives on Southwest Asia in Light of Recent Discoveries on Cyprus*. Oxford: Oxford Books.
- Peterson, J. 2002. *Sexual Revolutions: Gender and Labor at the Dawn of Agriculture*. Walnut Creek, CA: Alta Mira.
- Rollefson, G. 1996. The Neolithic Devolution: Ecological Impact and Cultural Compensation at ‘Ain Ghazal, Jordan. Pp. 219-229 in J. Seger (ed.), *Retrieving the Past*. Mississippi State University: Cobb Institute of Archaeology.
- 2000. Ritual and Social Structure at Neolithic ‘Ain Ghazal. Pp. 165-190 in I. Kuijt (ed.), *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*. New York: Kluwer Academic/Plenum.
- Ronen, A. and Adler, D. 2001. The Walls of Jericho were Magical. *Archaeology, Ethnology and Anthropology of Eurasia* 2: 97-103.
- Schmandt-Besserat, D. 1998. ‘Ain Ghazal Monumental Figures. *Bulletin of the American Schools of Oriental Research* 310: 1-17.
- Simmons, A. 2007a. Ghwair I, Wadi Feinan. *American Journal of Archaeology* 111: 538-540.
- 2007b. *The Neolithic Revolution in the Near East: Transforming the Human Landscape*. Tucson: University of Arizona Press.
- Simmons, A. and Najjar, M. 2006. Ghwair I: A Small but Complex Neolithic Community in Southern Jordan. *Journal of Field Archaeology* 31:77-95.
- Simmons, A, Köhler-Rollefson, I., Rollefson, G., Mandel, R. and Kafafi, Z. 1988. ‘Ain Ghazal: A Major Neolithic Settlement in Central Jordan. *Science* 240: 35-39.
- Smith, P. 1998. People of the Holy Land from Prehistory to the Recent Past. Pp. 58-74 in T. Levy (ed.), *The Archaeology of the Holy Land*. London and Washington: Leicester University Press.

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