UNIVERSITY OF COPENHAGEN

# Rescue Excavations at a Late Neolithic Burial Cairn in the East Jordanian Badya

Richter, Tobias

*Published in:*
Neo-Lithics. A newsletter of southwest Asian lithics research

*Publication date:*
2014

*Citation for published version (APA):*
Richter, T. (2014). Rescue Excavations at a Late Neolithic Burial Cairn in the East Jordanian Badya. *Neo-Lithics. A newsletter of southwest Asian lithics research*, *1/14*, 18-24.

Download date: 27. apr.. 2024

***Editorial***

***Field Reports***
**Richter *et al.***
*Shubayqa 1*
**Dietrich *et al.***
*Göbekli Tepe*
**Richter**
*East Jordanian Badya*
**Olszewski and al-Nahar**
*Tor at-Tareeq, Wadi al-Hasa*

***Contributions***
**Caracuta *et al.***
*Archaeobotanical Data from Nahal Zippori 3*

***Lab Report***
**Kinzel *et al.***
*Diana Kirkbride-Helbæk Archive*

*Events*
**Watkins**
*Prix Archéologique*

***Upcoming Conferences / Workshops***

***New Publications***

***Masthead***

# NEO-LITHICS 1/14

## The Newsletter of Southwest Asian Neolithic Research

## Contents


***Editorial*** *2*

***Field Reports***

**Tobias Richter, Amaia Arranz, Michael House, Adnan M. Rafaiah, and Lisa Yeomans**
*Preliminary Report on the Second Season of Excavation at Shubayqa 1* *3*

**Oliver Dietrich, Çiğdem Köksal-Schmidt, Jens Notroff, Cihat Kürkçüoğlu, and Klaus Schmidt**
*Göbekli Tepe. Preliminary Report on the 2012 and 2013 Excavation Seasons* *11*

**Tobias Richter**
*Rescue Excavations at a Late Neolithic Burial Cairn in the East Jordanian Badya* *18*

**Deborah Olszewski and Maysoon al-Nahar**
*The 2012 Excavations in the Area A Early Epipaleolithic at Tor at-Tareeq, Wadi al-Hasa* *25*

***Contributions***

**Valentina Caracuta, Ehud Weiss, Edwin C.M. van den Brink, Roy Liran, Jacob Vardi, and Omry Barzilai**
*From Natural Environment to Human Landscape: New Archaeobotanical Data from the Neolithic Site of Nahal Zippori 3, Lower Galilee* *33*

***Lab Reports***

**Moritz Kinzel, Charlott Hoffmann Jensen, and Asger Væring Larsen**
*Digitizing Archaeological Archives: The Case of the Diana Kirkbride-Helbæk Archive* *42*

***Events***

**Trevor Watkins**
*Prix Archéologique Pierre Mercier 2013* *45*

***Upcoming Conferences / Workshops*** *47*

***New Publications*** *50*

***Masthead***


## Editorial

Within a few weeks, we editors of *ex oriente* paved the way for three important publications (D. Henry and J. Beaver, eds., on Ayn Abū Nukhayla; by guest editors M. Benz and J. Bauer the pioneering *Neo-Lithics* 2/13 special issue on *The Symbolic Construction of Community*; the book of M. Kinzel on the architecture of Shkārat Msaied and Ba'ja in our *SENEPSE* series). We are proud of these publications, as are our co-editors Reinder Neef and Dörte Rokitta-Krumnow.

But this would not be an editorial of Neo-Lithics, if we would not be thoughtful about this output: Who can read all these, process all the information, and who can afford to buy all these, in addition to the rapidly increasing enormous output of equally important publications on the Near Eastern Neolithic by other authors, editors and publishing houses? And even more problematic: Who can intellectually and fairly evaluate the constantly emerging new approaches and schools of thought? If one has to publish one's own material and thoughts without first consulting the eruption of new literature for one's own topic, doesn't this severely impact the academic quality, discourse and progress of one's own publications? More and more we see that colleagues apparently were unaware of recently published materials and ideas on their subjects and have forged ahead in order to cope with the publishing constraints.

Research has become governed by highly problematic tools and concepts since it is fueled by various uncontrollable acceleration mechanisms and developments, such as funding institutions that grant shorter and shorter research terms, the "authority" of rating systems in academic publishing, the ever-growing possibilities of the internet and computer software; the list goes on and on. Does what has been thought to facilitate research gradually become the grave digger of research? Can we continue to hope that things are not that dramatic or worse?

Hans Georg K. Gebel and Gary Rollefson

# Rescue Excavations at a Late Neolithic Burial Cairn in the East Jordanian Badya

Tobias Richter

## Introduction

In August 2013 archaeological survey as part of the Shubayqa Archaeological Project located a recently looted burial cairn on the eastern side of the *Qa*' Shubayqa. Human remains were found strewn across a wide area around the cairn and in the spoil from the illicit excavations. Initial inspection showed that part of the cairn's fill remained inside and *in situ* human remains were noticed in the section of the robber pit. Although the burials had clearly been severely impacted by the looting, the presence of *in situ* human remains provided an opportunity to at least learn something about the dating of this structure and the burial practices. With permission from the Department of Antiquities we initiated a three day rescue excavation to salvage at least some useful archaeological information from this site.

## Site Location and Description

The cairn, labeled Shubayqa Survey Site 100 (SHUBS 100), was found during the last days of our survey of the *Qa*' Shubayqa area in August 2013. It is situated to the immediate east of the *Qa*' Shubayqa, sitting atop a ridgeline where the basalt bedrock rises up from the mudflat (Fig. 1). The site affords extensive views across the *Qa*' Shubayqa to the west.

The cairn is situated at the approximate centre of a semi-circular enclosure constructed of unworked basalt blocks that form a low, single-course wall (Fig. 2). Three further walls sub-divide the interior of the enclosure. The looted cairn sits within one of these subdividing walls. At least two other, very deflated, cairns were noted sitting in the spaces created by these subdivisions or adjacent to walls. Similar enclosures with cairns are dotted along the same ridgeline and further to the east, some of which are connected by extensive field walls (see below).

Looters dug a *ca*. 0.6 m deep pit at the centre of SHUBS 100 throwing spoil onto the northeastern and northwestern side of the cairn (Figs. 3 and 4). Human skeletal remains, many of which were broken and extremely fragmented, were found strewn around the cairn. The bones were very brittle and bleached, suggesting that they must have been exposed on the surface for

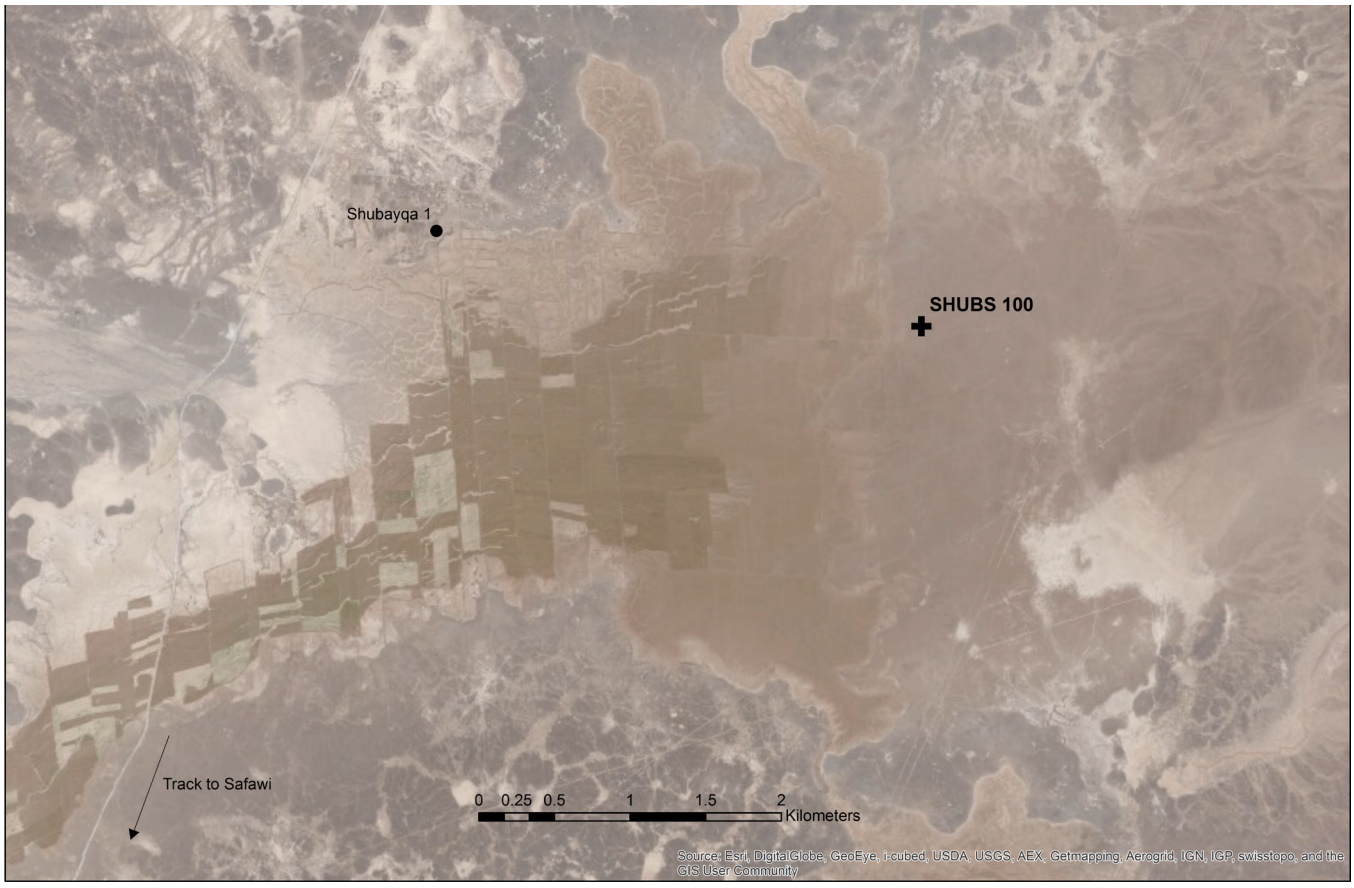



Fig. 1 General map of the Qa' Shubayqa area showing the location of SHUBS 100 (© Shubayqa Archaeological Project).

some time. *In situ* sediment remained on the northern and south-eastern side of the cairn. This remaining fill contained human bone that was seen protruding from the sections created by the looter's pit. The human remains on the surface were collected and the remaining spoil from the illicit excavation sieved. While this produced some more bone fragments no material culture was found.

## The Excavation

The work first focused on cleaning the inside of the robber trench and the surface of the cairn to expose its structure, before exposing and documenting the remaining human skeletal remains. We then lifted the human bone before exposing the interior construction. Two sets of human remains were found inside the cairn.

The cairn was constructed using unworked, medium sized basalt boulders, which were simply piled up to a circular mound measuring *ca*. 2 m in diameter. This mound is unlikely to have been very high, as there was little other stone around the cairn. The chamber measured 1.2 m in diameter. Robbing of stone building material is a possibility. There is a much higher and larger cairn situated *ca*. 75 m east of the cairn we excavated, which likely dates to a later time period. Building stone from the late Neolithic cairn may have been taken and used for the construction of this later tomb (which has also been looted). Both burials found on the inside were laid down on carefully constructed stone pavements built of flat, small basalt stones. There is clear stratigraphic evidence that these two individuals were interred as part of two separate events. The stone pavement on which the upper body (009) was laid was constructed on top of the other pavement on which the better preserved of the two bodies (004) was found.

Only parts of the lower limb bones remained of (009) making any reconstruction of the original burial position (as well as aging or sexing) impossible

Fig. 2 Kite photo of the enclosure in which the looted cairn is situated (© Shubayqa Archaeological Project).

Fig. 3 View of the cairn during excavation showing the two exposed individuals and the looter's pit at the centre of the cairn. Note the broken ground stone vessel at the top right of the cairn (© Shubayqa Archaeological Project).

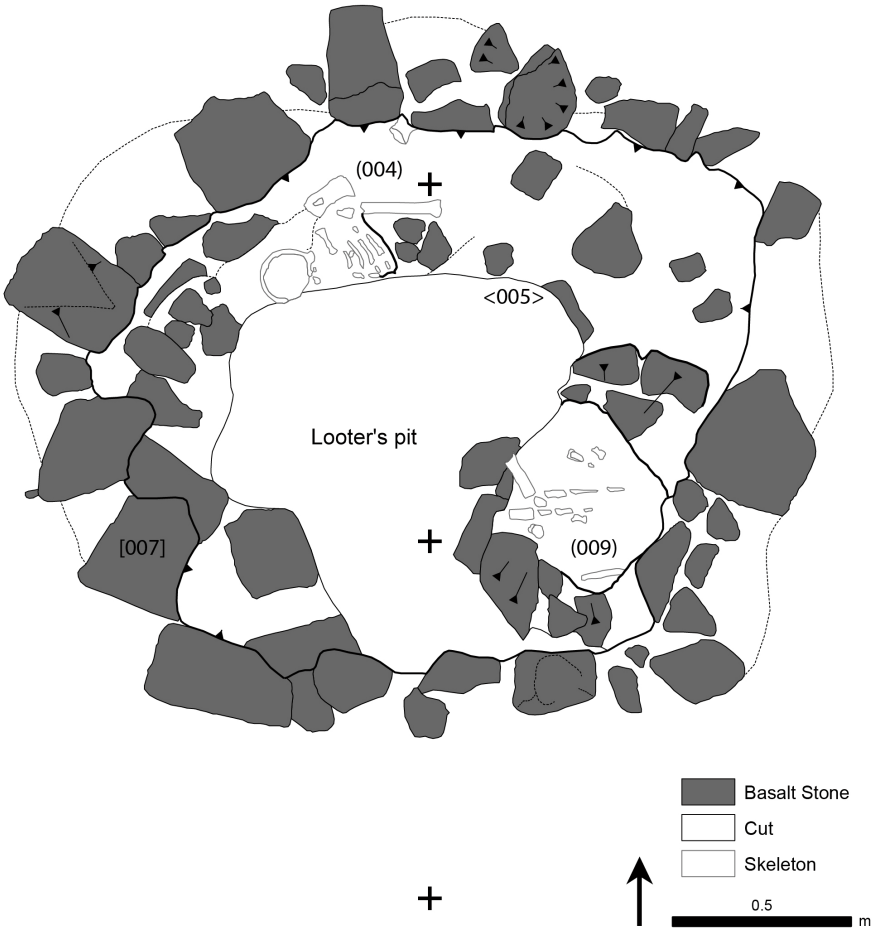



Fig. 4 SHUBS 100 excavation plan (© Shubayqa Archaeological Project).

(Fig. 5). The lower burial (004) was better preserved, but only the torso, cranium and part of the left arm were found *in situ* (Fig. 6). This individual was laid on its side facing southwards and was possibly buried in a flexed position. Given the size of the cairn's interior and the position of both the upper and the lower body there would have been ample room for additional burials. Further osteoarchaeological study of the human bone recovered from inside and outside the cairn will hopefully allow us to determine a minimum number of individuals. The looter's pit at the centre of the cairn was dug through the pavement into the natural below the cairn. All in all, the cairn was rather shallow with only about 50 cm of depth between the lowermost pavement and the highest capstones still preserved.

The fragment of a ground stone vessel was incorporated into the wall of the cairn. Intensive sieving of

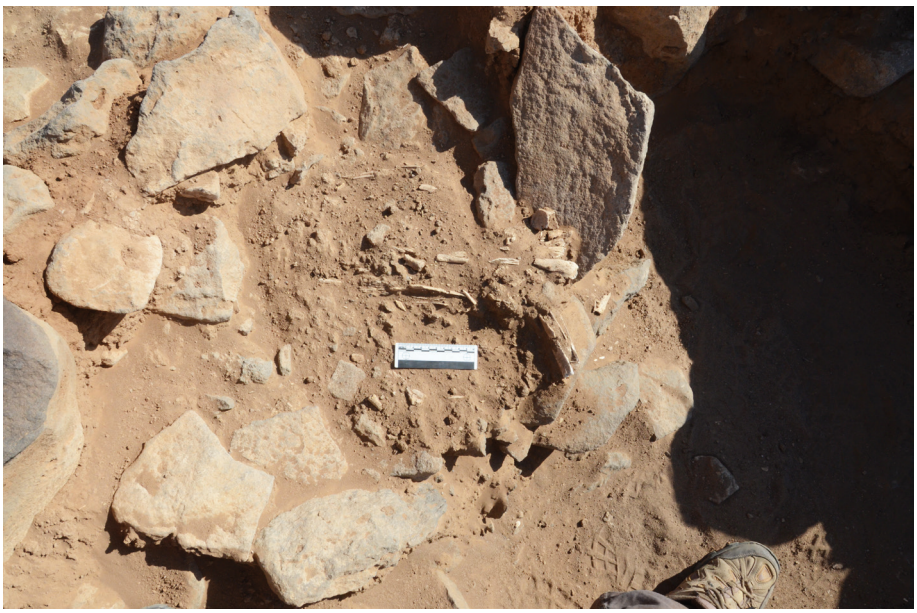


Fig. 5 Detailed view of (009), the later individual buried in the cairn of which only parts of the lower limb bones remain (© Shubayqa Archaeological Project).

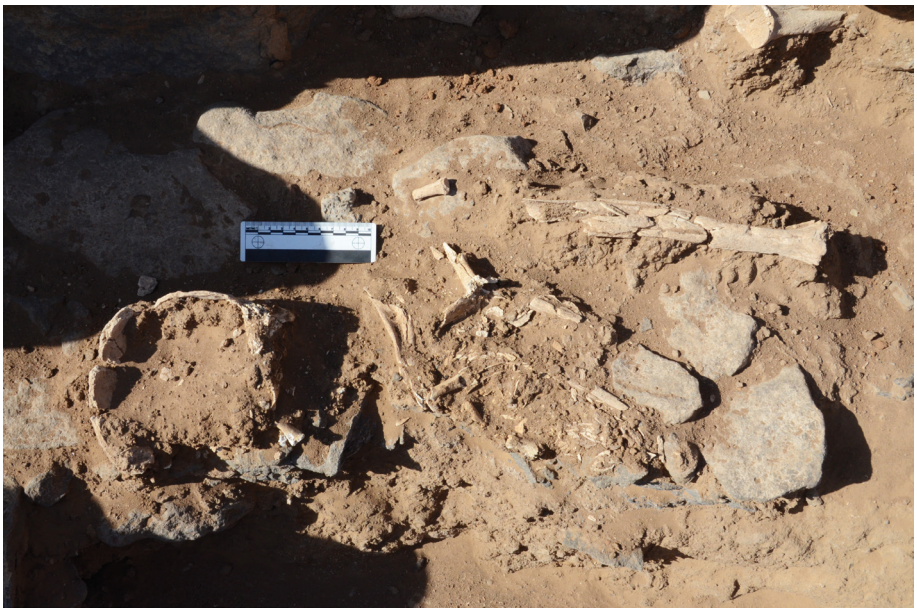


Fig. 6 Detailed view of (004), the earlier individual buried in the cairn (© Shubayqa Archaeological Project).

Fig. 7 Arrowheads and a green stone bead from the fill of the cairn (© Shubayqa Archaeological Project).

the cairn's fill yielded the remains of five late Neolithic projectile points, including two Herzliya points and three transverse arrowheads (Fig. 7). The fragment of a greenstone bead was the only other item of material culture recovered from the cairn's interior. Minimal as this evidence may be it suggests that the cairn was constructed during the late Neolithic, sometime between the late 7th millennium BC and the middle of the 5th millennium BC.

## Discussion

To date we have had little evidence concerning burial practices and customs of the late Neolithic inhabitants of eastern Jordan. Rollefson *et al.* (2013) recently reported the excavation of a suspected late Neolithic tomb at the Wisad pools, but found that the burial had been heavily disturbed in antiquity. Together with this work the rescue excavation reported here provide

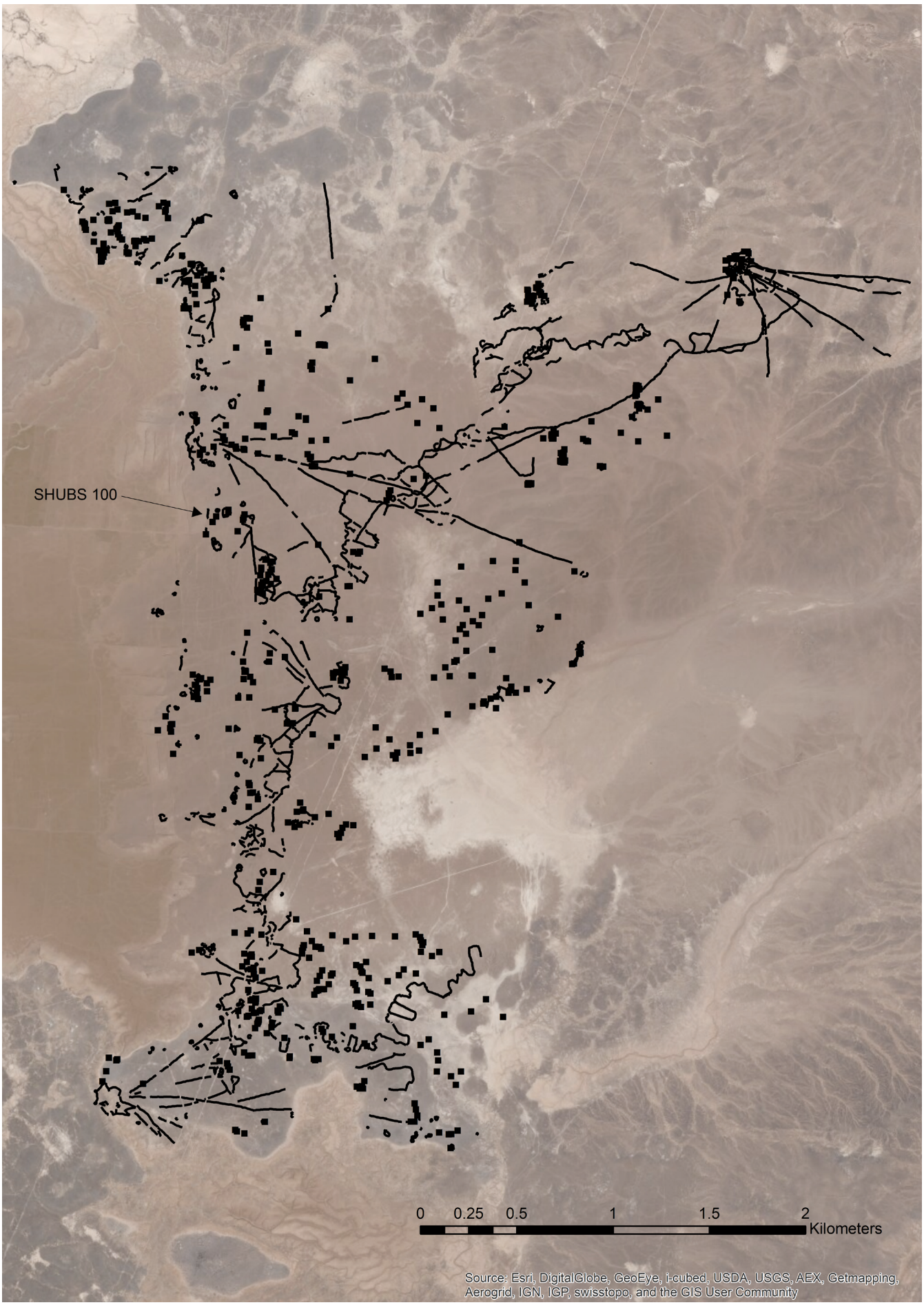



Fig. 8 Map of the network of walls, enclosures and cairns along the ridge east of the *Qa'* Shubayqa (© Shubayqa Archaeological Project).

the to date only evidence for late Neolithic funerary practices in the *Harra*.

While the cairn was very disturbed by the looters some inferences can nevertheless be made. The cairn was not reserved for a single individual and was used for more than one separate burial ceremony. Its likely that the lowermost burials (004) was not a single inhumation. This is suggested by the location and position of (994), which was squished up against the northern side of the cairn and likely buried in a flexed position. There would have been space for at least one or more additional bodies inside the cairn. Furthermore, people returned to the cairn and interred a further body on top of this original burial event. It is unclear whether (009) was a single burial or whether more than one individual was interred as part of the later re-opening of the cairn. This also begs the question whether the individual (or individuals) that was interred later was in any way related or otherwise socially connected to the individuals buried here first. It would seem likely that this was the case although, given the evidence at hand, it is impossible to reconstruct these relationships in any way.

Fig. 9 One of the fieldwalls that connects some of the enclosures in the network. One of the enclosures can be seen in the background occupying a low rising hill. the ridge east of the *Qa'* Shubayqa (© Shubayqa Archaeological Project).

The enclosure in which SHUBS 100 is located is not an isolated structure on this ridge along the eastern edge of the *Qa*'. Our survey preliminarily recorded multiple other enclosures of similar size and appearance in an area measuring *ca*. 5 km north-south and 3 km west-east (Fig. 8). Some of these enclosures are connected by field walls that run for hundreds of meters – even kilometers – across the landscape (Fig. 9). Although SHUBS 100 is not connected by such a wall to any other enclosure, the overall similarity in shape and size with these other enclosures strongly suggests that they may date to the same general time period, i.e. the late Neolithic. Preliminary mapping of this area using satellite imagery indicates something of the extent of this network of walls, enclosures and cairns, which appears to cover an area of approximately 9 km$^2$ (Figure 8). Studying the satellite images also shows that at least three desert kites became incorporated into this network. If the late Neolithic date of SHUBS 100 can be taken as a proxy for the entire complex, which at this point is a hypothesis that requires further examination, it would suggest that these kites went out of use by the late Neolithic. This would confirm similar evidence from other parts of the Harra that has shown that many kites were reconfigured or went out of use during the after the end of the 7$^{th}$ millennium (Betts 1998: 37, 41; Akkermans, personal comment). It seems that this could have marked an important shift away from hunting towards herding of domestic livestock (Garrard *et al.* 1996).

If our observation that each cairn may contain the burials of more than one individual from SHUBS 100 holds true for many or most of the cairns in this area, we could be dealing with hundreds of burials strewn across this landscape. Given the size of the network and the potential size of the population interred it would be appropriate to speak of a funerary landscape. All of the enclosures and cairns are situated on low rising hills and overlook boulder-free areas to the west and east. It is possible that they were positioned adjacent to or overlooking suitable grazing areas, or perhaps areas that provided fresh water. The construction of the field walls and the numerous enclosures, as well as the potential number of people interred in the tombs, suggests that a sizeable number of people was present in this part of the *Harra* during this time frame. The size of this system of walls and enclosures, in combination with the funerary practices associated with the cairns, is suggestive of a kind of monumentality that has to date only rarely been documented in the context of the late Neolithic. In case of the *Harra* the discovery of this substantial funerary landscape is remarkable, as it shifts our attention towards thinking about this region as much more densely populated and much more central to social experience at the time than previously thought.

Much of what we have touched on here briefly requires further examination of the archaeological remains on the ground. Further work is required to fully map and securely date this network of walls, enclosures and cairns and to fully determine the character and history of this suspected funerary landscape. In the next phase of this project we will aim to map and characterize this landscape in greater detail. Future fieldwork will then aim to better date and interpret this monument and contextualize it against archaeological evidence elsewhere in the *Harra* and the Levant as a whole.

*Acknowledgements*: The 2013 fieldwork season was made possible through grants from Det Frie Forsninkgsråd Kultur og Kummunikation and the Danish Institute in Damascus. We are grateful to Dr. Eng. Monther Jamhawi, Director-General of the Department of Antiquities of Jordan, for granting permission to undertake excavations at Shubayqa 1. We also grateful for the support we received from the Royal Bedouin Police Safawwi as well as the Royal Jordanian Army. Thanks to Sandra Rosendahl for preparing Fig. 4.

**Tobias Richter**
Department of Cross-Cultural and Regional Studies, University of Copenhagen
richter@hum.ku.dk

## References

Betts A.V.G.
1998 *The Harra and the Hamad. Excavations and Surveys in Eastern Jordan, Volume 1*. Sheffield: Sheffield Academic Press.

Garrard A.N., Colledge S., and Martin, L.
1996 The Emergence of Crop Cultivation and Caprine Herding in the 'Marginal Zone' of the Southern Levant. In: D. Harris (ed.), *The Origins and Spread of Agriculture and Pastoralism in Eurasia*: 204-226. London: University College London Press.

Rollefson G.O., Rowan Y., and Wasse A.
2013 Neolithic Settlement at Wisad Pools, Black Desert. *Neo-Lithics* 1/13: 11-23.

# The Construction of Neolithic Corporate Identities

Invitation to a Workshop organized by **Trevor Watkins** (University of Edinburgh), **Marion Benz** (University of Freiburg i. Br.) and **Hans Georg K. Gebel** (Free University Berlin)

9th International Congress on the Archaeology of the Ancient Near East, Basel, June 9-13, 2014.

http://9icaane.unibas.ch (early bird registration until March 31st, 2014)

One of the most momentous thresholds in the longer-term evolution of human sociality was neolithisation - the transition from more flexible mobile foraging communities to sedentary and complex corporate societies. For too long Neolithic research has concentrated on the economic side of this transition, while the formation and maintenance of these early large-scale communities could not have developed without unprecedented cognitive and social capacities. More than ever before, in these sedentary milieus the human ability to perceive selectively, to memorize associatively, and to act in a collaborative way, evolved by steadily valorizing, symbolically charging and communicating practices, discourses, spaces and things, including building "traditions". Corporate identities in the Near Eastern Late Epipalaeolithic and Neolithic were not only formed and sustained by commonly accepted tangible things (images, paraphernalia, practices etc.), they were also promoted and transformed by intangible modes, codes and ideological concepts.

The workshop aims to identify and translate the empirical evidence of the different intangibles that helped to form Epipalaeolithic and Neolithic group identities. One of the approaches might be the concept of (inter-)mediality by which cognitive competences behind corporate strategies can be identified. In addition to prehistoric archaeologists, the workshop invites contributions from specialists in evolutionary and cognitive sciences.

*Participants with contributions*

Prof. Dr. Kurt W. Alt, Institute of Anthropology, Johannes-Gutenberg University Mainz, Germany.
Dr. Eleni Asouti, School of Classics, Archaeology and Egyptology, University of Liverpool, UK.
Dr. Marion Benz, Science Associate, Department of Near Eastern Archaeology, Albert- Ludwigs-University Freiburg i.Br., Germany.
Dr. Amy Bogaard, Lecturer in Neolithic and Bronze Age Archaeology, School of Archaeology, University of Oxford, UK.
Dr. Lisbeth B. Christensen, Department of the Study of Religion, University of Aarhus, Denmark.
Dr. Hans Georg K. Gebel, Institute of Near Eastern Archaeology, Free University Berlin, Germany.
Profs. Drs. A. Nigel Goring-Morris / Anna Belfer-Cohen, Institute of Archaeology, The Hebrew University of Jerusalem, Jerusalem, Israel.
Dr. Theya Molleson, Science Associate, Department of Earth Sciences, The Natural History Museum, London, UK.
Dr. Tobias Richter, Department for Cross-Cultural and Regional Studies, University of Copenhagen, Copenhagen, Denmark.
Prof. Dr. Gary O. Rollefson, Department of Anthropology, Whitman College, Walla Walla, USA.
Dr. Christa Sütterlin, Film Archive of Human Ethology of the Max-Planck-Society, Andechs/Munich, Germany.
Prof. Dr. Trevor Watkins, Emeritus, School of History, Classics and Archaeology, University of Edinburgh, UK.

# Domestication of Plants and Animals in the Near East

Invitation to a Session organized by **Maria Saña Seguí**, maria.sana@uab.cat (Departament de Prehistòria, Universitat Autònoma de Barcelona, Barcelona - Spain) – **Jean-Denis Vigne**, vigne@mnhn.fr (UMR 7209: Archéozoologie, Archéobotanique: Sociétés, Pratiques et Environnements, Muséum National d'Histoire Naturelle – CNRS, Paris - France) – **Sue Colledge**, smcolledge@gmail.com (University College London, Institute of Archaeology, London - UK) – **Miquel Molist**, mimolist@gmail.com (Departament de Prehistòria, Universitat Autònoma de Barcelona, Barcelona - Spain)

XVII World Congress of the International Scientific Association UISPP,
Burgos-Atapuerca (Spain), between the 1-7 September, 2014.

The aim of this session is to provide a platform to discuss and exchange ideas, opinions and new theoretical-methodological perspectives on the study of plant and animal domestication. ... One of the main points raised in the debate on the phenomenon of Neolithisation is the need for integration of studies of animal and plant domestication within the context of economic and social change that took place in the early Holocene. Our session is to present and discuss from different sights the processes of domestication, for example, their causes and consequences, based on the wealth of accumulated data from recent research and, most important, with a particular emphasis on drawing together evidence from archaeozoological, archaeobotanical and archaeological studies. Special attention will be paid to new conceptions about early domestication (*i.e.* "predomestic" agriculture or control of wild animals), to new methodological, technical and high resolution approaches to the study of the processes, to different temporal and spatial scales and to the exploration of the variables that interact during the domestication of animals and plants.

With these aims in mind, the session will be interdisciplinary, including presentations and discussions on the following aspects:

- concepts used in the study of domestication in the Near East;
- new methodological and technical approaches to the study of plant and animal domestication, for example, criteria involved in the definition and classification of the first domestic animals and plants;
- the empirical record and new archaeological evidence for domestication – micro- and macro-spatial approaches;
- economic strategies and the integration of animals and plants: the origins of agricultural and pastoral practices;
- explanatory models for animal and plant domestication;
- the role of the Near East in the study of the domestication and Neolithisation processes: its distinctiveness and heuristic power.

Communication proposals have to be submitted by the 30th of April 2014 to the congress organization. Registrants must indicate which Congress sessions they will attend, before May 31, 2014 (www.burgos2014uispp.es). Please also send a copy of the abstract to us (contact: maria.sana@uab.cat). On the congress webpage you should also find information on the guidelines for the abstracts and the posters, congress inscription and financial assistance for participants:
- registration and proposal forms at www.burgos2014uispp.es
- technical information: uispp2014@viajeseci.es
- scientific information: uispp2014@fundacionatapuerca.es

**2014 ToRS International Food Workshop**

# Food, Identity and Social Change

**25-26 September 2014**

**Department of Cross-cultural and Regional Studies (ToRS),**
**University of Copenhagen, Denmark**

**Call for Proposals**

Food draws people into the web of life and touches upon everything that matters: it expresses personhood, marks membership (or non-membership) in practically any kind of social grouping and draws lines of where morality begins and ends. Yet, food can also signify very different things from place to place, from kitchen to kitchen and from one time period to another. Social changes – such as peoples on the move (nomads, migrants, tourists), changes in intergroup relations within societies, new technologies (in mass media, biotechnology), mass production of foods, increasing globalization of food and changes caused by war – have been relatively neglected in food studies.

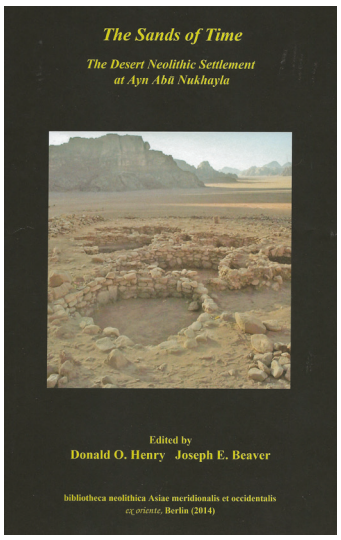
Food is a powerful lens for analyzing identity. This is clearly illustrated in the works of food studies that include Bourdieu's inquiry into the taste and preferences of the French bourgeoisie and Mintz's pioneering historical study of how high status sugar produced in the Caribbean became a working class staple to the exciting growth of more recent works by Appadurai on how to create a national cuisine and Wilk's scrutiny of the complex culinary reactions of Belizeans to colonialism, class differentiation and modernity.

**Keynote Speakers**
Professor Tamara L. Bray, Wayne State University
Professor Mandy Thomas, Queensland University of Technology
Professor Richard R. Wilk, Indiana University

We welcome contributions on food, identity and social change: Why do we eat what we eat and why have different cultures and societies at different times eaten other things? What fosters social change to affect dietary patterns and changing identities? How can food offer the lens to understand the cultural and social affinities in moments of change and transformation? The topic offers an opportunity to excavate the past, to examine the present and to project into the future.

**Anyone interested in presenting a paper at the ToRS 2014 International Food Workshop should submit a proposal of 300 words and relevant contact information by 1 April 2014 to Katrine Meldgaard Kjær (katrinemkjaer@gmail.com)**

Organizers: Cynthia Chou (cynchou@hum.ku.dk) and Susanne Kerner (kerner@hum.ku.dk)
Organizing Assistant: Katrine Meldgaard Kjær (katrinemkjaer@gmail.com)




*Recently published by ex oriente:*

# The Sands of Time.
# The Desert Neolithic Settlement at Ayn Abū Nukhayla

**edited by Donald O. Henry & Joseph E. Beaver**

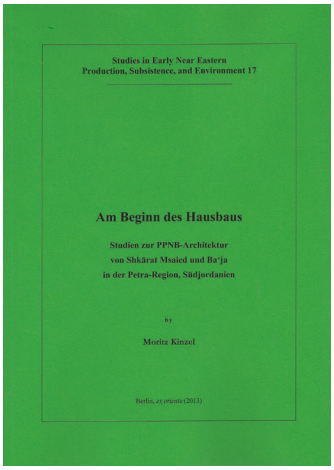
bibliotheca neolithica Asiae meridionalis et occidentalis (2014)
(with 19 chapters, XI+380 pages, 149 figures including 8 colour illustrations, 64 tables.
hardcover - 118 Euro)
[ISBN 978-3-944178-05-9] – Orders via www.exoriente.org/bookshop

***Table of Contents***

Acknowledgements, Contact Information for Corresponding Authors
Chapter 1. The Problems, Questions, and Getting the Answers, by *Donald O. Henry*
Chapter 2. Geology, Landforms, and Depositional Systems in Wadi Rum 13, by *Carlos E. Cordova, Regina DeWitt, and Barbara Winsborough*
Chapter 3. The Setting, Site Plan, Excavation Strategy, and Integration of Evidence, by *Donald O. Henry*
Chapter 4. The Stratigraphy, Occupational Phases, and Chronometry, by *Donald O. Henry and Joseph E. Beaver*
Chapter 5. The Built Environment: Architecture at Ayn Abū Nukhayla, by *Joseph E. Beaver*
Chapter 6. Hunting and Herding at Ayn Abū Nukhayla: The Vertebrate Faunal Assemblage, by *Rebecca M. Dean*
Chapter 7. Tracing Herding Patterns at Ayn Abū Nukhayla through Biogeochemical Analyses in Faunal Remains, by *Marie Balasse, Jamal Salamah Al Zaidaneen, Rebecca M. Dean, T. Douglas Price, and Donald O. Henry*
Chapter 8. Establishing the Environment, Seasonality, and Economy from Plant Micro-Remains: Pollen and Starch, by *Aline Emery-Barbier*
Chapter 9. Early Crop Cultivation and Caprine Herding: The Evidence from Phytolith and Fecal Spherulite Studies, by *Marta Portillo and Rosa M. Albert*
Chapter 10. Archaeobotanical Finds from Ayn Abū Nukhayla, by *Joy McCorriston and Heidi Ekstrom*
Chapter 11. The Technotypology of Chipped Stone Artifacts, by *Donald O. Henry, April Nowell, Keith Mendez, Elizabeth Peterson, Matthew Senn, and Heather Rockwell*
Chapter 12. Attribute Studies of Points, Perforators, Knives, and Lithic Caches from Ayn Abū Nukhayla, by *April Nowell, Jennifer Gutzeit, Colleen Bell, and Donald O. Henry*
Chapter 13. Under the Microscope: Edge Wear Analysis of Chipped Stone Artifacts and Intrasite Patterns, by *Sean M. Bergin*
Chapter 14. A Closer Look: High-Power Use-Wear Analysis of Prismatic Blades, by *Marvin Kay*
Chapter 15. The Worked Bone Assemblage from Ayn Abū Nukhayla: Implements and Ornaments, by *Ashton J. Spatz and Agatha K. Baluh*
Chapter 16. Ornaments of Shell and Stone: Social and Economic Insights, by *Ashton J. Spatz, Daniella E. Bar-Yosef Mayer, April Nowell, and Donald O. Henry*
Chapter 17. Groundstones and Grinding Technology, by *Seiji Kadowaki*
Chapter 18. Stratigraphic Identification and Spatial Examination of House Floors at Ayn Abū Nukhayla, by *Donald O. Henry, Seiji Kadowaki, and Sean M. Bergin*
Chapter 19. Pulling It All Together: Answers to Many Questions, by *Donald O. Henry*
References Cited

*Digital Appendices 2.1, 16.1, 17.1-17.19, and 18.1 can be accessed at http://orgs.utulsa.edu/sands*

*Recently published by ex oriente:*




# Am Beginn des Hausbaus
# Studien zur PPNB-Architektur von Shkārat Msaied und Ba‘ja in der Petra-Region, Südjordanien

**by**

**Moritz Kinzel**

**Studies in Early Near Eastern Production, Subsistence, and Environment 17, 2013.**

(570 pages, 259 plates with 605 figs. - incl. 19 colour plates and 2 folded A3 plans, 9 tables, paperback - 116 Euro) [ISBN 978-3-944178-04-2] Orders can be placed at www.exoriente.org/bookshop

***Inhaltsverzeichnis***

Vorwort und Danksagungen

1. Einleitung

2. Die Architektur von Shkārat Msaied (MPPNB)

3. Die Architektur von Ba‘ja (LPPNB)

4. Exkurs: Traditionelle Architektur

5. Die PPNB-Architektur von Shkārat Msaied und Ba‘ja im Kontext gesehen:

Tendenzen und Strömungen im neolithischen Bauen in der südlichen Levante

6. Zusammenfassung

7. Literatur

8. Anhänge

9. Abbildungsverzeichnis und -nachweis

10. Abbildungstafeln

*Editorial Board*

Co-Editors
Gary O. Rollefson, Whitman College, Walla Walla
Hans Georg K. Gebel, Free University of Berlin

Managing Editor
Dörte Rokitta-Krumnow, Free University of Berlin

*Advisory Board*

Ofer Bar-Yosef, Harvard University
Didier Binder, C.N.R.S., Valbonne
Frank Hole, Yale University
Peder Mortensen, Copenhagen Univ.
Hans J. Nissen, Freie Universität Berlin
Mehmet Özdoğan, University of Istanbul
Danielle Stordeur, Archéorient, CNRS, Jalès

*Submissions* NEO-LITHICS, Dr. Dörte Rokitta-Krumnow/Dr. Hans Georg K. Gebel,
ex oriente, c/o Free University of Berlin, Hüttenweg 7, 14195 Berlin, Germany,
Emails: d.rokitta-krumnow@gmx.de · hggebel@zedat.fu-berlin.de, Fax 0049 30 98 311 246.
NEO-LITHICS, Prof. Dr. Gary O. Rollefson, Department of Anthropology,
Whitman College, Walla Walla, WA 99362, USA, Email: rollefgo@whitman.edu.

*Orders (New Subscriptions, Payment of Subscription Renewal, Back Issues)*
New subscriptions: via https://www.exoriente.org/bookshop/
Payment of Subscription Renewals: via https://www.exoriente.org/bookshop/ (please, mention the invoice number under Message to ex oriente Bookshop from Customer in the shopping basket) or send credit card details (card type -Visa or Master-, cardholder name, credit card number, expiry date, CVV number) to ex oriente Fax 0049 30 98311246 or by letter to ex oriente, c/o Institute for Near Eastern Archaeology, Hüttenweg 7, 14195 Berlin, Germany.
Back Issues before 2010: can be downloaded from www.exoriente.org/downloads/neolithics.php

*Subscription*
Minimum of three years subscription requested = 6 issues, c. 40-50 pages each, 66 Euro for 6 issues/ minimum subscription period (postage included); back issues available; members of ex oriente receive Neo-Lithics free of charge (included in the annual membership fee: 40 Euro for employed members, 15 Euro for students/ unemployed members).

*Deadlines* twice a year: 15th of May and 15th of November

*Submission Guidelines*
Text formats: in Word without formatting; for the general style of text, bibliography, and captions consult this or a recent issue of Neo-Lithics - Illustration formats: individual EPS, TIFF- files or JPEG in high resolutions; illustrations should not be embedded in the Word file. Please, sent a hard copy of the manuscript in case of complex contributions; keep bibliographic references to the utmost minimum. Authors are obliged to present with their submissions formal letters of agreement by copyright owners if they use illustrations, texts, materials, or ideas from oral presentations obtained from sources not their own. Captions of photo and graphic illustrations must mention the author(s) of the photo or graph, even if rights for these are in the hands of the institution providing these materials for publication.
ex oriente respects UN resolutions as well as the project permits of antiquities departments and or the ethics of funding institutions. ex oriente does not publish data obtained in occupied territories or assists the publication of field data not covered by a permit.

*Subscription Information*
In the upper right part of the address field (envelope) you will find the issue mentioned until which (included) you paid your subscription. If you find an invoice with this issue, a renewal of subscription is necessary for the next three years / 6 issues. If an invoice is not paid after two months it is understood that a prolongation of the subscription is not desired, and no further issues will be send.

*Copyright Note*
Authors of Neo-Lithics receive a PDF file of their individual contribution upon publication. Please, understand that your contribution is subject to the copyrights of ex oriente Publishers. However, you are licensed to circulate the pdf file of your contribution privately, but beyond this we ask you not to publish it (or parts of it) in the World Wide Web, or in any other form without our prior permission.

Neo-Lithics is published and distributed by ex oriente, Berlin.
Printing House: dbusiness, Berlin - © ex oriente e.V., Berlin - ISSN 1434-6990