

Shell and Personal Adornment in Neolithic Cultures

November 7-9, 2022

The Steinhardt Museum of Natural History
Tel Aviv University

Organizing Committee:

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Steve Mithen, University of Reading
Catherine Perles, CNRS, Paris



SHELLS AND PERSONAL ADORNMENT IN NEOLITHIC CULTURES

Monday, November 7th, 2022

08:30 Registration
09:00 Opening and greetings

First session: Neolithic Shell Adornment: Introductions
Chair: Catherine Perlès

09:30 **Daniella Bar-Yosef**, Tel Aviv University
The Use of Shells by Humans
10:00 **Anna Belfer-Cohen** and **Nigel Goring-Morris**,
The Hebrew University of Jerusalem
“Something Old, Something New, Something Borrowed...” – The Early
Levantine Neolithic
10:30 **April Nowell**, University of Victoria
Culturing the Body in the Context of the Neolithization of the Levant

11:00 *Coffee break*

Second session: Shell and ornament studies from the Levant
Chair: Avi Gopher

11:30 **Iris Groman-Yaroslavski, et al.**, University of Haifa
On Holes and Strings of Glycymeris in the Middle Paleolithic – The
Microscopic Tale for Human Adornment Displays
12:00 **Dave Smith** and **Steven Mithen**, University of Reading
Shell and Stone Personal Adornment at WF16, an Early Neolithic Site
in Southern Jordan

12:30 *LUNCH*

13:30 **Ianir Milevski, et al.**, The Israel Antiquities Authority
The Stone and Shell Bangles from Motza and other Final PPNB
Southern Levantine Sites
14:00 **Heeli Schechter, Nigel Goring-Morris** and **Daniella
Bar-Yosef**, The Hebrew University and Tel Aviv University
Making, Wearing and Sharing Shell Ornaments at Kfar HaHoresh
14:30 **Anna Maria Bach-Gómez** and **Miquel Molist**
Universitat Autònoma de Barcelona
Beads at Tell Halula: Social Dynamics in a Production and
Consumption Context in Middle Euphrates Valley

15:00 *Coffee break*

15:30 Examination of shell bead assemblages at the Archaeomalacology lab

19:00 **Reception** (Workshop participants only)

Tuesday, November 8th, 2022

Third session: Shell Adornment in Anatolia and the Aegean

Chair: Nigel Goring-Morris

- 9:00 **Milena Vasić**, Independent researcher
The Use of Shell for Body Adornment at Çatalhöyük
- 9:30 **Emma Baysal**, Ankara University
Ornaments and Settled Life - A Journey across Anatolia?
- 10:00 *Coffee break*
- 10:30 **Rena Veropoulidou**, Hellenic Ministry of Culture and Sports
Perforated Shells in Neolithic Northern Greece: From Molluscan Food
Refuse to Shell Artefact Production and Use
- 11:00 **Catherine Perlès**, University of Paris-Nanterre, CNRS
A Different World Under the Microscope: The Production of Late
Neolithic Beads at Franchthi, Greece
- 11:30 **Fotis Ifantidis**, University of the Aegean
On Aegean Neolithic Bracelets -Shell and Stone - Once More

12:00 *LUNCH*

Fourth session: Further around the World

Chair: Anna Belfer-Cohen

- 13:00 **Aldona Kurzawska and Iwona Sobkowiak-Tabaka**,
The Polish Academy of Science and Adam Mickiewicz University, Poznan
Shell Ornaments from the Neolithic and Early Bronze Age Graves in
Poland
- 13:30 **Annelou van Gijn**, Leiden University
The Importance of Amber Ornaments in Beaker Burials
- 14:00 *Coffee break*
- 14:30 **Abigail Moffett**, University of East Anglia
Adorning Bodies and Articulating Personhood: Cowrie Shells in the
Southern African Archaeological Record
- 15:00 **Michelle Langley**, Griffith University
Exploring the Marine Shell Ornament Technology of the Lapita
Period (c.3500 - 2000 BP) in Vanuatu
- 15:30 **Laura Kozuch**, University of Illinois
Shell Bead Workshops and Cahokia's Farmers
- 16:00 *Coffee break*
- 16:30 Final discussion

Wednesday, November 9th, 2022

(Workshop participants only)

9:00 The Steinhardt Museum of Natural History:
Shells and shell artifacts study and discussion

12:00 Excursion

18:00 *Farewell dinner*

The use of shells by humans

Daniella E. Bar-Yosef Mayer

The Steinhardt Museum of Natural History, Tel Aviv University
and Peabody Museum of Archaeology and Ethnology, Harvard University

Mollusc shells have been collected and used by humans from at least a half a million years ago as food and occasionally as artifact, but the consistent use of shells as artifacts begins only about 150,000 years ago with their collection and use as symbolic ornaments. The Middle Palaeolithic is characterized by a choice of a limited number of shells species used as beads, with Nassariids and certain bivalves being the most abundant. The Upper Palaeolithic, best known from Europe and Southwest Asia, typically sees the addition of many more shell species, along with the use of other types of animal remains used as ornaments, namely, teeth, bone, ivory and ostrich eggshell. During the Neolithic, a few species are added to the repertoire, but mostly new technologies evolve that enable the creation of more elaborate ornaments. At about the same time the first bangles appear in the Levant, that later become common in the Indus Valley and parts of Europe, albeit of different shell species. Those were enhanced by the introduction of metal tools that enabled also the creation of unique nacreous pendants and rings.

Shells have been used to make tools and vessels, including adzes, fish hooks and containers – some of them engraved. They were also used in various artistic activities, such as shell trumpets and rattles. Shell inlays were included in both architectural elements and in other artifacts as decoration, while shell fragments are identified in pottery matrix, bricks, mortar and plaster. The use of shell as money in early periods is controversial and should be better termed “social currencies”.

“Something Old, something New, something borrowed...” – The Early Levantine Neolithic

Anna Belfer-Cohen and A. Nigel Goring-Morris
Institute of Archaeology, The Hebrew University of Jerusalem

With the onset of the Near Eastern Neolithic during the 10th millennium cal BC, and thereafter, the growing sedentary tendencies, the shifting ways of subsistence, and the significant increase in populations and group sizes brought about changes in the social structures and social identities within and between communities. These shifts were mitigated, as in other aspects of the Neolithic existence, through a combination of behaviours. Some, clearly reflected continuity from the earlier Epipalaeolithic, others, triggered by the new, all-encompassing circumstances were uniquely Neolithic. Moreover, while certain social shifts and adaptations resulted from internal, local circumstances, others indicate outside influences, reflecting the growing regional interactions, whereby communities came into contact with other communities far and wide. All of the above is reflected in the material culture remains, not least in the items grouped under “Personal Adornments”.

Culturing the Body in the Context of the Neolithization of the Levant

April Nowell

Department of Anthropology, University of Victoria

The human body lies at the interface between the individual self and the group. As a product of both nature and culture, it can be modified to fulfill, challenge, or rebel against ideals of beauty and expectations related to age, gender, social status, kinship, ethnicity, group membership, sexuality, religion, and occupation. People modify their body through the use of cosmetics and personal ornaments, managed hair, tattooing, scarification, cutting, branding, and other procedures and alterations to the human body for culturally specific reasons. While not all of these behaviors leave traces in the archaeological record, the use of personal ornaments is well documented. In this paper, I focus on the practice of body modification through personal adornment in the context of neolithisation in the Levant. I argue that shifting subsistence strategies, settlement patterns, and social relationships (including relationships with ancestors) necessitated new ways of being in the world that were manifested in and through material culture including personal ornaments.

On holes and strings of *Glycymeris* in the Middle Paleolithic – the microscopic tale for human adornment displays

Iris Groman-Yaroslavski¹, Daniella E. Bar-Yosef Mayer², Astrid Kampen-Hasday¹, Mina Weinstein-Evron¹

¹Zinman Institute of Archaeology, University of Haifa

²The Steinhardt Museum of Natural History, Tel Aviv University

Glycymeris shells found in Middle Paleolithic sites are conceived as a representation of symbolic behaviour. Perforated or not, they were brought from the Mediterranean Sea shores to sites at a distance, and as such they are considered unique artefacts that require a functional explanation. Microscopic use-wear analysis proved to be a powerful tool for reconstructing their function. Past analyses showed that these shells may be used as tools, but most importantly, while related to the symbolic domain of human behaviour, microscopic evidence suggests that they adorned the human body, tied and suspended on a string. In the context of Middle Paleolithic cultures, this evidence is valuable for tracking the development of modern behaviour. The application of this type of investigation to the shells found at Misliya Cave (240-160 ka BP) compared to Qafzeh Cave (120 ka BP) sheds new light on this aspect, pinpointing one of the earliest turning points in the function of these valves. A comprehensive experimental program and microscopic investigation aimed particularly for reconstructing wear formation processes on *Glycymeris*, supports this result, providing a valuable dataset that reflects the ability of *Glycymeris* to retain this evidence, as far back as the Middle Paleolithic period and applicable to all later archaeological shells as well.

Shell and stone personal adornment at WF16, an early Neolithic site in southern Jordan

Dave Smith and Steven Mithen
Department of Archaeology, University of Reading

WF16 is a PPNA site in Faynan, southern Jordan, dating to C. 11.84 – 10.8 ka BP, with a peak of activity at ca. 11.20 ka BP. While its economy appears similar to other early Neolithic sites in the region, it is distinguished by extensive mud-pisé architecture, large quantities of bird bones and an elaborate material culture that includes several hundred stone and shell beads.

In this contribution, we describe their spatial distribution and patterning across the site, and association with other forms of material culture and human debris. We consider how they contribute to the interpretation of WF16 regarding dress, display, social interaction and performance.

The stone and shell bracelets (bangles) from Motza and other Final PPNB southern Levantine sites

Ianir Milevski¹, Hamoudi Khalaily¹, Jacob Vardi¹, Dmitry Yegorov¹, Avraham Levy¹ and Heeli C. Schechter²

¹Israel Antiquities Authority

²Institute of Archaeology, The Hebrew University of Jerusalem

The salvage excavations at Motza, near Jerusalem, have exposed a huge site dated to the Final Pre-Pottery Neolithic B (or Pre-Pottery Neolithic C) among other occupation periods at the site. Among the numerous finds were stone bracelets, various shell artifacts, including shell bracelets. The stone artifacts are made mostly of limestone and are of several types. *In situ* artifacts were found in burials of the Final PPNB. The shell bracelets were associated with stone bracelets and other small personal ornaments, including pendants and rings.

Stone and shell bracelets have been reported from Pre-Pottery Neolithic assemblages in the southern Levant. They were found in Transjordan, as well as in the Galilee, the Jordan Valley, the coastal plain, the Shephela and the central hill country. These artifacts represent specialized production involving mainly stone and shells. While the limestone items of Motza were probably manufactured from local sources in the Jerusalem area, the objects made of shell, point to exchange with populations that had access to the Red Sea.

At Motza around 1000 bracelets were catalogued to date (most of them made of stone) in four excavation areas. In this lecture we will address not only the typological questions but also the suggested *chaîne opératoires* for the manufacture of these objects, the context and the suggested function of these items, against the background of the Pre-Pottery Neolithic community of Motza and the external networks.

Making, wearing and sharing shell ornaments at Kfar HaHoresh

Heeli C. Schechter¹, A. Nigel Goring-Morris¹ and Daniella E. Bar-Yosef Mayer²

¹Institute of Archaeology, The Hebrew University of Jerusalem

²The Steinhardt Museum of Natural History, Tel Aviv University

The largest shell assemblage among PPNB sites in the Mediterranean climatic zone of the Southern Levant, including almost 2,200 marine and 600 freshwater shell specimens (NISP), was found at the cultic mortuary site of Kfar HaHoresh. Shells of dozens of species were brought to the site from local and remote marine and freshwater sources, presumably to be used for a variety of uses, including adornment. Here we examine the ornamental component of the shell assemblage, along taxonomic, technological and typological axes, with references to issues of stringing and use-wear as well as to social aspects of regionally shared shell bead adornment habits.

Beads at Tell Halula: Social Dynamics in a Production and Consumption Context in Middle Euphrates Valley

Anna Maria Bach-Gómez and Miquel Molist Montaña
Department of Prehistory, Autonomous University of Barcelona

Craft activities at Tell Halula, in all their aspects from resource access, manufacture, reuse and discard constitute one of the principle elements. We observe enhanced preferential consumption, skills or expression of community identity from local to trans-regional use. Analysis of exogenous materials such as sea-shells, obsidian, copper and carnelian beads at Tell Halula inform us on identity and 'otherness' in inter-community interactions. The evidence includes widespread distribution of materials, including obsidian from volcanic sources in eastern Turkey, materials such as carnelian from Iran or Afghanistan, and sea shells from the Mediterranean and the Persian Gulf. Their combination and representation in the households may infer on acquisition capacity, practices and preferences well identified in the PPNB and PN Neolithic of the Middle Euphrates valley.

The use of shell for body adornment at Çatalhöyük

Milena Vasić

Independent researcher

The Middle Eastern Neolithic is a period of great transitions and changes in human history, including augmented material exploitation, the proliferation of symbolism, and increased social complexity. Personal adornment, as a powerful medium and an active tool in the creation of social meaning, can provide great insight into these developments.

The Neolithic site of Çatalhöyük represents an extensive source of information about bodily ornamentation in the Middle East, with its diverse body adornment assemblage, a large burial dataset, and a variety of contexts spanning over 1,000 years of the occupation of the settlement.

The aim of this paper is to present an overview of beads and pendants at Çatalhöyük, with a focus on the shell ornaments in burials. About two dozens of different mollusc species have been used for bodily decoration, with a clear preference towards non-local materials.

Ornaments comprised either solely of shell beads or in combination with other materials have been found adorning different parts of bodies of males and females, adults and children. The use of shell for the production of ornaments throughout the entire sequence demonstrates the continuous importance of this material within the Çatalhöyük society.

Ornaments and settled life - a journey across Anatolia?

Emma L. Baysal

Department of Archeology, Ankara University

In terms of the Neolithic experience, Anatolia occupies a unique position, in which east and west saw radically different trajectories of development. As portable objects, ornaments have a crucial role to play in understanding the interactions that took place during this process, but until recently were largely left out of material culture-based narratives of change. Recent studies of surviving ornaments have begun to reveal a complex and dynamic world of making and sharing, that challenges many preconceptions about place and time, shedding light on multi-directional relationships as well as the roles of tradition and innovation in Neolithic ornamentation practices. In this presentation I take a broad view of the state of research to explore what we currently know about ornament use, with a particular focus on the use of shells among settled Neolithic communities and whether ornaments follow or resist the tides of change that swept across the Anatolian peninsula from east to west. I use examples from a range of sites from the 10th to 6th millennia BC to explore materials, technology and construction of identity and map out the road ahead for further studies in the region.

Perforated shells in Neolithic northern Greece: from molluscan food refuse to shell artefact production and use

Rena Veropoulidou
Hellenic Ministry of Culture and Sports

This paper investigates the evidence from the study of large archaeomalacological assemblages from several sites in Neolithic northern Greece with the aim to sketch the history of interactions between people and the waterscapes in the area during the Neolithic period (6700/6500 – 3300/3100 BCE). In this endeavor, it examines the production and use of perforated shells, focusing on cockle shells. Following a biographical approach, the results indicate a close connection between patterns of mollusc exploitation, especially food consumption, and the production of perforated shells, thus drawing attention to the different stages of their life history and related human experiences. The proposed integrated approach will allow considering molluscs and their shells as they are relevant to social actions, while also exploring the ways in which shells are employed in association with waterscapes, identity and tradition. Finally, it explores how cockle artefacts may have acted as references to particular activities and waterscapes, and argues that through these media identities were created and expressed in different ways over the course of the Neolithic.

Another world under the microscope: the Late Neolithic bead production at Franchthi Cave (Greece)

Catherine Perlès

Department of Anthropology, University Paris-Nanterre, CNRS, UMR Temps

When viewed with the naked eye, Late Neolithic beads from Franchthi (ca. 5500 – 4900 BC) sharply contrast with Middle Neolithic beads: raw materials are almost impossible to identify, all colours have disappeared to the benefit of uniform-looking black and white beads of very small size (< 5 mm to ca. 2 mm), beads are all discoid or short cylindrical and pendants are almost absent. Thus, one gets the impression of a homogeneous production that answers strict visual codes and only allows for very rare exceptions to the norm.

Under the microscope, a different world emerges. Raw materials are in fact very varied and include fired and unfired steatite, micaschist, serpentinite, marble, clay, marl, *Cerastoderma*, *Spondylus*, *Pinna*, etc. More surprisingly, each raw material is worked by different techniques or tools, and shows variable levels of skill and variable attention to the geometric quality of the bead. These different procedures cannot be attributed to technical constraints from the raw materials, as shown by the marked contrasts in workmanship between unfired and fired steatites. Instead, they reveal different groups of bead-makers that worked independently, different 'communities of practice', which all aimed for similar-looking beads but used their own *manière de faire* to manufacture them.

This unexpected variability raises the question of the identity of the bead-makers and bead-wearers. Given the quasi-absence of production wastes at the site, one could envision a residential community that no longer produced its ornaments and procured them from different workshops. Alternately, the cave may have been occupied by a mix of different groups that shared the same cultural codes but not the same practices, and met intermittently in the cave for social and ceremonial purposes. This second interpretation agrees better with the results of the pottery analysis by Vitelli, and is supported by evidence from other Late Neolithic caves in Greece. Conversely, the similar composition of the ornament assemblages, in the two main Late Neolithic phases, runs against the marked break in pottery and raises the question of the best proxy in terms of cultural continuity.

On Aegean Neolithic bracelets – shell and stone – once more

Fotis Ifantidis

Department of Cultural Technology and Communication, University of the Aegean

Shell bracelets have attained a distinctive role in the narrative of the Aegean Neolithic, acknowledged and placed in the context of special economic, symbolic, and commercial value of the Mediterranean-derived *Spondylus* and *Glycymeris* artifacts.

This paper gathers new data and re-examines the (fragmented) Aegean Neolithic seashell bracelets regarding their multi-layered embodied use as personal adornment artifacts.

Moreover, their relation to the lesser-known stone bracelets is discussed in an attempt to outline a panoramic overview of the production, dispersal and use of Neolithic bracelets.

Shell ornaments from the Neolithic and Early Bronze Age graves in Poland

Aldona Kurzawska¹ and Iwona Sobkowiak-Tabaka²

¹Institute of Archaeology and Ethnology Polish Academy of Sciences, Poznań

²Faculty of Archaeology, Adam Mickiewicz University, Poznań

Shell ornaments found in Poland are rich and spectacular, especially in the burials of Neolithic and Early Bronze Age societies. Many of those precious ornaments were misidentified in the past, which directly influenced their archaeological interpretation. In our presentation, we introduce methods and results of our research applied on shell ornaments since 2016. Those include the taxonomic identification of mollusc shells and their source of procurement, supported by strontium isotope dating ($^{87}\text{Sr}/^{86}\text{Sr}$) and carbon and oxygen stable isotope ($\delta^{13}\text{C}$ and $\delta^{18}\text{O}$) analysis, as well as microwear studies and analysis of preserved residues (pigments, fibres from threads and insects) with the aid of a digital microscope and SEM-EDS.

The study indicates that specific shells were used only by some of the communities inhabiting the area of Poland in the Neolithic and Early Bronze Age and suggests chronological and regional differentiation. The shell “types” found in Poland constitute a part of the Neolithic tradition of body ornamentation seen during this period across Europe, including the phenomena of the transfer of prestigious objects (*Spondylus*) and the transmission of ideas with subsequent local adaptation (fossil and freshwater shells). Moreover, remains of fibres discovered on the shell ornaments surprisingly provided the earliest direct evidence for the use of sheep wool c. 2000 BC in the area of Poland.

Amber beads in the late Neolithic Beaker period and Early Bronze Age of the Netherlands: exploring the relationship between indigenous and immigrant peoples

Annelou van Gijn
Faculty of Archaeology, Leiden University

Amber beads are a common occurrence in many Late Neolithic Beaker and Bronze Age burials from the Netherlands. Settlement sites from this period are unfortunately rare. However, in the northwestern corner of the present-day Netherlands several such sites, attributed to the Single Grave (or Corded Ware) culture have produced evidence for the extensive manufacture of amber beads. These beads display a high degree of craftsmanship and the use of specialized tools. In the (rare) occurrence of amber beads in Single Grave burial context, the beads are of an entirely different character: hardly modified and very roughly perforated, while each bead shows a very different use life. From the subsequent Bell Beaker period we again largely lack well documented settlements, but multiple amber beads and V-perforated buttons were discovered in burial contexts, the latter being an integral part of the “Bell Beaker package”. During the Bronze Age the beads are less standardized both typo-morphologically and in terms of their use life. In this paper possible socio-cultural interpretation of these observations will be presented in light of the changes that took place in the 3d and early 2d millennium BC: the arrival of immigrant peoples from the east and how this may have affected the indigenous inhabitants in the Dutch coastal area.

Adorning bodies and articulating personhood: Cowrie shells in the southern African archaeological record

Abigail Moffett

Sainsbury Research Unit for the Arts of Africa, Oceania and the Americas, University of East Anglia

Cowrie shells, particularly the two species *Monetaria annulus* and *Monetaria moneta*, have a widely documented distribution and use in the archaeological record through time. Cross regional comparisons suggest that the shape, colour and size of these cowries made them well suited to be used as items of personal adornment. Despite their global distribution the use of cowrie shells in African archaeological contexts have been relatively underexplored. This paper draws on recent research conducted on cowrie shell collections from archaeological sites in southern Africa dating to the last two millennia. Using a range of analyses, including the study of modification and use-wear patterns, I explore evidence of the use of cowries as forms of personal adornment in the region. The materiality of cowrie shells, and the dynamics of value that may have shaped their use, are further discussed.

Exploring the marine shell ornament technology of the Lapita period (c.3500 - 2000 BP) in Vanuatu

Michelle C. Langley

Australian Research Centre for Human Evolution, Griffith University
and Forensics and Archaeology, School of Environment and Science, Griffith University

The Lapita is famous for its delicate dentate-stamped pottery, found everywhere the Lapita peoples voyaged in their colonisation of the Pacific. Lesser known, is that these coastal oriented people also produced a wide range of carefully crafted ornaments made from several specifically chosen marine shells: *Rochia*, *Tectus*, and *Conus*. Ranging between <1 cm wide shell money pieces to broad arm and ankle bands, this shell adornment repertoire is as distinct as their ceramics. Here I outline what we have thus far learned from recent excavations in Vanuatu about how these ornaments were made and used by the first explorers of the Pacific.

Shell Bead Workshops and Cahokia's Farmers

Laura Kozuch
University of Illinois, Urbana, IL

Cahokia was one of the largest mound centers in North America from 1000 to 1300 A.D. Shell bead crafting at Cahokia has been an important research topic for a long time, and thoughts concerning crafting methods have evolved. This was a culture that did not use metal for tools. So, too, has the evidence evolved regarding plant domesticates used by ancient Cahokians. Here I discuss how the two topics are seemingly intertwined, and how corn usage began just before a great expansion in shell bead crafting. A recent analysis of stone tools that accompany bead workshops shows that it is now possible to discern disk beads from columella bead workshops. It seems very likely that immigrants brought knowledge of both corn and bead crafting to Greater Cahokia.