



REPORT ON THE CONFERENCE
"ETHNO-ANALOGY AND THE RECONSTRUCTION OF PREHISTORIC
ARTEFACT USE AND PRODUCTION"

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A Conference on "Ethno-Analogy and the Reconstruction of Prehistoric Artefact Use and Production" was held at the Institute of Pre- and Protohistory and Medieval Archaeology of the University of Tübingen, Germany, from July 5th - 6th, 1997. Our goal in organizing this conference was to bring together archaeologists, anthropologists, ethnoarchaeologists and use-wear analysts to discuss the application of ethnographical and ethnohistorical analogies in the reconstruction of prehistoric artefact use and production. More than 80 scientists from Europe, North America, South America and Asia attended, presented papers and discussed recent theoretical and methodological developments in the study of material culture and their relevance for the understanding of archaeological evidence and reasoning.

After opening addresses by Nicholas J. Conard and Linda R. Owen, Martin Porr (Universität Tübingen, Germany) gave an introduction to the first section *Archaeology, Analogy, Material Culture, Society*. He stressed that material culture must be viewed in terms of social actions and social processes. It is inseparable from human beings and their societies and histories. Artefacts only make sense if we understand the people who used and produced them and thus gave them meaning. Consequently, archaeology must focus on people and their relations to objects and not just on the objects alone.

The first set of papers concentrated on theoretical aspects of ethnographical and ethnohistorical analogy. Manfred K. H. Eggert

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(Universität Tübingen, Germany) presented a paper on "The Erosion of Certitude: Alternative Archaeologies and the Position of Analogy" in which he gave a brief consideration of the role of analogy in archaeological reasoning in continental Europe from the late nineteenth to the mid-twentieth century. He then concentrated on the recent theoretical debate on the value of analogical reasoning. While acknowledging a trend towards basing analogical reasoning on a firm epistemological footing, the paper also addressed some of the issues raised in the context of the recent plethora of more or less divergent conceptions of archaeology as an academic pursuit.

In his lecture "Archaeology as Analogy: A Re-Construction of the Missing Link", Peter Biehl (University of California, Berkeley, USA) began with a discussion of the differential use of analogy in processual and post-processual archaeology. He then suggested a new method of "critical analogy" based on the contextual analysis of both the source of the analogy and its subject. To illustrate this approach, he compared Chalcolithic figurines from Southeast Europe and ethnographic case studies in Africa.

Clemens Pasda (Brandenburgisches Landesmuseum, Grötsch, Germany) presented arguments against the use of ethno-analogy in reconstructing Pleistocene settlement/subsistence systems in his paper "Archaeology Without Ethno-Analogy?". Among these were the extreme variations which exist between hunter-gatherer groups, the influence exerted on them by other societies and the lack of comparable environments. The interpretation of archaeological finds is further complicated by multiple site use, difficulties in recognizing

storage or aggregation sites and the limited size of the excavations. He discussed these problems in association with a study of settlement/subsistence systems during the Upper Palaeolithic of Southwest Germany and Switzerland which he based solely on archaeological data.

Clive Gamble (University of Southampton, Great Britain) then examined how an alternative social archaeology could be developed for the Palaeolithic in his lecture "Artefacts and Landscapes: The Importance of Locales, Rhythms and Regions for Interpreting the Palaeolithic". He proposed that we need a methodology based on interacting individuals rather than groups and where we distinguish between different types of locales where social life is performed rather than sites where activities were carried out. The aim is to link the micro and the macro scale of human action, the artefact to the landscape, the individual to the population and the fleeting moments of human activity to the long duration of Palaeolithic time.

In her paper "Analogy and Levels of Analysis: The Relevance of the Technological Approach" Valentine Roux (CNRS, Meudon, France) used a case study of the production of Harappan stone beads (2500 BC) to point out the importance of a technological approach. In this approach techno-systems are reconstructed through analogies based on cross-cultural qualitative and quantitative data. The qualitative data relate to the identification of technical acts which form the basis of techno-systems. The quantitative data make it possible to consider alternatives to the organization of technical acts.

"Feminism and (Ethno-)Analogy: Critical Remarks about Neglected Aspects in Dealing with Material Culture" was the title of the lecture by Sibylle Kästner (Universität Tübingen, Germany). She emphasized that ethnological and ethnohistorical analogies are absolutely essential for the reconstruction of prehistoric life. These analogies play an important part in the archaeological reconstruction of gender, as material culture itself has no sex, but is sexed through analogy. Using the Neolithic as an example, she then discussed the basic mechanisms involved in the sexing of material culture.

Thomas Kehoe (Milwaukee Public Museum, Wisconsin, USA) pointed out how

practical interpretations had given way to mystification and the esoteric in archaeological studies during the mid-20th century in the USA in his paper "The Development of the Direct Ethnological Approach to Studies of Archaeology and Some Analogies Bearing on the Upper Palaeolithic of Europe". Phrases like "ceremonial in nature" were used to avoid interpretation. Specimens were often classified or pigeonholed into nearly useless categories lending no meaning to the artefacts or prehistoric features themselves. His work in the Northern Plains and data from elderly native informants was used to explore such problems in connection with tipi rings, boulder monuments, and medicine wheels.

Changes in the use of flint during the prehistory of the Netherlands was the main topic of the paper "Tool Use and Society in Dutch Prehistory: The Inevitability of Analogies" by Annelou van Gijn and Daan Raemaekers (Leiden University, Netherlands). They argued that direct analogical reasoning can be very useful on the level of interpreting wear traces on individual artefacts. However, analogies can be tested less easily when spectrums of activities are interpreted. When trying to arrive at statements about society or ideology, more attention should be placed on the variability of the archaeological material. Otherwise, there is the danger that meaningful variability is downgraded into meaningless pigeonholes.

Helena Knutsson (Uppsala Universitet, Sweden) combined ethnological analogies with technological analyses and microwear studies in her paper "Two Technologies - Two Mentalities". Her analysis of assemblages from the Mesolithic and the Neolithic Corded Ware Culture shows that there were two different ways of making and using the flint tools which occur in the burials. A strong sense of ritualisation and distinct rules of behaviour could be traced in the funeral rites of the Neolithic group, but not in those of the Mesolithic. A comparison of mentalities among recent mobile hunter-gatherers and less-mobile groups with different economies offered some explanations for this phenomenon.

The day's section was concluded by Agnès Gelbert (CNRS, Meudon, France) with the presentation of her paper "The Relevance of Ethnographic Analogies for Interpreting Influences Between Ceramic Traditions: A

Case Study from North-East Senegal." Her study, carried out in a pluri-ethnic context, shows a complex situation where different ceramic traditions related to different communities coexist and influence each other. These influences differ depending on the stage of the *chaîne opératoire*. Whereas some stages of the production are very resistant to change, others vary under external influences. The results of this study underline the necessity to identify changes that can occur at each stage in the production of archaeological artefacts.

The second section on *Analogy and the Reconstruction of Artefact Use and Production* was introduced by Linda R. Owen. The papers in this section concentrated on the use of ethno-analogy in the reconstruction of artefact use and production and new insights into artefact use that have been gained from ethno-analogy. The first paper by Sylvie Beyries (CNRS, Valbonne, France), entitled "Ethnoarchaeology: A Way of Experimentation", discussed an investigation on hide processing and social organisation in traditional communities in northern Canada. Among the aspects she analysed were the relationship between the length of the cutting edge, the localisation of the traces and the position of the hide; the relationship between the techniques employed and the social organisation; and the characterisation of "functional spaces" as different attributes of fire places. Archaeological applications of these results to different periods were also presented.

Selene Cassano and Italo Muntoni (Museo delle Origini, Roma, Italy) reported on a study of Neolithic pottery in their paper "From Ceramic Production to Vessel Use: A Multi-Level Approach to the Neolithic Communities of the Tavoliere (Southern Italy)". Pottery production in this area was at a remarkable technological level from the very beginning, as shown by the rapid diversification of pottery forms and decoration types. A comparative analysis of the forming, finishing traces and the use-wear macrotraces on the pottery was related to the vessel forms and/or wares.

Alice Beck Kehoe (Marquette University, Milwaukee, Wisconsin, USA) then discussed "Ethnographic Analogy and Probable Fabric Manufacture Artefacts". She contended that the probability that Upper Palaeolithic peoples manufactured fabrics is

great, even though they are seldom preserved in the archaeological record. Fabric impressions on clay or soil moulds, and interpretation of bone artefacts as implements for fabric manufacture offer indirect evidence of their manufacture, although few archaeologists have utilised these sources of data. She surveyed the earliest evidence of fabrics, outlined technologies of fabric production and warned against the leather-clad Man-the-Hunter guiding assumptions traditional in prehistoric archaeology. In conclusion, she argued that probable bone fabric-construction tools were widespread in the archaeological record.

A paper "Defining Tools for Maya Ceramic Production: An Experimental Study at K'axob, Northern Belize" by Sandra L. Lopéz Varela, Markus Eberl and Carsten Deichmann (Universität Bonn, Germany) was then presented. The organization of prehistoric Maya pottery production and its associated technology in northern Belize cannot be fully reconstructed due to the lack of archaeological and ethnographic data. During the 1995 excavations at K'axob, archaeologists exposed a Classic-period (A.D. 550-700) pit kiln for ceramic production with associated ceramics, raw material, clay balls, lithics, and alleged pottery tools. Their statistical analysis provides evidence that Maya potters recycled ceramic fragments as tools, an act which had not previously been reported.

This was followed by a lecture on "Ethno-Neglect or the Contradiction Between Ethnohistorical Sources and the Archaeological Record. The Case of Stone Tools of the Yamana People (Tierra del Fuego, Argentina)" by I. Clemente, X. Terradas, A. Vila (Lab. de Arqueologia, CSIC Barcelona, Spain) and E. Mansur (Dpto. de Antropología, Ushuaia, Argentina). They discussed the production and use of lithic instruments by the Yamana, hunter-gatherers of Tierra del Fuego adapted to the exploitation of sea littoral resources. They compared and contrasted the scarce bibliographical references by ethnologists and travellers concerning the procurement of lithic raw materials, their transformation into consumed goods and their use as production tools with the lithic artefacts from the archaeological site Túnel VII (100 ± 45 BP).

The video recording "*bamé* - Underground Storage Facilities in the Chad

Basin" by Detlef Gronenborn (Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany) was then shown. In it the technological and social aspects of the traditional, underground storage facilities for grains in the Chad Basin were discussed. Today two types of pits are in use, one within settlements for short term storage, and the other outside of the villages near the fields. These storage pits can be traced back to the days of early food production and demonstrate an effective adaptation to the peculiarities of the region.

In her contribution "The Presence of Intact, Complete Artefacts in Archaeological Sites: Indicators of a Rupture in the Way of Life?", Maryke Hehmsoth-LeMouël (Musée de l'Homme, Paris, France) argued that intact artefacts and complete artefact assemblages are deposits intended for later use, but never recovered. She discussed this hypothesis using ethnographic data on the seasonal migration cycle of the historic Copper Inuit (Canadian Arctic) and the roles that deposits of food and equipment play in it.

In his lecture "A View from a Mesolithic Hunting Stand", Kjell Knutsson (Uppsala Universitet, Sweden) showed how the microwear analysis of a late Mesolithic quartz assemblage was based on and actually trapped in assumptions about the stone tool use and production processes of recent hunter-gatherers. The interpretation of basic tool use is only given meaning when it is related to social theory. This applies equally to the layout, spatial organisation and topography of archaeological sites. He argued that we must emancipate ourselves from the processual framework of hunter-gatherer research and avoid an objectification of the past, but instead begin to learn from it.

Another aspect of lithic research was investigated by Sachiko Okazawa (Tokyo Metropolitan University, Japan) in her paper "Micro- and Macro-Debitage Analysis in an Upper Palaeolithic Site of Japan". She discussed the possibilities of using ethno-analogy to understand scatter patterns of lithic artefacts. An analysis of thedebitage from the Upper Palaeolithic site of Minamikuzuno showed that micro-debitage is usually a product of lithic tool manufacture and, due to its very small size, more likely to remain on a primary refuse area than are macroflakes. Comparison of the distributions of micro- and

macro-debitage may thus be used to identify lithic activity areas and to interpret site structures.

Amelia C. Rodríguez Rodríguez (Universidad de Las Palmas de Gran Canaria, Spain) then presented a paper on "The Reconstruction of Ancient Leather Technology or How to Mix Methodological Approaches. An Example from Canary Island Prehistory". Information on the technological processes involved in ancient leather technology was collected from complete and fragmented leather artefacts and clothes, ethnohistorical documents and older artisans. Based on this data, new experiments and microwear studies of lithic implements from archaeological sites were carried out.

The discussion of prehistoric hide processing was continued by Cristina Lemorini (Museo delle Origini, Roma, Italy) in her paper "Hide Treatment in a Middle Palaeolithic Site: Use-Wear Analysis and Experimental Reconstruction of the *Chaînes Opératoires*". She analysed the quality of Middle Palaeolithic hide treatment based on data from use-wear analyses of stone tools from the Middle Palaeolithic rockshelter of La Combette (Bonnieux, France). Different use-wear traces from hide working were observed on the prehistoric convex scrapers and these were compared with experimental *chaînes opératoires* based on ethnographic data. A critical assessment of the significance of comparisons between experimental and archaeological use-wear was made.

A different approach to ethnohistorical research could be seen in Hélène Wallaert's (Musée Royal pour l'Afrique Centrale, Tervuren, Belgium) discussion of "Manual Laterality Apprenticeship as the First Learning Rule Prescribed to Potters: A Case Study in Handmade Pottery from Northern Cameroon". After observing that all of the hundred potters she studied during her fieldwork in Northern Cameroon seemed to be right-handed, she tested their real corporal laterality and discovered that almost 15% were left-eyed and left-footed. This suggests that a certain number of left-handed people were forced to change hands. The right hand is the leading tool for pottery making. This strong manual guidance contributes to a strict observation of style. She thus argued that hand laterality is a component of style.

In conclusion the organizers stressed the variety of artefact types which had been discussed, the wide geographical scope of the ethnographic and ethnohistorical data used, and the diversity of the methodological approaches utilised. The papers emphasized that archaeology was the study of humans and not just artefacts. Consequently, archaeology is closely tied to other cultural and social sciences by the common goal of exploring and understanding people and societies.

In the ensuing discussion, there was general agreement that archaeology did not need a clear-cut disciplinary boundary. More important was the inclusion of a large variety of interpretative techniques, methods and approaches, depending on the specific problems, questions and materials addressed. By relating historic, ethnographic and experimental studies to archaeological phenomena, the contributors showed how new insights can be gained into the complicated processes of artefact use and production. They also showed that we have only just begun to understand the mutual histories of people and objects in the past and the present, and we still have much to learn.

The organizers would like to thank all the people who helped to make the conference a success. We are very grateful to Nicholas J. Conard and the members and students of the *Institut für Ur- und Frühgeschichte und Archäologie des Mittelalters* for their immense help in organizing this meeting. Very special thanks go to Mona Ziegler and Jürgen Plitzko for their graphic designs. We would also like to thank the Universitätsbund Tübingen and the Geowissenschaftliche Fakultät der Universität Tübingen for their financial support. An edited volume of conference papers is now in preparation and will be published in the MoVince Verlag (Tübingen) in 1998.

