Experiencing Archaeology by Experiment

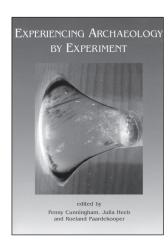
The editors Penny
Cunningham, Julia
Heeb and Roeland
Paardekooper organised
8 of the original
contributions read at the
conference, which took
place on the 17th and
18th of November 2007
at the University of Exeter
into proceedings called
'Experiencing Archaeology
by Experiment'.

Radomír TICHÝ

Several key topics came out of the conference which would be worth further discussion:

- 1. To research the scope of experimental archaeology and differentiate between 'full' experiments, pilot experiments, pre-experiments, experimental activities, public demonstrations and pet projects.
- To determine the role of experimental archaeology within the context of scientific research.
- To improve the promotion of experimental archaeology within the scientific research context.
- To improve communication between scientific experimenters and craftsmen.
- To look for ways to introduce experiments to the scientific community and public.

The editors of the proceedings discuss these questions in the introductory part. These are fundamental problems although they have an inter-generation character and are not new. Everybody who carries out archaeological experiments in any of its forms has the image of a working 'crafts-



man' (manually able) who never writes anything because they perceive what they are doing as 'clear' and of a scientist thinking about the methodology who writes a lot although they probably discover more questions than answers.

The authors of the single contributions often enter the realm of perceptions and show solutions with the help of arguments using multidisciplinary approaches and co-operation. In many cases this resulted in models where the results of field archaeology will be tested with new finds. On the other hand, this approach is rejected by some archaeologists. Why? The models are not directly tied to archaeological material or maybe they are not tied to an accepted interpretation of archaeological material. Therefore the interest of the authors in promoting this method of experimental testing among archaeologists is still topical. Maybe we do not need to promote experiment just to archaeologists but also to the wider public, because that is where the next generation of archaeologists will come

The authors of single contributions introduce experience as a value forming our knowledge. In many cases they are aware of the low value of

experience which they can assign to their problem. That could be the reason why they encounter problems.

The articles represent various categories of integrating experience and perception into learning. They reach from laboratory experiments to difficult ties of measuring experience with interaction with the contemporary public.

Elizabeth C. Blake and Ian Cross in their article Flint Tools as Portable Sound-Producing Objects in the Upper Palaeolithic Context' point out that without their study the resonance characteristics of stone would escape the scientist attention. The only contact point with archaeological material is few primary traces on the blade replicas.

Elizabeth Cory-Lopez in the contribution 'Analytical and Experimental Approaches to Carving Technology during the Cypriot Middle Chalcolithic Period' admits to a lack of experience with drilling Chalcolithic picrolite.

Mary Ellen Crothers in the article 'Experimental Archaeology within the Heritage Industry: Publicity and the Public at West Stow Anglo-Saxon Village' introduces the importance of experience for the visitors of two construction solutions to buildings from early Anglo-Saxon history. Here we can speak about experiential archaeology. Not all archaeologists can be persuaded that living in a hole brings more problems than it solves.

Eva Fairnell in her contribution '101 ways to Skin a Fur-bearing Animal: the implications for zooarchaeological interpretation' correctly points out that skinning of animals is less well known than butchering. She states

that the more interdisciplinary data we have the better the interpretation of archaeological finds.

Carolyn Forrest in the article 'The Nature of Scientific Experimentation in Archaeology: Experimental Archaeology from the Nineteenth to the mid Twentieth Century' proves by examples from the history of archaeology that experimental archaeology was always part of traditional archaeology. Only treating it as a newcomer has excluded it from main stream methods. Experimental methods were often utilised by amateurs who were prepared to dedicate their free time.

Cordula Hansen in the article 'Experiment and Experience – Practice in Collaborative Environment' introduces regular bronze casting as an interdisciplinary project of a two week long artistic symposium. She emphasises the role of a team with various experience in her discussion of the problem.

Susanne Harris in her contribution 'Exploring the Materiality of Prehistoric Clothtypes' points out that we know very little about materiality of prehistoric cloth because we find only fragments of them. According to the author, their colour, smell and pattern could help to understand the character of ancient artifacts. But these are archaeologically unrecordable.

A similar term is used by Heather Hopkins in the article 'Using Experimental Archaeology to Answer the Unanswerable: A Case Study Using Roman Dyeing'. The article concerns the dyeing of cloth from Pompeii using replicas and following physical changes in material. The author is attempting to

answer in this way the so far unanswerable questions (production capacity, operational parameters of production). For the first time she applies modern production theory in research of ancient world, and combines disciplines.

The open-air museums fulfil the role of presenting the world as a multidisciplinary reality. If archaeology tried to represent it that world would probably not be complete. Both the editors and authors aimed to point out that experiencing also leads to new models. However, many archaeologists consider it 'outside archaeology'. We have to respect their views but we also have to respect the role experience plays in the learning process.

Cunningham, P. - Heeb, J. - Paardekooper, R. (eds.): Experiencing Archaeology by Experiment. Oxbow Books. Oxford, 2008, 118p. ISBN-13: 978-1-84217-342-8; ISBN-10: 1-84217-342-1

Summary

In dem Band sind 8 Beiträge einer

2007 an der Universität Exeter veranstalteten Konferenz zu finden. Die Autoren zeigen die Bedeutung von praktischen Erfahrungen für den Erkenntnisgewinn auf. Verschiedene Schlüsselthemen wurden auf der Konferenz behandelt: Der Arbeitsbereich der Experimentellen Archäologie, die Rolle der Experimentellen Archäologie im Kontext der wissenschaftlichen Forschung und die Notwendigkeit einer verbesserten Kommunikation zwischen den experimentalarchäologisch tätigen Wissenschaftlern und den Handwerkern. Die Autoren betonen wiederholt die Wichtigkeit eines multidisziplinären Forschungsansatzes.

Ce livre rassemble les 8 interventions d'une conférence tenue à l'université d'Exeter en 2007. Les auteurs démontrent l'intérêt de l'expérimentation dans la formation des savoirs. Plusieurs réflexions-clefs ressortent de cette conférence : la portée de l'archéologie expérimentale, son rôle au sein du processus de recherche scientifique, la nécessité d'un meilleur dialogue entre chercheurs et artisans. Tous les contributeurs insistent sur l'importance d'une approche multidisciplinaire.

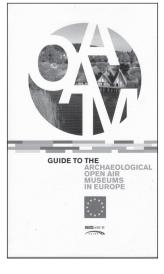
Guide to the Archaeological Open Air Museums in Europe

Growing out of the 2002 EXARC list and the liveARCH project, this book gives current details of 212 archaeological open air museums distributed across 24 European countries and is presented as both a resource for professionals and experts and a tourist guide for those amateurs in need of an archaeological day out.

■ Pam STEANE PRICE (UK)

The book opens with introductions which detail the background and historical development of EXARC and the *live*ARCH project and define the four criteria used in selecting the museums listed in the guide. There is also an acknowledgement that the guide is of necessity incomplete; existing and new museums which fit the criteria are invited to be considered for inclusion in any future publication.

Moving on to the main body of the book. The first 34 pages of which are devoted to listings of the 8 European museums which make up the international network of *live*ARCH, the guide offers comprehensive



museum descriptions sorted by country, with each country introduced by a map showing museum site locations in relation to major towns. Full contact details, opening times and a potted biography are given for each site and clear use is made of symbols which detail such things as visitor amenities, chronological periods, features, demonstrations and re-enactments. Opening the guide at random thus gives information that, for example, Federseemuseum Bad Buchau in Germany covers prehistory and protohistory and offers open air, indoor and site museums, guided tours, demonstrations and reenactments and is family and disabled friendly with a picnic area, shop, carpark and access to public transport, whilst the Archeopark Netolice in the Czech Republic has archaeology of the Middle Ages with open air and site museums, guided tours and demonstrations

Alongside the text, the guide is amply illustrated with colour photographs showing reconstructed buildings and technological experimentation together with costumed re-enactment eventers and everyday archaeological tourists. Plenty of information, then, for a good day out; all the visitor needs to provide is an open mind and an active imagination

All in all, the book does what it says on the cover: 'an innovative guide with over 200 museums for the tourist who is sensitive to culture, nature and the environment' as well as an academic resource and, indeed, an interesting read. Minor glitches that have slipped past the editorial process (Warrwickshire (sic), and the partial, though imposingimpressive (sic) reconstruction at Schwarzenbach) are excusable.

Although it is appreciated that the Guide was created in the framework of the *live*ARCH project, the separation into a discrete guide section of the *live*ARCH network of museums from their other European counterparts can cause confusion for the amateur.

Alessia Pelillo (ed.) Guide to the Archaeological Open Air Museums in Europe; liveARCH and Museo Civico Archeologico Etnologico di Modena 2009. 199 pages including location maps and many colour photographs.

Summary

Le guide détaille 212 structures de 24 pays européens. Leur description comprend également les informations de contact, les horaires d'ouvertures et une courte histoire de chaque site, classés par pays. Ce livre est autant destiné aux professionnels qu'aux amateurs cherchant des idées de sortie.

Der Museumsführer enthält aktuelle Detailbeschreibungen von 212 archäologischen Freilichtmuseen aus 24 europäischen Ländern. Die ausführlichen Beschreibungen umfassen – nach Ländern geordnet - jeweils die Kontaktadressen, Öffnungszeiten und eine kurze Geschichte der Einrichtungen. Das Buch ist sowohl als Datenquelle für Experten als auch für interessierte Laien, die einen Tagesausflug planen, geeignet.

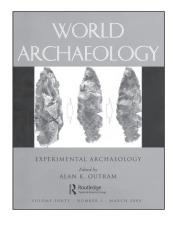
World Archaeology vol. 40

World Archaeology is an important and established journal which stimulates and gives new insights into discussing and presenting new data in archaeology. Volume 40, n. 1, March 2008 is dedicated to Experimental Archaeology and edited by Alan K. Outram.

■ Lara COMIS

Outram's introduction to the volume is of much interest. His paper not only gives a diamond cut definition of the discipline including the problems involved and an outline of the classes of experiments according to Reynolds, but it also explicitly refers to Euro-REA four times.

The first reference to EuroREA acknowledges the use of the term "construct" as conceived by Reynolds (1999: 155) in its title, while stressing in one word the link and the difference with the common "reconstruction" (Outram 2008: 2). The second reference of the journal relates to its treatment of subjects which are valuable activities in education and entertainment but that nonetheless cannot be treated as experiments. The already well known need to distinguish between experiential and experimental is stressed again in this observation with terms that free themselves from the stern attitude formerly applied to the problem (Outram 2008: 3-4). The third and fourth citations of the journal are linked with the discussion of common flaws in publishing experimental archaeology. The lack of clear archaeological aims or of a well-thoughtout hypothesis refocuses attention on the difference between the experiential and the experimental perspectives. The valuable insights that experiential works pro-



vide researchers and "likeminded specialists" are credited for, and Outram points out in his fourth reference to the journal, that EuroREA tried to overcome the most common flaws in achieving an homogeneous standard of publication through presenting papers especially dedicated to this aspect (*Outram* 2008:4).

Insights in Outram's Introduction of World Archaeology 40/1 will be approached elsewhere and discussed in depth (*Comis, this volume*).

Given this introduction, the reader continue their journey into experimental archaeology examples that illustrate a wide and stimulating panorama. Keywords of the articles have been underlined in bold lettering, to point out the importance of the designing of each experiment within their field of application. It has to be stressed that their ultimate goal is always the enhancement of archaeological interpretation: according to their context, the research they pursue requires different terms which build from scratch the relationship between the researchers and their archaeological data (see Evershed 2008: 32 fig. 2 and Thierry Aubry 2008: 61 plate 8).

Mithen et al. illustrate an interesting experimental programme that tries to collect data on phytoliths formation

under different irrigation and cultivation regimes in Jordania. The project attempts to understand if irrigation may modify the presence and characteristics of phytoliths in the soil, and identify an archaeobotanical indicator of irrigation. This could prove extremely useful to aid the interpretation of water management systems in prehistory, a vital aspect of civilisations in the Near East which is difficult to trace otherwise in the archaeological record.

Evershed gives an extremely significant paper on the use of the experimental approach to the interpretation of absorbed organic residues in archaeological ceramics. The interest of this paper is double: on one hand, insights on the use of experimental archaeology as a sound tool for research provice explanations of the chemical patterns explored in the archaeological material, on the other hand the ongoing research on pure experiments structures a valid framework for archaeological interpreta-

Thierry Aubry et al. explore with a carefully structured experimental programme the chaine operatoire of Solutrean laurel leaf production chaine operatoire to provide an **analogue** for the interpretation both of the archaeological record formation and the social aspects of its production in the wider social context of prehistoric France.

Dominiguez-Rodrigo and Seetah deal with some aspects of the experimental work undertaken to assess and interpret cut marks on bones to address the significance of butchery in the archaeological record. Dominiguez-Rodrigo's paper is designed to address the problem from a retrospective view, analyzing how different authors conceive and carry out ex-

perimental research on the topic, whereas Seetah gives an innovative insight into pushing forward the limits of the framework of research to address wider questions. The latter gives a new definition of "butchery" that includes the implements used and the importance of the final aim of the processes involved in the transformation of a carcass. He also underlines strongly that definitions have to be supported by experimental work to have relevance in the interpretation of the actions which are the final subjects of

Hurcombe's paper is an extraordinary example of the impact of experimental archaeology used as a tool to aid research questions that tackle aspect of the past which leave no direct archaeological record but which were of great importance in the material culture of past societies. Her paper deals with the meaning of the experimental tool as used in the research project "organics from inorganics". The novelty of her methodological approach resides in the conscious use of experiments in developing new hypotheses: "experiments are capable of unexpectedly throwing up novel ideas and of being used to deliberately investigate concepts and shift awareness to new levels" (Hurcombe 2008: 105).

Molloy's paper gives a very well-structured report on a qualitative experimental work done on the martial functionality of Aegean Swords from the XV and XIV cent. BC. His work is significant in that he gives a strong base to his practical tests by making explicit the assumptions and the tenets of his research project. Replicating modes of past actions is the tool he used to obtain relevant data concerning the function of the swords under scrutiny.

Finally, Jeffra's report on horse-hair used as temper in ceramic production gives a very good example on how to carry out and analyse specific experimental tests.

The hallmark of this volume is the evaluation of what Outram defines as actualistic experiments, considering Mathieu's approach to the question (Mathieu 2002), and how these have to be considered no less useful or scientific than laboratory experiments if correctly designed. The dynamic process of questioning the past through experimental archaeology is in this way carefully addressed and structured to provide useful insights in research and a powerful stimuli for opening up new vistas on the past.

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Hair and potters: an experimental look at temper: Caroline Jeffra

World Archaeology, Volume 40 Issue 1, Routledge 2008, ISSN: 1470-1375 (electronic) 0043-8243 (paper)

References

Mathieu J.R. 2002: Introduction in J.R. Mathieu (ed.) Experimental Archaeology, Replicating Past Objects, Behaviours and Processes. BAR International Series 1035, Oxford: Archaeopress. 1-12. Outram, A.K. 2008: Introduction to experimental archaeology, "World Archaeology" 40/1 (2008), pp 1-6. Reynolds P.J. 1999: The nature of experiment in archaeology, in Experiment and Design: Archaeological Studies in Honour

of John Coles, A. F. Harding (editor), Oxford 1999, pp. 148-55.

Summary

Le numéro 40/1 du monde de l'archéologie est consacré à l'archéologie expérimentale. L'objectif de ces expériences est toujours de contribuer à l'avancée des interprétations. L'outil indispensable pour obtenir ces résultats est la reproduction des actions du passé. Au delà des précisions obtenues sur certains processus, les expériences permettent également de développer de nouvelles hypothèses et approches.

Die Ausgabe 40/1 der Zeitschrift "World Archaeology" widmet sich der Experimentellen Archäologie. Das vorrangige Ziel archäologischer Experimente ist es immer, die Deutungsmöglichkeiten der Archäologie zu verbessern. Die wichtigste Methode, um die dafür relevanten Daten zu gewinnen, ist das praktische Nachstellen damaliger Aktivitäten. Abgesehen von den unmittelbaren Resultaten, z. B. für die Festlegung von Indikatoren für bestimmte Prozesse, dienen Experimente auch der Inspiration für neue Konzepte und Forschungsansätze.

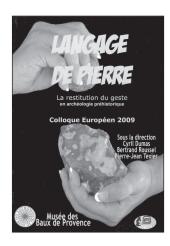
Langage de Pierre

This book was published for a rare conference on archaeological experimentation.

Natalie UOMINI

The conference "Les 100 gestes de la préhistoire" took place in Les Baux-de-Provence, southern France, on 10 October 2009 and was organised by Paléolab director Cyril Dumas with Bertrand Roussel and Pierre-Jean Texier. The conference was held in honour of five persons who passed away in 2008 and 2009 having been central figures in the Paléolab and its host town Les Baux-de-Provence.

This volume was published in time for the conference and it contains the eleven



papers presented there plus nine more. Flicking it open, you are bombarded with full colour photos and a pleasant, non-obtrusive page layout. The collection of articles in this book reflects what must have been a wonderful conference: an international gathering of some of the most experienced and most promising archaeological experimenters in Europe. Far from being simple conference proceedings, this book is a treasure store of valuable information gleaned from many years and decades of rigorous experimentation in archaeology.

Langage de pierre "contains twenty chapters from twenty-six authors of five European nationalities", write the editors Dumas, Roussel & Texier in their brief but revealing foreword. Indeed, they clearly succeeded in meeting their aim of inviting high-quality, multidisciplinary scientific research, as is evident in the breadth of affiliations and topics in this book. The authors are from universities or academic

research centres (8 papers), museums (4 papers), regional archaeological, cultural, or heritage conservation services (2 papers), and educational associations (2 papers). Four papers are joint contributions from academics with museums or regional services. The papers are solidly grounded in archaeology, as can be expected from the book's subtitle; all but two papers explicitly refer to prehistoric sites or finds as the motivation for the experiments in the first place. What they have in common is their "all-aboriginal" approaches, meaning they strive to be archaeologically valid by their strict choice of materials. This even goes as far as criticising the common practice of doing prehistoric painting on paper - a point

well made by Hameau in his impressive study of how Neolithic paints degrade according to the pigment raw material, binding agent, colour, and thickness. Not only did his experiment manipulate six separate variables, the 180 test figures were also painted onto a south-facing limestone wall to ensure archaeological validity!

The Editors have arranged the papers according to the categories of Historiography (2 papers), Technology (13 papers + 1 unlabelled), Methodology (1 paper), and Pedagogy (3 papers). However, these hardly reflect the diverse content of the contributions. You could classify these twenty papers by time period or raw material and you would still end up with twenty different categories. For this review I shall group them as being mostly about "making things" or "using things". There is also one paper on workshops for children (Santagata) and one paper on the theory of archaeological experiments, which I shall return to later because I find it a most exceptional contribution.

The book opens with two papers (Roussel & Rossoni and Dumas) on historic person(s). Dumas presents an expert summary of the history of archaeological experimentation, beginning in 1788 and ending with photos of depleted raw material sources. He demonstrates thorough knowledge of Anglo-Saxon literature that features in much Continental research, but I am constantly reminded that this is usually not reciprocated, myself included. I call on the aforementioned to take more notice of European research, even if it is published in French or Polish, as there really is no excuse given as even the monolingual French and Italians make an effort to write their paper in English (Buonsanto & Cerutti) or provide an English abstract (Boucherat; Clodoré-Tissot).

The eleven papers about "making things" show an extreme diversity. They report on elaborate projects ranging from an Upper Palaeolithic fish smoker (Bazile) to a protohistoric tumulus (Gelot). I had no idea such original research was being done! Only two papers are even remotely similar to one another: Roussel et al. on traces of Mousterian limestone hammers, and Buonsanto & Cerutti on knapping accidents in Lower and Middle Palaeolithic flake production, because they both focus on identifying lithic features to distinguish specific knapping techniques and methods. Knapping also figures in my own paper (Uomini), which, sadly, is conspicuously devoid of images. A much better example is Dinh's contribution, presented as a series of video stills with minimal text.

Fans of "primitive technology" practice will be especially inspired by Dinh's story of his anthropological research in traditional Vietnamese villages since the 1970s. He convinced the locals that stone tools were the missing link from their "plant-based civilization" to the lost Hoabinhian industry. His archaeologist colleague knapped axes and adzes from local stone and hafted them onto handles replacing the usual metal blade. To everyone's surprise, the tools were used to successfully chop down bamboo, demonstrating the first step towards making scaffolding, arrowheads, baskets, beds, fences, fire, and cooking, etc. that are central to traditional life. Dinh's photographic journey offers a real treat for ethnographically-minded readers.

Two papers will appeal to musically-minded readers. Pauc & Strangi explain how to make a musical instrument from a conch shell (Triton sea snails, *Charonia spp.*), using only flint, sandstone, and leather. Similarly detailed is

Clodoré-Tissot's reconstruction of the Veyreau bone flute dating from the Early Bronze or Chalcolithic. Readers wanting the exact recipe will find detailed measurements, step-by-step procedures using flint tools, possible playing postures, acoustic analysis, and a surprising conclusion about the skills needed. There is enough information in this book to allow one to repeat every experiment, yet the papers are still short and brief enough to be read just for pleasure.

The seven papers about "using things" were, I suspect, good excuses for the researchers to have fun while generating new data. Who would turn down a chance to test the wearability of Ötzi's cape and shoes (Moser) or a shell and plum-seed necklace for months on end (Pauc)? I do not understand why more people do not engage in archaeological experimentation, as it provides an excellent way to spend an enjoyable few hours (or days, weeks, years...). In fact, as Mazière & Parotin exemplify in their paper on making paintbrushes and bone needles with school pupils, this volume could be used as an activity book for anyone seeking to entertain their children or friends on the weekend, even if one is not interested in the rigorous science underlying it.

Take, for instance, Luc Bordes's extensive study of throwing-sticks (not boomerangs, he informs the reader, since that term refers only to sticks that return). He combines his engineering background offering a passion for testing throwing sticks, with a detailed analysis of how various morphological features relate to aerodynamic properties, and a description of several prehistoric throwing sticks for comparison to 80 ethnographic examples from Australia. This is research with impact (literally?). The same is true for Saint-Sever

& Remicourt's testing of a Bronze Age potter's oven with precise temperature measurements, and Boucherat's twoyear-long experiment using Mesolithic serrated mussel shells for carding plant fibres to make string and rope.

By far the most entertaining contribution, however, is by Professor Poplin on the burning of plant fibres vs. keratinbased animal hairs. It is certainly the perfect way to end the book. The piece takes the form of a personal story recounted in witty language and is fully entertaining from start to finish, describing what sounds like a slightly pyromaniac tendency to put feathers and horsehair into his mother's oven. All the same, his rigorous protocol yielded definitive results which are linked to archaeological finds.

Last but not least, Gransard-Desmond's contribution stands on a level of its own. It is a deep reflection on why experiments still hold a minimal role in archaeological research, spanning from the 17th century to Fuzzy Logic. He eloquently reminds us that as archaeologists analysing excavations, "our job is not to be the architect, the structural engineer, plumber, and electrician, but rather to know how to bring in these skills when necessary" (page 79). A particularly insightful metaphor is when he says an archaeologist uses the landscape to study past cultures just as a biologist uses a microscope to study the development of life; therefore the excavation should not be the object of study any more than the microscope is (page 75). A welcome contribution is the author's focus on the term 'auturgie': to do something oneself, starting from a known referent, while defining and controlling one or more variables, protocols, and methodologies. His paper can be read as guidelines for the ideal experiment, guidelines which clearly have

been followed throughout the volume. In this sense it would have been most appropriate to put this chapter first, but since there is no sequence to the book it does not matter.

Langage de Pierre, with its fine detail and scientific bent, will inspire readers to go out and do some experiments. The best reward for a thorough reading are the hidden tidbits of vital information which belie the extensive experience of the authors (up to 30 years in some cases). Their generosity in sharing such information will spare the beginner years of trying. For example, you can find out when to collect hazel twigs for a paintbrush (Mazière & Parotin, page 82); what materials are suitable or not for a flute mouthpiece (Clodoré-Tissot, page 71); how to heat a clay oven (Saint-Sever & Remicourt, page 53); what makes a good binder for ochre pigment (Hameau, page 20); how

not to bury bones for cleaning and where to get rabbit skins (Mazière & Parotin, pages 83 and 84); and whether fish smoked with conifers tastes bitter or delicious (Bazile, page 46). Although the layout, designed by Cyril Dumas, is original and pleasing to the eye, the references are inconsistently formatted between chapters and I find them hard to read when leftaligned. Some of the articles have no space between paragraphs, and certain headings lack a distinguishing font (ex. page 84). Only a few typos remain, but the book's rushed production is betrayed by the fact that all the page numbers are off by 2 pages in the table of contents. These points only minimally detract from the book's appeal; overall it is an excellent addition to every experimenter's library, whether in museums, public services, or academia. Now if you will excuse me, I am going home to knap some flint so that I can make a bone needle to

sew my Chalcolithic shoes with some nettle thread while the ochre paint dries on my kitchen wall...

Langage de Pierre. La restitution du geste en archéologie préhistorique. Colloque Européen 2009. Edited by Cyril Dumas, Bertrand Roussel, and Pierre-Jean Texier; Maison Cazenave, Edition du Musée d'Histoire et d'Archéologie des Baux, Les Baux de Provence, France; 2009; 96 pages, many colour and b/w figures and tables. 17 Euros.

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Summary

Die Herausgeber präsentieren zwanzig Artikel, die für den Kongress "Die 100 Gebärden der Urgeschichte" verfasst wurden. Die Autoren arbeiten an Universitäten und Forschungszentren, an Museen sowie an archäologischen oder kulturellen Einrichtungen. Die behandelten Themen sind so unterschiedlich wie die Zeiten und die Rohstoffe, aber sie haben alle einen gemeinsamen Ansatz: das wissenschaftliche Experiment,

das auf archäologischen Daten beruht. Durch die angegebenen Detailbeschreibungen ist es möglich, die vorgestellten Experimente nachzuvollziehen; es ist aber auch möglich, das Buch als eine Sammlung von Berichten zu lesen oder es zur Herstellung urgeschichtlicher Geräte heranzuziehen.

Les éditeurs présentent en vingt articles les actes du colloque "Les 100 gestes de la préhistoire" qui a eu lieu aux Baux-de-Provence le 10 octobre 2009. Les contributions sont d'auteurs provenant d'universités et centres de recherche, de musées, et des organismes d'archéologie ou de patrimoine culturel. Les thèmes présentés sont aussi divers que les périodes et les matières premières, mais tous ont une approche commune, celle de l'expérimentation rigoureuse motivée par des données archéologiques. Bien qu'il y ait des détails très précis pour permettre au lecteur de reproduire les expériences, on peut aussi prendre plaisir à lire ce livre comme une collection de récits, ou bien s'en servir pour créer des animations.

Management and presentation of oppida – a European overview

September 2007, a round table conference on Celtic Oppida was held in the Czech Republic – a convention of the EU Culture 2000 programme "Oppida, the first European Cities north of the Alps". A year later, a 200 page thick proceedings is published. A selection of the articles will be discussed here.

Roeland PAARDEKOOPER (NL)

The proceedings are divided in 8 case studies followed by 6 thematic viewpoints. Although the title is bilingual French - English, 8 titles are in French, a single one in English and 5 in German. So do not buy this book if you cannot read either French or German unless you are satisfied with summaries and pictures.

Case Studies

Pierrevelcin & Guichard describe the protection and accessibility of oppida sites, based on some 20 site visits. Issues with oppida, their accessibility as well as issues with how to get the story about them over to the public are the main themes, not just of this article but the whole proceedings. These sites, although a single category, are very different to each other. Some are several hectares large, others hundreds of hectares. And what does the public actually see in a visit? Usually it is not spectacular. Authorities have trouble in deciding what to do with such places: protect them, use them as pasture, make them accessible as extensive cultural & natural tourism areas or turn them into useful agricultural areas. The authors give examples of all these, including many accessibility issues, trees obstructing the oppidum, or even a forest of signboards.

Daval, who had been involved in data collection for over 150 sites describes in 5 pages a basic statistical analysis of their protection and public accessibility. This is not so much a case study as a simple introduction to the annex with a listing of the sites. Thirteen of the 152 sites have some kind of reconstructed elements, re-

markably few; almost half of all sites do not have a single presentation of their past or are not linked to any museum

A separate guide to European Celtic Oppida has been constituted on line at www. oppida.org. It hopefully will stay on line for a while but it is unsure if it will be expanded with new information. The website is incomplete and some parts lack translation into all three languages. The available information is however well structured and reasonably complete with literature references, maps and photographs

Bofinger & Hagmann discuss the 'Fürstensitz' Heuneburg (Germany) in its balance

between being an archaeological protected area and an archaeological open air museum, between continuous research and tourism (including education). The Heuneburg, being a combination of an indoor museum, a site museum and an archaeological open air museum is in a complex situation indeed, let alone if one thinks of all official parties involved (the 'land', the local council, university et cetera). It is also a good example of what happens when the EU supports the construction of a museum, but maintenance and running the museum is in the local council's hands, without securing a future for public engagement. It is discouraging to see, since the end 2009, that no archaeologist is involved in running the museum and the archaeological open air museum.

Derinck, Grapin & Mathieu focus on the MuséoParc Alésia in France, a project with European Grandeur. We will probably hear more of this park in the future. The aim is to present the siege of 52 BC both from the Roman side and from the local inhabitants. War and peace are always relevant, so links between past and present, foreign and local are easily made. Most of the presentations will be within modern archaeological museum buildings, although extensive information dispersion will be available along walking routes. It is expected that the museum will bring extra money and employment to the region – projections which are hard to judge.

Thematic viewpoints

Daval discusses the dissemination of archaeology by means of reconstruction, based on several personal experiences. She discusses that archaeological open air museums are an hybrid between a museum and a leisure park. She suggests that success lies in the educational

approach but does not every single museum offer education nowadays? It is not right to call these open air museums interactive, as most often although there is much to experience, there is little to do or interact with. These type of places offer stimuli to more senses than traditional museums do, maybe that is part of their attraction. The influence on regional development is usually overestimated, although hardly ever defined. Often, they are not well

the monuments in general as well as their diversity and complexity. Is it indeed possible to share a site's story just by means of a partly reconstructed environment? How scientific is an approach for dissemination? Truth is, this is one of the issues any type of presentation or museum would have to face. The authors mix up the meaning of archaeological experiment with archaeological reconstruction and public archaeology which obviously leads

To Colchester

Contracting

Con



integrated into the local tourism network, simply because other parties often do not recognise them as important for local tourism, except when there is an event of the sorts.

Lewuillon goes deeper into the question of if it is at all a good idea to use archaeological reconstructions to disseminate our information about oppida? In general, they see more drawbacks than chances. Some restrictions for a reconstruction approach lie in the nature of to a negative conclusion of the use of archaeological reconstructions for oppida. This is really a missed opportunity; one of the strengths of an approach which includes reconstructions (as well as danger) is the multi facetted character of it.

Mölders checks out the use of living history to explain the past. All too often, popular presentations of living history present a fantastic image of the past where objectivity is lacking. An escape from the

present into a romantic past should be turned around by museums and archaeologists. Historical and archaeological sources should be presented, just like an explanation on how we know what we know (and what we don't know and why). Game and fantasy must be more clearly separated from facts. This way, the distance we have to the past remains and the public comes to understand our own position better. The author of this article does not see living history as a movement which is hard to control and has a life of its own. Many of her comments are academic in character and not very practically applicable. Also archaeotechnique would be an important point to have discussed here in more detail - as an alternative. What groups of actors would be able to carry the flag of archaeology successful - and which one disgrace archaeology (and society), for example with their anti-Semitic attitude?

Sommer, the only paper in English, shares some reflections on the presentation of archaeological sites. She describes some problems with oppida, like the lack of representative excavation, the multi period (and multipurpose) character and the change in their landscape context from the time they were built. Furthermore, the hill forts are often explained from a political, rather than an archaeological-technical perspective.

The gap between what archaeologists think is interesting and the public likes to hear is dramatic - why don't we know better what the wishes of the public are? Probably, several methods, several instruments, several ways of interpretation with different layers of information are necessary to fully exploit the possibilities and fulfil the public's interests. Every way of informing public has advantages as well as disadvantages, for example audio

guides, signposts or partial reconstructions.

Archaeological features should be presented as part of the changing landscape and our changing perspective of the landscape and the ideology this bears.

All in all, these proceedings show an interesting debate. It is a pity the final discussion is not bilingual; many remarks in the different contributions overlap, but it would have been interesting to see if common conclusions were made related to research, public communication and the role of iron age sites in our modern society – and the future.

Benková, Irena, Guichard, Vincent (editors)(2008) Gestion et présentation des oppida, un panorama européen. Management and presentation of oppida, a European overview. Actes de la table ronde organisé par l'ÚAPPSČ, Beroun (CZ), le 26 septembre 2007. Beroun (CZ): Bibracte; Institut archéologique de Bohême central (ÚAPPSČ). € 38,00, through http://www. bibracte.fr → Le Centre De Documentations → Bibliographie → → Editions

Summary

Cet ouvrage rassemble les actes de la table ronde sur les oppida celtiques qui s'est tenue en 2007 en République Tchèque. Huit études de cas sont suivies de 6 analyses transversales. L'ouvrage tente d'équilibrer les approches scientifiques et touristiques, entre ouverture au public et notions de préservation de zones archéologiquement sensibles.

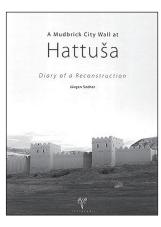
Das Buch enthält Berichte einer Arbeitskonferenz über keltische Oppidasiedlungen, die im Jahre 2007 in der Tschechischen Republik veranstaltet wurde. Die Artikel sind aufgeteilt in 8 Fallstudien, denen 6 thematische Betrachtungen folgen. Ein großer Teil des Bandes behandelt die schwierige Balance zwischen Forschung und Tourismus sowie zwischen der öffentlichen Erschließung der Oppida und ihrer Geschichte und dem gleichzeitigen Bemühen, archäologisch bedeutende Bereiche zu schützen.

A Review for A Mudbrick City Wall at Hattuša

This book is a "day-to-day" narration like a diary entry as well as a very detailed documentation of a difficult, expensive experimental construction project at Hattuša (Boğazköy), the capital city of the Hittite, in the modern city of Çorum in central Anatolia.

Güner COŞKUNSU Department of Anthropology, Harvard University IEMA (Institute for European and Mediterranean Archaeology), Department of Anthropology, SUNY Buffalo, (US)

This is a sixty five meter long and seven to eight meter high section of the mud brick city wall with its 12-13 meters high, two towers made of stone and mud brick which replicates the original wall used during the Great Hittite Empire from 14th to 13th century BC in the Lower City of Hattuša. This impressive work was conducted by the German Archaeological Institute under the directory of Dr. Jürgen Seeher and financially sponsored by the Japan Tobacco International Company (JTI). The construction started in 2003 and was completed in 2006. The book was originally written in German and translated



into Turkish and English. This reviewer read only the English version. All versions were published by Ege Publication House, a leading archaeological publication house in Turkey.

The book is clearly written, designed beautifully with aesthetic colour figures and formatted. The most distinctive features of the book are its meticulous recording of every step taken in the project from beginning to the end and its explanations of reasons for every decision made by the team. Each work and application of ethnographic parallels was discussed clearly with advantageous and disadvantageous points (e.g. why "çorak" loam, a locally available serpentine, was used in sealing roofs for thousand of years in modern times as well as ancient Hittite Hattuša). Seeher

always asks how each process was completed by the Hittites and always put forward an interesting explanation. The length of the team's project from 2003 to 2006 allowed them to test the validity and relevance of their work in different climatic conditions from one season to another as well as to change or keep their strategies for following work seasons. Many readers, possibly for the first time, will learn that the angle of flat mud brick roofs in rural areas is not straight but greater than 1.50 to prevent erosion by velocity of flow by heavy rain. Seeher observes that there was minimum physical damage of the mud brick wall through regular maintenance over the three years. One can see the benefits of mud brick clearly and understand why people have been using it for their constructions for thousands of years in many parts of the world. Also included are his observations about the condition and tasks done for the maintenance of the wall one and half year after the construction and touched upon impact of the construction on tourism and reaction of locals towards the wall. In addition, Seeher came up with some cost estimates for construction material, human labour and man-days as well as attempt to postulate investment in the labour force during Hittite times by using the estimates of the project in last chapter. All of these make the book very informative about traditional and Hittite architectural constructions.

Seeher enthusiastically differentiates the nature of this project from other experimental projects. He strongly believes that their work should be called 'reconstruction' not 're-erection' or 'rebuilding' because their work is not re-articulation of an eroded or collapsed architectural structure with pieces scattered all around the site. In contrast the other reconstructed ancient structures, Hattuša's city wall is completely missing, except for part of the stone foundations. In addition, the entire original form, construction material, size, etc are not known. Therefore, their work is not a re-erection of a surviving wall using modern construction material. In addition, the project is different from other examples by not using modern construction and protective material as much as possible. As presented, Seeher suggests that all these aspects support the argument that their project is a unique experimental case bringing new concepts to archaeology in

Turkey. Although this work is indeed a big accomplishment and unique I would expect that the author would give credit in the book to the other significant experimental projects, though they are few in number, in Turkey.

The author of the book presents the team's construction as a unique example of experimental archaeology in Turkey where application of this approach is rare. It is unique, being the first massive architectural construction of unbaked mud brick from an experimental point of view in Turkey. In addition, the absence of modern construction material makes the work unlike similar works. The partial construction of the Hattuša city wall is certainly an important addition to the archaeological thinking in Turkey and doubtless it will inspire more archaeologists to pursue further experimental studies.

Seeher refers to two main objectives for the construction of the mud brick city wall at Hattuša:

- 1. to reconstruct completely a monumental Hittite mud brick structure of Hattuša in its original size in order to provide a visual example to visitors to show how mud brick was used successfully to build impressive structures in the past;
- 2. to run the project as a carefully documented experimentation by using non-modern construction material as much as possible and to contribute to experimental archaeology.

According to the book, accessibility and visibility were two main concerns for the team when they were looking for a right location for the construction of the wall. They avoided a vast rough zone where most part of the city wall extends but is left off

the tourist route because of high ridges and steep slopes. Understandably, to construct a massive wall and to walk in such landscape would be extremely difficult both for the team and visitors. Hence they chose the Lower City where the city wall is most easily accessible and can be included on the tourist route with easily accessible entrance and exit points. The book also covers reasons for constructing a section of the city wall rather than a house, palace or temple. Because the construction of the city wall would be more similar to the original wall since they had remnants of the stone foundation and inspiring clay fortification models and would be less costly, easier, and require less serious maintenance and fewer employees they decided to reconstruct a portion of the city wall.

This large-scale difficult work was accomplished by very experienced and successful archaeologists and restorators who have been working at Hattuša/ Boğazköy and other sites for many years. Seeher gratefully acknowledges everyone's contribution several times in the book. The author stresses the importance of having local workers and a restorator, Ahmet Demirtaș, who grew up in a mud brick house in a village in SE Turkey in order to express their great contribution to the work through their familiarity with mud brick constructions, masonry, and maintenance. Evidently experimental archaeology and archaeological interpretations greatly benefit from participation of the local population and collaboration of emic and etic analyses. Seeher notes also the impact of age and experience in the work. He observed that experienced elder stone masters were very good in choosing the right stones in terms of size and shape at first glance, lifting up and sliding them in the right position compared to the less experienced younger

workers. This observation points to an archaeologically important but the commonly skipped concept of apprenticeship, which has an effect on quality and duration of certain tasks and might be explored in material culture.

Readers are presented with an impressive estimate of the construction of which only ca. 1% of the original Hittite wall (6.6 km) towards end of the book. According to Seeher's calculations, the construction of the wall required a huge amount of labour, construction material and money. Approximately € 245,000 were spent and 6,772 man-days with 56 workers were needed to complete the construction. Production and usage of 64,5000 sun dried mud bricks (2,176 tons) and the need for ca. 1,024-1,280 metric tons of water for the production of mud bricks are only two examples of the high cost of the project. Seeher estimates made the reviewer appreciate the massive scale of labour, time, material, expense, planning and organization in Hittite times.

The book gives invaluable amount of information about aspects of mud brick constructions and their maintenance through ethnographical records, their experience in long-term field work and restoration as well as details of trials during this experimentation. Without doubt, it greatly contributes to our knowledge of Hittite building techniques and other related aspects such as logistics, timescale, expense, manpower, material, socio-political organisation, labour control, etc. It also urges our asking new questions through experimentation. Additionally, both the wall and its detailed documentation with text and many good pictures offer a visual aid to comprehending the plan and form of the Hittite city wall both for archaeologists and visitors. A couple of surprising observations and some very good questions included in the book refresh the readers' mind when they are possibly lost in many technical, detailed descriptions of every undertaking and explanations in the "diary" and bring a more anthropological perspective. For instance, the surprising occurrence of footprints by passing cats, dogs, and geese as a cohort on fresh mud bricks, which are known also from Hittite bricks and seeing their pictures are refreshing. These domestic animal footprints bring a vivid image of a daily life both from a modern village and Hittite city quickly and simultaneously. However, in contrast to the excellent practical and technical information, the book has some shortages:

- 1. It is theoretically not well grounded and missing a theoretical underpinning;
- It lacks a clear background information and discussion of the methodology, which is experimental archaeology;
- Manufacturing and operational details of experimental tools, such as drills and stone axes and adzes are not included;
- Macro and microscopic analysis of tools, which is a crucial part of experimental archaeology were not included in the book. So it is not known if someone has done use-wear analysis;
- 5. Lacks sufficient scientific studies and evidence, except for reference to mineralogical analysis of local corak loam to indicate its usage both in Hittite and modern time for same purpose as at the site;
- Lacks of an architectural plan of complete experimental wall and towers;

- 7. Overly used pictures that repeat the same detail (e.g.: Fig. 27-28 (huge amount of straw needed), Fig.102-104 (mortar pits), Fig. 111 (8 small pictures of handin-hand transfer of mud brick blocks); Fig. 145, 146-147; and Fig. 170-171 (crenellation). At this point, I should point also two minor technical problems regarding pictures. Sub-figure numbers of Fig. 50) and captions of Table 2 and 3 are missing;
- 8. Lacks a rich and updated bibliography on experimental archaeology, method and theory, ethnography, Hittite architecture, scientific studies on Hittite remains and socio-economic-political structure. The most current publication comes from 2006 (the book was published in 2007). The bibliography consists mainly of major site reports of Hattuša (Boğazköy) and a few other Hittite sites but not publications on archaeological method and theory. Only a few references on experimental building constructions and ancient building techniques are cited. The reviewer appreciates author's reference to two interesting experimental constructions in Yucatan and England to calculate amount of some transported material and necessary manpower.

Labour control and division, organisation of largescale work, production, state power, gender roles, trade/ exchange (of certain construction material such as logs and woods because of the deforestation of the region at that time) and war/ conflict (a.k.a. function of the wall) would be very challenging subjects to discuss in this book but Seeher's book does not cover all of them. He touched on the issues of slave labour, labour investment, organisation of

the work and involvement of men in the construction of the city wall, possible expeditions to neighbouring areas to bring wood and logs and the employment of animals in those expeditions. He raised some very good questions that either remain only in questions or do not receive enough attention through an in-depth comparison and discussion. He asked: "How could Hittites organise a huge group of workers and hard work?", "Who did undertake such large-scale projects?", "Who were Hittite workers? Were they men? ", "Were they paid or slaves/captives of kings?", "How was the organisation of labour and socio-political organisation?", "How were they capable of carrying huge amount of water and loam?, "How did they mix the massive past of mud brick?". Of course these are not easy questions to answer when there is a dearth of concrete information in cuneiform texts and when some of the available Hittite texts are questionable. However, they still would be appealing research questions at the beginning of the book. The most thoroughly discussed question is whether Hittite workers were slaves/captives and the number of men and days used for constructing the original city wall. It is not known whether Hittite kings used slave labour, particularly from NAM.RA people (the Hittite arnuwala-) who were brought back from kings' military campaigns as often mentioned in Hittite texts. Interestingly, the author writes that their hard and challenging experience made them believe in what was written in cuneiform tablets about thousands of captured prisoners of war brought to the cities as labourers. Hence Seeher thinks that some NAM.RA men were used in the construction of the city wall and argues that a small number of workers, particularly craftsmen, might have

been paid a modest amount. The last chapter includes some estimations and a short discussion of the investment in the labour force in Hittite times in. Seeher estimates the required manpower and workday for the constructing the original wall by using estimates from their own project with a special note that underlines his awareness of weaknesses in his comparisons between their project and the Hittite's construction because of many unknowns. He considers the impact of climatic constraints, such as rainy seasons as an experienced archaeologist and good observer. As an example, he suggests ca. 25.5 men/ day for brick production; 2,154 workers to build one km of walls in four months (much faster than his team) and 1,077 workforce for one km city wall if the Hittites worked 10 hours/day. The author correctly stresses the importance of a good organisation and postulates presence of charged assistants, masters, and coordinators as well as a similar work organisation for the Hittite construction. Seeher believes that the Hittite had troops that were responsible for the masonry for different sections of the city wall and specialists for different crafts from masonry to carpentry.

To conclude, as stressed earlier in this review, A Mudbrick City Wall at Hattuša. Diary of a Reconstruction presents tremendous amount of information about Hittite architectural constructions and importance of mud brick through ages and it has a unique place in the archaeology of Turkey, being the first completed massive experimental construction using only stones and mud brick. Without any doubt, Seeher's book will take an important place among mainstream experimental archaeology books in the near future and increase Turkish archaeologists' awareness of experimental archaeology.

Acknowledgments

I would like to express my heartfelt thanks to Dr. Warren Barbour for his meticulous editorial help and input. I take full responsibility for any mistakes made.

A Mudbrick City Wall at Hattuša.
Diary of a Reconstruction by
Jürgen Seeher
(Ege Yayınları, Istanbul 2007; 232
pages with color figures)
ISBN-13: 978-975-8071-95-1;
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Title of German volume:
Die Lehmziegel-Stadtmauer
von Hattuša Bericht über eine
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Title of Turkish volume:
Hattuša Kerpiç Kent Suru Bir
Rekonstrüksiyon
Çalışması

Summary

Ce livre est un récit au jour le jour sous la forme d'un journal de bord qui donne une description détaillée de la reconstruction expérimentale d'Hattusa, la capitale de l'Empire Hititte, aujourd'hui devenue la ville moderne de Corum en Anatolie Centrale. Une section de 65 m de long et 7 à 8 m de haut d'un mur en terre cuite et deux tours de 12-13 m de haut restituent une partie des murs des XIVe et XIIIe siècles avant J.-C. Ce projet s'est déroulé de 2003 à 2006. Le livre offre de nombreuses informations sur l'architecture hittite et l'importance de la terre crue à travers les ages.

Bei diesem Buch handelt es sich sowohl um eine Erzählung in Form eines Tagesbuches als auch um eine detailreiche Dokumentation eines experimentellen Rekonstruktionsprojektes in Hattusa, der Hauptstadt des Hethitischen Großreiches in der heutigen Stadt Corum in Zentralanatolien. Der 65 m lange und 7 bis 8 m hohe Abschnitt einer Stadtmauer aus Lehmziegeln mit zwei jeweils 12 bis 13 m hohen Türmen ist nach dem Originalbefund der Mauer des 14. bis 13. Jahrhunderts v. Chr. rekonstruiert. Das Projekt wurde von 2003 bis 2006 durchgeführt. Das Buch enthält viele Informationen über die architektonischen Konstruktionen der Hethiter und zur Bedeutung von Lehmziegeln im Laufe der Geschichte.

Kuhinjska kultura v zgodnjem srednjem veku

Andrej Pleterski presents a detailed study into early medieval cooking focusing mainly on his home region in the modern state of Slovenia.

J. Kateřina DVOŘÁKOVÁ

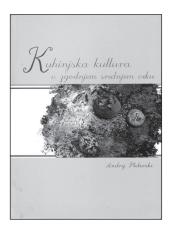
Apart from archaeological finds he uses such various sources of information as ethnography and etymological development of meal names. Among these sources should be included the Appendix by Helena Gorjup describing the use of clay pots in Slovenia before the Second World War.

Many studies into prehistoric or historic cooking concentrate only on recipes but Pleterski puts the preparation of meals into the context of the wider 'kitchen' culture. He argues for the study of the process as a whole, the including conditions in which the meals were prepared and addresses practical questions which include the cleaning of dirty pots.

The description of each prepared meal gives date, conditions, ingredients, utensils, pots, time of preparation, cooking, the process itself and observations so that the experiments are easy to follow and possible to replicate.

Further chapters discuss food sources available, their preparation and, very importantly in the temperate zone, preservation.

For the experiments he used three different types of hearths - bonfire, arched and open stone ovens and compared their use. He discussed pots and utensils used, mostly in connection with situations encountered while attempting the preparation of a wide variety of meals from baking bread to making plum jam. Is a pottery trav needed to make unleavened bread in an arched oven? Some of these questions have already been tackled by other researchers and from that point of view this book is proof that a wider exchange of experiences between archaeologists is much



needed. Unfortunately even this comprehensive publication is not widely accessible.

The 'kitchen culture' embraces a wide variety of topics which makes the book feel telegraphic, merely touching the surface, each chapter stands more or less on its own. Overall the study is a refreshing mix of scientific methodology with an empirical approach and brings new, practical insights.

Andrej Pleterski: Kuhinjska kultura v zgodnjem srednjem veku; 162 pages accompanied by many colour photographs, in Slovenian with comprehensive German summary, Ljubljana: Založba ZRC, ZRC SAZU, 2008; ISBN 978-961-254-073-9

Summary

Andrei Pleterski stellt eine Detailstudie zum frühmittelalterlichen Kochen vor, die ihren Schwerpunkt in seiner Heimatregion im heutigen Slowenien hat. Er stellt die Zubereitung von Mahlzeiten in den Zusammenhang einer umfassenderen "Kultur". Er plädiert für einen ganzheitlichen Ansatz beim Studium der zum Kochen gehörenden Prozesse, der neben der Beschaffung, das Haltbarmachen und der Aufbewahrung der Nahrungsbestandteile auch die Rahmenbedingungen umfasst, unter welchen damals gekocht wurde.

Andrej Pleterski présente ici une étude détaillée sur la cuisine du Haut Moyen Age, plus particulièrement dans sa région natale de l'actuel état de Slovénie. Il replace le processus de préparation des repas dans un contexte culturel plus large. Selon lui, l'étude de la cuisine médiévale doit intégrer l'approvisionnement, le stockage et la conservation des ingrédients, ainsi que les conditions dans lesquelles la nourriture est préparée.