



## 9th conference, Mettmann (G) October 2000

F. Peise / J.P. Flamman  
Germany / Netherlands

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### Tagung anno 2000: Experimental archaeology and education

From October 6th to October 8th, 2000 the annual congress of archaeologist dealing with experimental archaeology was held in the Neandertal Museum in Mettmann, near Düsseldorf. The subject for this congress was experimental archaeology and education, especially focused on giving information to the youth. It became clear that there is a complete other view on this subject and its possibilities in Germany and Switzerland than for example in the Netherlands. During two days a variety of viewpoints and experiences of museums and people who are visiting schools were passing by. The second day ended with a central discussion on the possibilities for archaeology and education. Besides the lectures on the subject also other discourses on experiments, both by professional and by laymen, were held.

#### Poster presentations

*Frauke Grittner (D): Working techniques of the Stone Age. A semester project at the Institute for Primary School Didactics and Topic education of the University of Hildesheim.*

*ExperimentA - Verein für Experimentelle Archäologie (CH): From the object to the mould: is there a connection between the microstructure of a cast bronze object and its mould material used?*

*Dr. Jörg Orschiedt (Archaeological Institute of Hamburg University) (D): New insights to the Neanderthal man". The image of the clumsy and eager to fight Neanderthal Man - in society still firmly rooted - has its origins in the pseudo scientific research of the 19th century. New insights on the ability of speech, the feeling for art and deductions on his social behavior show a complete different image. Already 100,000 years ago, *homo sapiens neanderthalensis* controlled technical processes which surprise us even nowadays.*

#### Lectures on the theme of the Conference

*Wulf Hein (free lance) (D): Vorgeführt und nachgemacht. Aus dem Leben eines freiberuflichen Archäotechnikers. He or she who wants to feed him or herself with the demonstration of abilities which he or she gained in the run of archaeological experiments, this person fears the competition of volunteers as much as the profiteers who under the cover of "experimental archaeology" practice mediocre occupation for children. That is why Hein wants to introduce the professional term "Archaeotechnician" for people who, just like him, are occupied this way. How can one create a public consciousness for quality? Can the problems of competition be solved? A proposition would be the foundation of a kind of guild of experimental archaeologists or archaeotechnicians. Or would a list of addresses of accepted experts be enough?*

*Karin Weiner (D): Where we come from, who we are. To the history of pedagogical mediation of archaeological contents. Historical deconstruction of museum pedagogic: examples from the 1930's show how easily prehistory can be abused for the mediation of questionable ideals. Which educational content can be taught today, next to the technical knowledge? Which goal does a museum pursue at all with its school pedagogics if it is not just about polishing up the visitors' statistics?*

*Marlise Wunderli (Museum for Prehistory, Zug) (CH): Experience archaeology in the local museum in Zug. The small part of own financing of Swiss museums allows the transformation of large programs of activities for school classes. If birthdays are celebrated in the museum or holidays are being turned into a museum like adventure holidays by means of a "Children club" - for every age, a corresponding program is offered.*

*Roeland Paardekooper(VAEE) (NL): Being able versus knowing: pedagogical mediation of experimental archaeology in the Netherlands. In schools and at universities, KNOWLEDGE is*

mediated. A BEING ABLE, however, one first reaches in practice Examples from Dutch museums and open air centers illuminate the trend towards a stronger mediation of practical abilities.

*Jean-Loup Ringot (D): Profession free Stone Age man. Autonomy in the field of experimental archaeology and pedagogics.* Experiments in their literal meaning cannot be executed in public. This means, a strong division between experimental archaeology and its mediation is necessary. But how to live from experimental archaeology at all, if one is not solidly connected to a museum? The quality of demonstrations of this kind would rise and would fit local facts better if solid connections to schools, museums et cetera would be made. Then it would not be the case that all over the country and beyond the same set of baking bread, throwing spears, making pots et cetera would determine every historical activity. Much more targeted actions, rich with phantasm would be feasible.

*Max Zurbuchen (Steinzeit-Werkstätte) (CH): Mediation of experimental archaeological experiences and adventures since 30 years.* The Stone Age Workshop Seetal exists since 1921. Nowadays, it has to take stronger changes in (modern) society into consideration and should especially contribute to over all educational work on the expense of the mediation of archaeological knowledge.

*Wolfgang Welker (Arrata - Association for interdisciplinary and applied archaeology) (D): "The Hunsrück Archaeology-Days" - Archaeology as active cultural and natural experience.* A three day celebration at a castle forms the frame for the mediation of some archaeological observations. Public which would never visit a museum is reached as well. The difference between scientifically based mediation and "Fun archaeology" is very controversially discussed.

*Giorgio Chelidonio (Firestones Project, Verona) (It) "Flaking off... the timeline. Experiences and methods of using experimental flint knapping in teaching main steps in adaptive evolution":* Besides of the presentation of the daily work in a centre in Verona the theme presented was the production of artefacts at historical sites: is it allowed to produce spear heads of local flint where our predecessors already left the same traces? Doesn't this forges the image to future archaeologists by far? Every activity leaves traces. The under open sky executed spread of "prehistoric forgeries" is, however, a large problem. Flint, for example, cannot be marked permanently. Also the call to use a kind of flint, strange to the area, poses heavy counter reactions. We can be afraid that PhD thesis's in a few hundred years will describe about certain far trade routes!

*Margit Späth-Pleyer (D): From flint-hand axe to fire stone.* An exhibition with a multidisciplinary beginning. At a site where historic proof for flint mining was ensured, activities with children were executed. The meaning was to excavate flint nodules and making artefacts of them. The material found, however, turned out to be too small and unfit for working.

*Regina Loftus (D) (Ruhrtalmuseum Schwerte): Historical games - to experience history with children.* With a large financial and planning effort a group of children experienced five days in the "Stone Age". Even though a lot of fantasy was necessary to neglect necessary compromises, the children adapted quite fast to their role play.

*Lothar Breinl (D): Stone Age at school - Archaeology in experiment. Experiences with the pedagogical mediation of experimental archaeology in the project education at schools and museums.* Which possibilities of pedagogic mediation are available to experimental archaeology and have shown their value?

*Henning Schüler (D)(teacher): If, than for real! Stone Age as didactical theme at primary school.* Real (!) working aids from school books expose the completely unreflected writer ship of learning aids: if one hits two stones against one another, does anywhere start fire? Who as a teacher mediates such "desk top knowledge" makes himself incredible. An strengthened mission of experimental archaeologists is the teaching of teachers. The oft practiced work with children often has one single goal: that the children have fun. To introduce the children much more into real research might be more strenuous, but as well more rewarding. Under the museum personal in the public the opinion was shared, that such a drastic educational mission would firstly not be feasible from a business economic point of view, secondly it would lead the national educational mission into the absurd, if museums would overtake the task of the schools.

*Robert Pleyer (D): Preparation and use of stone sickles.* When working with children, the attempt is made to evoke an environmental conscience. To reach the learning goal, the beauty of layers in flint can be useful. On the promised production and use of stone sickles there was no word. The lecture was much more about the problem of costs which are much to often connected to such happenings.

## Experiments

Five archaeologists reported about the results of their experiments.

*Gunter Böttcher (D) (Museum Village Düppel, Berlin): New attempts on the organic additives in the work mass when producing and using early German cooking pots.* The uniting of the Rheinian burning technique and the way of production of north western German ball shaped pots lead in the early 13th century in the Berlin area to blue gray ware which relieved a kind which was burnt in a less developed way. The composition of the mass, which until that moment had to be able to endure a rapid heating up when being fired, was gradually finer worked, however basically preserved, as the resistance in changes of temperature of the herewith produced cooking vessels was given due to experience. It is being made clear that the working mass did not just contain organic material, but needed to contain organic material for a reason.

*Dieter Todtenhaupt (D)(Museum Village Düppel, Berlin): Report of the workgroup "Chemical Processes".* Already the Neanderthals produced birch pitch as new sensational analyses make clear. How could they have done that, without pottery being invented? The workgroup Tar of the Museum Village Düppel has done research into different possibilities of prehistoric production of birch pitch, for example between hot stones, in hot sand, in a cover of loam or in dying out fire glow. In all cases, we turned out with birch pitch, but none of the processes left any archaeological recognizable traces. A remaining problem is the determination of the right temperature for the process.

*Caroline Tulp (NL): Experiments in casting a die for making a cross-hatched pattern in gold foil.* During excavations in the Netherlands a die was found for making a cross-hatched pattern in gold foil. The detail is very fine. The die is analyzed in London and some experiments have been done to try to duplicate the fine pattern of the die. The golden background of medieval enamel pieces often has a very finely patterned structure. How could one produce the matrices for the impression of the gold foil, which are archaeologically proven? In lost wax casting, details in the size of tenths of millimeters are difficult. Result of the discussion with the public was that with an exactly fitting additive and burning of the mould over several hours no gas forming relicts of wax would be left sticking in the mould. The possibility of casting in engraved mould, partly of metal was considered.

*Martin Hees (D): Neue Experimente zur latènezeitlichen Salzgewinnung. Das Briquetage von Schwäbisch Hall.* In contrast to many by experimental archaeologists run closed salt ovens, in this case a find of an open oven needed to be practically investigated. because of a probably wrong additive and an senseless way of extra filling, cracks started to emerge in the boiling tanks and much of the salt concreted on the outside.

*Rudolf Walter (D): Archäologischer Befund, Experiment und Museumspräsentation.* The theme was to execute comparing experiments in breaking needles, based on bone needles of the Magdalenian. Within the MA thesis, the strength against braking of reproduced bone needles was tested with modern measuring methods of testing material. In comparison to the broken original pieces, two things show up:

- 1.) The machine controlled stress has no relevance to the stress in the practice of sewing;
- 2.) The breaks on the originals could just as well have been evoked by their deposition in the soil.