

Referee comment by Dr. Sabine Karg to Master thesis Michaela Divisova: Hunter - gatherer archaeobotany: Central Mesolithic supervised by. Doc. PhDr. Jaromir Benes, Ph.D.

This Master thesis, written in English language, assembles 5 chapters that document independent studies, and an appendix, a peer reviewed paper published in 2012 in the journal IANSA-Interdisciplinaria Archaeologica.

The thesis starts with an **introductory chapter** of 7 pages in which Michaela informs about the background and aims of her Master thesis. She emphasizes that the focus of this work is on already published material, added by new analysis of plant macroremains from two Mesolithic sites that she has performed.

Very shortly she describes the disciplines and methods that she has applied: 1. Archaeology, 2. Archaeobotany, 3. Experimental archaeology and 4. Ethnobotany.

In the sub-chapter 1.4 I miss the explanation that archaeobotanical analysis, in terms of plant macroremains, can also aim to reconstruct past environments. Michaela has grouped her plant finds from Lake Schwarzenberg Lake in South Bohemia in ecological groups and thereby reconstructed “the natural environment”. I also do not agree with her opinion, that “it should always be necessary to combine different methods, as for example pollen and macrofossil analysis”. The decision of the choice of methods that will deliver the best answers, is often dependent on the specific research question that should be answered, or on the preservation condition of the material. Very often one method can deliver enough information, as for example the analysis of plant macrofossils in the case of finding answers on food subsistence.

In **chapter 1.5** I suggest to use the term “chronostratigraphy” instead of “environmentally”.

The structuring of the introductory chapter is not really logic, **1.7 should have been placed as 1.1.**

Chapter 2 gives an overview over the state-of-the-art of archaeobotanical research of Mesolithic hunter-gatherer societies in Europe. This is an excellently written chapter with many interesting considerations that clearly shows, how critically Michaela reflects different opinions and approaches. She is extremely good in lining up arguments and discussing them and she is definitely already in the current stage of her career able to point out obvious research gaps.

Chapter 3 is about food preparation and consumption. This study was performed in collaboration with 9 other authors. The work has already been published in 2011 in IANSA.

In footnote 1 Michaela clearly points out her contribution for the first part of this chapter, respectively in the published article, for the experimental part (chapter 3.2) this is not clarified.

Chapter 4 is based on Michaela`s own archaeobotanical analysis of plant macroremains.

Here I need to criticise the method that was chosen:

1. The weight or volume of each soil sample that is going to be analysed has to be documented more precisely before washing or sieving! First then quantitative comparison of the content of samples within one site, but also between several sites can be made.
2. Never flotate samples in the case that waterlogged/uncarbonised plant finds are expected, always gently wash the soil through sieves.
3. Never dry floated or uncarbonised plant remains, as they will shrunk and can then not be determined to species level anymore.

Critics on the interpretation of the plant finds:

The ecological demands/characteristics of the species that were included into the dominating group 3 could have been interpreted much more precisely. There are plant species recorded, as *Linum catharticum* that indicate nutrient poor and calcareous soils! *Lycopus europaeus*, on the other hand, shows that the soil had been nitrogen-rich. Michaela need to consolidate her knowledge in plant ecology.

Chapter 5 is a great attempt to apply plant macroremain analysis on a profile from a “dryland site”, and as Michaela concludes, all uncarbonised plant remains are most probably modern contamination. I expect that the number of the presented plant species in graph 5.1 all derive from the same volume/weight of analysed soil. A more detailed legend to the graph would relieve the understanding of the results.

The Master Thesis ends with 6 short **conclusions** that clearly shows Michaela`s high interest in continuing her research career in the subject of “Science-based Archaeology”.

A really high number of publications were consulted for this Master thesis, and all citations are perfect listed in last chapter, the **reference list**. The candidate shows that she has a very good literature overview; even unpublished PhD dissertations in German language were consulted.

The Master thesis of Michaela is a very successful attempt to combine new knowledge achieved by practical studies in experimental archaeology and archaeobotany with already existent knowledge from ethnobotany and archaeology on the theme of Mesolithic hunter-gatherer archaeobotany in Central Europe.

Proposal for final mark: very good



Sabine Karg, Copenhagen, 19th of May 2014,

Examiner report on the master thesis

Name of student: Michaela Divišová

Title of the thesis: Hunter-gatherer archaeobotany: Central European Mesolithic

Oponent: Veronika Komárková

Introduction:

The author decided to do very useful work: to summarize published information about the European Mesolithic hunter-gatherers by focusing on plant use and human impact on the vegetation. She also extends knowledge on this issue by her own results from the Mesolithic sites. This work is clearly divided; there are also clearly defined aims of the work. It contains extensive and carefully processed introduction into the issue. The individual chapters are well prepared, using a sufficient amount of literature.

Chapters 3.1. and 3.2. are very interesting and useful. Chapter 3.1. summarizes knowledge about acorns as a food resource using the the experiment. This as well as the second experiment with food preparation (Chapter 3.2.) shows the enthusiasm and taste to know the Mesolithic reality. This approach was (Chapter 3.1.) or will be (Chapter 3.2.) soon completed in publications.

Results:

Authors own results from the Schwarzenberg Lake and Dojitá brána u Rohlin shows, unfortunately, that the amount of plant macroremains is not very high, but it is the typical situation for the Mesolithic period. Results are well prepared. A small note to graphs – it will be useful to put explanatories to each page – the page is little bit confused without them.

Conclusion:

Master thesis of Michaela Divišová shows how effective and useful could be the work on such a complicated theme like the Mesolithic period, particularly when combining the two methods, archaeology and archaeobotany. The author shows that she is able to lead her work to publication, which has the potential for next study and it is not the rule in case of master theses.

I recommend this work to evaluate the degree of excellence.

In České Budějovice, May 21, 2014


Veronika Komárková

