

# Archaeology and History as Companion Disciplines

Co-analysing Georg Sarauw's Work on the  
Mullerup Excavation at the Start of the 1900s<sup>1</sup>

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## Abstract

*This article aims to contribute to the practice-history of archaeology, a less scrutinized subject. We join this field of historiography with some preliminary results of how an archaeologist and a historian can read archive material together. Sources are material produced by Georg Sarauw during his process of interpreting Mullerup. Our analyses take up Sarauw's practices in the interpretation process, as well as problematizing our own mutual practices. The term companion disciplines approach is used to describe our cooperation and is adapted from Donna Haraway's attitude to relationships between differently situated subjects. Our focus on methodology aims to find examples of how and where two or more academic disciplines are operative together when they aim to produce mutual results.*

## Introduction

The site of Mullerup, Western Zealand (Fig. 1) was excavated and interpreted in 1900 and published a few years later (Sarauw 1903, Fig. 2). After a lengthy debate it was recognized as the first site that belonged to the “Hiatus”, later known as the Mesolithic. Informative syntheses on how knowledge about the Mesolithic has progressed are available (e.g. Kühn 1976; Larsson 1990; Milner & Woodman 2005), but few small-scale analytical historiographies are known. Our study of Georg Sarauw's documents from Mullerup therefore locates itself as a microanalysis in

this vein. Archaeological excavations have the capacity to trigger surprising conditions. This is also the case with the Mullerup excavation which initiated the recognition of a Mesolithic, an era much sought after by many contemporary scholars. Excavations also result in records stored in magazines and archives. In this aspect Sarauw's report on Mullerup (Sarauw 1900, and n.d.; Fig. 3) is an ample treasure to historiographers. Even with Jan Eric Sjöberg's extensive biography of Sarauw (Sjöberg 2005), this key source for the early history of the Maglemose has



Fig. 1. Mullerup is situated in the Maglemose bog, part of a larger bog system in western Zealand.

not dried up. Even though Sarauw's reviewer, the botanist Rutger Sernander, wished for more detailed data about the depicted bog stratigraphy (Sernander 1905, 89), Sarauw's documents on the Mullerup profile were the key physical source for a renewal of the then old and intense discussion of the question whether a Mesolithic existed (Westropp 1872; Piette 1895; Niklasson 1955; Rowley-Conwy 1996). For our project his reports are read in combination with Sarauw's original article (Sarauw 1903). An exciting question has been how the interpretation practices of Mullerup relate to Sarauw's formative time. The complexity of temporo-spatial interrelations of scholarship is well known to archaeological historiography. This is a major reason why the archaeologist (Hjørungdal) suggested that a historian (Holmberg) should join her project. This historian has a focus on the late 1800s and the early 1900s and makes a perfect companion scholar. The companionship between archaeology and history is not much



Fig. 2. Georg Sarauw (1862–1928). © Stadsmuseet, Göteborg.

explored along methodological lines, although it is coming of age. In Sarauw's material we have looked for the practices of work he described in reports and article. Guided by certain questions – What exactly do we look at when practices are studied? What does an elaborate methodology of studying scientific practices look like? – we think we can get much more detailed knowledge about what was actually done in Mullerup; about what the topics and problems of discussion were, and what had to be chosen and decided on during this particular scientific process. This implies knowledge primarily about how Sarauw worked with the aim of dating and interpreting Mullerup's deep stratigraphy with its unfamiliar specimens of bones and tools (Fig. 4; Fig. 5). It also implies detailed knowledge about the background to how a new chronological era emerged in situ, by practices such as levelling and of measuring the relations of archaeological objects to botanical and geological stratigraphy, by

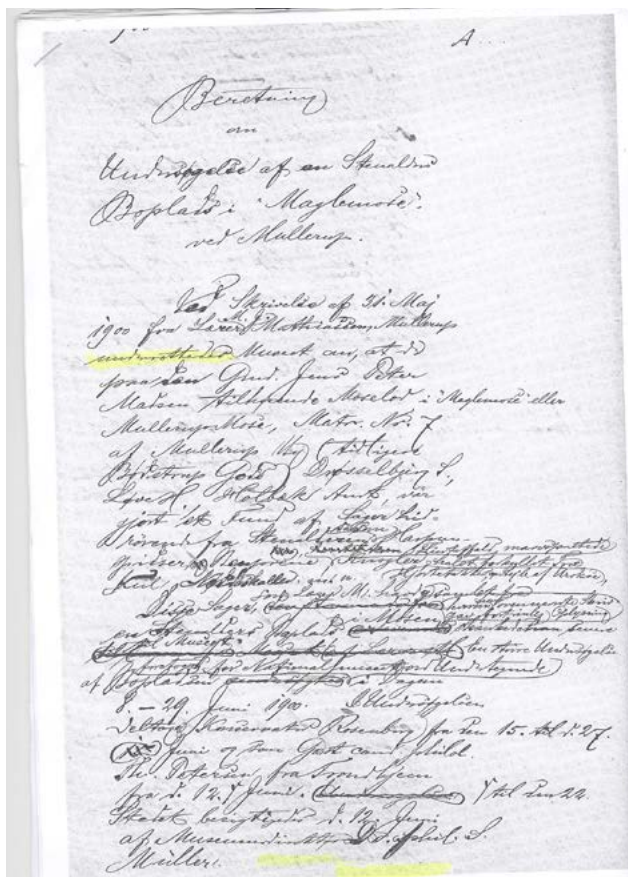


Fig. 3. A sample of Sarauw's record material. His delight in writing and his attention to detail are indeed beneficial to the historiographer. © Gothenburg University Library.



Fig. 15. Den blotlagte Overflade med Kulturlaget, hvor Folkene har færdedes.

Fig. 4. From Mullerup's layers. Sarauw claimed that he could almost discern the footsteps of the prehistoric inhabitants. ©Danish National Museum, Copenhagen.



Fig. 11. De først fundne Ting fra den gamle Boplads. M. J. Mathiassen fot.

Fig. 5. A few characteristic tools from Mullerup. Originally the Mullerup school's collection as prepared by the teacher Mathiassen. © Danish National Museum, Copenhagen.

systematic comparisons with known sites, and by verbal ciphers expressed in writing. So far we have established some good practices of co-reading archive material and defined some good issues of analysis. In the following we present a sketch for a methodology we wish to develop.

## Methods and approach

Our line has much in common with practice approaches already found in archaeology (e.g. Edgeworth 2003; Yarrow 2003; Jensen 2012; Diaz-Andreu 2012). It takes on a social-history standpoint together with current approaches to materiality. We pay special attention to Ola W. Jensen's question, "But why has the main interest in past archaeology so far been on ideas and theories rather than on its practices?" (Jensen 2012, 10). Ideas must not be neglected, but practice methodologies seem particularly suitable for analyses of archaeological contexts. What we need, however, is to find good analytical connections. We sought them in critical post-humanist approaches. While archaeology acknowledges the diversity of post-humanist approaches to relationships between nature and culture, the human and non-human (e.g. *World Archaeology* 2007; Fredengren 2013; *Archaeological Dialogues* 2013), these are approaches less taken up by history. A central argument in critical post-humanist directions is that science/scholarship incorporates the social, the material and the discursive and that the positions of these actants are not fixed but mutable (Rouse 2002, 73; Barad 2007 *passim*). In our version we pay attention to the fact that our disciplines often study social processes involved by things, writing, language and humans, and the degree and character of activity undertaken by each of the actants may differ from case to case. As a consequence we connect to theorists who scrutinize aspects of

practices and materialities, and we test how their models can be adjusted to our context. Further, we need discussions not only of how research is practised, but also of *where*. In this respect we look at discussions on material aspects of localities for sciences and scholarship as developed by the philosopher Joseph Rouse (1996; 2002; 2009), by the theorists Donna Haraway (1988; 2008) and Karen Barad (2007), and by the anthropologist Annemarie Mol (2002). Their examples take up scientific processes as performed in e.g. laboratories and in clinical settings. If we adjust Rouse's term of research laboratory for the locale of scientific practices, we can think that an archaeological site or a museum in Sarauw's time can make our parallel to a laboratory, and therefore can be seen as an experimental micro-world (Rouse 1996, 129). We also emphasize that we do – as Sarauw did – make different types of *encounters* during a scientific process, and that encounters are made in specific material settings. To develop our approach we needed to integrate a linguistic tool, the *verb-oriented methodology* from Gräslund Berg *et al.* (2013) and evaluate how this can contribute to our aims. This method's focus on verbs aids our explanations of the practices we find in our own archive sources, which will be briefly demonstrated below. Next, it is of special importance to us that Jensen in his discussion of practices points to the involvement of the human body and the use of instruments in archaeological fieldwork, e.g. in measuring moments (Jensen 2012, 17 ff.). This aspect exposes a wide range of different human and non-human *actants* involved in archaeological practices. Finally, our emphasis on a practice approach is supported by Donna Haraway's attitude that science is not only thought. Science is actually made (by practices), it is social and material-semiotic, and it is temporo-spatially located, or as she says, science and scholarship are situated and also partial and incomplete

in their perspective (Haraway 1988; cf. Mol 2002; Rouse 2002). We try to make all of these pieces of theory and method visible and combine them into an approach we think suits our micro context. Although much time has been needed for just thinking, we have been talking extensively. The archaeologist and the historian have shared the possibility of looking for and analysing the cooperation between such actants as scholars/people, data/material, instruments, tools, language/writing and talking; and their changing positions as subjects in a process.

*Different situatednesses and encounters as analytical resources*

Our methodology takes advantage of scholars' different locations, or situatednesses, in academia (Haraway 1988; Davis 2008). Instead of taking our long academic relationship for granted, we problematize it methodologically. In our case this implies that the archaeologist is mainly a specialist regarding prehistory, materiality and also on archaeological reports, but no specialist on written sources of the streams of modern times, big ideologies, and political and cultural circumstances in which academic archaeology actually was organized. A historian, in contrast, has a systematic education on the sources of modernity, on how to approach them source-critically, and on standard works and interpretations of the historical era in question. Archaeology and history traditionally covered different periods of human presence.<sup>2</sup> They are therefore disciplines with mainly different locations and voices in social and cultural discourses. Encouraged by such opportunities, we also recognize that our disciplines basically have different relationships to archives, and that in our view this is where we find one of our very potentials for mutual work. Even though both disciplines regularly use archives, we rarely use the material together for co-reading. But this time we did and this practice has added

new dimensions to methodology. Before we started reading we had to make clear that this implies shared decisions about locations where the disciplines have the promise of making effective encounters. In such encounters methods and disciplines must also have the promise of becoming operative *together*; a main criterion for achieving valuable outcomes at all. As our disciplines are close to each other, but traditionally different in main source materials and methodologies, we also had to explicate the fact that we, the authors, have different academic and professional backgrounds and experiences. Like our disciplines, we ourselves are differently situated in academia. Despite differences in time of employment in academia and being educated at different universities, we belong to the same generation. Currently we also belong to the same university department, but to different disciplines and also partly to different traditions and general approaches to scholarship and the production of knowledge. The archaeologist is more specialized in Scandinavian prehistory and the historian in the late 1800s and the early 1900s of Europe. The historian is inspired by social constructionism and the history-of-concepts line. The archaeologist is keen to take up the problematization of constructionism and useful aspects of critical and feminist post-humanist, material-semiotic approaches and examine how they can be prolific to present archaeological discourses. This model permits both the historian and the archaeologist an internal as well as an external position. From this double situatedness we have a favourable perspective on our zones of potential encounters.

*Reading practices with the verb-oriented method*

The verb-oriented method has been developed in contexts which are different from ours, but the method's focus on *practices* is our main

motive for connecting to it. It is also possible to combine its line with different theoretical and methodological approaches. We read Gräslund Berg *et al.*'s version of the method. They study gender and work practices by looking for verbs observed in database material accumulated from modern historical contexts (Gräslund Berg *et al.* 2013). We soon found possibilities in combining the verb-oriented method with the components on materialities and practices we introduced above. A major point to make visible when we adjusted the method was that our *context* is a very different one from the database context used by Gräslund Berg *et al.* We therefore needed to talk over a few aspects before we could make the methodology effective. Primarily we share the motto *practices* with Gräslund *et al.*, but practices are specific to context and include a manifold of verbs and act characteristic of discipline and discourse. An aim of the initial verb-oriented method was to study time-use, but our version has not included this aspect. A main deviation from Gräslund *et al.*'s version is also that we have widened our material to comprise photos and the practices and physical positions we think we can read out of them. Characteristic of archaeological reports are explanations of long-term, enduring and repetitive work procedures of an excavation, all described with verbs. Scientific working procedures found in reports consist of *written verbs* in context with descriptions of the use of tools in an excavation, instruments and materials of various characters – tools and soil – in interaction with the scholar's body and choreography. In the context of archive material the verb is an obvious site for encounters between *words*, *human actions* and *materiality*. Verbs describe something about how a material object such as an instrument or a trowel is used and how it interacts with the scholar, the soil, the site and the surroundings, how it assists and also how it can cause complications. For analysis we

have chosen only a few among the numerous practices found in Sarauw's reports. But next we need to summarize Georg Sarauw's background and how he came to archaeology.

## Georg Sarauw: aspects of his background and his archaeology

Georg Frederik Ludvig Sarauw was born in 1862 in southern Zealand. His father Conrad Sarauw, a forester, was married three times; his first two wives died in childbirth. With his third wife, Betsy Hansen, he had six children. Georg was the first-born of the brood (Sjöberg 2005, 13 ff.). Georg started at *Herlufsholms Lærde Skole* in Næstved, Zealand, at the age of 12. The school had a distinctly classic profile. He learned to master Hebrew, Greek and Latin, as well as German, French and English. Great talent, devotion and diligence were traits of the young pupil. He took his matriculation at the same school in 1881 at the age of 19. He received the highest ratings (Sjöberg 2005, 19 ff.). From the beginning we get the impression that Sarauw probably planned to have a continued classical career. As a student at the University of Copenhagen, however, he chose a slightly different profile. Already in 1882 he received a bachelor's degree in philosophy, Egyptology and medicine. Slowly but surely his scientific interest took over. A reasonable conclusion would be that he wished to walk in his father's footsteps. The next year he was accepted from the University of Munich, where he studied topics with a particular focus on forest management. Among other things, he gained knowledge of meteorology, botany, plant chemistry and microscopy. He also had time to take courses in Babylonian and Assyrian literature as well as in French and English. In 1888 he earned the degree of forester candidate in Copenhagen, just as his father had done 50 years before. He never came to practise

this profession. Sarauw found it difficult to settle down. He spent a few semesters at the University of Berlin where he continued to improve his knowledge of plant physiology and Quaternary botany. He then went to the Paris Sorbonne to study plant anatomy and chemistry. Back in Copenhagen, he was employed at the university's Department of Plant Physiology. He now published a major work on symbiosis between fungi and forest trees followed by articles in various magazines about plants and animal species, especially reptiles. In 1896 he took his doctorate in natural sciences. Two years earlier, he joined the research department of Nationalmuseet (the Danish National Museum). It was under Sophus Müller's management that his career as an archaeologist began in earnest (Sjöberg 2005, 23 ff.). It was not the career that Sarauw had initially imagined when he began his university studies, but other influences came into play. It was in any case from here that he started to develop his broad, situated-in-the-hub perspective. We therefore consider Sarauw to have had a favourable point of departure when he was striving to understand and interpret the stratigraphy of Mullerup. The question of how archaeology encountered various other disciplines around 1900, not least botany, is vital. This is a setting in which Sarauw undoubtedly was helped by his broad education in botany, zoology, and geology in addition to the archaeological experience he had acquired. Moreover he was generally well read and a man of the pen. The background and temporo-spatial context of Sarauw's education is much more complex than outlined by us. During the 1800s biology and geology had provided new time depth for the Earth and its species, and the emerging sciences were central actants in the transformation of academic organization and education at large. How the big discoveries touched Denmark and also were initiated by Danish scholars is summarized in a Danish

history of science (Kjærsgaard 2006, 43 ff.). Sarauw's formation shows that he was located within and was also an illustration of the changing conditions in Danish intellectual life. His privileged situatedness was the setting from which he could participate in encounters between archaeology and natural sciences, encounters which made him able to be clear on the chronological results of the stratigraphic layers he struggled to analyse.

### Sarauw's verbs and processes – reading practices in the archive

We proceed from verbs, but we have extended our observation to include practices and processes of work. Excavation reports are a genre of written material which also are documents of processes including *practices and materiality*, not only of thinking and writing. Archaeological archive reports are a manifold of written miscellanies such as letters, notes, tags, receipts, coupons, and photos.<sup>3</sup> We analysed a written field *report* (Sarauw 1900, NM A18269) and an *account* (Sarauw n.d. archive UB/GU). We decided that what scholars did in the field and in post field process, with what instruments, the hows and wheres in their procedure of interpretation and publishing usually are explicit to the reader of texts, as well as to the viewer of photos. We have so far chosen to illustrate this by deciding on three very different expressions in the Mullerup record; all of them comprise verbs and processes revealing something about practices, their purposes and their wider context, beyond the setting where they are performed. Many of the processes and practices we find are general to archaeological excavations in 1900, but some of them are context-specific to the Mullerup investigation.





Fig. 6. Digging practices in Mullerup. Whether the photo is staged or not, it exposes contemporary notions about general social conditions, professions, and tasks in archaeological fieldwork. The photo also reveals the dominant position of the peat. © Danish National Museum, Copenhagen.

### *The first expression*

#### *– practices of organization in the field*

This takes up verbs and practices concerning the social organization of the excavation. Practices were found by reading handwritten texts and looking at photos. In all probability, however, photos are arranged but they nevertheless say much about how things were expected to be, and to be practised. We focus on the photos, and in some of the shots from Mullerup we can see the archaeologist Sarauw, sitting on a chair on the edge of the trench while workers are kneeling at the bottom of the site digging; they are local farmers or sometimes students and one woman is visible (Fig. 6). Intellectual work and physical labour were exposed and juxtaposed to each other. A tactile bodily hierarchy is revealed in this genre of field photos and such hierarchies are also often written about in field reports, as in the case of the Mullerup archive material

where hierarchy has its own context-specific variety. This exposes a piece of the history of archaeology, as well as relating to general temporo-spatial social conditions. Farm workers and bog workers in the local setting were often taken out of their ordinary work in order to dig for a visiting archaeologist. In the case of Mullerup they were bog workers who were paid to dig for Sarauw, with a wage for female workers that was half the amount of men's (Sjöberg 2005, 45). General conclusions can be confirmed on class as well as on gender in the organization of the excavation of Mullerup. This arrangement exemplifies a micro-case of the ongoing transformation of society in 1900. On the one hand industrialization, urbanization and technification had upgraded scholars' status. It was as a scientific leader, with competence in the most modern methods and theories, that Sarauw got his authority. On the other



hand, there was a strict hierarchy, with clear orders given to those who carried out the most labour-intensive tasks. The values of the old estate society, with a natural right of the lords to exploit peasants and other subordinates, appeared to be heavily involved. In the aspect of social organization of field practices, counting one scholar and his helpers, the Mullerup project remained rather obsolete.<sup>4</sup> The photos available; they may in all probability have been arranged by Sarauw or the photographer but they nevertheless reveal practices performed during the microcontext of an excavation as well as notions of how scientific work and rural work respectively were generally valued. The images are diffractions of general social conditions, but it is interesting to explicate how exactly these hierarchical situations were expressed in the Mullerup excavation, and that they were preserved by photo documentation. In this expression central verbs have been *sitting*, *standing up*, *kneeling*, and *digging*.

#### *The second expression*

– *archaeology and the practices of peat cutting*  
This takes up impacts from practices of the agrarian expansion Denmark underwent in the 1800s. Towards the end of the 19th century Danish cereal production was less profitable as cheap wheat could be imported from transatlantic producers. It was replaced by investments in animal production. At the same time, farmers formed cooperatives which could afford to invest in new technology. Peat bricks had traditionally been the main fuel in Danish agriculture, but towards the end of the 1800s coal gradually took over from peat as an energy source even though the changeover was slow. The increased investment in agrarian renewal decades before that probably increased energy requirements and thus peat mining. With new methods peat could be extracted at greater depths. These processes enabled many of the discoveries we find

briefly described in the archive records. Thus rural transformation affected social practices extensively. Peat cutting played an important part with which archaeology developed in interaction. As pointed out by Danish colleagues, this is an issue that should be analysed as a more obvious interactor in the history of archaeology (cf. Andersen 1983, 12 ff.; Kristiansen 1985, 41 ff.). The most visible verbs in this expression have been to *cut* peat and to *mine* peat.

#### *The third expression*

##### – *practices of using scientific instruments*

Theorists have different attitudes to the roles of the scholar's link to the instruments. We align with Karen Barad who enlarges on scholars' interacting with instruments as we have to know about the instrument, its capacities, its purposes in the process, and the results we can expect by integrating the instrument, e.g. the microscope, in our process. Barad develops the line of the microscope itself as an interactor (Barad 2007, 50 ff., 359). Sarauw used the microscope with the aim of determining the species of wood in the different layers of the site. Although Sarauw was among the early Danish scholars to be educated in microscopy in Germany in the 1880s, the microscope was not new at all to Danish natural sciences. Christian Theodor Vaupell (1821–1862) had already been a keen practitioner (cf. Nielsen & Helama 2012). In any case, use of the microscope in archaeological practices grew into one of Sarauw's scientific specialties when he was employed by the Danish National Museum (Sjöberg 2005, 23, 37). The microscope practices in his studies of wood anatomy confirmed that pine (*Pinus silvestris* L.) was a key botanical indicator of the Boreal horizon in the Mullerup bog, as the prehistoric remains of pine were located directly above the crucial flint tools (Fig. 7). In Sarauw's reports, another important practice that was selected and enlarged upon was levelling

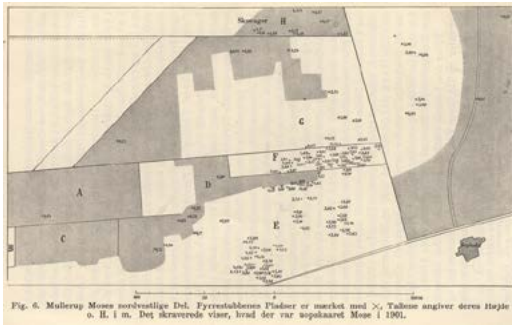


Fig. 7. Pine stumps in the bog. The species (*Pinus silvestris* L.) was identified by microscope and was a chief indicator of Mullerup's Boreal position. The flint tools were situated beneath the pine layer. This was first noticed by Mathiassen, very carefully tested by Sarauw, and was the key condition that triggered the multiple processes of testing and comparing in order to arrive at a chronological result for Mullerup. © Danish National Museum, Copenhagen.



Fig. 8. Repeated experiments of measurement were practised in the field. To gain acceptance for the positions of the pine stumps and the tools, it was also important to present extensive comments on how and why certain dimensions were taken up, and to document them in the field report. Levelling as a practice of measurement, together with the practices of microscopy, played a vital role in the emergence of Mullerup's temporal status. © Danish National Museum, Copenhagen.

using the theodolite (Fig. 8). The instrument had been widely used for a long time by geologists and archaeologists for measuring horizontal and vertical positions, angles and layers. This was how Sarauw, assisted by the teacher Mathiassen, was able to measure the deep cultural layers in the bog. Together with the theodolite practice, the microscope practice created the very conditions required to trigger Sarauw's postulation about placing Mullerup in the Hiatus. Thanks to Sarauw's detailed notes and descriptions it is easy to follow him in as he interprets Mullerup. We suggest that Georg Sarauw should be counted among the prominent scientific innovators of his time as he was the co-provider of something entirely new and different – a physical cultural layer dated in the Hiatus. His conclusion about the stratigraphy had an ambiguous reception, however. His results were far from being received as a success or as a solution to a long discussion on whether there was a physical layer in the gap. Central verbs in this expression have been *looking* and *measuring*.

#### *Additional practices of interest*

Further important practices in classifying the site were *sorting out* and *labelling* specific traits in the material, also *absent traits*; most distinctive among these were the lack of potsherds and polished axes. Another set of practices was the reading of relevant literature in archaeology and botany, and Sarauw recorded a number of the standard works he consulted, not least on studies in natural sciences. Analysis and interpretation of an archaeological site includes practices of comparison and acceptance as well as rejection. The processes led Sarauw to abandon some of his hypotheses on Mullerup's classification. These were not least practices of comparing Mullerup data and interpretations to potential parallel circumstances in Europe. In the process he discarded his tentative

interpretations of Mullerup as Neolithic *Pfahlbauten* in Switzerland as well as Irish crannogs (Sarauw 1900; n.d.; 1903). Travels Sarauw undertook with the aim of dating Mullerup were also related. In a letter to Mathiassen, after a long journey to different museums, Sarauw says that in Königsberg he had seen a bone tool corresponding to those in Maglemose (letter to Mathiassen 21 November 1901). This seems to have been a surprise to Sarauw; he could not have known this type in advance as it was not published. Yet it is an obvious outcome of what practices of travelling and making comparisons in foreign museums can contribute. All of these practices aiming to define Mullerup are what we, according to Karen Barad, might name practices of drawing boundaries in defining scientific phenomena (Barad 2007; cf. Immonen 2012). The practices of packing and labelling of find material should be mentioned briefly. Particularly the bones from Mullerup are carefully packed and lined, and the size of packages with finds is mentioned. To get enough bags for the finds seems to be a problem; newspaper could not be used for wet items, and Sarauw ordered brown lining paper instead. He sent the finds by express train to Copenhagen (Sarauw 1900 and n.d.). To conclude with an account made from our own location, the most exciting encounter to us was Mathiassen's and Sarauw's surprise over the flints under the layer of Boreal pine stumps, and that they elaborated so carefully on this observation. Sarauw systematically expended considerable effort to solve this stratigraphic problem. According to the archive material he must have been discussing with Mathiassen, experimenting and testing as much as he was thinking.

## Summary and conclusions

Like some of our colleagues, among them Yarrow (2003), Jensen (2012) and Diaz Andreu (2012), we advocate a focus on practices. We find many of them recorded in archive reports and approach them as an essential source for historiography. We also advocate an explicit connection to operative methodologies as found in current critical theorists. In respect of practice studies, Joseph Rouse's works were discovered and included in combination with critical post-humanist and feminist theorists.

The early history of the Maglemose culture is multifaceted and little is explored in detail. Like numerous archaeological sites, Mullerup was discovered during peat cutting. Unlike most prehistoric periods, the Mesolithic emerged physically in the field. It emerged as a stratigraphic phenomenon in the encounter with peat botany, between flints and pine stumps, and not by typology. Georg Sarauw was trained methodologically in natural sciences and their practices, and in languages and writing, combined with many years of archaeological excavations for the Danish National Museum. He wrote comprehensively and made quick sketches. In the Mullerup record he describes his work in detail and offers an excellent opportunity to get a picture of what his working process looked like: what he did, where he was, with whom he was interacting, about which devices, tools and instruments he used, and on his comparative studies, correspondence and travelling. Processes of experimenting and testing imply specifying verbs such as measuring and comparing.

We have read archive material together by practising some – to us – new tools which we have adjusted to our context. Cooperation between an archaeologist and a historian with a focus on the *methodology* of writing history of archaeology is a new approach. We problematize the cooperation

by emphasizing the view that the scholars' different situatedness is an analytical resource, capable of arranging encounters and thus conducting discussions about it. Archaeology and history are disciplines mainly founded in material versus written sources, but they share an academic history of encounters in many respects, and they share the archives. Our way of reading the archive material takes up not only verbs but also practices and physical positions in chosen contexts as in field photos. Sarauw's interpretation of Mullerup offers a specific example of encounters between *archaeology and natural sciences*, and between *archaeology and agrarian practices*. We have examined a few of these by inspecting how they were documented. Our aim was to know more about what the scholar does during the process when a new phenomenon, such as a cultural layer in the Hiatus, emerges. Cooperation with a historian is an encouraging experiment for the problematization of historiographic methodology. A historian has the professional background to approach critically the temporo-spatial context in which a specific archaeological discovery was made and reported. A historian's eye on Sarauw's educational background and its socio-cultural context has therefore been an explicit location for encounter between our disciplines. Our approaches to historiography are different in a few respects from how archaeological historiography has usually been written. Usually an archaeologist takes on this task her/himself and a number of comprehensive works are found. We have, in contrast, problematized our cooperation and our mutual sources, the archive as well as the temporo-spatial context of an archaeological interpretation. The verb-oriented method is a method originally developed in historical contexts, but its flexibility made it adjustable to encounters with a context of archaeological documentation material. In the analyses of encounters, attention was paid to the question

of how a practice approach can contribute knowledge about the history of archaeology. One result is the more detailed background we have obtained about the methods of work we find in Sarauw's reports; of how an archaeological conclusion was established through small steps of measurement, comparison, discarding and discussions.

We have explicated three different expressions: social organization, agrarian practices and archaeology, and the use of scientific instruments. Each of them exemplifies issues on which our *companion disciplines approach* has a potential to expand. We have also mentioned some of the practices of sorting used by Sarauw when he sought to draw boundaries with other sites and periods. The practices approach is perfect for archaeological archive analyses because it is in the documentation material we are closest to what our former colleagues did in the field and during the process of site interpretation. A practices approach is also perfect for the study of the meticulous and detailed Mullerup record produced by Georg Sarauw.

Our version of practice methodology is named a *companion disciplines approach*. It implies that two or more subjects encounter from different situatednesses, entering a shared process with the aim of making a mutual result develop. So far this is a preliminary methodology for identifying and analysing fruitful encounters between archaeology and history in the archive. It is also a methodology with a potential to grow more substantial and being adjusted to other contexts. So far we have taken up subjects on which we by and large agree. A next step will therefore include more extensive discussions on how to encounter from different situatednesses; on how various encounters can be practised, and on how different situatednesses are a resource for cooperation. These are aspects developed in a new article we are already about to finish (Holmberg & Hjørungdal in prep.).

## Acknowledgement

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## Notes

- 1 This article is written within the project *On the nature of Maglemose*, financed by the Swedish Research Council (Vetenskapsrådet). Issues of analysis are methodological innovations in the history of Maglemose and also archaeological historiography in a practice approach.
- 2 The extensive discourse on historical and contemporary archaeology is separate from this discussion and usually acquires approaches different from ours.
- 3 On the complexities of the use and roles of photos and other pictures in archaeology e.g. Trotzig 1989; cf. general survey by Mankell 2012.
- 4 In the Mullerup fieldwork the teacher Mathias Mathiassen was another main person; it was he who recognized the site and informed the museum (Sjöberg 2005).

## References

### Archive material

- Sarauw, G. 1900. Stenalders Boplads. Matr. Nr. 7 af Mullerupby, Drøsselbjerg S, Löve H, Holbæk A. Nationalmuseet Copenhagen, Oldtiden, Arkiv: A. 18269. (Comprises letters to Mathiassen).
- n.d. Beretning om Undersøgelse af en Stenalders Boplads i Maglemosen ved Mullerup. Gothenburg University Library; Gothenburg University. Handskriftsafdelningen.

### Published

- Andersen, K. 1983. *Stenalderbebyggelsen i den Vestsjællandske Åmose*. Fredningsstyrelsen. København.
- Archaeological Dialogues* 20 (2), December 2013.

- Barad, K. 2007. *Meeting the Universe Halfway. Quantum Physics and the Entanglement of Matter and Meaning*. Durham & London.
- Davis, K. 2008. Intersectionality as Buzzword. A Sociology of Science Perspective on What Makes a Feminist Theory Successful. *Feminist Theory* 9(1).
- Diaz-Andreu, M. 2012. *Archaeological Encounters. Building Networks of Spanish and British Archaeologists in the 20th Century*. Newcastle.
- Edgeworth, M. 2003. *Acts of Discovery. An Ethnography of Archaeological Practice*. BAR International Series 1131. Oxford.
- Fredengren, C. 2013. Posthumanism, the Transcorporeal and Biomolecular Archaeology. *Current Swedish Archaeology* 21.
- Gräslund Berg, E., Durieu de Pradel, C., Fiebranz, R., Jacobsson, B., Hassan Jansson, K., Lennerstrand, M., Lindberg, E., Lindström, D., Lindström, J., Ling, S., Mispelaere, J., Oja, L., Pihl, C., Rydén, G., Ågren, M., Östman, A.-C. 2013. Praktiker som gör skillnad. Om den verb-inriktade metoden. *Historisk Tidskrift* 2013 (3).
- Haraway, D. 1988. Situated Knowledges. The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies* 14 (3).
- 2008. *When Species Meet*. Posthumanities 3. Minneapolis.
- Holmberg, C. & Hjørungdal, T. in prep. An Archaeological Model and its Historical Setting – the Assets of Different Situatednesses in Academic Teamwork. Manuscript.
- Immonen, V. 2013. The Mess before the Modern – Karen Barad's Agential Realism and Periodization in Medieval Archaeology in Finland. In Äikäs, T., Lipkin, S., Salmi, A.-K. (eds.), *Archaeology of Social Relations – Ten Case Studies by Finnish Archaeologists*, Studia Humaniora Ouluensia 1. Oulu.
- Jensen, O. W. 2012. A Thematic and Theoretical Introduction to Histories of Archaeological Practices. In Jensen, O. W. (ed.), *Histories of Archaeological Practices. Reflections on Methods, Strategies and Social Organization in Past Fieldwork*. The National Historical Museum, Stockholm Studies 20. Stockholm.
- Kjærsgaard, P. C. (ed.) 2006. *Lys over landet 1850–1920*. Dansk naturvidenskabs historie, Bind 3. Aarhus.
- Kristiansen, K. 1985. *Archaeological Formation Processes. The Representativity of Archeological Remains from Danish Prehistory*. Copenhagen.

- Kühn, H. 1976. *Geschichte der Vorgeschichtsforschung*. Berlin. New York.
- Larsson, L. 1990. The Mesolithic of Southern Scandinavia. *Journal of World Prehistory* 4 (3).
- Mankell, B. 2012. *Bild och materialitet*. Lund.
- Milner, N. & Woodman, P. 2005. Looking into the Canon's Mouth: Mesolithic Studies in the 21st Century. In Milner, N. & Woodman, P. (eds.), *Mesolithic Studies at the Beginning of the 21st Century*. Oxford.
- Mol, A. 2002. *The Body Multiple. Ontology in Medical Practice. Science and Cultural Theory*. Durham.
- Nielsen, J. K. & Helama, S. 2012. Christian Theodor Vaupell, a Danish 19th Century Naturalist and a Pioneering Developer of the Quaternary Geoscience. *History of Geo- and Space Sciences* 3.
- Niklasson, N. 1955. När och av vem präglades uttrycket mesolitikum? *Fornvännen* 1955.
- Piette, E. 1895. Hiatus et lacune. Vestiges de la période de transition dans la grotte du Mas d'Azil. *Bulletins de la Société d'anthropologie de Paris*, IV<sup>o</sup> Série. Tome 6.
- Rouse, J. 1996. *Engaging Science. How to Understand its Practices Philosophically*. New York.
- 2002. *How Scientific Practices Matter. Reclaiming Philosophical Naturalism*. Chicago.
- 2009. Standpoint Theories Reconsidered. *Hypatia* 24 (4).
- Rowley-Conwy, P. 1996. Why Didn't Westropp's "Mesolithic" Catch on in 1872? *Antiquity* 70.
- Sarauw, G. 1903. En stenalders boplads i Maglemose ved Mullerup, sammenholdt med beslægtede fund. Bidrag til nystenalderens begyndelse i Norden. *Aarbøger for nordisk oldkyndighed og historie* 1903.
- Sernander, R. 1905. Review of Georg F. L. Sarauw. En stenalders boplads i Maglemose ved Mullerup, sammenholdt med beslægtede fund. Bidrag til nystenalderens begyndelse i Norden. *Aarbøger for nordisk oldkyndighed og historie* 1903, pp. 148–315. Anmälan och kritiker. *Geologiska Föreningens. Förhandlingar*. N:o 232. 27 (1).
- Sjöberg, J. E. 2005. *Att återerövra det förflutna. Georg F. L. Sarauw. Botanikern som blev arkeolog*. Göteborg.
- Trotzig, G. 1989. Arkeologins bildbruk. Bilden som källa till vetenskaplig information. *Kungl. Vitterhetsakademien. Konferenser* 23. Stockholm.
- Westropp, H. M. 1872. *Pre-historic Phases; or, Introductory Essays on Pre-historic Archaeology*. London.
- World Archaeology* 2007. Vol. 39 (4).
- Yarrow, T. 2003. Artefactual Persons. The Relational Capacities of Persons and Things in the Practice of Excavation. *Norwegian Archaeological Review* 36 (1).

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