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MY STRATIGRAPHY, YOUR STRATIGRAPHY?
STRATIGRAPHIC DOCUMENTATION AS RECORD AND INFORMATION

ABSTRACT

Earlier studies in stratigraphical documentation have tended to focus on the representation of observed strata, stratigraphy, and on data capturing. The present article looks at the stratigraphical documentation process from the point of view of users. The two central implications of the present discussion is to problematise how archaeological documentation informs, and secondly, if archaeological documentation is a 'remnant', what type of record the documentation is? The conclusion is that it is important to document the documentation process, but similarly to an excavation, even this meta-documentation work should be guided by explicit questions and statement of purpose.

INTRODUCTION

Introduction of the systematic stratigraphic excavation and documentation approach has been one of the most fundamental theoretical changes in the practices of field archaeology. Even if the idea of archaeological stratigraphy can be traced back to the archaeological fieldwork of the late 19th and early 20th centuries (Browman & Givens, 1996; Lucas, 2001), the profound change in how stratigraphical sequences *inform* archaeological interpretation is related to the introduction of the Harris matrix and the publication of the first edition of the "Principles of archaeological stratigraphy" (Harris, 1989) in 1979. Since then, the principles of stratigraphical excavation have influenced work in field archaeology both directly and indirectly around the world. The approach has also been applied to contexts outside field archaeology, for instance, in building archaeology (Eriksdotter, 2005) and art conservation (García, 2009).

A stratigraphical approach may claim to resolve many challenges of archaeological interpretation and documentation, but like all categorisations (Bowker & Star, 2000), it has consequences. The predominant point of view of the processes of documentation and representation in the discussions on archaeological stratigraphy has been the one of the original stratum. Studies have focused on the problems of representing observed strata (Suhonen, 2004; Carver, 2005), representation of stratigraphy (Green et al., 2001; Lehtonen & Uotila, 2004) and stratigraphical representations and new technologies of capturing (Lehtonen et al., 2005; Neubauer, 2008). The purpose of the present article is to get a glimpse of the opposite side of stratigraphical documentation and documentation processes from the users' point of view. The dis-

cussion is based on an earlier empirical study of information work in archaeology (Huvila, 2006) and an on-going work on the development of archaeological information management systems and processes. The study takes the notions of record and information as analytical starting points. The specific questions addressed are 1) what does a stratigraphical documentation document, 2) how documentation is usable as a record and information and 3) whether and how the usability of documents might be improved from the present.

The present study builds on an earlier empirical investigation (Huvila, 2006). Besides interview material, this article is based on insights from an on-going action-researched-based project on developing participatory management of archaeological documentation and research data (Huvila & Uotila, Forthcoming).

ARCHAEOLOGICAL 'RECORDS' AND INFORMATION

The present study takes the concepts of information and record as analytical starting points in the discussion of the use of stratigraphical documentation. The notions are often cited in information science (Capurro & Hjørland, 2003) and archival science (e.g. Cox, 2001; Cox & Larsen, 2008). Both are debated, but have been acknowledged as useful analytical categories. The notion of information tends to be based, as **Ingwersen** and **Järvelin** (2005, 20) suggest, on the state of being informed and that information has a capability to inform without specifically addressing the fundamental question of that what information *is*. The concept of record tends to be described similarly by its characteristics rather than addressing the fundamental ontological question of its being. In archival science, record is typically perceived as *evidence* and in a similar manner to an archaeological object, as a 'remnant' of a human process (e.g. Cox, 2001; Furner, 2004).

The archival conception of 'record' is close to the notion of *archaeological record.* Preinterpretivist archaeology conceptualised archaeological record typically as observed data, more or less strictly as a result of recording of that what had existed on an archaeological site. Similarly to an archival record, an archaeological record is a remnant of an activity (of recording) and, depending on the epistemological standpoint, more or less indirectly of the past human activity. The fundamental difference between the two concepts is that while the notion of archaeological record suggests that a 'record' (a document) is an evidence of the past human activity, in an archival and information science sense, a record (a document created by archaeologists) is evidence of the activity of archaeologists.

The distinction between the two types of records is useful, because it underlines the dual nature of documentation. The relevance of the two senses of records or documentation has been acknowledged in the archaeological literature in form of an emphasis of the need to document documentation processes (how archaeological records/interpretations have come to being) (Berggren & Hodder, 2003; Vatanen et al., 2005). The focus of these urges has been, however, somewhat technical. The emphasis has been on technologies of capturing comments and utterances. The content of these utterances has received less attention (e.g. Berggren & Hodder, 2003). The *potential* value of arbitrary observations and opinions expressed by experienced archaeologists may be taken as granted, but in spite of foreseeable benefits, the systematic gathering of such data is highly problematic. Being necessarily heterogeneous, the data is difficult to manage and the return for the in-

vestment of time and resources of gathering and managing the data risks being as low as for other types of arbitrary manually created metadata. The central theoretical questions considering the process of documentation are how archaeological documentation is capable of informing and 'causing' informedness, and secondly, if archaeological documentation is remnant and bears evidence, what type of record the documentation is? In practice, the questions address the very notion of the contexts of relevance of archaeological documentation.

Stratigraphical documentation is an interesting melange of objectivist and purely subjective information. The interpreted nature of stratigraphic sequences is acknowledged and discussed widely in the literature (e.g. Lucas, 2001; Suhonen, 2004). A documented stratigraphical sequence is a memory device, an 'archive', as **Bowker** (2005) suggests. It is a recorded classification that helps the documenter to reconstruct an observation. Simultaneously, however, the documentation of a stratigraphy is taken as a (semi-) objective account of that what has actually happened on an investigated site in the past. There is no clear consensus whether observation and interpretation can be distinguished as separate processes (Roskams, 2001; Berggren & Hodder, 2003), but there seems to be a tendency to perceive them at least as two distinguishable dimensions of the same activity.

Even if this type distinction is accepted, a stratigraphic documentation is still a record in both archaeological and archival senses. It is an evidence of an interpretative process and a representation of the observed stratigraphical phenomena. The two readings of the same document are not, however, the same and require very different kinds of contextual knowledge to decipher. The first context is the one of archaeology and the second one, of the archaeological work.

THE CHALLENGE OF 'TO WHOM'

Stratigraphic documentation is empathetically produced for communication within the scholarly community of archaeologists. In simplistic terms, stratigraphic documentation is a *product* of one or several archaeologists. It is supposed to be a representation of a reinterpretable observation of what was actually present in the excavated site. As an interpretation, the documentation is a (theoretically reinterpretable) representation or a record of what an archaeologist saw and was able to discern and interpret. At the same time it is also an *inscription* (Latour, 1987) made by an individual archaeologist. As **Latour** (1987) and **Bowker** (2005) argue, besides recording, the purpose of scientific and scholarly documentation is to advocate the plausibility of scholarly claims. As an interpretation, a stratigraphy is a claim and thus a stratigraphic documentation represents a form of advocacy. Even if the generic audience of all of these 'senses' is the community of archaeologists, the contexts of use for each type of information are very different.

As a form of information, a stratigraphical documentation is supposed to mediate the original state of affairs to other archaeologists as it was observed and interpreted on site. The idea of the 'other archaeologists' is, however, only rarely very clearly explicated. In practice, the document tends to mediate the observations and interpretations to an imagined archaeologist that represents the documenters' idea of 'other archaeologists'. Because the 'imagined archaeologist' is likely to resemble the documenters themselves, the documentation becomes a representation of advocacy from archaeologists to themselves. In a sense, the purpose of a document is to convince its creators of its validity.

The 'self' and its relation to the 'others' is a major challenge in making stratigraphi-

cal documentation usable. The consequence of self-communication and self-advocacy is that the formation of an archaeological stratum and the processes of stratigraphical interpretation and documentation are three rather separate processes with their own particularities and dependencies. They interfere with each other, but the dynamics of their relation is more complex than of a simple reproduction. The split between the processes and the unclarity of the idea of the user of the documentation leads, as the informants of the present study noted, to the fact that the documents tend to be difficult to use.

Berggren and **Hodder** (2003) made an important point by emphasising the need for documenting the documentation process as part of a more reflexive archaeology that would essentially be an approach to break fences between the parallel processes of representation. Capturing reflective data and personal freeform observations is not, however, necessarily enough. The relevance of meta-documentation lies in the possibility to deconstruct the document and its premises (Vatanen, 2003), but also in the awareness of the uses and users of the documentation (Vatanen et al., 2005). Berggren and Hodder (2003) make a point of explicit research questions also in the context of often rather mechanically documented rescue excavations. A similar point should be raised about the meta-documentation. It is highly difficult to be reflective without a clear focus of the purpose of the meta-documentation. The notes are also difficult and time consuming to take and interpret if their purpose is unclear.

The use and user awareness as a part of self-reflection can be, however, also counterproductive. Too much focus on specific uses and user groups does not necessarily leave any room for arbitrary observations and professional intuition of what might be of importance. A better understanding of the context of documentation is not a solution per se, but similarly to the reflexive it may be argued to be a way to produce better-warranted and more usable stratigraphical documentation. The solution is not to steer the content and form of freeform observations to a degree that forbids the inclusion of arbitrary and intuitive ideas and feelings. What is needed, is a focus and general idea of what is observed and noted and how that might be done effectively and consistently. Like all scholarly work, archaeology needs to be concerned with the contexts of the subject matter (the past and its material remains) and also with the implications and contextuality of archaeological work and its material remains.

The second challenge of using stratigraphic documentation relates to the documents, their structure and contents. Even if the diagrammatic representation of stratigraphic sequences in form of Harris matrices is a *de facto* standard, the diagram is only a systematic simplification of a larger set of data and interpretations. Interpreting that larger corpus of data requires considerable background knowledge of both archaeology and a particular archaeological site. Even if the present and emerging digital technologies allow free distribution and mediation of information, there are purely content specific issues that make stratigraphic information difficult in that respect. According to the informants of the present study, even experts tend to have difficulties in interpreting stratigraphic documentation.

The challenges of interpreting stratigraphic documentation are emphasised when the interpreter is not a professional field archaeologist. The specificity of stratigraphic documentation does not imply that non-experts with varying backgrounds would not be interested in the practical implications of their contents. The specific groups of cultural heritage administrators and policy makers, de-

velopers and local population have conceivable interest in archaeological documentation even if their interests and expertise are not of a scholarly kind and they do not have the previously assumed a high level of expertise in the techniques of stratigraphic documentation. In some cases, an accessible introduction or a popular science text might be usable, but there are many conceivable contexts where the information need concerns the original documentation itself. A user might be an expert in archaeology or closely related discipline with some, but not necessarily extensive experience of stratigraphical interpretation in particular types of contexts.

Besides individual cases, a striving for access to data may be observed also on a more fundamental level. The evolution of information culture in the developed countries is a challenge for the dissemination of scholarly information both in general, and more specifically with research data. Today, people expect information to be available *per se*. The technical act of dissemination is not necessarily a grand challenge, but if scholarly documentation is made available it needs to be comprehensible to its audience in order to be usable. The documentation needs to be a record in multiple senses. These challenges have become evident during the development of archaeological digital libraries (Huvila, 2009). Similarly, it is important to be explicit about the limitations of available information and to disseminate enough of the context of the information for others, both experts and non-experts alike, to make their own conclusions.

CONCLUSIONS

The present article has discussed aspects of stratigraphical documentation and documentation process using the notions of record and information as analytical starting points. It seems that a documented stratigraphy serves at least four different purposes. It is treated as a semi-objective observation, a record of the past as it once was. Secondly, it is an interpretation of a subjective observation. Thirdly, a stratigraphical documentation is a partial 'record' of the interpretation. Finally, a document is a form of advocacy and articulation of interpretation and its relevance.

The explicitness of the four dimensions of stratigraphical documentation is not a matter-of-course. The usability of stratigraphic documentation as a record of the past or as an (archival) record of the observation and interpretative process depends on the transparency of documenters' intentions. It is far less a question of technology or amount of documentation.

There are number of factors that may be used to improve the usability of documentation. Because of the articulative nature of scholarly and thus also stratigraphical documentation, the acts of articulation and the emerging authority and trust can be used explicitly as resources. This does not imply that an involvement of an authoritative person should be taken as a proof of quality, but rather as an indication of how a particular piece of documentation is subjective.

Secondly, because of the variety of present and future needs, as **Witmore** (2009) suggests, it would be beneficial to anticipate the variety of uses by consciously taking and documenting more than one viewpoint. The viewpoints may be theoretical or related to approach and intentions to be more or less objective or subjective. The viewpoints may also be the ones of different documentation technologies or different individuals.

The third aspect relates to time and change. Information changes similarly to how people know and what people mean by knowing. Therefore it is important, as Berggren

and Hodder (2003) underline, to document also the documentation work. It is, however, important to be explicit also about that particular process of documentation and its purposes, meanings and values. Otherwise, the meta-documentation remains equally indecipherable as the original documentation. Because of the regenerative nature of the process of how documentation is used, the aims and understanding of the relevance of what is relevant is equally as important as the data.

The two central implications of the present discussion is to problematise the questions of how archaeological documentation is capable of informing and 'causing' informedness, and secondly, if archaeological documentation is remnant and bears evidence, what type of record the documentation is? In practice, the questions address the very notion of the contexts of relevance of archaeological documentation. An archaeological document is a record of the archaeological record and at the same time of a documentation of an intellectual process. It is essential to understand what is being documented, but it is equally important to understand the nature of the resulting document. This is not an archaeology, stratigraphy or technology specific issue. It relates to documentation itself and how different people perceive documents as records and information. A recorded stratigraphy is both yours and mine, but as such, it can be very different both as a record and information. ◆

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