Sound, Ink, Bytes: Geographical Information through the Centuries

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Abstract. In the 1740s, Major Peter Schnitler was appointed by the Danish government to explore the border area between the middle and northern parts of Norway and Sweden/Finland. Significant parts of the text in the manuscript that he handed over to the Danish government consist of transcripts of local court interviews carried out by Schnitler in order to gather information about the local population as well as their view of the border areas. The material includes information directly relevant to the border question, as well as general information about the areas in question. The text collection corresponds to similar material collected through work carried out in Europe at the time (Burke 2000, pp. 128 f.).

We have no direct access to the court interviews, as the sound of the words disappeared the moment they were spoken. What we do have is written evidence of the events. This written set of evidence has gone through a long history of handwritten manuscripts, printed books, digitisation, SGML/XML encoding, and finally importation into a computer based system assisting the analysis of the texts (Eide 1998). In addition to this, the texts in the Schnitler protocols themselves also have an internal history of information aggregation, performed by Schnitler and his assistants. This internal history consists of the following main steps:
1. Data collection. The court interviews were written down, and older written evidence was collected.
2. Aggregation. Based on the interviews, together with other sources of information including his own observations, Schnitler described larger areas.
3. Maps. Schnitler drew maps of large areas to indicate where the border should be located based on his sources.

In this paper, these two text histories are analysed and compared. The relations between the different documents, oral, written, and digital, are examined in order to get a better understanding of the stylistic and content changes that were likely to be introduced through each of the transformations.

Keywords: Major Peter Schnitler, media history, manuscript studies, textual studies, textuality

1.0 Introduction

Why is the text I am reading exactly as it is? Many text-oriented research areas, as well as research using texts as source material, will ask this question, implicitly or explicitly. It is connected to the question of how a text is created, which is important to examine in order to understand how a source may be interpreted in any historically oriented study. In this article, a specific text is examined with this question in mind. The research presented here is part of my PhD project at the Centre for Computing in the Humanities, King's College London, and is funded by the Norwegian Research Council.

In the 1740s, Major Peter Schnitler was appointed by the Danish government to explore the border area between the middle and northern parts of Norway and Sweden/Finland. Significant parts of the text in the manuscript that he handed over to the Danish government consist of transcripts of local court interviews carried out by Schnitler in order to gather information about the local population as well as their view of the border areas. The material includes information directly relevant to the border question, as well as general information about the areas in question. The text corresponds to similar material collected through work carried out in Europe at the time (Burke, pp. 128 f.).

In the following, Schnitler's material will be analysed taking two different developments into consideration: firstly, the media history of the collection, or how the text is reconfigured into new media through writing, printing, and digitisation; secondly, the process of creating the text itself, i.e. how Schnitler used his collected source material to write comprehensive descriptions of the area in question.

2.0 From court interview to digital text

In this first part I will look into the relations between the different documents: oral, written, printed, and digital. This will give us a better understanding of the stylistic and content changes that were likely to be introduced through each of the transformations from one medium to the other.

2.1 *Oral to manuscript*

We have no direct access to the court interviews, as the sound of the words disappeared the moment they were spoken. What we do have is written evidence of the events.

The parts of the original manuscript representing the court interviews were written during the actual interviews. A simplified court system with only two jurymen signing the protocol was used. Not only because of the law, but also because Schnitler's group was constantly travelling, it is obvious that the protocols were signed there and then, as the jurymen stayed behind. According to historical research into court protocols, such legal documents give as close a record of the actual speech of the witnesses – especially common people – as exist in historical sources (Stretton 16; Sandmo 19).

But even if these sources are among the best ones available, it is likely that many changes were made from the way people spoke to the expressions in the written text. When the witness spoke Sámi, a missionary translated the interview from Sámi to Norwegian. This created new oral texts, and only these translated texts were recorded. An interview is a dialogue; the changes that occurred because of possible discussions with the witnesses may be included but not explicitly described as such in the protocols. People could speak unclearly, or could use words or expressions not understood by the scribe, leading to the need for clarifications. It is also possible that witnesses were openly or covertly asked to change their statement. We have no evidence of such behaviour, but if it happened, it would not be recorded in the transcripts.

Given that the protocols do not contain direct swindle, which is unlikely, there would be no additions to the contents of the stories told by the witnesses other than in the case of misunderstandings. Anything not said by the witness would be spoken out and only added as a statement to the protocol if the witness confirmed the formulation. But parts of the oral texts are likely to have been removed, e.g. if they were looked upon as irrelevant.

The form of the statements, the way things were said, is likely to have been changed quite a lot, especially in the translated statements. This will be discussed in the next section.

The sections in which Schnitler analyses the sources in order to create aggregations of the information are not based directly on any oral text, and I suppose he created the text as he was writing it. It is, of course, possible that some of it was based on discussions with his colleagues, but this cannot be confirmed by the text.

2.2 *Manuscript to printed text*

After Norway left the union with Sweden in 1905, several years of negotiation were needed in order to clear out all the outstanding issues in the relationship between the two now sovereign states. The question of Sámi reindeer herders moving their flocks across the border was among the most difficult ones to settle. Several committees worked on this, among them the Reindeer Grazing Committee of 1907 whose task was to collect old documents. This work was appointed to two scholars, Just K. Qvigstad from Norway and Karl B. Wiklund from Sweden. As part of this work, a little more than 400 printed pages were published based on Schnitler's manuscript in the National Archive in Oslo (Renbeteskommissionen af 1907). Because the material from Schnitler's protocols was selected based on what was needed for border negotiations, and the negotiations only concerned parts of the border, the publication covered the latter part of Schnitler's manuscript only. The work on publishing the first part was started a little later, but because of other duties on the people doing the work, it was only finished in 1961. Finally, in 1982, a third volume was published containing an auxiliary document to the protocols. All the volumes are equipped with introductions and indexes (Schnitler 1929–85).

The text in the printed books is a faithful reproduction of the manuscript, where the text is neither normalised nor modernised. I will not describe the complex relationship between a manuscript and a transcription in any detail here. Put very simply, the process of transcription tries to preserve the text as a string of symbols, with the structure needed to understand it, e.g. punctuation, is preserved. In order to do this, all letters and their capitalisation is preserved as it is in the manuscript, but the edition is not critical in that only one reading, presumably the most probable one as the transcriber sees it, is recorded. The maps following the manuscript were omitted, as they were too expensive to include. Several helpful tools were added to the text: table of contents, page headers, as well as indexes identifying places and persons.

2.3 *Printed to digital text*

The people working in the border commissions immediately saw the importance of the material they collected. In a letter to Emil N. Setälä,[1] Just K. Qvigstad wrote:

> The examinations now being undertaken [...] connected to the reindeer herding case will, when they some day will be available to the public, provide an unusually rich material about the reindeer herding and the living conditions of the Laps. Investigations this minute would never

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[1] National Archives of Finland, Prof. Setälä's private archive. Letter dated "Kristiania 15/10 1911". Web. <http://www.dokpro.uio.no/qvigstad/brev.html>.

have been undertaken otherwise. [Trans. from Norwegian, my translation]

When a digitisation effort was started at the library of Tromsø Museum in 1995 as part of the national Norwegian Documentation Project,[2] the work was in close cooperation with the department of Sámi Ethnography. When material for digitisation was to be chosen, the Schnitler material was seen as very important and one volume was finished during the project. The project saw it as important to produce digital editions of high quality as well as quantity. Thus, detailed SGML encoding was chosen, but the editions were based on printed versions instead of going back to the handwritten manuscripts. Thus, the digital version is a new version of the printed books, not a new edition following them.

The aim of the digital version was to reproduce the printed text as minutely as possible. The book pages were scanned and OCR read, followed by several rounds of proof reading. In order to store the structure of the document as well as adding information based on an interpretation of the text, SGML encoding was added to the document. An example of this is the fact that letters set in italic in the printed text were encoded as italic using SGML elements in the digital text (Eide and Sveum, 1998). Eventually, the document was converted from SGML to XML, and the element structure was converted to TEI.

The most important tool that was added in the digital version follows from the medium: an ability to search the text, in free text as well as based on the SGML structure. Based on the SGML version of the text, a software tool was also written in 2002–2003 in order to assist analysis of the text. The system is no longer used, but the information added to the text through use of the system was exported and is now available for use in connection to the TEI version of the text. The investigations described in the next section were done using this system (Eide, 2004).
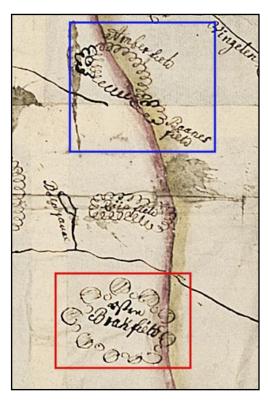
2.4 *From court interview to map*

The texts in the Schnitler protocols themselves also have an internal history of information aggregation, performed by Schnitler and his assistants. This internal history consists of the following main steps:

1. Data collection. The court interviews were written down, and older written evidence was collected.

2. Aggregation. Based on the interviews, together with other sources of information including his own observations, Schnitler described larger areas.

3. Maps. Schnitler drew maps of large areas to indicate where the border should be located based on his sources.

In the course of my PhD project, I will create conceptual models that will be used in a close analysis of geographical aspects of the texts in the Schnitler volume. The results of this are still pending. But obvious individual differences between the various witnesses can be seen in their testimonies as they are transcribed and included in the volume. Their length of the testimonies vary

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[2] Web <http://www.dokpro.uio.no/>.

quite a lot, and through close reading one finds differences between the ways in which the different witnesses express themselves.

In addition, earlier investigations into word frequencies using the analysis tool described above show personal differences. More specialised methods give similar results. One of these is an analysis of the construction "<place name> <word> <place name>" where the frequency of different words in the middle is counted for different people. There are differences between the individual speakers. Some indications are also found of systematic differences between groups of speakers, where the groups are based on ethnic, professional and social categories. These group differences are not certain, however, as they can be explained by the fact that two different hands are found in the manuscript as well (Eide 2004, pp. 45–68).

Whatever these differences may be, and if they come from individual or group differences in the expressions of the witnesses, from interpretation, or from different hands in the transcription of the court hearings, it was in Schnitler's interest to remove them when he created the aggregations. His project was based on an idea of including the information from the witnesses with a certain amount of stylistic variation on the one hand, while on the other hand making aggregations in which only the hard facts from the witnesses survived. This process is completed in the maps. It is somewhat preliminary for me to describe in great detail the differences between how things are expressed in the texts as opposed to on the maps, but it is clear that most contradictions and uncertainty are removed from the material when it reaches the map stage.

Two examples will be given of this process. They both relate to the fragment of one of Schnitler's maps shown in the figure.[3]

The first example is the place "Østre-Brakfield" (red square on the map). The description in Schnitler's aggregation is as follos: first he describes the length and width and some other topographical facts, and then indicates that "the border here could or would the 6th witness not state, as the acts shows, but it

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[3] Norwegian National Archives, The border archive, Map 120. A facsimile is published on a CD following a publication of another Schnitler manuscript (Mordt 2008). CD-ROM.

seems likely..."[4] and then he argues for his view. What is stated in the witness' own words in their statement is discussed in this aggregation, whereas on the map, the choice made by Schnitler is shown without discussion (Schnitler 1929–85, 1:173–74).

The second example concerns the places Amberfield and Baanesfield (blue square on the map). In his aggregation, Schnitler discusses two different views held by groups of witnesses living in different parishes, in which either one or the other of the two mountains are sees as the border mountain. Schnitler says he is not in a position to choose between these two views, as he has not been able to gather the two groups of witnesses together to reconcile the matter. But he still argues that the most likely solution is that Amberfield is the border mountain. Nonetheless, they are both included in the headword in his list of mountains with an "or" between (Schnitler 1929–85, 1:174). They are both included on the map as well. Whether their difference in size on the map is due to his view upon the most likely correct choice is something I do not know.

Conclusion

The development from sound to digital form is a development in which the aim is to store the informational contents of what is said as well as the way it was expressed. In the first part of the process, the transcription of the interviews, there is reason to believe that the scribes knew the limitations of their method, especially when the actual words were translated for them. But they would most likely be able to use expressions such as "recording what the witness said" to describe their work. In the rest of the transformations, from manuscript onwards to digital TEI encoded text, the aim was to store all marks in the previous medium with any relevant information value, and remove the rest. The transcribers had to choose between what was seen as relevant and what was not. One example of what is kept is the use of capitalisation in the printed text based on the usage in the manuscript, which is kept in the digital version as well.

The development from witness transcripts through aggregation to map form is done with a different aim. The aim is to use the different sources for a specific area, the witness transcriptions, the older printed sources, and Schnitler's own observations and knowledge, in order to reach the best description of the areas. I am deliberately not using the word truthful here. This is not because I have reason to believe Schnitler is a liar. But he is not, as a representative of the Danish king, neutral. Without knowing what he was thinking while working, it is likely that he tried to express the reality in the field, but when choosing – as we saw in the last section – he had to take his own role and loyalty into consideration, whether consciously or not. All this being as it may, the aim in this process is a movement from sources to conclusion, not very different from scholarly work.

So, in fewer words: the first process I have described is a process of information preservation, whereas the second is a process of source-based information creation.

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[4] Translated from Danish, my translation.

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