

Session on Spatial Humanities

Since the late 1980's aspects of space gained more and more importance in the humanities. In this context 'space' comprises different kinds of meaning, pertaining to geographical as well as on social definitions. Thus, activating the concept space allows broad interpretations of historical, social, and political processes. In many fields of research, the so-called 'spatial turn' supports the methodological approach of connecting textual and spatial information. Accumulations of geographic and spatial data could be understood as independent repositories for information and provide an additional category for the analysis of text. Therefore spatial data and text form two independent but equal classes of information. The combination of both will increase our understanding of topics, contents or intentions of texts.

Although spatial information is already used to visualize research topics in the humanities, the detailed analysis of geodata in the context of humanistic research projects points to a lot more options and open the possibilities to reveal hidden relations between data sets. Therefore, their future influence on the research process in humanities studies cannot be underestimated. In the last few years, the integration of spatial data in humanistic projects in general and language based project in particular can be subsumed under the term 'spatial humanities'. The aim of this subfield of digital humanities is not only to illustrate meta information within texts; the aim is also to construct new basic data by performing spatial analyses. The focus thereby lies on manual and semi-automatic text annotations, e.g. in TEI standardized XML documents that can easily be transferred to geographical information systems (GIS) for further analysis.

Researchers in digital humanities need computational assistance in order to do their research. Therefore, students have to be educated in certain computer skills. In autumn 2013 the eScience-Center of the University of Tübingen (Germany) started a teaching project in the Digital Humanities. The aim was and is to enable the students working with a computer and specific technologies. Quickly the main object and teaching field became courses in the so called spatial humanities. The benefits of the combination of textual orientated science with spatial orientated science for exploring certain research questions, became quit clear. Besides courses on technical aspects in general the eScience-Center offers courses in form of projects every term. For the teaching program 'Digital Humanities' co-seminars with other departments of the university or other institutions became important in order to realize project-based learning.

By the means of different case studies, the proposed session will not only give an introduction to the field of spatial humanities' (Bodenhamer et al. 2015; Bodenhamer et al. 2010), but will also illustrate the potential of integrating spatial data in language-based and culture-historical research and teaching projects realized by the eScience-Center of the University of Tübingen and Department of Culture Studies and Oriental Languages, University of Oslo (Norway).

Paper 1) Dieta Svoboda: Spatial Turn, Texts and Mapping – GIS in the Humanities

A lot of data in humanistic research include spatial information. Obviously for research areas like anthropology or archaeology that are tightly bound to time and space, spatial components are fundamental for understanding cultural phenomena or chronological developments. For these, space is just one aspect of interpreting material culture. Other fields in the humanities only started in the last decades to focus on the spatial information often hidden in their research materials. The understanding of space as an additional and inherent category of data, e.g. in the history of art, linguistics or study of literature is generally referred to with the rather abstract term 'spatial turn'.

This paper forms the introductory part of the proposed session 'Spatial Humanities'. It focuses on the leading question of the importance and possibilities of integrating spatial information in different research areas in the humanities. Three aspects will be discussed.

First, a short historical introduction to the term spatial turn will be given. It was originally established in the culture- and social science in the 1980s and the paper points to its significance for all disciplines of the humanities. The paper argues that spatial data is already integrated in many datasets.

Second, the possibilities and difficulties of integrating spatial data in the traditional analyses of data will be shown by using some example datasets from archaeological projects. The main instruments for conducting spatial analysis are geographical information systems (GIS). The wide range of different analytical features of GIS program packages can easily be linked via different mark-up languages (e.g. XML) and/or database systems to digital editing or text annotations. These approaches to texts include not only manually added detailed annotations but they also offer the opportunity to analyze large text corpora and apply the method of 'distant reading' regarding spatial information.

Last, some concluding remarks will lead to the question to what extent spatial analysis, e.g. in the studies of literature, may or may not, broaden our understanding of the intentions of writers and a general *zeitgeist* of texts which makes spatial information an important part in the interpretation of e.g. texts.

As the following papers will refer to special research projects this paper will end with some examples showing how few very basic steps of connecting text and spatial information may lead to additional benefit in the visualizations and analyses of literature. The examples originate from the teaching program of the eScience Center Tübingen and comprise different topics. They illustrate how not only the acquisition of data from scientific texts in a project that visualizes informal markets along the Silk Road, as of today, but also on the extraction of spatial data distributed in literary texts like Jules Verne's *Around the World in 80 Days*. Also, a final glimpse

to historical and recent geodata and the possibilities of connecting them with other spatial information will be taken.

Paper 2) Fabian Schwabe: From Iceland to Jerusalem - the Itinerary of Nikulás of Munkaþverá as a web edition

The edition project of the itinerary, also called *Leiðarvísir* started as a seminar at the University of Tübingen. It is finished concerning the teaching in course, but still ongoing concerning the presentation of the results as an open website with the possibility of a theoretical everlasting annotation of the text by students or generally speaking interested people.

In a co-seminar with the chair of Scandinavian studies in winter term 2014/15 the itinerary of *Nikulás of Munkaþverá*, (d.1159/60), was annotated, edited and translated into German. The edition and translation is complete, while the annotation is done only in parts. Moreover the students worked on a transliteration of the main manuscript, it is AM 194 8vo in the Arnamagnaean Collection in Copenhagen (edited by Kristian Kålund 1908). Since the students had no knowledge of paleography and it was their first time working with a manuscript, their transliteration of AM 194 has to be proofread closely. This task outside of the scope of the seminar.

Working with a manuscript was not the most important part of the seminar. The focus was on an applied knowledge that could generate an annotated visualization of the described pilgrimage from Iceland to Jerusalem. Every participant of the co-seminar chose a text and wrote some annotation to certain aspects of it. All annotations are written by the students, who did the literature research, the composing of information and additional material and last but not least of course the writing of the annotation (a good overview of the current state of research gives Marani 2012). All work was peer reviewed by students of the second course on that topic in summer term 2015 and by myself.

The presentation of the work was done in Omeka/Neatline, an open source content management framework developed at the University of Virginia. It enables you to connect information, e. g. text, images etc., with a modern web map as a point, a line or a polygon. Moreover, one can include further maps as an overlay, e. g. a map of city of Jerusalem from about 1100 to 1750, and define the visibility of the geometrical forms by the use of a so called time-line and a zoom factor. In order to visualize the text itself and the annotation all information and all connections between the text and the annotations, and between the annotations they were stored in an XML file. The XML file was automatically transformed into a bundle of HTML files, which were integrated in Neatline. The HTML files are linked to each other to enable the user of the website to get a general idea of the itinerary and its meaning or the meaning of a certain passage.

The web presentation of the itinerary should appeal to non-academics, who are interested in medieval times and/or Old Norse. Step by step a reader could advance from the translation and/or normalized text towards the digital photographs of that certain manuscript. Moreover, the annotation and the embedded literature references give guidance through the text, which is far from being easily interpreted. Altogether this edition gives a new vantage point on a text, that has fascinated people for centuries.

The itinerary is shown in standardized Old Norse and in German translation. There are more than 100 annotations created by the students. In the near future the user can also have a look on the manuscript with a transliteration and diplomatic edition of the text. As it was previously pointed out the whole project will be open for further annotation within the frameworks of university courses - not just in Tübingen – but also by interested people who would like to participate.

Paper 3) Kristina Skåden: The Norwegian Folklore Archive and narratives of mapping.

How shall we engage with folklore collections and historical archives in the future? In the last ten years "digital humanities" is increasingly presented as an answer to this question. A quick research shows numbers of projects, in which cultural materials were migrated into digital media. Thus, we may say with sociologist Karin Knorr Cetina's (1999) concept new 'epistemic cultures' – that in a given field make up how we know what we know, may emerge. Rather than arguing about the digital revolution capacity, this paper explores in search of new 'epistemic cultures', how digital humanities take place in actual practices, and by what means in relation to the Norwegian Folklore Archive. The key question is: How are spatial humanities and digital mapping enacting research (methods, theories, analysis) in folklore collections and archives? How are relations between the archive and the digital shaping different versions of the Norwegian Folklore Archive?

For studying these questions this paper discusses spatial humanities in relation with critical cartography and actor-network theory (ANT). Critical cartography is a theory and method that suggest investigating the role of mapping in relation to power/knowledge practices (Crampton 2010). And a central ANT-point is to understand maps as "immobile mobiles", as something that draw facts/knowledge together, are mobile, and pass on stabilized arguments (Latour 1986).

On this background, this paper further on presents a specific project on history of knowledge where Digital Humanity is applied on archive material from the *Norwegian Folklore Archive*. The project follows the map *Høiderne av de hodtil maalte Bjerger i Norske eller Rhinlandske Foder* painted (1825) by the priest Niels Hertzberg living at the Norwegian west coast. The map has firstly close relations to the map painted by the German writer and statesman Johann Wolfgang von Goethe titled *Die Höhen der alten und neuen Welt bildlich verglichen* and secondly to the

explorer and naturalist Alexander von Humboldt journey to Latin America (1799-1804). Thirdly this paper argues that this relations also relates to maps and paintings drawn by the scientist, traveler and painter Catherine Hermine Kølle (1788-1859). The aim is to discuss geospatial aspects of the archive material and secondly to discuss the benefit of turning this relations and the archive material into a digital mapping project.

Named literature

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