Cartographic Heritage and Hybrid Archiving Aspects

Description, planned content and sequences

Introduction

The topics within cartographic heritage span from archiving, reproduction, usage, education, geometric precision to psychological aspects. The contributions of this book should describe and help to define the main focus of cartographic heritage with the help of state-of-the-art practices and experience reports.
The splitting to various themes (archiving, reproduction, ...) results in a classification to the media carrier, to media for spatial information transmission and to the “media-driven” content, covering the use of content, its way of documentation as well as various interpretations of the content coding. Actual work of librarians, cartographers and scientists show up the importance of historic cartographic content in modern digital society and its survival for future generations. Thus traditional methods combined with digital technologies may bring new aspects and efforts. On the other hand new digital technologies call for quality comparisons and traditional procedures in order to assure sustainable and long-term life-time results.
Nowadays archiving projects often focus on the digitising of historic contents. The main advantage of this procedure is a rapid dissemination step without quality loss. But digital contents do have a very short life-time compared to analogue media carrier, like paper, vellum or stone. Generally the advantages of dissemination make digital media attractive. Additionally the searchable access to map content can provide further advantages for historic analysis of past spatial states in planning processes.
The understanding/definition of cartographic heritage can be depicted by actual work/projects and show up similarities to correlated topics and disciplinary diversity. A very basic structure of cartographic heritage can be given by isolating map content, the development, preparation and creation of map content as well as map media and media carrier based issues.
Map content as information source delivers past states of geographic environment, that is often not accessible anymore. Its importance for current research and use can undoubtedly be observed in different projects of various disciplines.
The development, preparation and creation of map content underlies political, social and technical trends. In this course the interpretation of source data for aiming at cartographic presentation follows these trends. The prospectively use of the cartographic presentation may then form the main tool to identify these trends (and help historic research).
Map media and media carrier based issues are strongly related with technical procedures and possibilities. By this means for instance a sustainable dissemination was enabled with the development of printing procedures in Europe in the late 15th century, which quality for cartographic aims was improved in the 17th century with the help of copper-plate printing. Similar evolutions can be observed in the 20th century with the rapid digital development progress. The characteristics of new technologies, its advantages and disadvantages, have to be observed in order to ensure sustainable access to requested information.

Cartographic Heritage

Various experience reports result in a possible definition of “cartographic heritage”. The consciousness of this topic forms the base for targeted research and necessary further work. The overall structure to map content, influences on content and characteristics of map media and media carrier should be adapted to the different areas of application of cartographic heritage.

Cartographic Heritage in Science

What is needed to use cartographic artefacts for historical research and archaeological work? Is their utilization useful? What are the main perils for “cartographic heritage” by these means?
Can there be guidelines for the comparison of spatial related history?
What recording and monitoring effforts may be most important for cartographic artefacts?

Cartographic Heritage in Contemporary Planning

How is cartographic heritage implemented in current planning processes? What are the needs for an effective usage? What are the main problems of this use, the blending of historic content and various reference systems?

Cartographic Heritage in Libraries

The dealing with map artefacts at the borderline of archiving and providing content may lead to creative solutions within libraries. How can an effective access as well as safe long-term archiving be merged? What are current procedures? What may be offered in future?

Cartographic Heritage in Education

Is there an importance of cartographic heritage in educational tasks? Is there an subjective danger of misinterpretation by terms of influences on map content? Are there possibilities to illustrate historical discoveries by use of map content influence identification?

Sustainability

Sustainability concerns various aspects in cartographic heritage, where the change of media carrier from analogue to digital, the accessibility of content by terms of various formats and codings and the rrole of reproduction have to be addressed.

Sustainability and Traditional Media

A discussion of the controversy of lifetime and dissemination by hand of analogue media carriers and its usable media should be the main focus of this “sustainable” section.

Sustainability and Digital Media

Influencing factors for lifetime and dissemination with media carriers for digital media should be addressed here.

Sustainability by means of Accessibility

Needs, formats and relationships for enabling long-term data collections on one hand and data mining (finding the right content) on the other hand. How can sustainability be placed/argumented in the interplay of growing data collections and information extraction?

Sustainability and the role of reproduction/duplication

The notion sustainability at the border of archiving and dissemination. Can the use of reproductions for dissemination purposes help to save cartographic heritage? Examples like “tabula peutingeriana” indicate the importance of high quality reproductions.

Reproduction Technologies

Reproduction technologies vary in quality and economic issues. This part should give an overview of actual reproduction technologies with an objective description of their performance by using comparable examples, describe hybrid reproduction ideas and show up the context with archiving.

Digital reproduction technologies and their qualities

Comparing actual and popular methods of reproduction by implemented projects (CRUSE, Pentacon, ARCANUM, ..). What are the needs for an application and possible intended purposes?

Hybrid reproduction and archiving ideas

Hybrid reproduction procedures may form one solution for dissemination and archiving at the same time. The copies form the base for dissemination, while at the same moment high quality working copies are available. The physical nature of these copies make archiving easier than digital copies do.

Reproduction purposes

An analysis of reproduction needs and purposes in context with quality and technology requirements should lead to a classification of reproduction purpose and best practice/adapted reproduction procedure.

Geometric Dependencies

The reproduction process as well as the creation process of maps is concerned with geometric distortions that may result in unintentional or deliberate variations of map content. This section should give an overview of the various geometric aspects in cartographic heritage.

Reproduction distortion

The change of geometric distortion in reproduction procedures due to technology modifications – comparing different methods by terms of geometric aberration.

Media distortion

Geometric distortion can also be caused by alteration of map media carrier. What are the magnitudes of this impacts and how big can be their influence on the content?

Conscious distortion

The conscious implementation of cartographic distortion can be based on political and systematic influences. The variety of these geometric distortions should be listed and their intended impact on content communication should be described.

Expressiveness distortion

Geometric distortion is also a powerful tool for controlling expressiveness of maps. The main possibilities of distortion in use for improving expressiveness should be discussed in this part.

Concluding Remarks and Proposed Solutions

The resulting section may focus on three main aspects of cartographic heritage in a concluding way.

Long-term archiving

Present ways of long-term archiving for various purposes should be opposed, with include open data archives as well as microfilm procedures.

Open Cartographic Heritage

Open access to cartographic heritage enhances dissemination and educational tasks. How can Open Source data distribution and management software help to make cartographic heritage available for a wide public?

Cartographic Heritage as meeting point of technology, history, psychology and education