The Digitization of the Baltic Exhibition in Malmö 1914

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Introduction

This report details the process of digitizing three buildings that were erected for the Batlic exhibition in Malmö 1914 and torn down the same year. While buildings tend to be a very accessible form of cultural heratige, these buildings were torn down shortly after their construction. Their memory exists in fragmented pieces of archive and library collections. The project began as an assignment from the Digitising Cultural Heritage Materials (DCHM) course at the University of Borås. The project required locating and identifying physical material of cultural heritage interest. Below follows the chain of digitization for the project.

As we started searching for material to digitize the Baltic exhibiotn entered the discussion. It suited the project due to the high demand and low supply for digitization and the abundent and easily accessible physical documents. Digitizing the Baltic exhibition came with some challanges as well. The entire exhibition was a huge international effort and digitizing the exhibtion is a large undertaking for any institution much less for a student project. This project has therefore been characterizedw by its limitations and the choices of selection that have been carried out troughout the process.

The digitisation process

Planning and searching for material

The first step of this project was to find institutions or other resources that could potentially hold culturally significant material. During our (RS and ML) intital doscussions about potential sources for material ML was in contact with Linköpings diocesan library and RS was initially in contact personally with Malmö university where he'd identified old teaching material of cultural heritage interest not previously digitized. Since the process and final product of the project would hevaily be influnced by the choosen material this was the first step and an integreal one to start other aspects of the project.

Malmö university was however unwilling to contribute to the project with the material as digitizing was not (at the time) something professionally carried out at the institution (as part of its duties). Reference was given to Lund university which is digitizing cultural heritage material at large scale. RS then contacted the digitizing faculty at the university. However, due to restrictions and cutting down on resources and staff they could not set aside any time or material for the project. Finally, after visiting the city library of Malmö and after communicating with several staff members about the project, a staff member responsible over old material supported the project and presented plenty of material to choose from.

Selecting, collecting and preparing material

RS identified three possible topics for the project; architectural style of regional churches in the past century, historical discourse in paper clips (eg. around political topics relevant today) and the jugend style of the Baltic exhibition held in 1914. After discussing with ML the latter option was chosen for its local and international relevance. The Baltic exhibition remains a reprensetation the pre war Europe, the first world war broke out only weeks after the exhibition opened.

ML researched the material to make sure no digitization had been made before aswell as reaffirming the uniqueness of the material. ML also browsed which titles of most interest to the project in preparation for a physical visit to the library.

Upon reviewing the in person material we decided to focus on three buildings to maintain a theme on architecture and construction, and to narrow down the material to be digitized. This selection included photographs of the construction site, pictures from official catalogs and brochures, blueprints of the building found in catalaogs, and texts detailing the commissariat responsible for the construction of foreign exhibitions.

After we started working with the material we decided more regarding the blueprints and construction would be beneficial to the project. RS visited the archive in Malmö and reviewed and selected relevant material from their collection regarding the Baltic exhibition.

Strategies

The titles selected were thoroughly examined by RS and ML during the physical visit to the library hosting the cultural heritage material. Based on the background information and knowledge of the widespread public interest in architectural styles a decision was made to strategically focus on images displaying the jugend style. As a minor project the overall strategy was short term, first hand and proactive in a conservative manner towards the old books (M. Dahlström, personal communication, March 2023).

Tools, Text and Image Capture.

At Malmö city library we had access to an iMac computer and an Epson Perfection V600 Photo Scanner. A 24 bit color was chosen for the scanning. After test running some documents and assessing the results, 300 dpi was chosen for images and 600 dpi was chosen for text and blueprint documents. A reference background of A4 was used during the original scan (not visible after photo editing).For data collection at Malmö archive RS photographed the documents to create digital copies.

The software used for this project is heavily influenced by the directions of the course. We have worked in a repository on GitHub and a shared folder in Google Drive to manage

remote collaboration on this digitization project. Google Drive was used initially to store the images and catalog the metadata, it was used in the later stages of the project for writing this report. The GitHub repository, created using Wout Dillans template repository and used for storing all the necessary documents of the project. RS worked in Gimp to straighten, crop, and add metadata to all the images that were then uploaded in their new versions to the GitHub repository. ML used oXygen to encode the text material in TEI documents, and to configure XSL stylesheets for each represented commisariat. Stuido Visual Code was used by both parties to edit the HTML files that make up the presentation of the digitization project.

Delivery media, distribution and publication

The delivery media of the project was chosen to be a Github repository. This ensured that interested users wishing to browse the project in-depth, and perhaps through a CC license make use of the content, were enabled to do so. This also provided the project thorough transparency regarding every detail, from references, to coding, to metadata. As an open part of a community, maintenance of the project was also benefited as users easily can interact with the creators about possible changes, improvements or simply give positive feedback on the content and methodology.

The distribution form was set through HTML files making up a webpage. As the digitization projects main focus was on images, accessible image display was vital to attract users interest in the project, exhibition and jugend style. Hence, a professional display of the main digitized content was prioritized in a slideshow gallery for each respective exhibition building. To support understanding for the architectural style aswell as the everyday life of the exhibition that took place, the gallery was complemented with text regarding the Baltic exhibition event, the buildings and involved countries with their commissariats, staff and the like.

In order to distribute the project publicly we have had to make sure there are no copyrights conflicting with publishing. The material we have digitized does not have any named authors or photographers but one. The last digitized work was created by the danish photographer Fred Riise who passed away 1933, well beyond 70 years being the threshold for public domain prerequisites. According to Swedish law (1960:729) 7§ if there is no copyright holder named the copyright is held by the pubsliher. All of the catalogs we have digitized were

printed by Förlags aktibolag i Malmö boktryckeri. According to 44§ when the copyright holder is a publisher the work enters public domain 70 years after creation. The publishing date for the digitized material is 1914 which means it is in the public domain and can be legally digigitzed and and published. Shall there be copyrightholders that recognize the imagery whos names have been lost in the preservation process we encourage them to contact us and make their wishes on the distribution of the material known.

Evaluation, Documentation and Maintenance

Evaluation of the project was ongoing. Time was reported into a schedule existing of different categories representing the different parts of the project work.

Maintenance has been ensured through the Github community. Users can readily and easily access the project's complete content, give feedback, comment and interact with the creators to keep the project and interest alive.

Searching material	Selecting and digitizing material	TEI files	Image files	HTML, CSS, JS files
RS: 24h	RS: 6h + 6h	RS: 4h	RS: 34h	RS: 56h
ML: 15h	ML: 6h	ML: 42h	ML: 2h	ML: 30h
Project internal communication	Project Methodology reflections	XSL Stylesheet	Metadata	Documentation
RS: 24h	RS: 28h	RS: 12h	RS: 36h	RS: 30h
ML: 16h	ML: 20h	ML: 32h	ML: 8h	ML: 60h

The value of digitization

The motive for the digitization project was preservation to reduce wear and tear on the already fragile books one century old. The motives also encompassed making the material more accessible and to present the material in new ways by adding descriptive texts about what transpired during the event, focusing mainly on the exhibition buildings.

Digitization of cultural heritage is often performed in order to preserve what is still in existence and distribute knowledge beyond the limitation of physical documents. Many documents in digitization processes are fragile and may not be open for public browsing at all, requiring digitization for preservation purposes. Though as Conway (2015) put it access becomes a natural and obvious outcome of the digital world, meaning even when preservation is the main objective access will follow. As a collaborative effort between countries that would soon declare war upon one another the Baltic exhibition captured an era cut short by conflict and destruction. The buildings we have documented are no longer in existence. The architectural style represented the jugend style which was typical of the time. Some smaller buildings and structures remain around Skåne, leaving the memory of the Baltic exhibit to reside fractured in pieces, a theme represented in the archival material of the exhibition aswell.

Staff at the city library of Malmö aswell as at Malmö university have emphasized constantly high interest of architecture and architectural styles within the region. The remains of the jugend style, formally ending in the 1920s, can still be seen today in older buildings around the city of Malmö and its surrounding urban areas. Sweden, spared from the destruction of two world wars, hold numerous architectural remains from eras such as the jugend one. As such, a project building on an already fervent interest in the area of architecture in the region is highly valuable to further attract tourism and build interest.

Considering these circumstances, we chose to focus on images displaying the exhibition buildings representing different nations, built and torn down solely for the event, and manifesting the jugend style in Sweden for the very last time. The Baltic tower represents

Swedens contribution, as the showstopper created by the hosting country. We decided to focus our digitizing on the Danisish and German building, and to include the Russian building with lews material. This is in part due to a lack of material we accessed regarding this building. It is also in part due to Russias limited involvement in their exhibit. Russia extracted themselves from the project but reamined represented trough collaborating with the Swdish construction commissariat (Chirstensson et.al, 1989). We have decided to include it in the website to round out the collaboration at the center of the Baltic exhibition and to encourage further development on the project that could extend Russias representation in the project.

Creating an accessible representation of these building that is not kept behind gatekeepers and doors meets the public interest in knowing what this exhibit actually looked like for the people who attended it in 1914. This digitization secondarily serves as a resource for those interested in the jugend style in general as the representations of the building showcase the lesser known later jugeend style that splits from the common late 19th century iterations (Jugend / art nouveau – design- och stilhistoria under modern tid 1800-tal, 2023).

Digital surrogates become representations of the physical material. The goal here is not to just create a digital representation of the photograph or a piece of text but to create a digital representation of the buildings. Viewing this representation as an exchange between maker and viewer (Conway, 2015) we hope to convey the experience of these buildings by digitizing information on their creation as well as images of the pictures themselves.

Reflection on the methods and the process

Many digitization projects are ruled by limited resources and access. This project being no exception has been formed by the material and tools that have been made available to us. With the help of public institutions we have been able to access culturally relevant material and through the course we have been introduced to software tools appropriate for digitizing said material. The technical tools used for digitization have similarly been dictated by what was available to us as students and recommended by the teachers of the course.

Selection and the choice to digitize

The first and most important choice to make is what to digitize. During this process we both contacted local institutions that we though might have material of interest. RS was in contact with Malmö city library through which we chose to work with the Baltic exhibition. This process might have proven itself the most difficult as many digitization projects start with the desire to digitize something and grow from there, ours had to find footing in the process. Commonly institutions sitting on culturally valuable material feel a pressure to digitize their holding in oder to make it available and relevant in the modern environment of research (Conway, 2014). The result of searching for material to digitize rather then digitizing because of material in possession makes the focus of the project more diffused. We as researchers have had to narrow down our scope and focus during the process rather than during the planning stages.

Straterigies and process

The digitization process is split in two. One the first instance we both visited the library and RS had communicated to them what the purpose of our visit was. This resulted in access to an Epson 600 photo scanner and iMac computer. On the second instances RS went to the archive the gather material that could pad out the existing collection and help us focus the project on the architexchture and construction. The digitizing method used at the archive was pictures taken by camera. These two instances present an example of the range digitization can have. While higer quality is often preferred especially when there is script involved and a potential use for optical character recognition (OCR) or handwriting character recognition (Tanner, 2004) many digitization projects work with large collections and the speed and efficiency outweigh preciseness (Dhalström, 2011).

According to Tanner (2004) in order to receive the best result possible during OCR color should be chosen if available and there should be a minimum of 300dpi. We decided to make the images with text as compatible with OCR as we could and there for choose to create the image file in 600 dpi and color. While OCR is a possible tool presented in the course for transcription of printed text, the text material for our project was minimal and thus as

presented by Tanner (2004) the decision to use OCR had to be weighed with time and labour in mind. The OCR processes were deemed to be neither labour, nor time saving in comparison to manual transcription.

We have worked with TEI files and through the editing of XSL stylesheets produced XHTML files extracting the data encoded in TEI. TEI has been used to store all the metadata associated with the transcribed text. Through the use of one TEI file and multiple XHTML files ML was able to extract different information from the TEI file and present each foreign commissariat seperatly in accordance with the presentations of the buildings.

oXygen was used to create the TEI files due to its close relation to TEI encoding and helpful tools in creating XML to XSLT conversion and real-time validation.

Gimp was used to handle metadata and editing redarding images. The choice to utilize Gimp was similarly to previous statements influenced by the direction of the course.

Storing the repository in GitHub allowed us to work on the project collectively in spite of the long distance collaboration. Beyond allowing the both of us to view and edit the entire project the GitHub repository allows anyone to view the digitized work in its entirety. While the website acts as the estcehig and pedagogical version which contextualizes and presestens the work, the entire collection including all the metadata can be viewed trough the GitHub repository. However, due to a recurring and known GitHub bug still present as of May 2023, metadata regarding image facsimile creation, urgency and digitized form was not possible to be added to the two digitized images of the commissariats. All other metadata was successfully applied to the collection at whole except for these two images.

There is a growing trend among cultural heritage institutions to digitize their collections in order to make them available remotely (Terras, 2015). Considering this is a topic wich vast material and interests publication trough GitHub allows other parties to further the digitization work by adding to an existing repository.

Copyright and legal constraints

A commonly occurring issue with digitizing cultural heritage material is copyright laws preventing open access to the digital surrogates (Terras, 2015). We were fortunate enough to gain access to material that as far as our research can tell allows us to publish it online due to the age of the documents and the lack of individual copyright holders acknowledged. The lack of copyright holders mentioned is both due to the way the documents have been preserved, and the nature of the event. The Baltic exhibition was an organasation and so no one artist gets accredited in much of the material.

Challenges and workflow

While there are many benefits to using GitHub regarding collaboration and publication the introduction to the platform has presented some challenges. It frequently occurred that files would not merge due to conflicts in the files, which then needed to be resolevesd in order to carry on with the digitization. As this was the first time using GitHub in any manner for either of us these types of conflicts presented challanges and somethimes required creative work arounds.

In retrospect the digigitzation project might have benefitted from having a smaller scope and narrower focus at the initial stage. The wide material that is available regarding the Baltic exhibition as well as the learn-as-you-go workflow resulted in the final product evolving with the process. Another consequence is that some of the work done in earlier stages gets scrapped in a later stage in order to create a more concise and cohesive product. While clearer focus could have been beneficial due to time constraints of the project, it is expected that the final product will change from the initial vision of the project. This type of process also creates a lot of learning opportunities as we discover different approaches and methods.

Certain projects are simply not fit for a mass digitization approach. Critical digitizaion as Dhalström (2011) describes it concerns itself with the mathods best suited for the document at hand the decisions to be made about how to best digitize the information it contains. We have worked on a rather small scale digitization which has warranted heavy amount of careful selection in multiple steps, both during the digitization and encoding process. This

project has involved a gradual narrowing of material. The inital digitization focused on capturing everything of interest so that it could be reviewed and categorized remotely. Thus an approach resembling mass digitization needed to be applied in the early phases of the project in order to enable the remote working conditions. Dhalström is careful to remark that digitization projects are not binary, either mass or critical, menaiang while the initial approach resembled a mass digitization sentiment the resulting project can be confidently carachterized as critical digitization due to the manual rather then digital work methods and the heavy emphasis on metadata. The critical digitization approach applied in this project emphesizes its status a springboard for digitization of the Baltic exhibition.

Conclusion

It is hard to say which part has been most important for the project. Needless to say, finding, and deciding on what material that could give the foundation for an interesting project was vital. The material also had to have a public interest which the Baltic exhibition definitely has. With promising material at hand, reaching out to users and the public with such interesting cultural heritage material was equally important. This involved the decision and work on the method around publication, distribution and delivery media. To catch the users interest through attractive interfaces and display of content was therefore crucial. A professional website, selection of images and contextual corpus around the event and buildings ensured this second very important part of the project.

Our project can be viewed as a springboard for larger digitization efforts of the Baltic exhibition. With a large repository of material and public interest there is poossibility to greatly build on this project. There is most likely plenty more to digitize regarding the buildings we have worked with considering the scattered nature of the material, but there were many more buildings and exhibits, some which’s remains can be found around Skåne. One interesting perspective for further research is the role of the womens artists collection in light of the sufferegette movement of the time and the following war impact on womens sufferege.

As this was our first full scale digitization project there was a lot of learning-by-doing involved in the process. During this project we have exercised archival research, text encoding, HTML coding, standard digitization practices, as well as executive decision making to determine what is possible and what is valuable to digitize. Our end result gives interested parties an introduction to the Baltic exhibition and images previously undigitized to give them an idea of the the scale and style of the buildings. We have also created something that encourages future digitization as there is much more material to work with and a large public interest to see it.

References

Christenson, G., Ericsson, A. & Pehrsson, P. (1989). Baltiska utställningen 1914: [15 maj-30 sept. Malmö]. Lund: Signum.

Conway, P. (2015). Digital transformations and the archival nature of surrogates. *Archival Science,* 15, 51–69.

Dahlström, M. (2011). Editing libraries. In: C. Fritze, F. Fischer, P. Sahle & M. Rehbein (Hrsgg.), *Bibliothek und Wissenschaft.* Vol. 44: Digitale Edition und Forschungsbibliothek. Harrassowitz. 91-106.

Jugend / art nouveau – design- och stilhistoria under modern tid 1800-tal (2023). Stilspaning.se. https://stilspaning.se/stilhistoria/jugend-art-nouveau

Tanner, S. (2004). *Deciding whether Optical Character Recognition is feasible*. London: King's College.

Terras, M. (2015). Opening Access to collections: the making and using of open digitised cultural content. *Online Information Review*, 39(5), 733-752.

Baltiska utställningen.

Scanner: Epson Perfection V600 Photo
24-bitars färg
Bilder: 300 dpi
Text och ritningar: 600 dpi
referens bakgrund A4

Ansvarig Arkitekt Baltiska utställningen: Ferdinand Boberg
Danmarks Arkitekt: Henning Hansen
Rysslands Arkitekt: M.M Periatkowitsch och Ferdinand Boberg
Tysklands Arkitekt: Hans Alfred Richter
(Christenson et. al, 1989)

Book ID: 1

Titel: Baltiska Utställningen i Malmö 1914 15 Maj - 30 September
Hylla Bhz Batiska utställingen 1914
Författare: Saknas
Förlag: Förlgs-aktiebolagets i Malmö Boktryckeri
År: 1914

Bild (300dpi)
1:1 (sida 1) Stora tornet
bild (dpi600)
1:2 (inhäftad) Ferdinand Boberg
text (dpi600)
1:3 (sida 6) Tyska, Danska, Ryska utställningen
1:4 (sida 7) Konsthallen
1:5 (sida 8) Stora tornet

Book ID: 2

Titel: Baltiska Utställningens i Malmö 1914 Officiella vyalbum
Hylla: Bhz Bsltiska utställningen 1914
Författare: Sasknas
Förlag: Axel Eliassons Konstförlag, Stockholm
År: saknas

Bilder (300dpi)
2:1 (sida 3) Stora tornet
2:2 (sida 4) Tyska utställningen
2:3 (sida 5) Gårdsinteriör Tyska utställningen
2:4 (sida 6) Danska utställningen
2:5 (sida 7) Gårdsinteriör Danska utställningen
2:6 (sida 8) Ryska utställningen

2:7 (sida 10) Konsthallen
2:8 (sida 11) Interiör konsthallen
2:9 (sida 12) Thésalong i konsthallen
2:10 (sida 13) Stora tornet
2:11 (sida 18) Årsta
2:12 (sida 20) Stora tornet
2:13 (sida 23) Utsikt från stora tornet
2:14 (sida 24) Utsikt från stora tornet

Book ID: 3

Titel: Baltiska Utställningen 1914 15 Maj - 30 Sept.
Hylla: Bhz Baltiska utställningen 1914
Författare: Göran Christenson, Anne-Marie Ericsson, Per-Jan Pehrsson.
Förlag: Bokförlaget Signum
År: 1989

Book ID: 4

Titel: Baltiska utställningen 1914 Brefkortsalbum
Hylla: Bhz Baltiska utställningen 1914
Författare: Saknas
Förlag: Axel Eliasson Konstförlag, Stockholm
(Malmö stadsbibliotek?)
År: 1914

4:1 Stora tornet
4:2 Stora tornet
4:3 Stora tornet
4:4 Stora tornet
4:5 Stora tornet
4:6 Stora tornet
4:7 Stora tornet
4:8 Tysklands utställning
4:9 Tysklands utställning gård
4:10 Danska hallen / Stora tornet
4:11 Rysslands utställning
4:12 Danmarks utställning
4:13 Danska hallen
4:14 Danmarks utställning interiör
4:15 Danmarks utställning gård
4:16 Utsikt över ryska, danska, tyska från stora tornet
4:17 Årsta Interiör
4:18 Årsta
4:19 Jaktvilla
4:20 Konsthallen
4:21 Konsthallen

4:22 Konsthallen
4:23 Konsthallen
4:24 Konsthallen
4:25 Konsthallen

Book ID: 5

Titel: Officiel genralkatalog öfver industriafdelningen vid baltiska utställningen i Malmö 1914: md 5 planer
Författare: Saknas
Förlag: Förlags-aktiebolagets i malmö boktryckeri
År: 1914
Text (600dpi)
5:1 (sida VIII - IX) Byggnadsutskottet
5:2 (sida XII - XIII) Utländska kommissariat
5:3 (sida 134-135) Danmarks utställning planlösning
5:4 (sida 154-155) Rysslands utställning planlösning
5:5 (sida 158-159) Tysklands utställning planlösning

Book ID: 6

Titel: Danmarks deltagelse i den baltiske udstillning i malmö 1914
Hylla: Bhz Baltiska utställningen 1914
Författare: Fred Riise
Förlag: Nielsen og Lydiche (Axel Simmelklär)
År: 1915

Bild (300dpi)
6:1 (sida 4) Danmarks utställning
bild/text (600dpi)
6:2 (sida 75) Danmarks utställning
6:3 (sida 77) Danmarks utställning planlösning

Book ID: 7

Bilder
Mapp
Titel: Baltiska Utställningen 1914 33 fotografier i olika format, Har tillhört landsh. R. De la Cardie
Hylla: Bhz Baltiska utställingen
Författare: saknas
Förlag: saknas
År: saknas

Bild (300dpi)
7:1 Bild av byggprocessen

7:2 Bild av byggprocessen
7:3 Bild av byggprocessen
7:4 Bild av Danmarks utställning