Kollmann, Stefanie; Müller, Lars; Reh, Sabine; Dane, Jacques; Ruiten, Tijs van

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onderwijsmuseum

ISCHE 40 Pre-Conference Workshop

Picture Archives and the Emergence of Visual History of Education

3rd Workshop „Pictura Paedagogica Online:

Educational Knowledge in Images“

Convenors:

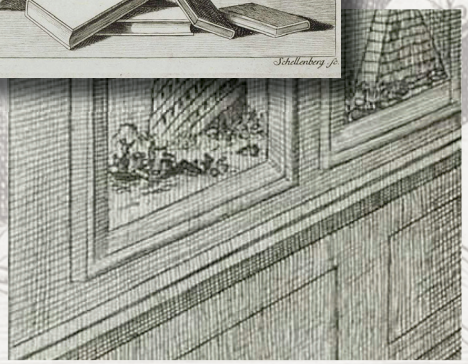
Bibliothek für Bildungsgeschichtliche Forschung des DIPF (Berlin) and Nationaal Onderwijsmuseum (Dordrecht)

Venue:

Bibliothek für Bildungsgeschichtliche Forschung (BBF) des DIPF
Warschauer Str. 34-36,
10243 Berlin

Date:

August 28, 2018



education and nature
ISCHE 40

ISCHE
International Standing Conference for the History of Education

ISCHE 40 Pre-Conference Workshop

Picture Archives and the Emergence of Visual History of Education

3rd Workshop „Pictura Paedagogica Online: Educational Knowledge in Images“

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  Stefanie Kollmann, Lars Müller, Sabine Reh
- Nationaal Onderwijsmuseum (Dordrecht) – www.onderwijsmuseum.nl
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Table I in: Johann Sigmund Stoy: Bilder-Akademie für die Jugend. Nuremberg, 1784. (Pictura Paedagogica Online)

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Picture Archives and the Emergence of Visual History of Education

One of the characteristic features of modern life is the omnipresence of images – in public life as well as in the private surroundings. At latest with coining the term „Visual history" at the beginning of the nineteen nineties historical disciplines are dealing with this ever growing pool of pictorial sources. This is also true for educational history – especially when keeping in mind that the use of images in an educational context is common practice since early modern ages. This concerns the presentation practices, the design of didactic visual media and their use in educational practice as well as the illustrated traces of historical educational practice and historical educational knowledge (e.g. photographs of school buildings or educational scenes).

There are various digital picture archives to address the research questions of many historical disciplines. These databases, though, differ widely in purpose and design – and of course they cannot serve every scientific demand. According to Gerhard Paul there should be at least four layers of information evaluation when analysing historical images (reality of depiction, genesis, use and impact). Thus, building up a corpus of image sources with sufficient accompanying information can be quite challenging. As major topic the Pre-Conference Workshop will focus on the impact of the discipline on developing and maintaining of a picture archive.

- Are there key prerequisites for a picture archive on educational history?
- In how far can existing data archives meet the needs?
- What do the different data archives offer and how are they used?
- What is their strength and weakness in regard to a comprehensive analysis?
- Can they meet the demands of the visual history of education?
- Is there a need for another solution?
- Are there common basic requirements?

Old Gold – The remarkable archive of a Dutch Publisher (1890-1980)

From the collection of the Nationaal Onderwijsmuseum (National Museum of Education), Dordrecht, the Netherlands

Tijs van Ruiten
Director of the Nationaal Onderwijsmuseum

Introduction

The National Museum of Education in Dordrecht houses a collection of 400.000 objects related to the Dutch school history. In part our collection is so vast due to the freedom of education that is anchored in our constitutional law. In our collection you will find educational materials from all over the world that have been uses within our schools. Many of the Dutch educational publishers, whether Catholic, Protestant or neutral published foreign material under their own name. But apart from the use of foreign methods and materials the Dutch publishers had their own publications. Most of the Dutch educational publishers started in the course of the nineteenth century. Starting as a normal bookseller they began publishing books and wall charts written our designed by local teachers, school masters and school inspectors. Two of the most renowned Dutch educational publishers, J. B. Wolters and P. Noordhoff originate from the city of Groningen in the north of the Netherlands. This is no coincidence. In the first half of the nineteenth century Groningen became a national hub of educational innovation with the second teacher training academy

A so called "zwartje" bij Cornelis Jetses. A small ink drawing used for ornamentation

in the Netherlands, the first Dutch institute for the blind and pedagogues like Wester and Brugsma.

J. B. (Jan Berend) Wolters started his small bookshop and publishing activities in 1836. P. (Popko) Noordhoff started his business in 1858. From 1868 on they would be housed in the same street, the Oude Boteringestraat, in the centre of Groningen. Both educational publishers and both adamant rivals which would grow and flourish during the nineteenth century and would become the two most leading publishers, apart from the purely catholic publishers in the south of the country.

In being their greatest rivals for more than a century the publishers merged in 1968 under the name Wolters Noordhoff and are nowadays still in the forefront of publishing under the name Noordhoff. Wolters publishers was known as a more common and reserved entrepreneur while the Noordhoff family business was more outgoing and in for a gamble. Like most publishers, both Wolters and Noordhoff held an extensive archive of the books, wallcharts and other educational material they published. At the end of the nineteenth century Wolters began to archive all the original drawings, aquarelles and

Aquarel depicting the killing of count Floris V in 1296 by Johan Jurres for Wolters

paintings that they commissioned for their publications. They bought the copyright and the original from the artists and illustrators. Noordhoff would do the same, though on a much smaller scale. In all Wolters would archive more than 25.000 drawings and paintings between 1890 and 1980. In 2008 the publisher donated the entire collection to the museum. This year we completed the digitalisation of the collection with the help of government funding.

An archive of originals

The publishing house of J. B. Wolters and Noordhoff are the only educational publishers who over a long period of time archived the originals and bought off the copyright of the artists and illustrators

Painting of the industrial city of Enschede by Herman Heyenbrock, 1913 for Noordhoff

that were commissioned by them. Wolters would do this for all the illustrations, even the tiniest ones. Noordhoff however only did this with the larger commissions of wall charts. The reason why they did this, differs between the two publishers.

For Wolters the originals and the copyright were held for pure economic reasons from which the publisher could benefit. In case of a reprint of the wallchart or book, the original design could be handed over to the lithograph and printer in order to get the best result. Having the original and copyright would prevent the use of the illustration for other purposes and would give the publisher a free hand in using the illustration. For instance, Wolters would regularly use wall chart designs in different school books. Also the way

Original drawing by Cornelis Jetses for the reading board of M.B. Hoogeveen (1910)

in which Wolters organised its business characterizes the way the publishing house worked. In time they had their own lithography studio, printing shop and wall chart factory. The wanted to control the whole manufacturing process themselves. Noordhoff on the other hand did not have economic reasons for holding an archive of originals. The Noordhoff family were passionate art lovers. For their series of wall charts and some of their children's reading methods they commissioned well known Dutch artists of that time like Jan Sluijter and the brothers Bottema. They made beautiful designs in which the artistic value was more prominent than the educational value. They saw this as an additional goal of their educational methods; bringing beauty and art into the classroom. Wolters would only sparsely use renowned artists because the educational value of the illustration was the most im-

portant. They would help developed a new kind of illustrator. The educational illustrator; an illustrator that has ability to translate the ideas and educational goals into a picture that grabs the attention of every pupil and gives the teacher a strong pedagogical tool.

Archival storage or picture frame?

Because Wolters and Noordhoff had such an different approach to the reason of assembling an archive of originals, they also made opposite choices in the handling and storage of the collection. For Wolters it was an economic archive. Thus all of the larger paintings and aquarelles were stripped of their picture frame and canvas stretcher so they could be stored flat, stapled to a cardboard hanger. The smaller pictures and drawings were stored in cardboard maps by the hundreds. Each filed under the name of the method and writer so they could be easily accessible for a reprint.

Noordhoff however assembled a beautiful art collection with work from a cross section of Dutch artists from the turn of the century. The works were framed and hung from the walls of their offices and family houses. In time the collection was spread widely among family members in the Netherlands and abroad. Because of family feud it is unlikely the collection will ever be reunited. Some of the works are in the collection of the museum because they were hanging in the offices when the two publishers merged in 1968.

Historic and economic value

The historic value of the collection is tremendous. A large number of the designs are icons of Dutch school history and are part of our collective memory. Generations have been brought up with these pictures. Being able to show the original works is an attractive and important crowd pleaser for the museum. It also gives opportunities for historical research in the development and use of educational methods.

Though for the museum the economic value can be mostly found in the entrance fee the museum gets from the extra visitors, the publisher still has an income from its archive. Because of the copyright they still earn a good deal of money from the work the artists they commissioned made for them. You will still find their work on tableware, towels and duvet covers.

Dutch Biblical School Wallcharts (1850-1950).

Collection of the National Onderwijsmuseum (NOM), Dordrecht, The Netherlands

Jacques Dane
Department of collection and research NOM

Abstract

Biblical school wallcharts play a considerable role in the context of Dutch educational history. Why is this? Since 1848, the Dutch education system has made it legally possible to establish schools with a religious background (the so-called *Wet op de Onderwijsvrijheid* – Law on Freedom of Education). As a result, the number of Roman Catholic and Protestant Christian schools has been quite high since the second half of the nineteenth century. At these schools the subject Biblical history took a prominent place on the curriculum. The latter can be seen in the collection of the National Museum of Education: the number of Biblical school wallcharts is quite extensive and covers a long period (the first series are published in the fifties of the nineteenth century, the last series are published in the fifties of the twentieth century).
Despite the long period of time and the large number of wall charts, research about the origin and the way in which this learning tool was used in Biblical education (Biblical history) is a rather neglected theme in Dutch educational history. Topics and questions raised during this presentation are:

1. Why are the Biblical school wallcharts a blind spot in Dutch educational history? Is this because of the mass-scale character of the source?
2. Which series were released in the Netherlands between 1850-1950?
3. A number of series originate from abroad (the United States, Great Britain, Belgium and Germany). It is striking that the captions of some of the wallcharts are multilingual. What is known about the international character of these series?
4. By whom were these series made? Did the illustrators relate to certain art movements?
5. Who was reponsible for the content of the manuals? How were the wallcharts presented during Biblical history lessons?
6. Did generations of pupils in various countries receive the same images of the Bible in the nineteenth and twentieth centuries? This question could be investigated by international research and international cooperation in the field of digitization of Biblical school wallcharts.

A typical Protestant Dutch classroom with school wall charts, Utrecht circa 1925.
Collection NOM, Dordrecht, the Netherlands

Introduction

The collection of Biblical school wall charts from the NOM-collection is the starting point of my presentation. Within the extensive collection of school wall charts for primary and secondary education, the images depicting persons, buildings and situations from the Old and New Testaments, take an extensive place: from the second half of the nineteenth century to the fifties of the twentieth century about 30 series were published in the Netherlands. (In addition, there are also other visual sources with which schoolchildren were initiated into the tradition of the Roman Catholic and Protestant religion.) This extensive collection of Old and New Testament representations is overshadowed by other series of school wall charts. In recent decades, studies have been published and exhibitions have been made on school

The museum depot of the National Museum of Education (NOM), Dordrecht, The Netherlands, 2015.

wall charts for history, geography and biology education. The teaching materials with Biblical scenes remained stored in the museum depot.[1]

For a forthcoming exhibition on Biblical school wall charts, the collection and research department of the NOM has recently started an inventory. What is the origin of these school wall charts? Who are the creators of the images? Who wrote the manuals? What kind of cultural knowledge and ideas and moral values have been transferred through these teaching materials?

The origins of the collection

The collection of Biblical school wall charts, as already mentioned, is quite extensive. In the sixties of the last century, after most of the school wall charts disappeared from daily educational practice

1 For the history of the biblical school wall charts in Sweden: Jakob Evertsson (2014): Classroom wall charts and Biblical history: a study of educational technology in elementary schools in late nineteenth- and early twentieth-century Sweden. In: *Paedagogica Historica*. Vol. 50, No. 5, p. 668-684.

as teaching materials and were replaced for slide series and, somewhat later, animated films, they were stored in school attics and in basements. In the eighties and nineties – a period in which many schools were renovated or given a new building – these series were thrown away or offered to the NOM. In addition, publisher also offered their archives, including school books and wall charts. To this day the museum still regularly receives Biblical school wall charts.

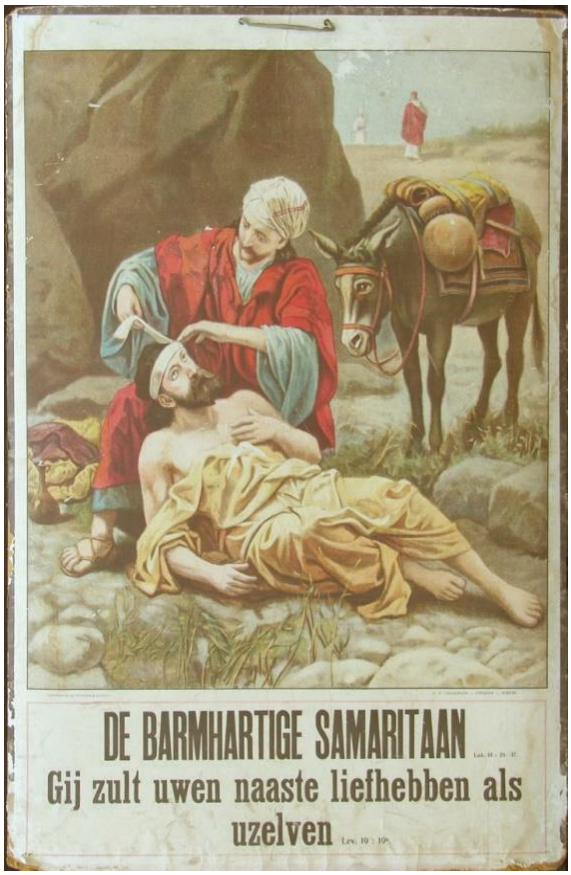
Freedom of education and Biblical school wall charts

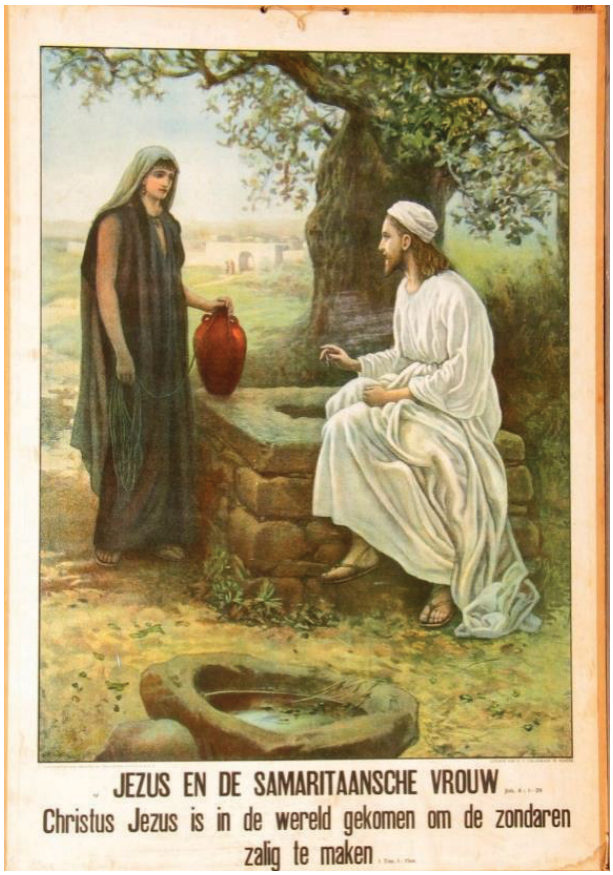
At first glance it is remarkable that the collection of the Museum of Education contains so many different series of school wall charts about the Bible. How is this possible in a fairly small country such as the Netherlands? This has to do with what is known in the Netherlands as *freedom of education*, a right enshrined in the Constitution of 1848. What is freedom of education? How did this education law come into existence?

Freedom of education is a right under which every citizen may, in principle, establish a school. The Dutch government, for its part, has the right to control the quality of education and to intervene if the rules for good education are not properly followed by a school. *Freedom of education* also means that parents can choose between public schools and education based on a religious – or ideological – vision for their children.

The first Law on Education was passed in 1806 and dates from the Napoleonic era (1795-1813). That era, however, was not strictly religious in character, and only stipulated that public education should have a general Christian character. The teaching of religion was allowed, but had to be limited to the "historical and moral" part of the subject. This limitation to history and morality did not go far enough for many Christians, especially Protestants: Christian dogmas also needed to be taught.

The liberal constitution of 1848 provided freedom of education for the first time. This was not surprising: the liberal statesman J. R. Thorbecke had already argued in favour of this principle in 1829: "Education is free." But there were conditions. For example, there were demands on the professionalism of the teachers, and there was government supervision of education. Furthermore, public education remained a state matter: only the public education sector received a state subsidy. Schools on a religious foundation had to pay for their own education. School buildings, teachers' salaries, school furniture, teaching materials, etc. was financed by school fees from the parents, donations from wealthy





Protestant Publising House Callenbach & The Providence Lithography Company.

Collection NOM, Dordrecht, the Netherlands

members of the faith community and money from the church (offertory).

Freedom of education also meant that everyone could produce and market their own teaching materials, textbooks and other teaching materials. This is an important reason why so many different types of educational materials were produced by Catholic and Protestant publishers. The realization of the right of freedom of education is called "the first school battle" in the historiography of the Netherlands. After 1848, Catholics and Protestants fought for as much right to financial support as public education. In 1917 this "second school battle" ended: from that time on, the government also financed education on a religious basis. This meant, among other things, that Catholic and Protestant schools also received money to buy educational tools, such as classroom wall charts. Protestant and Catholic publishers flourished as a result of this financial equal treatment.[2]

2 Jacques Dane, Karen Ghonem Woets, Rita Ghesqière, Piet Mooren & Jeroen J.H. Dekker (2006): For Religion, Education and Literature. A Comparative Study of Changes in the Strategy and Profile of Traditionally Religious Publishing Houses in Belgium and the

German school wall chart by Mate Mink Born, with caption in five languages.

Collection NOM, Dordrecht, the Netherlands

-

British evangelical children's books and American school wall charts for the Netherlands

Another important factor for the rise and spread of Biblical school wall charts in Protestant circles in the Netherlands is the Sunday School. The Nederlandsche Zondagsschool Vereeniging (NZV) (Dutch Sunday School Association) was founded in March 1865.

A Dutch vicar met board members of the British Sunday School Association in England. These men told him that they wanted to spread the idea of Sunday school on the European mainland as well. The NZV received financial support from the British Sunday School Union. With this money a traveling NZV agent was appointed, who would organize the Sunday school work in the Dutch cities and villages. In addition, a magazine was published, with didactic tips, (Biblical) stories and other information for the female and male volunteers. With financial support from England, the first Sunday school books were also published. The NZV started a collaboration with the Dutch Protestant publisher Callenbach, who was responsible for the distribution of translated evangelical children's books. Since the last decades of the nineteenth century, Callenbach has also been responsible for distributing American school wall charts to Sunday schools and Dutch Christian schools. It is not yet clear how the collaboration between the American Sunday School Association and the NZV has been made. It is possible that the British Sunday School Union has played a role in this.[3]

Netherlands in the Twentieth Century. In: *Paedagogica historica*. Vol. 42, No.6, p. 707-726.

3 See about the Sunday School in the Netherlands: Jacques Dane (1996): *"De vrucht van Bijbelsche opvoeding." Populaire leescultuur en opvoeding in protestants-christelijke gezinnen, circa 1880-1940*. Hilversum: VerLoren, p. 117-151.

School wall charts for Biblical education as a historical source

There are several perspectives to research school wall charts for Biblical education. In my presentation I will discuss the following topics:

1. Why are the Biblical school wallcharts a blind spot in Dutch educational history?

2. Which series were released in the Netherlands between 1850-1950?

3. It is remarkable that the captions of some of the wallcharts in the NOM collection are multilingual. A number of series originate from abroad (the United States, Great Britain, Spain, Belgium and Germany). What is known about the international character of these series?
4. By whom were these series made? Did the illustrators relate to certain art movements?

5. Who was responsible for the content of the manuals? How were the wallcharts presented during Biblical history lessons?

6. Did generations of pupils in various countries receive the same images of the Bible in the nineteenth and twentieth centuries? This question could be investigated by international research and international cooperation in the field of digitization of Biblical school wallcharts.

A Visual History of Colonial School Architecture in Hong Kong 1921-1941

Meng (Stella) Wang
The University of Sydney

Abstract

This paper responds to the ISCHE 40 PCW CFP on *Picture Archives and the Emergence of Visual History of Education* by tracing the architectural history of colonial schooling in interwar years Hong Kong. Through exploring the architectural layout of different types of school: government, grant-in-aid, vernacular, boys', and girls' schools, I aim to address the role of school architecture in relation to race and gender in colonial Hong Kong – of how architecture functioned as a social technology in crystalizing racial and gender identities in the early twentieth century.

To address the effects of school architecture in shaping children's moral and physical conditions, and subsequently their racial and gender identities, I deploy the framework of space, and focus particularly on children's everyday sensorial experiences in spaces that were crafted for their playing, learning, and resting. Throughout this paper, I further propose a new way of reading architecture – captured in photographs and floorplans, which pays close attention to the interaction among function – the purpose school architecture performed; form – the construction of building interior and exterior; and flow – the activities the user of the architectural space participated. This framework underscores the intricate interplay between the physicality of the body and the materiality of the space, of how architecture and the body co-produced one another. To this end, I read the images of school architecture as a source to explore the role of colonial architectural engineering in reconfiguring children's everyday activities, bodily movements, and sensorial experiences.

I further argue that a visual history of colonial school architecture offers invaluable insight into how the colonial educational space was inhabited by children, and how such inhabitation shaped their body, and produced identities. Pictures of classrooms, dining hall, dormitory, playground, corridor, science lab illustrates not only the alignment of objects, but more so the possible bodily movement in the space, and the interactions enabled by the space – of what children could see, touch, hear, feel, and smell in the very space. The activities of inhabitation -sitting, reading, reflecting, thinking, playing, and exercising, all entailed varied levels of sensorial engagement with the material element of the inhabited space, through the choreography of the body, and the interactions with objects, children became the user and the producer of the architectural space.

To build a visual history of colonial school architecture, I draw upon a broad range of sources, including images stored in picture archive – Hong Kong Memory, Hong Kong Public Record Office, school archives, and published sources. To provide context, I also utilize education reports, school newsletters and magazines, and oral histories.

Introduction

This paper is a reflection on the use of visual materials in my thesis, which explores the history of colonial childhood in Hong Kong, particularly on the architecture of childhood and children's everyday activity spaces and how that has changed over the interwar years. Throughout my thesis, I trace the spaces that were designed for and used by children such as school playground and science laboratory and the transformation of these spaces. I am interested in, in particular, the coproduction of space, the child's body, and identity, of how changes in childhood spaces transformed bodily experiences and produced identities.

I use visual images as sources to substantiate the narratives on colonial school architecture, and more generally architecture of childhood in interwar Hong Kong. In this paper, I will discuss the methods I use to approach visual sources, in relation to two research areas: architecture and the child's body; space, body and identities. I will also address the importance of picture archives to the visual history of colonial school architecture.

Architecture and the Child's Body

Part of my thesis explores the child's body and school, I examine the transformation of the child's body through addressing architecture in relation to curriculum. I look at the transformation of particular school spaces, such as school playground and science laboratory, through which I then trace the gendered history of curriculum, in relation to physical education and science teaching. I am also interested in how the transformation of the child's body differed at government, grant-in-aid, and vernacular schools, which led me to a search on visual materials on schooling buildings of different types of schools, both their interior and exterior. I read these photographs, collected from different visual image database, including Hong Kong Memory, Hong Kong Image Database, and USC digital library, for the possible bodily movement enabled by the space, for example, the layout of the classroom and how child may possibly use this space, I then compare these among different types of schools. Throughout the project, I aim to trace the difference in school architecture of government, missionary and vernacular schools in relation to the different ideals of the child's body, of what was considered suitable and capable of the child.

As a second line of questioning, I am interested in gendered difference in schools,

and how architecture functioned as a social technology in constructing gendered identities. This focus on gendered history led me to explore the boarder architecture of femininity and masculinity in colonial contexts, which required an interweaving of visual and documentary sources. I use visual sources to substantiate documentary evidence, and evaluate the pictures base on their potential to answer the key research questions: gendered differences produced by architecture. I collected pictures on school buildings, school children, playgrounds, and school publications, through which I aim to trace the architectural history of schools and the changing use of school spaces, such as access and use of playground. Visual source is an essential piece of this project on colonial school architecture and the child's body, not only because its potential to add evidence to the argument, but also that the compiling of picture archive on colonial school life lends itself to the analysis of lived experience of schooling, and enables comparison on school life in other colonial contexts.

The absence of colonial school architecture in Hong Kong in current historiography makes the compiling of its archive a fascinating opportunity to consider how colonial architecture interacted with the history of education, of femininity, of masculinity. This project will therefore reconfigure understanding of colonial architecture by developing knowledge about the lived experience of its key users, and specifically on the coproduction of colonial educational space and the feminine and masculine body.

I further argue that colonial school architecture is an emerging field in the history of colonial education, particularly in relation to the history of femininity and masculinity, to explore the role of colonial school architecture in the production of the female and male body, therefore, opens up new discussions on the construction of femininity and masculinity in education contexts, and how imperial gender ideals were produced through the choreography of the body.

Space, Body, and Identities

When I first approached the existing picture archives in Hong Kong, it was not immediate clear the importance and potential they carry for the project. To get a glimpse into the lived school life in the interwar years, I searched the oral history archives in Hong Kong, and through the reading of oral histories, I traced the memories of school buildings. The second step was to group the school buildings chronically, and based on the school types, as government, grant, or vernacular. Schools built in the interwar years

shared common features such as sports and science facilities, which led to a read on curriculum.

When read school photographs, I start by asking the location of schools; the use of space within schools; and methods of learning and teaching. Although not a prime focus of my study, the location of the school suggests the potential liminal spaces the child travelled to and from school, and whether boarding facilities was necessary. The use of space within schools is where I analyse the function of the space. Corridors, gates, verandas are transitional spaces between activities, where interactions and encounters took place, that transforms the individual body to the social body. I am particularly interested in how the space produced experience, and how changes in space reconfigured everyday sensorial experiences.

As another potential line of inquiry, the materiality of schooling, captured in school pictures, also lends itself to the analysis on school architecture and children's health. The layout of classroom, the size of windows, the height of desks, all had an impact on the users experience of the learning space and children's wellbeing in particular.

The last point I want to address in this paper is the need to use innovative approach to develop visual archives that lend itself to the collaboration with other types of sources, such as oral, documentaries sources. And to classify the content in the archive temporally and spatially, for example, to map school architecture chronically, and in selected geographic regions. Picture archives on school architecture is only emerging, and quite often for individual projects, the need to collect visual sources from multiple existing archives that were not designed for the specific research on history of education is common, in which case, the interweaving of diverse types of sources becomes necessary, and often with an interdisciplinary research design. The lived experience of schooling, and the everyday life of children at school is not an extensively research area in the history of education, and it is also an area that would benefit from the development of picture archives, and with specific research focuses, the connection between architecture and child's body could be addressed in a more nuanced manner, and join larger discussions on gendered history of education, modern architecture, as well as order and discipline in modern institutions.

History Wall Charts Crossing Borders

The Series "Schoolplaten voor de Vaderlandse Geschiedenis" in Germany

Liane Strauß

Abstract

Everyone who is responsible for collections in school museums deals with foreign wallcharts on a regular basis because they were used by schools for a wide range of subjects. In some cases, titles and additional information in foreign languages make them easily identifiable, in other cases it requires some research to realize that a specific wallchart was originally published in one and later reproduced by companies in another country.
The wallcharts of the Dutch series "Schoolplaten voor de vaderlandse geschiedenis" (Engl. Wallcharts for the national history) are examples of images crossing the border into the classrooms of neighbouring countries: First published in 1911 by publishing house J. B. Wolters in Groningen, the series became a bestseller in the Netherlands and was widely used for Dutch history lessons in primary schools throughout the country. After WW II, the German publishing house Gebrüder Höpfel in Berlin obtained the right to reproduce and publish these wall charts in Germany and this purchase turned out to be successful as well for the company: The images were sold until the early 1980s.
It is astonishing that this border-crossing of history wallcharts was possible: During the course of the 19th century, many European countries made History a mandatory school subject to familiarize pupils with government-approved perceptions of the past and to establish a national collective memory which would unify and strengthen the nation. Therefore, it is not unusual that neighbouring countries like the Netherlands and Germany remember different historic events or remember the same historic event differently. For this reason, it can be assumed that teaching material for history lessons like wallcharts could not be used in another country without making some alterations to them.
As there is hardly anything known about the extent and nature of these alternations, I want to analyse, among others, the wallcharts and accompanying teacher manuals of the series, correspondence between publisher J. B. Wolters and the illustrators who created the wallcharts and catalogues of both publishing houses in order to discuss the following questions: To what extent and how were wallcharts of the series "Schoolplaten voor de vaderlandse geschiedenis" adapted so they could be used in schools throughout Germany?

Everyone who is responsible for collections in school museums regularly deals with wall charts coming from foreign countries. In some cases, titles and additional information in foreign languages make them easily identifiable, in other cases, it requires some research to realize that a wall chart was originally published in one

and later reproduced in another country.
The images of the Dutch series Schoolplaten voor de Vaderlandse geschiedenis (Engl. Wall charts for the national history) are examples of wall charts crossing the border into the classrooms of neighbouring countries: The bestseller-series was first published in 1911 by publishing house J. B. Wolters in Groningen and was widely used for Dutch History lessons in primary schools throughout the country until the 1970s. After World War II, Lehrmittelanstalt Gebrüder Höpfel, a German publisher situated in Berlin, obtained the right to reproduce and publish these wall charts in West Germany which turned out to be a huge success as well: The images were sold until the early 1980s.
It is astonishing that this border-crossing of History wall charts was possible: During the course of the 19th century, many European countries made History a mandatory school subject in order to familiarize pupils with government-approved perceptions of the past and consequently, establish a national collective memory which would unify and strengthen the nation. Therefore, it is not unusual that neighbouring countries like the Netherlands and Germany remember different historic events or remember the same historic event differently (cf. Assmann 2005, p. 26). For this reason, it can be assumed that teaching material for History lessons like wall charts could not be used in another country without making some alterations to them.
As there is hardly anything known about the extent and nature of these alternations, I want to present some examples of the way wall charts of the series "Schoolplaten voor de vaderlandse geschiedenis" were adapted so they could be used in schools throughout Germany. In a second step, I would like to show what consequences the results of this research have on the design of databases that contain History wall charts from different countries.

The series "Schoolplaten voor de vaderlandse geschiedenis" in the Netherlands and Germany

Initially, the series "Schoolplaten voor de vaderlandse geschiedenis" consisted of twenty-four wall charts and were originally designed for usage in "Vaderlandse Geschiedenis" (Engl. Dutch history) lessons. In 1973, when Wolters stopped the production of the series, sixty-four different motives had been published in total (cf. Vos 1982, p. 74). The wall charts do not only depict specific moments in Dutch history, but also timely periods like, e.g., the Netherlands in Roman times, or prototypical historical phenomena like the scriptorium of a medieval monastery.
The series "Schoolplaten voor de vader-

landse geschiedenis" was not only a huge commercial success for J. B. Wolters, but had a wider-reaching impact as well. The images turned into a visual canon of Dutch History. This can be seen on the fact that the Dutch journalist Jan Blokker and his two sons wrote a very popular book on Dutch History in 2005 which is based on 43 wall charts of the series created by the Dutch illustrator Johan Herman Isings (1884-1977) (cf. Blokker et. al. 2005).

How did the wall charts then cross the border into Germany?

In Germany, wall charts of the series first appeared in a teaching material catalogue from 1956 (Schulwart 1956, p. 124 and 126). It is not clear why publishing house Gebrüder Höpfel decided to offer the pictures in Germany: They were probably regarded as being free from National Socialist resp. Communist ideology or it was cheaper to optain the right to reproduce the wallcharts than creating new ones.

All wall charts were supposed to be used for teaching cultural history; some images were also recommended for religious education lessons (cf. Gebrüder Höpfel n.d., p. 2 and 5). Although they did not achieve the same iconic status as in the Netherlands, the wall charts became a success in Germany as well: They can be found in school museums all over West Germany, e.g. in North Rhine-Westphalia, the Saarland or Baden-Wuertemberg.

Adapting Dutch History wall charts for the German market

How were the Dutch wallcharts of the series adapted for the German market?

There is evidence that the German publisher did not just adapt the finished wall charts but was already involved in the development of the series in the Netherlands. This is remarkable because in the 1950s and 60s, there were strong Dutch resentments against Germany and the Germans due to the country's occupation of the Netherlands during World War II. Here are two examples for Höpfel's involvement before the wallcharts' publication in the Netherlands:

Choice of events selected for depiction in a wall chart – Brand van Moskou, 1812

The wall chart shows the French Emperor Napoleon looking at the burning city of Moscow which turned out to be a turning point for his Russian campaign in 1812.

From a letter by publisher J. B. Wolters to the wallchart's creator, Johan Isings, we learn that after some discussions, the company and its German counterpart decided to depict this event as wall chart because it "promises a good profit in the Netherlands as well as outside the coun-

Fig. 1. Wall chart Karel V doet afstand van de regeering.

Collectie Nationaal Onderwijsmuseum, Dordrecht/the Netherlands.

try" (letter J. B. Wolters, 11th December, 1963).

Therefore, it can be stated that Höpfel played a part in the formation of a visual canon of history being taught at school by co-choosing the events which were depicted in the series.

Depiction of an event – De Hanzestad Kampen 1441

The wall chart depicts the Dutch hanse town Kampen in the 15th century. In the foreground, you can see a busy harbour, in the background the town with its city wall. Johan Isings, who is also the creator of this wall chart, did very thorough research for the drafts of his wall charts and discussed his results with representatives from J. B. Wolters. In one of these letters he asked if he was allowed to put buildings in places where they would not have stood

Fig. 2. Wall chart Die Normannen auf dem Kriegszug gegen das Frankenreich.
Schulmuseum Nordwürttemberg, Kornwestheim, Germany.

in reality. In their answer, the publishing house did not object to this proposal because in Germany, so their opinion, the wallchart would be titled "Hanse town" so that absolute historical correctness would not be necessary.

The following examples show how Höpfel adapted wall charts that had already been published in the Netherlands.

Teaching manuals – Karel V doet afstand van de regeering

In the collection of the Research centre for Historical Visual Media in Würzburg, Germany, exists a transcript of the German teacher instruction manual for the wall chart which depicts Emperor Charles V. abdicating in Brussels in 1555. When this text is compared with the corresponding Dutch teacher manual from 1950, it becomes obvious that the German manual is not a word by word translation of the Dutch version: Several passages were not

Fig. 3. Wall chart Karel de Grote te Aken, 808. Uitzending van koningsboden.
Collectie Nationaal Onderwijsmuseum, Dordrecht/the Netherlands.

included in the German text, e.g. passages mentioning Dutch noblemen present at the event or dealing with the life of the future king Philipp II. On the other hand, the German text includes a very short paragraph about the coronation of Charles's brother Ferdinand I. which cannot be found in the Dutch version of the text.

These changes have profound consequences for the way the manuals interpret the event: According to the Dutch text, the abdication was a first step towards the Dutch war of independence whereas the German text discusses the event in the context of the spread of Protestantism in the Holy Roman Empire.

Change of Titles: Generalization – De Noormannen voor Dorestad / Normannen auf Kriegszug gegen das Frankenreich

Here, you can see an 8th century Viking attack on the Dutch town Dorestad near Utrecht. The Dutch title of the wall chart locates the event very precisely: Dorestad. The German title "Normannen auf Kriegszug gegen das Frankenreich" (Engl. Normans on a military campaign against the Franconian empire) (Gebrüder Höpfel n.d., p. 2), is much more general: It speaks of an attack on the Franconian empire but not where it precisely happened.

A copy of the wall chart in the collection of the School Museum North Wuerttemberg shows that teachers resp. sellers of the wall chart also adapted the title. On the label is the title "Die Normannen in den Niederlanden" (Engl. The Normans in the Netherlands) and a teacher probably wrote the title "Normannenhäuptling" (Engl. chief of the Normans) on the backside of the wall chart. The latter annotation is especially interesting because it shows that the teacher probably only addressed the leader of the Viking ship who stands prominently in the centre of the picture when he showed the wall chart to his pupils.

Change of titles: Different title – Karel de Grote te Aken, 808. Uitzending van koningsboden / Karl der Große empfängt Gesandten Widukinds

The wall chart shows Charlemagne outside the emperor's palace in Aachen making a greeting resp. parting gesture towards a group of men standing beside him. Solely by changing the title, the otherwise unchanged picture tells two completely different stories in the Netherlands and in Germany: The Dutch title indicates that the wall chart shows Charlemagne who sends emissaries into the Carolingian Empire whereas the German title says that the emperor is meeting with an envoy for the leader of a revolt against Charlemagne, the Saxon nobleman Widukind (Gebrüder Höpfel n.d., p. 4).

Relevance of the research for databases

This presentation tried to show how History wall charts of one country were adapted so they could be used in another country. However, much more research is required to understand the nature and extend of this phenomenon better. How many more History wall charts exist that were adapted to be used in two or more countries? And are there other ways in which wall charts were adapted? These are just two questions awaiting to be answered.

Research in this field is relevant, especially when it comes to establishing databases for History wall charts. Here are some final thoughts on this topic:

- www.historywallcharts.eu, the only international database exclusively for history wall charts, does not tell its users if a wall chart was also published in another country. It would be interesting to get this information, but adding extra columns into a database makes the latter more complex and expensive. Should databases take this phenomenon into account or not? This decision can only be made when we know whether wall charts that cross borders are a wide-spread phenomenon or the exception.
- If this extra information is to be included: How should it be included in the database? Should there be different entries for each usage? Should both pieces of information stand side by side in one column? And on a more general level: Should we deal with the wall charts as objects – then we can also include annotations written on the wall charts – or as a collection of images?
- www.historywallcharts.eu makes use of teacher manuals for the description of the wall charts. But is it actually a good idea to use these texts for this purpose? As this research has shown, teacher manuals do not describe the wall charts in an objective resp. art historic way. Do the wall charts really depict what the texts make us believe? And how should we deal with manuals of a wall chart that depicts completely different events in different countries, as we have seen in the last example?

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Macmillan's Nature Classroom Pictures:

How the Complications of Copyright Impede the Development of Digitised Archives

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Abstract

This paper expresses some reservations in accepting the view that modern technology has been a great enabler for academics working in the field of visual culture. It argues that using images accessed online can be fraught with difficulties, for example, the frequent absence of information about the contexts in which these pictures were produced, circulated and consumed. But the more serious concern for many scholars is the legal requirement to negotiate the right to reproduce pictures and to secure copyright clearance. While the field of visual culture is expanding, it is paralleled by an increase in the time and money academics spend in clearing permission to reproduce images. Publishers of journals seem to be especially cautious; needing reassurance from authors that the pictures included in their articles give accurate and detailed information about the copyright holders. This is, I believe, limiting the range of material that historians can draw upon without incurring substantial expense and it is an impediment to the development of visual archives.
In the UK, the wall charts and classroom pictures produced by the British publisher Macmillan (from 1930-1950) represent one of the most wide-ranging collections of this form of educational resource. The visual material was produced to support the written texts by the Froebelian teacher, and children's author, Enid Blyton, and E. J. S. Lay, the latter producing Macmillan's Teaching in Practice, a multi-volume series, designed for teachers of infants, juniors and seniors. The pictures were sold in sets, each presented in an impressive portfolio, and covered history, geography, art and especially nature. The sets and accompanying books were first published in a period of economic uncertainty in the 1930s, but this was an educational innovation that proved to be a great success for the company.
Reflecting ISCHE's 2018 theme of nature and education, the Macmillan's classroom pictures used here are taken from two series on the topic. The first, for the younger children, was devised by Enid Blyton and illustrated by Eileen Soper. The second, for older children, was written by E. J. S. Lay and illustrated by Kate Harvey. The pictures are of a high quality, both in design and printing and certainly worthy of study, but the publishers are not able to give any indication as to when, or even if the series might be made available for scholarly purposes.

The paper will argue that the complications of copyright are impeding not only the work of individual academics working in the field of visual culture, but also threatening the development of, and access to archives directly related to the history of education and concludes by asking colleagues to offer their own experiences of dealing with these problems.

This paper argues that the complications of copyright are impeding not only the

work of individual academics working in the field of visual culture, but also threatening the development of, and access to archives directly related to the history of education and invites colleagues to offer their own experiences of dealing with these problems.

What follows includes a brief case-study addressing these issues by reference to the box of delights which comprise the classroom picture portfolios published by Macmillan, a company this year celebrating 175 years of its existence.

The original subject of this paper was the nature study classroom pictures compiled by Edward John Stanley Lay and published by Macmillan in the period 1930–1950. My intention being to use these sets of pictures as a case study which would identify and explore some of the difficulties faced by academics in seeking permission to use images in their published research. These concerns arose from personal experience of the obstacles that have to be overcome in seeking not only permission to reproduce, but also the often complex processes involved in securing copyright clearance for the reproduction of classroom pictures/wall charts and related ephemera in my work. This necessary, but mundane, aspect of any scholarly work that deals with images was brought into sharper focus by rather disturbing events in the Netherlands earlier this year – brought to my attention by Annemarie Roggeveen – which have serious implications for all archival organisations.

De Volkskrant, a Dutch daily newspaper, published an article on May 1st describing the outcome and implications of a recent court case in which a copyright holder of photographic images had successfully sued the archive Erfgoed Leiden and Omstreken for use of postcard images on its website. The archive had apparently uploaded twenty-five postcards from its collection, the photographs lacking any identifying maker's name. According to the newspaper report, Arnoud Voet had bought 40,000 negatives of Jan Roovers' photographs in 1982 for what was described as a "considerable sum", and the postcards in question featured images created by Roovers. The outcome of the case, even though the images had been quickly taken offline, was that damages of fifteen thousand euros, which included litigation costs, were awarded. But the implications of the judgement were felt more widely than the costs incurred by Erfgoed Leiden and might be claimed to have implications for all academics who use archives and who might assume that all necessary copyright matters have been settled with regard to the depository's collections. De Volkskrant described the Dutch archive world as "being in turmoil" and, for fear

of being the subject of similar litigation, many other archives in the country had removed "hundreds of thousands" of images of postcards from their websites. Fifteen other archive institutions subsequently received summonses in the post because they had also uploaded images which were identified as the copyright of Arnoud Voet.

This is an extreme example. But it is a timely reminder of the penalties that organisations and scholars can face when they fail to seek out the necessary information about the images they intend to use in digital or printed form. In the late 1990s in the UK there was a concerted effort made by higher education funding bodies to encourage academics to engage with the many digitisation projects linked to public holdings in galleries and museums. During that period I attended several workshops where participants were introduced to the technologies, processes and vocabularies linked to the practices of digitisation. Not once do I recall there being any discussion of the importance of, and complexities involved in obtaining copyright clearance. What was also absent from those workshops was reference to the picture libraries such as Corbis Inc. and Getty Images, both based in the USA, the latter having now acquired many of the most extensive historical image collections in that country, as well as the important Hulton Collection in the UK.

Daniel McLean notes that "copyright is both a right of authorship and a property right" but

> "[I]nscribed within its structure is a tension between its existence as a right to protect authorial expression and its locus as a commodity that can be assigned, sold and licensed to others, including publishers."[1]

McLean cites Jane Gaines as observing how the growth of copyright law has paradoxically "witnessed the disappearance of the individual author as copyright holder and the emergence of the corporation as owner." We nowadays accept without question that when an article we have written is published in a journal it is without payment to its author and that, henceforth, it will become the copyright of that publisher. Should the author wish to use part of a published essay in subsequent articles or books, it is acknowledged, albeit grudgingly, that permission to do so has to be sought from the publisher and that, for the privilege of being able to re-use their own work, a substantial fee may be incurred.

Most academics whose research is image-based have learned by trial and error of their legal responsibilities when including pictures in their work, not least be-

1 McLean, Daniel and Schubert, Karsten (2002): *Dear Images, Art, Copyright and Culture.* ICA, London, p. 16.

cause publishers now insist on absolute assurances that copyright clearance has been obtained so that they can be free from the threat of expensive litigation. But in some cases even the behemoth picture libraries fall foul of their own emphasis on ownership, having bought up huge collections they have then failed to check whether individual items are by artists whose work is still in copyright. The rubric in the EU (the situation in the USA being more problematic) is that copyright of the image rests with the publisher for seventy years after publication, but also extends to seventy years after the death of the creator; the artist's estate being the beneficiary. For example, in the 1930s, Tom Curr, a Scottish commercial artist, was commissioned by the shipping company Cunard White Star to produce posters advertising their cruises. By the turn of this century, Cunard's ownership of copyright of the images expired and his work was seized upon for reproduction with examples being listed on eBay and even appearing on bed linen on Amazon and tea towels sold by Walmart, with the added insult of Curr's name being misspelt.

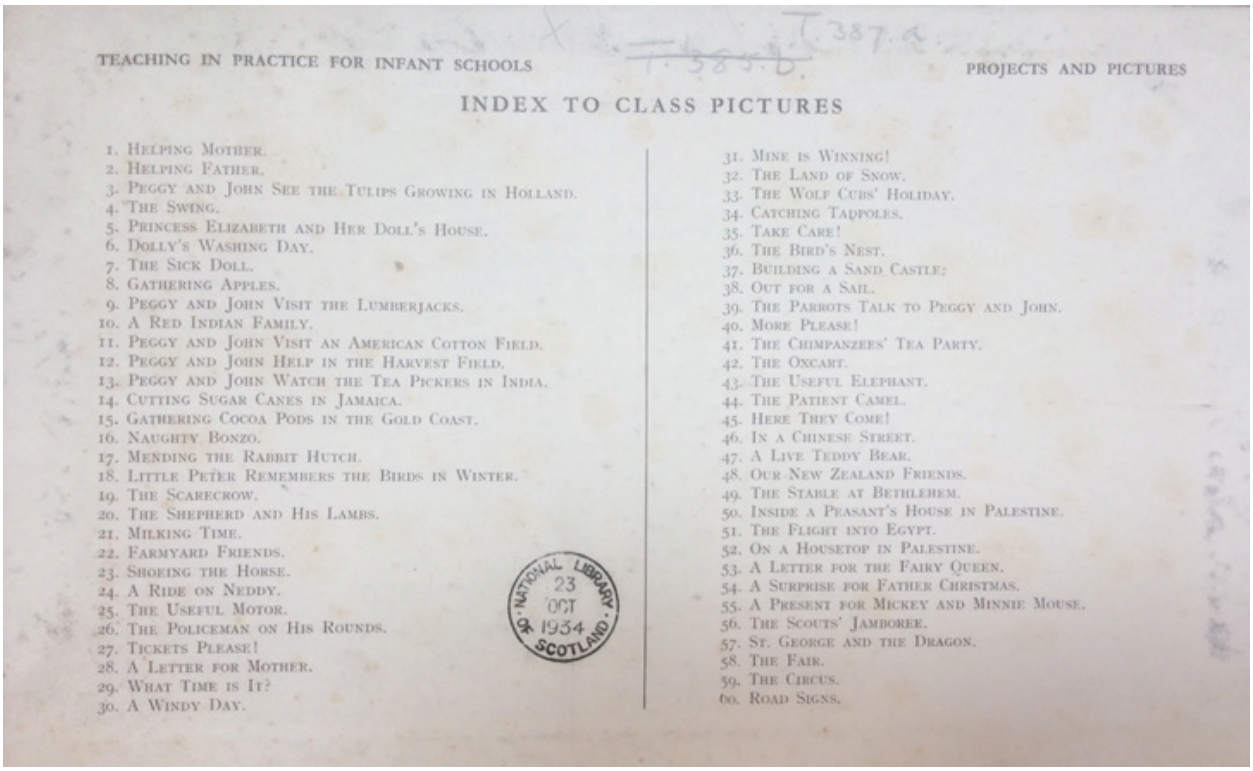
Copyright and its legal frameworks presently lacks clarity. Back in 2002, with thirty-one contributors in its 512 pages (many of whom were lawyers specialising in copyright law), Mclean and Schubert's heavy tome, Dear Images Art, Copyright and Culture, attempted to offer readers a degree of clarification, but sixteen years ago our current technology was in its infancy and Google, Pinterest and Dropbox were not to be found in the book's extensive bibliography. Just last month saw yet another attempt by the EU to provide a workable legislative framework regarding copyright, specifically in relation to the internet. Its aim being to ensure that authorship of a text, work of art, piece of music be respected while at the same time not appearing to threaten individual's freedom to access information online. The legislation was not passed this time, but no doubt it will be amended and redrafted for future submission.

As academics our primary concern is with the provenance, documentary and representational information an image can provide, rather than its market value. Some publishers are uncertain as to what can and cannot be given copyright clearance regarding the material they have produced and that has implications for us all, although we might wish to acknowledge that serious litigants hoping for substantial remuneration for breaches of copyright will be aiming their sights on wealthy publishing houses and public archives in preference to the thin pickings that academics offer to them. The pictures which are the subject of the following discussion are of a high quality, both in design and

printing. They are certainly worthy of international academic study, having been sold and circulated throughout the world, but the publishers are not able to give any indication as to *when*, or even *if* the surviving examples of the series might be digitised and made available for scholarly purposes.

The costly experience of Erfgoed Leiden serves to show why publishers and archives are now reticent to digitise their collections for public access. In the case of the Macmillan Classroom Pictures, while the copyright might have originally been assigned to the publisher, that ends seventy years after the publication date. It is from then on that complications arise because of the creator's copyright continuing for seventy years after their death. For the Classroom Pictures there are further complications because the Lay portfolios, for example, comprised illustrations by numerous artists, some named but others not. Then begins the job of trying to locate the surviving relatives of a deceased artist in order to secure permission to reproduce their work. Very often this does not prove possible, but there is always the risk that at some later point a relative may emerge to claim ownership and make a claim for use of the work without the authority of the author's/artist's estate. We are all familiar with the caveat that frequently appears in the preliminaries of a book containing illustrations, stating that all attempts have been made to identify the owners of the copyright of the images used, but if there has been an oversight, it will be corrected. To what extent this provides any protection from litigation I do not know.

The wall charts and classroom pictures produced by the British publisher Macmillan from 1930-1960 represent one of the most wide-ranging collections of this form of educational resource. In the 1930s this format of visual material was introduced by the innovative educationist Edward John Stanley Lay (1876-1954). Alysoun Sanders, archivist with Macmillan has, to date, compiled a list of over 290 books written, or edited by Lay and his collaborators, which included his brother and daughter. But specific to the discussion here are his Class Pictures, the first set, comprising 180 pictures, was issued in 1931 to accompany his book *Macmillan's Teaching in Practice: An Encyclopaedia of Modern Methods of teaching in the Primary School*. This was followed in 1934 by a portfolio of 75 pictures companion to *Teaching in Practice for Infants*. The following year, (according to the contents and date of the acquisition stamp on the portfolio held at the National Library of Scotland) a related set was published titled *Pictures and Projects*, again for use with infants with sixty pictures almost all of which included a decorative border.



TEACHING IN PRACTICE FOR INFANT SCHOOLS PROJECTS AND PICTURES

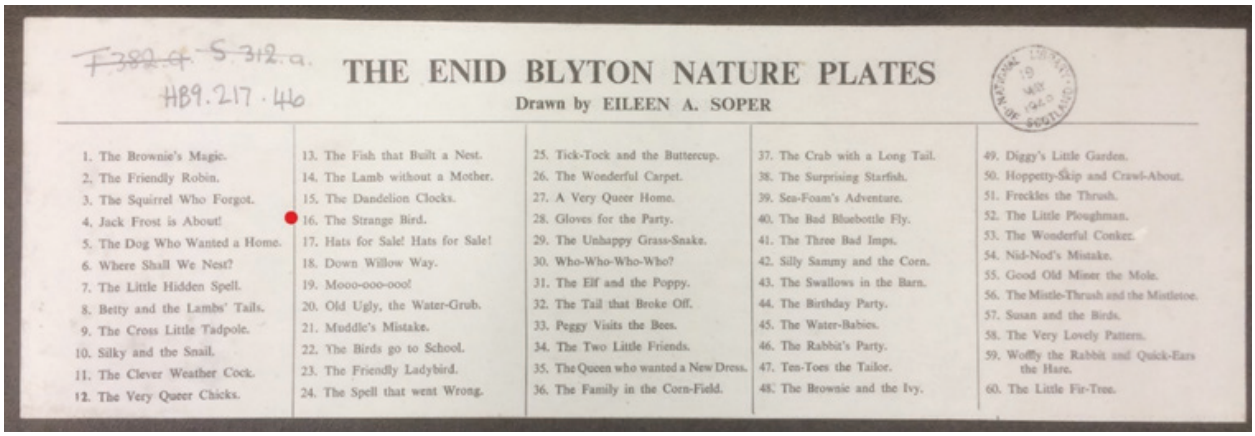
INDEX TO CLASS PICTURES

1. Helping Mother.
2. Helping Father.
3. Peggy and John See the Tulips Growing in Holland.
4. The Swing.
5. Princess Elizabeth and Her Doll's House.
6. Dolly's Washing Day.
7. The Sick Doll.
8. Gathering Apples.
9. Peggy and John Visit the Lumberjacks.
10. A Red Indian Family.
11. Peggy and John Visit an American Cotton Field.
12. Peggy and John Help in the Harvest Field.
13. Peggy and John Watch the Tea Pickers in India.
14. Cutting Sugar Canes in Jamaica.
15. Gathering Cocoa Pods in the Gold Coast.
16. Naughty Bonzo.
17. Mending the Rabbit Hutch.
18. Little Peter Remembers the Birds in Winter.
19. The Scarecrow.
20. The Shepherd and His Lambs.
21. Milking Time.
22. Farmyard Friends.
23. Shoeing the Horse.
24. A Ride on Neddy.
25. The Useful Motor.
26. The Policeman on His Rounds.
27. Tickets Please!
28. A Letter for Mother.
29. What Time is It?
30. A Windy Day.
31. Mine is Winning!
32. The Land of Snow.
33. The Wolf Cubs' Holiday.
34. Catching Tadpoles.
35. Take Care!
36. The Bird's Nest.
37. Building a Sand Castle.
38. Out for a Sail.
39. The Parrots Talk to Peggy and John.
40. More Please!
41. The Chimpanzees' Tea Party.
42. The Oxcart.
43. The Useful Elephant.
44. The Patient Camel.
45. Here They Come!
46. In a Chinese Street.
47. A Live Teddy Bear.
48. Our New Zealand Friends.
49. The Stable at Bethlehem.
50. Inside a Peasant's House in Palestine.
51. The Flight into Egypt.
52. On a Housetop in Palestine.
53. A Letter for the Fairy Queen.
54. A Surprise for Father Christmas.
55. A Present for Mickey and Minnie Mouse.
56. The Scouts' Jamboree.
57. St. George and the Dragon.
58. The Fair.
59. The Circus.
60. Road Signs.

These decorations in turn led to a set of line drawings based on the images shown in the border, each set presented in a paper envelope – see below.

Although no date is given, the Macmillan records make mention of another portfolio produced in the same period, being a collection of 168 pictures (n.d.) for junior school children, and in 1938 a portfolio of 150 pictures was introduced in parallel with the publication of *Teaching in Practice for Seniors*. It should be noted that Lay also compiled a series of smaller guides for teachers titled *Macmillan's Class Pictures for Juniors, Reference Book* I, II etc. These slim volumes – see below – provided brief descriptions of the plants, birds, animals, or scenes from history featured in the classroom pictures and aimed to assist teachers to make effective use of the material even when they lacked the relevant subject knowledge.

The content list below, and the examples above, demonstrate how the interrelatedness of text and image was central to Lay's progressive approach to education. The list is from a smaller portfolio of thirty-two pictures issued in 1939, the reduction in the number of plates perhaps being an acknowledgment of the economic climate of that period.
Of those thirty-two pictures, fifteen are



THE ENID BLYTON NATURE PLATES

Drawn by EILEEN A. SOPER

1. The Brownie's Magic.
2. The Friendly Robin.
3. The Squirrel Who Forgot.
4. Jack Frost is About!
5. The Dog Who Wanted a Home.
6. Where Shall We Nest?
7. The Little Hidden Spell.
8. Betty and the Lambs' Tails.
9. The Cross Little Tadpole.
10. Silky and the Snail.
11. The Clever Weather Cock.
12. The Very Queer Chicks.
13. The Fish that Built a Nest.
14. The Lamb without a Mother.
15. The Dandelion Clocks.
16. The Strange Bird.
17. Hats for Sale! Hats for Sale!
18. Down Willow Way.
19. Mooo-ooo-ooo!
20. Old Ugly, the Water-Grub.
21. Muddle's Mistake.
22. The Birds go to School.
23. The Friendly Ladybird.
24. The Spell that went Wrong.
25. Tick-Tock and the Buttercup.
26. The Wonderful Carpet.
27. A Very Queer Home.
28. Gloves for the Party.
29. The Unhappy Grass-Snake.
30. Who-Who-Who-Who?
31. The Elf and the Poppy.
32. The Tail that Broke Off.
33. Peggy Visits the Bees.
34. The Two Little Friends.
35. The Queen who wanted a New Dress.
36. The Family in the Corn-Field.
37. The Crab with a Long Tail.
38. The Surprising Starfish.
39. Sea-Foam's Adventure.
40. The Bad Bluebottle Fly.
41. The Three Bad Imps.
42. Silly Sammy and the Corn.
43. The Swallows in the Barn.
44. The Birthday Party.
45. The Water-Babies.
46. The Rabbit's Party.
47. Ten-Toes the Tailor.
48. The Brownie and the Ivy.
49. Diggy's Little Garden.
50. Hoppetty-Skip and Crawl-About.
51. Freckles the Thrush.
52. The Little Ploughman.
53. The Wonderful Conker.
54. Nid-Nod's Mistake.
55. Good Old Miner the Mole.
56. The Mistle-Thrush and the Mistletoe.
57. Susan and the Birds.
58. The Very Lovely Pattern.
59. Woffy the Rabbit and Quick-Ears the Hare.
60. The Little Fir-Tree.

directly related to nature study. Picture twenty-six is titled *Common Fungi* and is an assemblage of coloured illustrations, not drawn to scale as the supporting text makes clear, but with sufficient detail for children to recognise the essential physical characteristics of different species, and, because they are grouped together on one page, to enable them to learn to distinguish one from another. The layout is not random but clearly the result of careful consideration regarding the effectiveness of the composition. The placing of the red-topped fly agaric in the centre of the plate immediately draws the eye and thus facilitates a more considered engagement with other fungi of a less dramatic appearance subsequently. The same mode of presentation was used in pictures of moths, trees, flowers, birds and other creatures. These pictures are the culmination of a great deal of thought, revealing an understanding of how best to present information to children to encourage their engagement with a subject. It is a scientific visual presentation but manages to incorporate the pleasure of looking with the task of learning.

In 1949 the Froebelian teacher, and popular children's author, Enid Blyton (1897-1968) compiled her own set of 60 Nature Plates, this was followed by two portfolios of Bible Pictures based on the Old and New Testaments respectively. Both Lay's and Blyton's portfolios of nature pictures share the educational aims of engaging children's interest in Nature Study by encouraging active looking, which in turn is designed to expand their knowledge of plants, insects and other living creatures. Lay's pictures (drawn by various named and anonymous artists) tended to have echoes of the Victorian specimen cabinet about them, with species arranged by genus along taxonomic order. Information being presented graphically to establish recognition of key physical characteristics

and differentiation from others of the same genus. If Lay's underlying approach was to present scientific (and other) information in pictorial form, it differed dramatically from that of Enid Blyton.

The Enid Blyton Nature portfolio comprised sixty colour plates, all illustrated by Eileen A. Soper, an artist who worked extensively with Blyton, most noticeably on her children's adventure series such as the *Famous Five*. This set of pictures did not eschew scientific accuracy for Soper was a keen naturalist as well as artist. Nor did it shift away from the educational aim of encouraging active looking and recognition.

But what is underpinning the content of the pictures here, and thus creating a quite different dynamic for the viewer from those in Lay's portfolios, is an emphasis on imagination and narrative, as is made clear in the accompanying Nature Reader series. Here make-believe meets biology and fairies feature alongside botanical illustrations. If it sounds trite – and many critics would later accuse Blyton of being just that and of what would now be called "dumbing down" to her young audiences – then we need to bear in mind that Blyton had been trained in Froebelian educational philosophy and teaching methods and understood the importance of trying to see things from a child's perspective. Facilitating active looking, as opposed to passive seeing, is the aim of these pictures and to that end they were supported by the *Enid Blyton Nature Readers*, each issue comprising two stories connected to Soper's illustrations. The *Nature Readers* were designed for children to read themselves, but Macmillan included a *Note for the teacher* on the inside front cover. This series of Enid Blyton Nature readers, although apparently a collection of entertaining and amusing tales, is in reality something very much more.

The sixty tales cover a vast range of Nature facts and, aim to give a clear and comprehensive review of the Science of Life in so far as it is understandable by young children. The varied facts of birth, nutrition, feeding, growth, reproduction and so on, are given in these simple tales in a way that makes them impossible for the children to forget.

Blyton later wrote an accompanying book specifically for teachers – *Stories and Notes to Enid Blyton Nature Plates* (1956) which included all sixty stories each one followed by suggestions for how best to encourage discussion with their pupils about what they had seen and heard. In her *Foreword* she writes that teachers themselves will want to know more about the subjects contained in the stories and directs her readers towards L. J. F. Trimble's illustrated *Teacher's Reference Book* as a source from which they might broaden their own knowledge of nature study.

This discussion, while primarily concerned

with classroom pictures and questions of copyright, has ranged over a wide area. This approach was a necessary one, for as Jakob Evertsson has highlighted in his discussion of classroom wall charts in elementary schools in Sweden[2], there is much to be gained by adopting the notion of teaching technologies in relation to such pictures because as Martin Lawn[3] pertinently observes "... physical objects have often become separated from meaning in the wider teaching technology that the classroom constitutes."

Archives and libraries act as depositories of objects, be they books or images. What they cannot preserve is the context in which such objects had a life, but they enable researchers to do that through their conservation and the provision of accurate cataloguing of related material, be it a scholarly manuscript or ephemera. The above discussion showed that Lay's portfolios were directly connected to his *Macmillan's Teaching in Practice* volumes and that earlier sets led to the development of subsequent series of pictures. Similarly, we saw how Blyton's *Nature Plates* were later supported by publications which offered guidance for teachers, as well as supplementary reading for children, both of which encouraged a relational approach to learning. It is only by bringing together all the relevant educational material connected to the commissioning, production and circulation of classroom pictures/wall charts that we can begin to discern the complex matrix of factors which influenced their use and effectiveness in classrooms, and therein lies a problem. One of the most onerous tasks that archivists and librarians face is that of cataloguing their holdings and recent acquisitions. Bob Tennant[4] has written of how the work of academics is frequently stymied because major libraries are buying off-the-shelf cataloguing software, and that while these systems may satisfy the brief given to programmers, they do not address the needs of scholars. Holdings that exist are often impossible to locate using current search systems meaning that the items that are located end up, as Lawn warned, being separated from meaning.

In conclusion, the above discussion has highlighted some of the difficulties faced by researchers and archives in relation to copyright and the use of images. At its core

2 Evertsson, Jakob, (2014): Classroom Wall Charts and Biblical History: a Study of Educational Technology in Elementary Schools in Late Nineteenth- and Early Twentieth-century Sweden. In: *Paedagogica Historica*, Vol. 50, no. 5, p. 668-684.

3 Lawn, Martin, (1999): Designing Teaching: The Classroom as a Technology. In: Grosvenor, Lawn and Rousmaniere (eds): *Silences and Images*. Peter Lang, New York.

4 Tennant, Bob, (2015): Sermons as evidence: "Holdings Questions" and "Corpus Questions". In: *The Journal of Religious History, Literature and Culture*, Vol. 1, No.1, 2015, p. 3-31.

has been the concern that the archives that currently serve the interests of citizens and scholars may continue to do so free of the fear of predatory litigation. Further, that in the near future publishers may feel sufficiently confident about copyright law so as to enable them to contribute to the establishment of new collections, comprising historically significant ephemera such as the Macmillan Classroom Pictures portfolios, and including the educational texts they were designed to support.

Where Fandom Meets Science:

Comics Archives, Comics Databases and the History of Education

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Abstract

Even though the iconic or pictorial turn since the 1990s has drawn considerable attention to all sorts of images as valuable sources for historical research, comics are still being largely overlooked, both in general and educational history. Gerhard Paul's latest book about "the visual age" [Das visuelle Zeitalter], for example, does not show any interest in this type of media, although comics emerged already at the end of the 19th and flourished throughout the 20th century. This may at least to a certain extent be due to difficult source access. Comics are usually not collected by public or university libraries; they are not filed in public record offices. Therefore, researchers must rely heavily on information, especially databases, supplied by fandom. This situation poses specific challenges for scientific demands.

The proposed presentation will discuss this issue in three steps. First, I will point out briefly the potential of comics as sources for history of education: This so-called sequential art can give visual insight into every-day family life, educational principles and conflicts, for example. Comics also stimulated a broad public debate about the influence of images on children, especially on their reading skills, during the 1950s and 1960s. And finally, from the 1970s onwards at the latest, comics have been used as educational media in different contexts.

The second part of the presentation provides an overview of existing archives and digital databases with regard to German and English language comics. In Germany, there are large collections in Hamburg (Arbeitsstelle für Graphische Literatur) and Frankfurt (Institut für Jugendbuchforschung). Several private initiatives provide online databases, e.g. http://www.comicguide.de/ or https://digitalcomicmuseum.com/. Third, I will discuss advantages and disadvantages of the current situation and develop ideas for future advancements in this field.

Even though the *iconic* or *pictorial turn* since the 1990s has drawn considerable attention to all sorts of images as valuable sources for historical research, comics are still being largely overlooked in both general and educational history. Gerhard Paul's latest book about "the visual age" (Paul 2016), for example, does not show any interest in this type of media, although comics emerged already at the

end of the 19th and flourished throughout the 20th century. This may at least to a certain extent be due to difficult source access. Comics are usually not collected by public or university libraries; they are not filed in public record offices. Therefore, researchers must rely heavily on information, especially databases, supplied by fandom. This situation poses specific challenges for scientific demands. My paper will discuss this issue in three steps. First, I will point out briefly the potential of comics as sources for history of education. The second part provides an overview of existing archives and digital databases, primarily with regard to German and English language comics. Third, I will discuss advantages and disadvantages of the current situation.

Comics as sources for history of education

Following Scott McCloud and modifying his famous definition (McCloud 1994: 20), comics can be described as juxtaposed pictorial and other images in deliberate sequence, intended to convey information and to produce an aesthetic and emotional response in the viewer. They usually consist of a succession of framed panels, and the reader must close the gap between them, the so-called ‚gutter'. This is one of the reasons why comics are a demanding medium that requires particular reading skills and the active participation of the audience. Further specific elements include speech balloons, soundwords or speedlines. They may, but not necessarily have to, appear in sequential art. As to their content, comics carry knowledge, experiences, concepts and imagery according to their place and time of origin. Thus, scholars identify various national and/or linguistic comic cultures, such as American (US), Japanese or Franco-Belgian comics. Finally, the historiography of comics distinguishes between several periods in the medium's development since the emergence of modern sequential art at the turn of the 20th century. The most important changes occurred, with respect to ‚western' comics, during the 1960s and were related to the rise of underground, adult and alternative comics. The 1990s, in turn, saw among other things the success of the graphic novel, cherished as high-quality book-length pieces of (sequential) art (Knigge 2016).

Right from the start, childhood, adolescence and family were major topics, children and young people main protagonists of comics (Giesa 2015; Brachmann 2008). In the first two thirds of the 20th century, image sequences were characterised by a humorous approach to these stages of life. Education within the family and at school, leisure activities, youth culture

and teenager difficulties with the other sex appeared primarily in US graphic narratives, whereas their European, i. e. Franco-Belgian and German counterparts favoured adventure stories distant from daily life. Although all of these comics represented an adult gaze and did not intend to give a realistic picture of growing up in the, for example, 1940s or 1950s, they are in my view useful sources for history of education nevertheless. They can give visual insight into the living conditions, clothing and every-day life of teenagers as well as into educational principles, social attitudes towards acceptable behaviour and gender roles. Heinz-Elmar Tenorth pointed out that graphic stories like the Peanuts can be seen as the outcome of a close monitoring of educational practices and the strategies of children to handle them (Tenorth 1991). Besides, they point to public perceptions and understandings of childhood and youth at the time.

Significant changes occurred during the 1960s. Comics "went practically overnight from being an art form that saw from the outside into one that sees from the inside out" (Chris Ware 2009, quoted from Giesa 2015: 109). They turned their attention to personal biographies and addressed inner life, innermost thoughts and feelings of adolescents. In this and many other ways, first underground and then alternative comics broke deliberately with traditions of the medium. Artistic innovation and experimentation took place and the author-illustrators used longer narrative forms to tell their stories. Sequential art was recognised as an appropriate expression of intense subjectivity and authenticity in which problems of growing up played a major role. New modes of production and distribution were established within an emerging subculture of young people. Thus, comics as a historical source from the 1970s onwards can provide insight into the inner, emotional experiences of adolescents as well as their slang and particular codes.

Comics also stimulated a broad public debate about the influence of images on children, especially on their reading skills. Thus, they can act as sources for public debates in educational contexts about changing uses of visual elements in general and image sequences in particular. During the 1950s and 1960s, educationalists in the US and in Europe regarded comics as trash and pulp fiction of inferior quality that put children at risk (Laser 2000). With the increasing appreciation of sequential art since the 1970s, comics have been used as educational media (Hangartner/Keller/Oechslin 2013) in schools or migrant communities. Most recently, for example, they have been discovered as suitable tools to inform refugees about social norms and values of

their host country. "It seems to me that comics have already shifted from being an icon of illiteracy to becoming one of our last bastions of literacy", comic artist Art Spiegelman commented on the development already in 1995 (quoted from Chute 2008: 460).

Comics Archives and Comics Databases

Comics can take various forms, ranging from newspaper strips to comic books, from graphic novels to web/internet comics. In Germany, comics are usually not collected by public or university libraries; they are not filed in public record offices. But exceptions prove the rule: There are two large collections of print material, mainly comic books, in Hamburg (Arbeitsstelle für Graphische Literatur of Universität Hamburg) and Frankfurt (Institut für Jugendbuchforschung of Goethe-Universität Frankfurt am Main), which comprise between 20,000 and 50,000 media units each. Both specialise in German-language graphic literature, including translations. Other institutions set their own priorities and provide smaller collections, for example of GDR (Staatsbibliothek Berlin) or North American comics (John-F.-Kennedy-Institut für Nordamerikastudien der Freien Universität Berlin). Countries that have longer comic traditions and/or hold sequential art in higher esteem like Belgium, France, the USA or Japan paint a slightly different picture. The Comics Art Museum Brussels, for example, claims to house "what is probably the biggest collection of comic strips in the world" (https://www.comicscenter.net/en/library/the-study-library) – but without giving any clear figures. Remarkable collections are also to be found in the Cité internationale de la bande dessinée et de l'image in Angoulême, France, (200,000 items) or the Comic Art Collection of the Michigan State University, USA, (300,000 items). The latter intends to "present a complete picture of what the American comics readership has seen, especially since the middle of the 20th century" (https://lib.msu.edu/comics/).

However, the mentioned collections in and outside Germany still cover only a minor part of the whole field, partly because all the institutions have a regional focus according to their home country and language. Notwithstanding, their library catalogues are for the most part accessible via internet and can be used as databases. They provide basic bibliographic references with regard to title, author/illustrator, printing place and publishing date. But they do not and cannot take into account specific requirements of comics studies, including research intending to use sequential art as a historical source.

Such information is gathered and made available in databases operated by fans and publishing houses. The German Comic Guide (http://www.comicguide.de/) is among them, containing data of 120,000 comic books. The objective is to include every single print comic book in German language that has been published since 1945. In addition to the above-mentioned bibliographical references, 75,000 covers can be viewed, and information is given on the country of origin, contents, the genre, style, number of pages, publication format, original price and collector's prices. It is important to notice that entries are not standardised in a way that all of them contain every information; they rather vary in the level of given details. Comic Guide offers an advanced search tool which allows screening the database according to categories, but not for contents.

Information on French-language sequential art are accessible through a comparable website, the Bedetheque (https://www.bedetheque.com/). Here, users can add reviews of the respective comic books. According to its self-description, the Grand Comics Database (https://www.comics.org/) is a "nonprofit, internet-based organization of international volunteers dedicated to building an open database covering all printed comics throughout the world". Thus, it "intends to be the most comprehensive online comics database for comic readers, collectors, scholars and professionals". In fact, the focus of the indexed 1.5 million issues (still) lies on American (US) and British comics in English language. Taking into account 91 countries of origin and 92 languages makes the Grand Comics Database the most complete enterprise at present nonetheless. Moreover, it is not limited to the registration of entire issues but shows their table of contents and itemises all individual stories. The advanced query – albeit "experimental" – allows refined options to search the database on the basis of multiple combinations in terms of series, writer, illustrator, editor, story title, feature, character, publisher, language or genre.

However, even this sophisticated database can only give access to more or less detailed information on certain pieces of sequential art but not to the objects themselves. Full-text databases take on this challenge. Due to, inter alia, the sheer amount of material and existing copyright laws, they are even more limited in scope. For the most part, they concentrate on older comics in terms of time and on the USA in terms of space. Examples include the Digital Comic Museum (https://digitalcomicmuseum.com/) and Comic Book Plus (http://comicbookplus.com), which provide copyright-free, public domain comics from the so-called golden and silver

age of American sequential art ranging from the 1930s to the 1950s and 1970s respectively. The Digital Comic Museum arranges the source material according to publishers and additionally offers a section "government pamphlets" with educational purposes, e.g. "If an A-Bomb Falls" from 1951 or "John's First Job" from 1956 that explains to young people what to do after graduating from university. This full-text database cooperates with the Grand Comics Database and shows their information on each issue. Comic Book Plus contains 17,000 comic books from the USA and has categories for non-English, school and children/teenager comic books. Both also offer a selection of (classical) newspaper strips. Barnacle Press (www.barnaclepress.com) and the ilovecomix Archive (www.ilovecomixarchive.com) specialise in US newspaper comic strips from the first half of the 20th century. The services of these full-text databases are freely available, whereas others require a user fee. Underground and Independent Comics, Comix, and Graphic Novels (https://comx.alexanderstreet.com/), for example, keeps records of mainly North American adult comics from the 1960s to the present and contains about 75,000 pages of primary materials. It is organised and can be searched along the categories characters, genres, people, publisher, series, titles and subjects.

Conclusion

To conclude, I will discuss advantages and disadvantages of the current situation. In general, comics researchers must rely heavily on data supplied by fandom. To begin with, this kind of knowledge transfer (Harbeck 2014) has the virtue of sharing relevant insights into comics which would otherwise not be accessible. Many databases are the result of collaborative efforts and compile impressive amounts of information. They organise their material along useful categories and provide various options to search their records. Then again, this particular situation also has its limits. Operators of databases cannot have full control of and verify all entries, especially if they concern foreign language material. Comic Book Plus, for example, shows in its German section a stamp album that can by no means be taken for a comic. Moreover, recent publications are usually completely catalogued with the support of publishers who want to sell their products, whereas older issues require time-consuming research which remains unsuccessful in many cases, because publishing houses ceased to exist or specific data has never been recorded.
The structure of the databases caters to the demands of fans but does not meet the requirements of scientific research concerning the choice of keywords, for

instance, making it difficult to identify relevant topics for history of education. Although categories like children's or educational comics are available, they are restricted to the intention of the maker and offer only somewhat limited access to sources that may answer the research questions mentioned in chapter 1. Even more important for visual history of education is the fact that image motifs are not tagged at all. The existing databases have a regional focus with a clear bias towards North America. What is more, the majority of entries refer to print comic books. The opportunities to search for newspaper comics are rare; web comics are, as far as I am aware, not yet recorded in any database. Internet search engines cannot compensate for that. Therefore, access to comics as historical sources is still challenging. Full-text databases are only at their very beginning and the others do not give guidance in which archive or library the issues are to be found. The German Comic Guide is linked to a marketplace where publishers and (private) sellers offer their copies. Thus, many researchers indeed see no other alternative than to buy their sources.

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Engravings as a Blind Spot in the History of Education.

Notes about a Private Collection.

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Abstract

From 1992 up till the present day, we have been looking for and buying engravings of educational scenes, especially classrooms, in old prints shops all over the world, from Sydney to San Francisco, and from Paris to London. On the basis of this collection of engravings we have published several articles. So basically, we use our collection for further iconographical and iconological analysis of the images, for learning more about the several techniques of engraving, and for studying the function of engravings in the past centuries. At the moment, this private collection contains about 200-250 original prints, that are not digitalised. There are no plans for digitalisation neither, because digitalisation for us has more disadvantages than advantages. We expect that the same kind of arguments will be used by other people that have built up private collections of visual material. In Berlin, we are happy to share our thoughts on the digitalisation of archives, besides showing some examples of how we the engraving can be analysed in the history of education.

The building of a private collection: from the artistic phase to the research stage

Old prints are more or less abundant and affordable in the antiquarian market, but exceptional engravings are very rare and valuable. The characteristic of the good print collector is the clear and precise definition of his/her topic and the accuracy with which he/she sticks to it (Furió, 2016: 9). The collector must conciliate two criteria: the quality and excellent condition of the specimen that can be found in the market, and the power of this specimen for visualizing or illustrating a predefined concept.

When we started our collection in July 1992 we did not have such a clear intention in mind, we only wished to gather

educational prints from the past with two purposes: an aesthetical aim, to decorate the walls of our study rooms; and a didactical objective, to use them in our lectures for making more understandable the education in the past. From the very first moment we have collected prints from the seventeenth till the nineteenth century, with a clearly defined topic: the inside of classrooms of primary schools. From the first moment on we have experienced that this was the most rare topic in the educational iconography, so we have broaden a bit our search, including themes that were very close connected with the classroom. We were never interested in the most popular educational subjects of prints, i.e. school or college buildings, but we cannot say that the collection lacks completely of these exemplars. In the last years we have also opened up the collection to some school material, mainly some rare wall charts. We were slowly noticing that the majority of the engravings that we have found, could be classified in several "genre pictures". The 200-250 original prints that are at the moment in our collection can be clustered in several categories:

- Going in and out the school;
- Inside the classroom, pupils and / or teachers in several educational activities;
- The school in an uproar, in absence of the schoolteacher;
- Educational methods, i.e. the monitorial system, simultaneous teaching, classroom organisation, etc;
- Children in the courtyard, or children doing physical exercises;
- Private education, or lessons at home;
- Male and female teachers;
- Teachers punishing or rewarding pupils;
- The teaching of specific subjects;
- School design and school materials.

Another characteristic of the collection is its global nature. The prints have been bought in several countries (Australia, United States, Great Britain, Austria, Germany, France, Belgium, The Netherlands, Poland, Italy and Spain), but there are much more nations and cultures represented in it. The topics are also rather transnational and allow us to see the cultural transfer of pedagogical ideas and practices. But some images are of a specific nature – i.e. a particular or model school – which allows us to do national studies or to make comparisons between countries.

The criteria of quality was very much taken into account in the first years of collecting the prints: we were only buying those engravings that we believed to be "original", with explicit references to the artist, painter and/or engraver and a caption explaining and defining the gravure. If we already had an specific image, we were

Image 1. A village-schoolmaster in Swabia, n.d.

Private collection M.M. Del Pozo/S. Braster.

never buying the same one another time. At this moment we knew nothing about the history and techniques of printmaking. When we have started to read the key works in this field, we were completely shocked. We have learnt the existing difficulties for guaranteeing "that the print is an "original" created by that artist" (Griffiths, 1996, 12) and how complicated it has become to define an "original" print from the moment in which the printmaking has become photomechanical reproduction. We have also learnt about the pirated copies of popular works with no regard for original authorship, because the lack, even in the middle of the 19th century, of legal void regarding intellectual property rights about the copyright (Guise, 1980, 11-15). To deepen in this fascinating world has allowed us to view the print from a different perspective, not only as an art object, but also as an historical object that

Image 2: Children at school by Johann Peter Hasenclever, oil on canvas, 1845-1850,
St. Petersburg State Hermitage. Photographer: Sjaak Braster.

was playing an important role in the life of ordinary people. The print "crosses language barriers and political borders, can influence public opinion for better or for worse, and on a fragile piece of paper may carry messages of far-reaching importance and cultural impact. [...] It enters the homes of the poor and the rich, the ruler and the ruled" (Eichenberg, 1976, 4). Then, we have realized that the statement of Walter Benjamin about linking the invention of the photography with "the age of mechanical reproduction", in which the original and authentic works of art have lost their "aura" because of the fact that they can be reproduced in great quantities, could also be applied to the expansion of the prints (Benjamin, 1935). So, long before the invention of photography, already at the end of the eighteenth century, mechanical reproduction existed in the form of the mass production of prints.

Image 3. Illustration of the Works of Henry Richter. First Series, 1822. Nº 5.

Private collection M.M. Del Pozo/S. Braster

This awareness has made us change the original concept of the collection, also introducing items that were cheap copies and, especially, prints published in illustrated newspapers from all over the world. Around the year 2000 we have started to buy all the existing versions from several prints already present in the collection, i.e. the ones that appeared to have a kind of global popularity. And we have begun to gather educational images included in the illustrated magazines, mainly from the inside of primary classrooms, that we have discarded in the previous periods. These journals have become popular between the bourgeois social class from 1842-1855, the years that Herbert Ingram and Mark Lemon started The Illustrated London News in England (1842), Jean-Baptiste-Alexandre Pauline and Édouard Charton created the French L'Illustration. Journal Universel (1843), inspired in the previous one (Marchandiau, 1987), and Frank Leslie founded the Frank Leslie's Illustrated

Image 4. The village schoolteacher, Scholz House of Mainz, 1876.

Private collection M.M. Del Pozo/S. Braster.

Newspaper (1855), "America's first weekly illustrated news magazine" (Pearson, 1990, 81). At this point we have started to sense the possibilities that the gravures could offer to the historians of education and we have conceptualize our collection as a research source (Pozo Andrés & Braster, 2002). Our identity as collectors have been melted for the first time with our identity as researchers, and this fact has changed the nature of the collection.

The research possibilities of a private collection

In 2008, on occasion of the preparations for the 31st session of the International Standing Conference for the History of Education (ISCHE), hosted from 26 August to 29 August 2009 by the Utrecht University, a logo should be found for symbolizing the theme of the conference, "Educating the people: the history of popular education". One of the authors of this paper was the organizer of this event, and, being the co-owner of the collection, had browsed

through it to choose the best print that could identify the concept "popular" (Image 1).

Surprises were noted when the logo was explained in the introduction of the Special Issue that the journal Paedagogica Historica devoted to the 31st ISCHE (Braster, 2011, 5-7). The fact that the caption is in four languages (German, English, Dutch and French), together with the fact that the engraving was printed on cheap paper, indicated that the picture was produced in large quantities and sold in several European countries from the middle of the nineteenth century. But after going more in deep into the story of the gravure, much more facts were revealed. One of them was that the original steel engraving made by T. Th. Janssen in 1844 was a copy of a drawing by the German painter Johann Peter Hasenclever (1810-1853), who had made at least another four oil paintings (in 1845, 1846, 1852 and 1853) after his original sketch. Even it is possible to find more copies in different museums of the world (Image 2). Of course, in our collection there are also many versions of prints and gravures from these paintings. This discovery had challenged our concept of "original".

The next step was to find the images of a school that has been more reproduced, more copied, more popularised, more divulgated, more viewed and more used in the nineteenth century, in the age of mechanical reproduction of the works of art. We have discovered in our collection an image portraying school life that we have even labelled as "iconic" because it was found, over the course of more than a century, in numerous collections, in several countries and in countless variations (Pozo Andrés & Braster, 2017, 11). The origin of this print was a water colour titled Picture of Youth, painted in 1809 in London by Henry James Richter, an artist of German background, and today lost. The first images of this painting that are still existing, are a portfolio of four engravings drawn on stone by the artist himself, along with an explanation of the sketches and a cover page that shows, with the size of a small vignette, an engraved copy of the original water colour. This series (Image 3), called by Richter A Picture of Youth, or The School in an Uproar, was studied with a biographical/iconographic perspective, analysing the "cultural connotations and significance based on the three contexts – scientific, pedagogical and social – in which its author, Henry James Richter, carried out his work" (Pozo Andrés, 2018, 74).

Richter painted in 1823 another water colour that was a copy of the original work, with the clear purpose of having it engraved. Apart from the popularity that the print, made by Charles Turner in 1825, en-

joyed in England, its success was crossing borders. At the moment we are working with the concept of "travelling image" and trying to understand its impact in different national contexts, in particular France and the United States. As far as in 1876 the gravure is still reproduced by a German publisher, the Scholz House of Mainz, with a caption in four languages: Der Dorfschullehrer, El maestro de escuela de un pueblo, Le maître d'école du village and Il maestro di scuola del villaggio (Image 4). None of the captions was in English and the name of Richter has vanished from the image. But, as in the case of Image 1, the cheap paper that was used and the captions in different languages denoted an interest in attracting potential buyers from the working classes and maybe from the poorer countries, as the Mediterranean ones. To analyze the cultural transfer of educational prints and its appropriation in national contexts is our more recent intellectual challenge, following a research path that was open in the last years (Clay, 2008, 585-604). One specific issue will be the study of all the educational prints included in the illustrated magazines of several European and American countries; there were many school images that were repeated in two or more journals, but the meaning and the context was completely changed by adding different captions, more in line with the national issues and backgrounds.

The future of a private collection: There is life beyond the digitalisation?

We have never thought in the future of our collection. For the moment we only have two aims in the near future. The first one is to expand it as much as possible with new purchases. In the last years we have increased the number of items by creating an small but reliable network of print sellers from different countries and by attending regularly to the main European Antiquarian Book and Print Fairs (Maastricht, London, Paris, Madrid,...). The second objective is to go more in deep about the topic of educational gravures, considering them as historical objects that can tell their own story and as visual media for transferring educational ideas across the countries.

We have never take into consideration the idea of digitalising the collection. In our opinion, to do so requires two conditions: a lot of free time and a lot of money. To offer the collection to the public implies a lot of cataloguing work; every item should be studied, identified, dated, described and classified. Without this previous job, many of the prints can only be used as illustrations, not as visual documents. May-

be this can be a nice activity for our period of retirement, but for the moment we are unable to perform this task. On the other side, the digitalisation of all the prints needs an economical investment; some of the engravings have big sizes and probably need specific digitalisation techniques. Another problem is that dozens of prints were framed in order to hang them on the walls of our study rooms.

And another important matter to resolve is related with how we can defend the ownership of our collection. Material from public archives can be published in books or articles after obtaining a written permission from these archives. In most cases these archives are responsible for digitalising the requested sources. In general these sources will not be available on the Internet for free downloads. And if so, they will be marked in one way or another, in order to make sure that the ones that want to use a specific source ask for an unmarked version. For such a version normally one has to pay, at least for covering the costs for digitalisation, cataloguing, administration, etc. Offering a complete open access on Internet has the danger that "our" documents would be used without properly referencing its source, i.e. the private collection. That, we are afraid to say, is something that no scholar likes: to see your ideas, work, or material published without mentioning (or even thanking) the original author.

So, if we look to the distant future, we would like to see our collection, not in Internet, but in a library or a museum of history of education. There the researchers could see, smell and touch the original prints, and experience them in a rather different way than the digital ones. They could feel every print as an individual object that is telling them its particular story. And they could enjoy the visual experience of finding and analysing the thousands of details that every engraving offers to the observers. We would like that one day, in the very far future, the researchers have as much fun studying our collection as we have had collecting it.

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DigiPortA - The Digital Archive of Portraits

Digitizing and Indexing Portraits from Archives in the Leibniz Association

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Abstract

DigiPortA–the digital portrait archive–is a collaborative project established by nine archives of the Leibniz Association. The project's main objective consists in promoting digitization and indexing the portrait compilations of the Leibniz Association's archives. The portrait collections of the participating archives are presented online under the address http://www.digiporta.net/. Due to the diversely aligned holdings of the involved archives the portraits show people from various professional background: such as Science, Technology, Engineering, Industry, Architecture, Art, Seafaring, Mining, Geography and Education. The web portal takes the re-emerging biography research into account. Further source compilations for the biographical-historical research are uncovered by the provenance verification of every single portrait and the description of superordinated collections. Apart from single biographical research, it is possible to comprehend portrait's visual development and to question the display of professions or the social ranking of professional groups.
The Archive of the BBF | Research Library for the History of Education department of the DIPF | Leibniz Institute for Research and Information in Education partakes with portrait depictions of personal and institutional provenance besides the individual teachers' portraits there are portraits of popular educators, such as Adelheid and Marie Torhorst, Hugo Gaudig, Berthold Otto, Adolf Reichwein as well as persons of the Akademie der Pädagogischen Wissenschaften der DDR [The GDR's Academy of Pedagogical Sciences] and group portraits of teacher's associations.

Based on the panel's main question querying the influence of educational science on the development of an archive of pictures, we choose the example of the digital archive of portraits, DigiPortA, to negotiate the emergence but also prob-

Startpage of DigiPortA

lematic issues involved in a digital archive. We will focus on an overarching research perspective that led to the project as well as problems from an archival perspective. After the introduction of the project DigiPortA and its role we will turn to the overarching question regarding the role of pictures in an archive, and biographical research concerning portraits in particular. We will give reasons for our selection of portraits from the BBF archive[1] and discuss practical issues associated with the project, which primarily concern the digitization of photographs, synchronisation of data in a co-operative project, and most of all legal issues.

The DigiPortA project: genesis and role

DigiPortA is an acronym for "Digitales Porträtarchiv" [digital portrait archive], relating to digitizing and indexing portraits in archives of the Leibniz Association. The project successfully competed for funding from the Leibniz Senate (Senatsausschuss Wettbewerb), an internal funding instrument of the Leibniz Association, and ran

1 The archive is a collecting special archive which belongs to the BBF | Research Library for the History of Education, a department of the DIPF | Leibniz Institute for Research and Information in Education, located in Berlin.

Portrait Photograph of Marie and Adelheid Torhorst

Photographer: Rudolf Lichtenberg, ca. 1911
DIPF/ BBF/ARCHIV:
Nachlass Marie Torhorst, TORM BILD 16

from 2012 until 2015. The project was initiated and generally managed by the Archive of the Deutsches Museum in Munich, and nine Leibniz institutes were involved.[2] The project aimed at providing an internet portal with direct access to photographs as sources for biographical research. Due to the rising demand for photographs as biographical historical sources and the often only rudimentarily indexed images in archives, this project marked a new beginning in archival work. Over three years, DigiPortA led to digitizing and indexing of overall 33,000 portraits. All these images are accessible via the http://www.digiporta.net/ if no legal limitation exists.

2 The following archives participated:
- Archive of the BBF | Research Library for the History of Education (BBF) at the DIPF | Leibniz Institute for Research and Information in Education, Berlin
- Archive of the Deutsches Museum, Munich
- Mining History Document Centre of The German Mining Museum (DBM), Bochum
- Archive of the German Maritime Museum, Bremerhaven
- Scientific collections of the Leibniz Institute for Research on Society and Space, Erkner
- Archive for Geography at the Leibniz Institut für Länderkunde, Leipzig
- Archive of images and collection of documents at Herder Institute for Historical Research on Eastern Central Europe, Marburg
- Senckenberg German Entomological Institute, Müncheberg
- Deutsches Kunstarchiv in the Germanisches Nationalmuseum, Nuremberg

Archives from different disciplines were engaged in this co-operative project ranging from *The German Mining Museum* in Bochum to the *Germanisches Nationalmuseum Nürnberg*. The included portraits therefore present persons from highly heterogeneous professions. The database records people from the natural sciences, technical occupations, engineering, industry, architecture, fine arts, seafaring, mining, geography and educational science.

The portal can be searched for names, professions, locations, or dates. Records of images contain additional information concerning the portrayed persons, the photographers, and the pictures themselves (indexing and abstracting). This information as well as the pictures can be downloaded as pdf file. In each case, links of an individual photograph with the overarching collection are indicated to retain the context, allowing for new ways of searching the portal.

Formally, the collections of portraits from the participating archives centre on photographs from the 19th and 20th century. Additionally, many graphic reproductions are recorded which date back to the 16th century.

Overarching questions for the project: the position of the picture in the archive and portraits as expressions of biographical research

DigiPortA expresses several interests: first of all a general interest in pictures, followed by a special interest in pictures reflecting daily life situations that are stored in archives, and a rekindled interest in the image type of portraits.

Ever since the Iconic Turn, a growing interest in questions of visualization has been observable in cultural science and the history of science. This is based on the insight that images play a key role in forming knowledge: pictures do not simply reflect situations, but they alter and organize or actually produce them.[3] This turn also impacted on the use of industrial photography, while the depth of indexing in archives was not affected.

Since the 1980s, the art pedagogue and photography historian Diethart Kerbs was engaged in different projects, and thus demonstrated the relevance of photographs beyond the area of art, regarding their storage in archives and collections.[4]

3 See Peter Geimer: Einleitung, in: Peter Geimer (Hrsg.): Ordnungen der Sichtbarkeit. Fotografie in Wissenschaft, Kunst und Technologie, Frankfurt am Main 2002, pp. 7–25, here p. 7.

4 cf. for example Diethart Kerbs, Walter Uka and Brigitte Walz-Richter (Hrsg.): Die Gleichschaltung der Bilder. Zur Geschichte der Pressefotografie 1930–36, hg. im

Portrait Photograph of Adolf Reichwein

Unknown photographer, 1930
DIPF/ BBF/ARCHIV: Adolf Reichwein, REICH FOTO 120

Choosing the example of press photographer Willy Römer (1887–1979), he gave an impressive demonstration of the value of industrial photography in an exhibition in Berlin in 2004: *Auf den Straßen von Berlin. Der Fotograf Willy Römer.* Kerbs thus did not only draw attention to the previously unknown photographer, but also sketched the possible potential of photographs from archives and collections.[5] In archives, photographic material is commonly regarded as an "accessory" to the written material because collections do not appear to be homogenous or are simply regarded as having no value.[6] Kerbs' advances, however, showed that photographs may serve as historical documents in two ways: on the one hand, they are relevant regarding the source, particularly when they origi-

Auftrag des Bundes Deutscher Kunsterzieher e.V., Berlin 1983; Diethart Kerbs (Hrsg.): Das Bildarchiv I. Rettet die Bilder!, Berlin 1986.

5 cf. Diethart Kerbs (Hrsg.): Auf den Straßen von Berlin. Der Fotograf Willy Römer 1887–1979, Ausst. Kat. Berlin, Deutsches Historisches Museum, Bönen 2004. The personal papers of Berthold Otto in the archive of the BBF | Research Library for the History of Education also contains a portrait of the reform pedagogue Berthold Otto from 1930, by Willy Römer. See DIPF/BBF/ARCHIV: OT FOTO 84.

6 cf. Matthias Bruhn: Bilder außer Dienst? Transformationen der Gebrauchsfotografie, in: Costanza Caraffa (Hrsg.): Photo Archives and the Photographic Memory of Art History, Berlin 2011, pp. 405–414, here p. 405 sq.

nate from personal papers. On the other hand, the photographs reflect a far-reaching change of perception. After all, most of the industrial photographs were – and still are – treated as surplus and reject, even at the time of production. A historiographical problem is thus identified that affects the entire world of modern images. Like the phase around 1900, "bei der das filternde Sehen und Vergessen professionalisiert wurde"[7] [when filtering sight and forgetting was professionalized], the present turn concerning digital images renders itself to a re-assessment of historical image resources and thus a re-assessment of existing collections.

Portraits present a specific type of images in collections. Reciprocally, the increased production of portraits in terms of "selfies" has seemingly changed research interest in portraits. This correlates with the tendency that biographical research is experiencing a renaissance. Museum exhibitions that centre on portraits are highly appealing to the public.

At a digital level, this tendency is reflected by a project focusing on the digitization of graphical reproductions from the early modern period, a project with a broad scope, which is managed by the archive Foto Marburg.[8] More facets of portrait research are demonstrated by the DigiPortA project. While a focus is placed on individual persons here, the project allows for modelling group-related concepts of self-representation. Different professions and social contexts can thus be taken into perspective. Besides individual biographies, a way is paved for investigating the development of portraits, for instance concerning the presentation of professions or societal ranks of a professional group.[9]

Selection of pictures from the BBF archive for DigiPorta

Subject to the project, roughly 300 portraits from the archive of the BBF were indexed and digitized. Selection was based on portraits of individual teachers and group portraits of members of diverse teachers' associations, as well as photographs of known pedagogues. The portraits are sourced from collections of personal and institutional provenance; they belong to personal papers,[10] but can also

7 ibid., p. 413.

8 cf. http://www.portraitindex.de.

9 cf. Birgit Joos: Vom Umgang mit Portraitfotografien in den Nachlässen des Deutschen Kunstarchivs: Das Projekt „DigiPortA", in: Irene Ziehe und Ulrich Hägele (Hrsg.): Fotografie und Film im Archiv. Sammeln, Bewahren, Erforschen, Münster/New York/München/Berlin 2013, pp. 12–26, here p. 15 sq.

10 The personal papers include: Nachlass Adelheid Torhorst / Nachlass Marie Torhorst / Nachlass Hugo Gaudig / Nachlass Berthold Otto / Adolf-Reichwein-Archiv / Nachlass Leo Regener / Nachlass Karl-Heinz Günther / Nachlass Karl Sothmann / Nachlass Hans Siebert / Nachlass Hans und Rosemarie Ahrbeck / Nachlass Gerda Mundorf.

be found among the papers from associations[11] and institutions[12]. The portraits thus reflect a cross-section of the collection profile of the BBF archive.

When selecting the images, it was important to source different portraits from different collections. The images are linked to metadata and the link of an individual picture to the overarching collection is indicated. Documentation of the provenance of individual portraits and description of the overarching collection means that the context of a collection regarding an album or papers is at least approximated. Moreover, further source materials are thus made accessible to biographical historical research.

It was furthermore important to take care that the photographs were not protected by personal rights (see below) and that the privacy of depicted persons was retained.[13]

Problems of such a project from an archival perspective

Conditions for an archive of images for education entail diverse problems, which might impede practical operations.

On the one hand, the digitization of photographs presents an objective for the preservation of stock because original pictures are fragile and will thus no longer be exposed to climatic volatilities associated with showing and exhibiting. On the other hand, however, digitizing photographs means that the materiality of the photographs is lost, which cannot even be compensated by high standards for the scanning process.[14] Besides, the photographs are removed from their original context such as an album or compilation, and indexing can hardly compensate for this loss of a context.[15]

The project moreover faced content-related problems concerning data from the nine participating archives, e.g. synchronizing and assimilation of indexing depths. Besides harmonizing information about material and technical issues, the examples of defining portraits and indexes of

11 The associations are: Berliner Lehrerverein / Turnvereinigung Berliner Lehrer.

12 The institutions are: Deutsches Pädagogisches Zentralinstitut / Arbeitskreis Berliner Schulgeschichte / Akademie der Pädagogischen Wissenschaften der DDR.

13 The project managers decided against including masks of dead persons in the collection. They also refrained from selecting individuals who were visibly marked by sickness.

14 Because the photographs are genuinely fragile, scanning is laborious. This would need to be considered at the project planning stage.

15 See also Elke Bauer: Bildarchive im digitalen Wandel: Chancen und Herausforderungen, in: Irene Ziehe und Ulrich Hägele (Hrsg.): Fotografie und Film im Archiv. Sammeln, Bewahren, Erforschen, Münster/New York/München/Berlin 2013, pp. 27–38, here p. 33.

professions can be given. For instance, the question of which types of images might be regarded as portraits was controversially discussed among the project partners. Finally, a compromise was sought: at least one person on the photograph can be identified by name-leading to a remarkable shift. The index of professions presented another challenge, particularly regarding educational science. The categorization and differentiation of teachers is historically variable, e.g. varying according to career and region.

However, the main area of difficulties concerned legal aspects. The fact that not all of the portraits are shown in the portal is linked to legal issues, spanning privacy but most of all copyright legislation. Privacy law states that a photograph can be shown ten years after a person's death respectively ninety years after their birth if the year of death is not known. This right was not so relevant in the cases of photographs from the archive, because the selection did not affect this period of time. Besides, publication rights are usually assigned to an archive when papers are donated.

Copyright is far more complicated: it remains effective until 70 years after the photographer's death, or if the person who actually took the photograph cannot be identified the death of the studio manager. If the photographer or studio can no longer be traced, a date has to be calculated. In the case of anonymous works, the copyright is usually assumed to be extinct a hundred years after the picture was taken. However, a grey area remains.

A time-consuming search for photo studios and photographers in most cases had to be added to the time spent on existing indexing data. This procedure is necessary because the determination of rights for the digitized pictures is crucial.

The standards defined for the project serve as a guideline for further digitizing and indexing of image stocks in the BBF archive.

Imagining the World

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Abstract

Putting images back in context – after digitizing and indexing images Pictura Paedagogica Online (PPO), the picture archive for educational history, is aiming at offering new means for the research on images as historical sources.
One step is the project "Interlinking Pictura", a virtual research environment that presents images in the context of their origins and in connection with other digital sources. As case study Bertuch's "Bilderbuch für Kinder" (1790-1830), a major source of cultural studies and educational history, was selected.
Another step is the long overdue relaunch of the picture database itself. After evaluating the picture archive, its contents, its shortcomings but also its powers we decided not just to renovate and mend pieces but to reinvent Pictura from the scratch and with new partners.
In this talk we want to present the first results in transforming Pictura Paedagogica Online from a picture archive into an interconnection supporting research environment.

Schomadu, or the golden Temple in Pegu[1], that is the title of the here shown print – not many will know that temple or the kingdom Pegu or Hanthawaddy, that ceased to exist in the 16th century. Nowadays the temple is known under the name *Shwedagon Pagoda* and it is located in Yangon in Myanmar. In the today globalized world you can read about it in Wikipedia, with information on its history, architecture and its location.

This print is taken from a publication dating back to 1810: the *Bilderbuch für Kinder*, a children book consisting mainly of well made plates that are accompanied by short descriptive texts. The subjects cover most of the then known – and the preferably most exotic - animals, plants and sites. Friedrich Justin Bertuch started the publication of the *Bilderbuch* in 1790 – conceived as a compendium and published in small issues of 5 plates each. By this Bertuch wanted to make sure its affordability for most parents and also to keep

1 Bertuch, Bilderbuch für Kinder, 1810. vol. 7, plate 14.

Schomadu, or the golden Temple in Pegu

Bertuch, Bilderbuch für Kinder, 1810. vol. 7, plate 14..(Pictura Padegogica Online)

the interest of the child without exhausting its attentiveness. Bertuch himself was a multitalented and very active business man in the Weimar of Schiller and Goethe. He worked as tutor and interpreter, was a civil servant – he held a couple of political posts in the service of Karl August, Grand Duke of Saxe-Weimar-Eisenach –, he edited and published a number of magazines, like *Teutscher Merkur* or *Allgemeine Literatur Zeitung* but also *Journal des Luxus und der Moden*, he founded *Freie Zeichen-*

schule and *Industrie-Comptoir*, a publishing and commercial house. Bertuch was very productive and prosperous and interested in many fields. The picture book became a very successful publication of his publishing house. It lasted for 40 years, the last volume was released in 1830 by his son-in-law. In total there are 12 volumes, all but the last consist of 100 plates with a short text in German and French, some even in English and Italian.

All these plates are indexed and described in *Pictura Paedagogica Online* and can be accessed freely via the internet. *Pictura Paedagogica Online*[2] is the picture archive on educational history. Started in 2000 by the BBF to promote the research on images in educational history, *Pictura Paedagogica Online* progressed constantly, and is still doing so: at the moment[3] it holds more than 75.000 entrys, mostly book illustrations, but also postcards and some photographs.

For almost 20 years now *Pictura Paedgoagica Online* offers a valuable source to research on images on educational history. After that period it is overdue to reconsider the project and evaluate its powers and its shortcomings. As a result of this evaluation *Pictura Paedagogica Online* will be reinvented from scratch: the aim is to transform the picture archive into an up-to-date research environment with special interest in supporting research and discovery in the field of visual history of education.

Parallel to the planned renovation a new project was launched in May 2018: Interlinking Pictura. Selected collections from Pictura – with all the compiled data – are presented in a virtual research environment, an open platform for working with and on the images. *Interlinking Pictura* is based on Semantic MediaWiki technology – and everybody is invited to participate in the citizen science project.

As a first case study the beforehand mentioned *Bilderbuch für Kinder* by Friedrich Justin Bertuch was chosen. All twelve volumes are incorporated, some even in various exemplars as the plates are handcoloured and thus every copy has a unique value. Every plate is described in its formal details – like size, technique and source – but also in its contents. In total there are more than 3.500 plates with almost 10.000 images. This data and the images were uploaded in the Wiki-surrounding.

The *Bilderbuch* is an interesting example for the case study. In the tradition of Comenius, Basedow and Campe Bertuch saw his publication as teaching material meant to be directly handled by the children. High-quality prints were used to mirror the actual object and educate the eye of the children.

2 http://opac.bbf.dipf.de/virtuellesbildarchiv/index.html

3 July 2018.

But the *Bilderbuch* was not only chosen for its cultural and sociological value. Its encyclopedian structure and contents make it an interesting case study for a wiki. Bertuch put together images of animals, plants, people and objects from around the world. A direct influence for the *Bilderbuch* is a just a couple of years older French publication, the *Portefeuille des Enfans*. Whereas in the preface of the *Bilderbuch* Bertuch criticizes the *Portefeuille* quite vehemently the plates in both oeuvres look very similar: a couple of objects put together on one plate, all headed with a caption that indicates a common subject – like mamals, plants or insects – as well as the number of the plate. These captions are necessary in Bertuchs work to give it some structure: Unlike the *Portefeuille* – where one subject after the other is processed – the *Bilderbuch* presents its contents in a chaotic mix. If we take a look at the issue with the temple in Myanmar: here one finds next to the temple also Japanese vehicles, some very special worms, Cockatoos and rare water insects from Suriname. This prima facie completely random order of subjects is somewhat sorted by the caption and the numbering. The digital surrounding will help to sort the plates in a thematic order, analyse them statistically, and annotate them. But the virtual research environment offers more opportunities.

Interlinking Pictura is technically based on Semantic MediaWiki[4] software. With some at DIPF developed extensions it is being run under the label Semantic CorA[5] as virtual research environment. This is a flexible, easy to use and open platform. Wikidata[6] is our prime choice for adding structured information and creating a web of information around the corpus. It is a sustainable, open and broad source of structured information drawn from the popular online encyclopedia Wikipdia, e.g. Wikidata contains a dataset on the *Shwedagon Pagoda* mentioned above.[7] It provides extensive structured information, as there are among others geo-coordinates, IDs from various identifier systems and reference to its naming in more than 30 languages. High quality metadata allow to go beyond seek and find and create new views and insights. The showcase virtual research environment Interlinking Pictura demonstrates how drawing sources virtually drawn out of original context may provide new insights when displaying them in new settings. It would not be sufficient just to present pictures in a different order, though. By interlinking items to external sources like image predecessors or later

4 https://www.semantic-mediawiki.org/wiki/Semantic_MediaWiki

5 https://semantic-cora.org/index.php/Main_Page

6 https://www.wikidata.org/

7 https://www.wikidata.org/wiki/Q464535

copies, geographic data or structured information on persons, time periods and subjects discrete pictures are re-contextualized. Most popular information visualization is depicting geographical information in a map. The contemporary names of places that were used in the historical texts thus can easily be linked to modern names and geo-coordinates. Assigning a Wikidata link of famous explorer James Cook[8] to the multiple references of his person in Bertuch's Bilderbuch opens up a universe of connected information as there are digitized historical sources, lexical knowledge or recent research. We think, that this combination of pictures, accompanying texts, information visualization and connected context supports understanding historical horizons of knowledge, thinking and maybe even emotions in a new way.

Semantic CorA provides a system for creating and expanding the knowledge graph of Bertuch's *Bilderbuch*. If needed, the knowledge graph can be exported in RDF and reused in other technical surroundings.

To do research on pictures and to use them in a virtual research environment there needs to be a sustainable and persistent database but also tools are required for restructuring and annotating the collection. Thus the database is the stable backbone for research. Discoveries and knowledge generation have to take place in a different environment. A dynamic and vivid knowledge base has to support quantitative methods as well as hermeneutically approaches.

How should a picture repository look like to serve digital research?

In general, we still face the problem, that "our images are trapped in virtual silos."[9] If we export image data to a flexible research environment, as we did with *Interlinking Pictura*, we actually create some unnecessary redundancy and images as well as annotations still stick to a certain system.

IIIF, the International Image Interoperability Framework provides standards for key technologies to address these problems.[10] IIIF is a fast spreading standard for presenting cultural heritage images and annotations on the web. The Shared Canvas Data Model is a core component of IIIF. The model "specifies a linked data based approach for describing digital facsimiles of physical objects in a collaborative

8 https://www.wikidata.org/wiki/Q7324

9 Snydman, Stuart, Rob Sanderson and Tom Cramer. The International Image Interoperability Framework (IIIF): A community & technology approach for web-based images. Archiving 2015, Los Angeles, CA, May 19-22, 2015. http://purl.stanford.edu/df650pk4327. Accessed: 03.07.2018.

10 http://iiif.io/

fashion."[11] One can imagine the model as a rectangular empty canvas representing the physical original. In several layers multiple representations can be applied to the canvas. A layer can be a digital facsimile image, full text or annotation. Since zoning is supported by the model annotations may be assigned to and referenced to certain parts of pictures.

IIIF Image API and IIIF Representaion API provide a standard which enables users to view and annotate high resolution images from distributed sources in one viewer. Since no copies are made there are no problems with regard to the question which digital source is considered as original.

With applied IIIF we need only one environment for doing research. No programming skills are required to compile a collection; no effort has to be taken for source's long term preservation by the local researcher. In our case it means that we have to provide our whole PPO collection open access via IIIF compliant API. Referencing sources then is preferred over redundant collections building. Accompanying standards and applications are at hand.[12] Now it is our obligation to put them into practice.

So, what we plead for is an information infrastructure for visual history of education which relies on IIIF and supports a wide variety of research methods and tools. To be a little metaphoric: we envision a digital universe of image databases where researchers can make expeditions with no technical barriers for discovering, mapping and analysing the landscapes of visual history of education.

11 http://iiif.io/model/shared-canvas/1.0/

12 Have a look at: http://www.openannotation.org/, http://projectmirador.org/, http://hyperimage.ws/en/

Automatic Image Processing in the Digital Humanities:

A Pre-study for Children Books in the 19th Century

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Abstract

Conceptual Approach
In cultural sciences, the iconic turn has led to a more significant role of images. On the other hand, digital humanities develop innovative methods to support humanities with digital tools. That way, quantitative approaches can support traditional approaches in cultural sciences. The automatic processing of images in large numbers in order to support research within historical sciences is still in its infancy. So far, very few studies have been published; most of them are restricted to small numbers of images (e.g. Bender 2015).
The analysis of digitized historical books can be of great value. The work reported here intends to quantitatively support positions from cultural studies about images in children books in the 19th century.

Illustrations in Children Books
Illustrations in books had a significant influence of young readers because they were exposed to much less visual material.
Overall, the illustration history of children books in the 19th century has been well researched. However, there is still demand e.g. for analysing the overall visual knowledge offered and the influence of reproduction technologies (Schmideler 2014). As collection, a digitized subset of the Hobrecker collection available at the TU Braunschweig is used (https://publikationsserver.tu-braunschweig.de/content/collections/childrens_books.xml). It consists of 167 books with some 16.000 pages including 4500 images. It comprises different genres, e.g. alphabetization and poem books (Düsterdieck 1985). This makes the digital part of the Hobrecker collection attractive for digital research methods. The collection contains unique image material, represents most reproduction technologies and shows popular content across different genres. The focus can be set on geographic, ethnographic and historical topics and their appearance throughout competing printing workshops.

Questions of research
The introduction of cheaper printing technologies led to an increase in the production of illustrated books. We developed a classifier which allows the identification of the printing technology used. A training set of images

created using wood engraving and lithography as designed. A state of the art image classifier was used and resulted in only 70% accuracy after some optimization. The so called Convolutional Neural Networks (CNN) follow the deep learning model and try to find the necessary features within the data themselves (Krizhevsky et al. 2012). Further training sets and classifiers especially for wood cut and copper engraving technologies are being developed. The following steps will include the search for similar images in order to recognize patterns of re-use.

Conceptual Approach

The *Iconic Turn* has led to a more significant role of images within cultural studies and humanities. However, this is not yet the case for Digital Humanities. Although a number of innovative tools to support humanities have been developed, these digital tools were primarily for text analysis.

Automatic image processing in large numbers to support research within historical sciences is still in its infancy. So far, very few studies have been published and most of them are restricted to small numbers of images (e.g. Bender 2015). This is true for Digital Humanities in general as well as for the researches on children's books in particular. Despite the fact that images in nonfiction books play an important role in knowledge transfer, they have received little attention yet in the research on children's literature.

It is well known that advances in printing technologies and reproduction processes for pictures and book design in the 19th century have promoted the increment of images in books. The innovations in mechanized printing, the popularization of wood engraving and lithography and dealing with clichés made pictures increasingly available to the widening public. The dimension of this development is still poorly explored in quantitative terms. Therefore, the analysis of digitized historical books with rich visual materials can be of a great value.

Image analysis tasks such as printing technology identification and reuse pattern recognition are highly dependent and limited on manually constructed metadata. Metadata creation not only requires expertise on the respective fields but also lots of time and effort to construct. The work reported here intends to quantitatively support studies in cultural science and humanities particularly by using images from the children's books in the 19th century.

Table 1. Training set statistics.

Printing type	Number of books	Number of images	Number of crops
Wood Engraving	14	349	2235
Lithography	18	173	2235

Questions of research

The 19th century is characterized by great change in media reproduction processes. Newly developed printing technologies were rapidly adopted and used more frequently than the former techniques such as wood cut and copper engraving. Due to the simplification of the production process, it was possible to produce multiple book editions. Our research is set in this context and will discuss the following questions and present the first results of data analysis on a small data sample:
Is it possible to automatically identify printing technologies that were developed in the 19th century with modern computer vision technologies? How rapid was the adoption and how are the qualitative results?

Illustrations in Children Books

Illustrations in books have had a significant impact on young readers in the past because in daily life they had little exposure on much less visual material. Images have been commonly used for educational purposes since the early modern ages, especially since the publication of *Orbis sensualium pictus* (Visible World in Pictures). The innovative textbook of Johann Amos Comenius, a Bohemian philosopher and educator, includes various wood cut images which greatly influenced the design of future children's books. At the end of 18th century, a significant increase of the number of children's books in German speaking countries could be observed. However, most of them contained few or no illustrations. This was due to high manufacturing costs for pictures and the fact that the prevailing print techniques at that time were woodcut and copper engraving. These only allowed a rather limited number of images to be printed. One publication from the publisher Frie-

Table 2. Three CNN architectures built from scratch.

Name	Architecture
Big-Filters	Conv(11)-Pool-Conv(10)-Pool-Conv(6)-Pool-Conv(3)-Pool-Conv(3)-Pool
Small-Filters-Less Pooling	Conv(3)*5-Pool-Conv(3)*4-Conv(2)-Pool-Conv(6)-Pool-Conv(3)-Pool-Conv(3)-Pool
Small-Filters-Balanced Pooling	Conv(3)-Pool-Conv(4)-Pool-(Conv(3)-Pool)*3-Conv(2)

Values in brackets of Conv represents kernel size.
* represents number of same layers in the flow.
Pool represents average pooling with (2*2) sized kernel and stride of 2.

drich Justin Bertuch was an exceptional case. His picture book *Bilderbuch für Kinder* includes 1.185 colored tables with over 6.000 single copper engravings in 12 volumes. The *idea of anschauende Erkenntnis*, the intuitive knowledge of the educational reformers was put into practice. This example together with the general explanations of the editor and publisher about *Plan, Ankündigung und Vorbericht des Werks* (Bertuch 1790) became a standard for other numerous illustrated books development for young readers in the following century. *Anschauende Erkenntnis idea* together with the image didactic program of Bertuch and innovative printing technology formed a basis for the increase in children's picture books in the 19th century.

Images contributed to the dissemination and popularization of contemporary knowledge in discoveries of the natural sciences, other countries, ethnic groups and their culture or technical inventions. In the course of the 19th century, their composition and styles changed. Different ways of representation are observable and some motifs appear temporarily.

The history of illustration in children's books has generally been well researched in Germany for the 19th century (e.g. Ries 1992). However, there are still parts that need to be discovered such as the visual knowledge during that time or the impact of innovative reproduction technologies (Schmideler 2014). Retro-digitized nonfiction books for children and their illustrations adds novelty to big data analysis and brings about new research questions.

Table 3. Binary classification results with six CNN architectures.

Name	Accuracy
Big-Filters	63%
Inception Model with Neural Networks	58%
Inception Model with linear SVM	47%
Inception Model with non-linear SVM	52%
Small-Filters-Less Pooling	61%
Small-Filters-Balanced Pooling	48%

Data collection

Currently, there are a number of partly digitized historical children's book collections worldwide[1]. At that time we use the retro-digitalized children's books of the Hobrecker collection of the Braunschweig University Library. This collection is a small part of the original collection of the couple Margarete and Karl Hobrecker who gave their name to it and to which belong over 12.000 books.[2] About 740 books in the collection have been digitized to this day. A subset is used for the analysis. It consists of 168 books with approximately 16.000 pages including 4.500 images and comprises different genres, e.g. alphabetization and poem books, fairy tales and fables, picture books and textbooks, and last but not least nonfiction books with a wide spectrum of image styles.[3] This makes the collection attractive for digital research methods, because it contains unique image material, represents most reproduction technologies and shows popular content across different genres. The focus can be set on science, geographic, ethno-

1 For example, WegehauptDigital of Berlin State Library, so-called Schatzbehalter collection of the ALEKI-research centre Cologne, children's book collection of Christian M. Nebehay at the Austrian National Library, the Baldwin Library of Historical Children's Literature or Cotsen Children's Library.

2 This was the scope in 1932 as the collection passed onto the ownership of Reichsjugendbücherei (Mahn 1987, 74). After World War II, the collection was separated in two parts. Today the smaller part composing about 400 books belongs to Frankfurt/Main University Library and the larger one to the collection of Children's and Youth books of the Braunschweig University Library. (Düsterdieck 1985)

3 Hobrecker was more a collector than a literary scientist and his main focus was the artistic design of the children's books. He was one of the first persons who was interested in collecting literature for children systematically.

Fig. 1: Example of Noise in the dataset

graphic and historical topics in nonfiction literature and their appearance throughout competing printing workshops.

Classification of printing technologies and reuse of images – a discussion of issues

The introduction of cheaper printing technologies led to an increase in the production of illustrated books. We developed a binary classifier which allows the identification of the printing technology used in the 19th century. From the Hobrecker collection, a subset of 32 books with more than 500 images was carefully examined by experts and annotated based on two printing technologies: wood engraving[4] and lithography[5]. Table 1 shows general statistics of the training set which are used in the classification experiments. Note that crops of images are used instead of whole images. This is based on the assumption that mainly low level visual features are important in distinguishing printing types. A state of art image classifier Convolutional Neural Networks (CNN), the deep learning model which tries to find the necessary features within the data themselves (Krizhevsky et al. 2012), was used and the

4 Wood engraving became popular by Thomas Bewick in the 1790's. For this technique, the engraver uses boxwood or other hardwoods. Because of the hardness which is better than steel or copper a higher edition and inexpensive mass reproduction made possible. Lithography, invented by Alois Senefelder in 1798, is based on a chemical principle. One picture drewed on the stone which was then used to reproduce many copies if the identical image on paper.

5 Lithography remained one of the most popular techniques for illustrating books to the end of the 19th century, when another innovation displaced it.

best result was achieved with only 63% of accuracy from six different neural network architectures. Among six architectures, three of the models were built from scratch which the structures are shown in table 2. The other three architecture follow the structure of transfer learning using the Inception model (Szegedy et al., 2015). They only differ amongst themselves based on the types of classifier used. The classification results for all model structure are shown in table 3.

Unsatisfying performances are shown compared to very successful classification results on realistic photo images

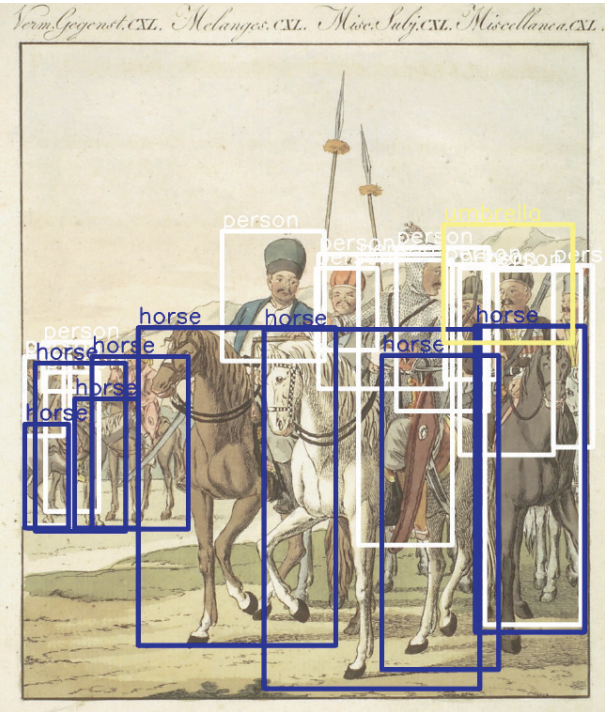
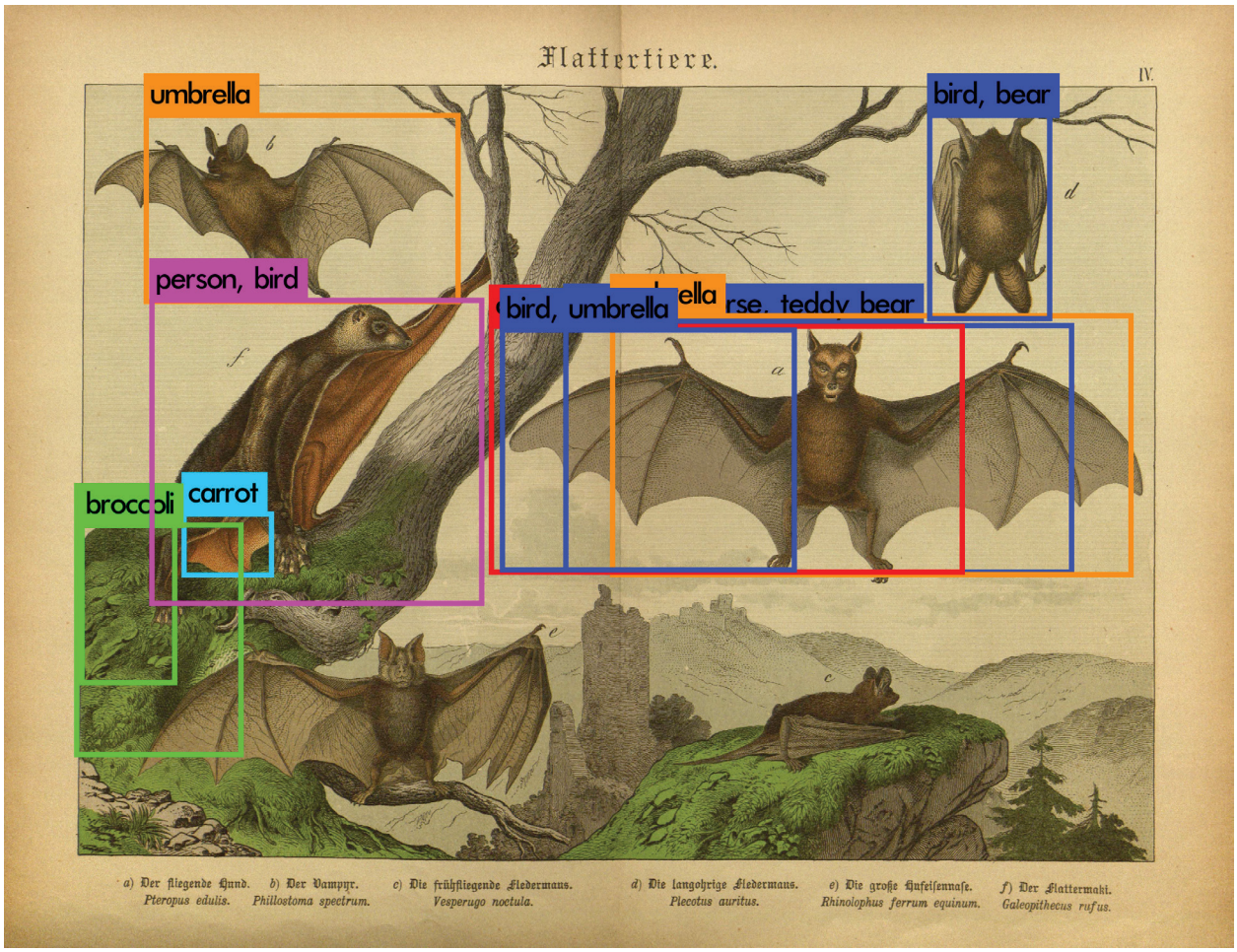


Fig. 2: Positive and negative results of YOLO used on abstract pictures



(Krizhevsky et al. 2012). We believe that rather low accuracy results are caused by mainly three reasons. First, the dataset contains a certain level of the noise. Poor book qualities and the nature of scanned files hindered automated image extraction and pre-processing which led to bad samples creation in the dataset. For example in figure 1, image placed on the left shows text marks on the background which are smeared from other pages of the book. The image placed on the right shows a failure example of image extraction where text parts are being extracted along with the picture.

Secondly, the original assumption about crops might have been incorrect. It seems that the knowledge of full image is required for classification. This might be true also for humans. The experts could not easily distinguish the printing types when some samples of crops were shown. Third is the insufficient amount of training set. Deep learning methods require more training data for better results. That will be the next step in research process: an extension of the currently digitized subset.

Currently, reuse patterns are designed to be determined by combining the similarity measures from three different levels. First is tracking reuse on the whole image level i.e. global feature based similarity. Method that is being implemented is ORB (Oriented FAST and Rotated BRIEF) which is known to be effective in capturing meaningful features for similarity measures regardless of different image sizes or how the image is positioned (Rublee et al. 2011). Second is tracking reuse based on detected objects i.e. local feature based similarity. Object detection experiments are being carried out using YOLO (You only look once; Redmon et al. 2016). Despite that YOLO pre-trained model is trained on photographs with real objects, it works surprisingly well on the pictures which is rather more abstract than the objects in the photographs. Some examples are shown in figure 2.

Similarity computation will be performed with the result set of objects being detected from YOLO. Third level is to compute similarities with latent features derived from both whole image and object level. This level is not yet implemented but currently being discussed. It will be implemented when the results from level two come out.

Outlook

To have better generalized neural network model, efforts on building different types of training sets and enriching them are being made. Currently, two training sets which consist of features such as latent space features and frequency domain features are being constructed. The intuition

behind is to find the best source of training data for printing type classification that will contain the least noise. In addition, more labeled dataset from Pictura Paedagogica Online (PPO) and WegehauptDigital are being included in classification works. Ultimately, we want to analyze the big digitized data to answer the questions noted in the following: to what extent new reproduction techniques are spread, which regional characteristics there were and from which publishers the new printing techniques were used.

Acknowledgements

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Digital Resources and Tools in Historical Research

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Abstract.

This proposal will discuss the use of digital picture archives and associated tools in historical research from the perspective of digital history with a focus on resources for the history of education. Our starting point will be threefold:

- digital picture archives need to be seen as part of a wide range of digital resources that are currently available for historical research; while certain methodological, epistemological and technical questions are specific for digital picture archives, many pertain to digital resources in general;
- similarly: discussing the prerequisites for a picture archive on educational history implies, first, to address the broader question of what prerequisites should be considered for digital archives more generally; and addressing the question of whether or not such general prerequisites can be formulated at all given the wide range of research questions and use cases researchers bring to the table

With this broader contextualisation in mind we will focus on the possibilities and limitations of digital picture archives for the history of education through a brief discussion of the following points:

- what are the characteristics of digital picture archives; technical and otherwise, and within that context, digital archives for the history of education; can specific characteristics be observed with regard to the latter or not?
- what layers of information are currently embedded in digital picture archives for the history of education (taking Gerhard Paul's differentiation as a starting point); how can we improve the design, annotation and classification of images through metadata etc, to build corpuses that meet researcher's requirements?

Introduction

Our paper will have to start with a confession: neither of us are historians of education. Both of us, however, have a keen interest and experience in what is called "digital history" and hence in the use and potential of digital resources in historical research. This workshop presents us with an excellent opportunity to consider a particular case study, the visual history of education, and think through how, and in what ways, digital resources are already used and could advance the field further.

In our paper we will discuss the use of digital picture archives and associated tools in historical research with a focus on the possibilities and limitations of digital picture archives for the history of education. Before doing so some contextual parameters need to be established:

First of all: digital picture archives need to be seen as part of a wide range of digital resources that are currently available for historical research; while certain methodological, epistemological and technical questions are specific for digital picture archives, many pertain to digital resources in general;

Secondly: discussing the prerequisites for a picture archive on educational history implies, first, to address the broader question of what prerequisites should be considered for digital archives more generally; and addressing the question of whether or not such general prerequisites can be formulated at all given the wide range of research questions and use cases researchers bring to the table.

The call for papers for this Pre-Conference workshop announced a focus on "the impact of the discipline on developing and maintaining of a picture archive" and listed a number of pertinent questions. For the purposes of our talk we have reframed these questions as three major topics to be addressed, and added some of our own concerns:

Prerequisites:
what prerequisites, if any, are there for a picture archive on educational history? Are there common basic requirements?

Existing data archives: in how far can existing data archives meet the needs? What do they offer and how are they used? What is their strength and weakness in regard to the analytical possibilities they offer?

Potential: Can existing data archives meet the demands of the visual history of education? Is there a need for another solution? And what potential do new technological approaches, for example from the field of Computer Vision, offer?

The visual turn in the digital humanities

Before addressing the issues above, a very brief word on the visual turn in the digital. The Digital Humanities are traditionally text-based and the engagement with images, as more than digitised artefacts, is only recent. As Patrik Svensson wrote as recently as 2009: "The so-called "visual turn" or research on multimodal representation does not seem to have had a large impact on humanities computing."[1] Many digitisation projects of the 1990s focused on textual materials and text editions. Large scale digitisation of images is a development of roughly the past 15 years. Gerhard Paul talks about the "the technological quantum leap of the world wide web" as a result of which "historians have had completely new possibilities of image research at their disposal for merely the last ten years."[2]

The question is of course how that potential has been used and to what extent it has been realised. For our purposes a further question is whether digital picture archives are merely used as repositories of visual material and images, now easily accessible and in much larger quantities than before, or if new digital methods are used to actually analyse them. As to the latter: recent developments in Computer Vision are now beginning to offer exciting new possibilities. Using neural networks and other techniques rapid advances are being made in visual pattern discovery, image recognition and classification[3] As a result, it is now possible to analyse large image data sets and categorise them[4] to a certain extend. If all that sounds somewhat deterring to many historians, a creative use of metadata can already yield interesting research results for those willing to invest in some technical expertise.

Prerequisites

Let's now turn our attention to the impact of the discipline on developing and maintaining of a picture archive. A first question is what prerequisites, if any, exist for a digital picture archive on educational history? This is a problematic that relates to the more fundamental question what the demands of the visual history of education

1 Patrik Svensson, Humanities Computing As Digital Humanities. DHQ: Digital Humanities Quarterly 3/3 (2009).

2 Gerhard Paul, 'Visual History', Version: 1.0, in: Docupedia-Zeitgeschichte, 11.02.2010. URL: http://docupedia.de/zg/paul_visual_history_v1_de_2010. DOI: http://dx.doi.org/10.14765/zzf.dok.2.557.v1

3 See for a succint overview of recent developments the DH2017 workshop proposal on Computer Vision in Digital Humanities: https://dh2017.adho.org/abstracts/639/639.pdf.

4 See for a description of a very recent example this DHBenelux 2018 abstract: Seeing History: Analyzing Large-Scale Historical Visual Datasets Using Deep Neural Networks. http://2018.dhbenelux.org/wp-content/uploads/sites/8/2018/05/Wevers_Smits_Seeing_History_DHBenelux2018.pdf.

should look like and can be approached from either a content or technical perspective. As to content, researchers and heritage institutions should jointly decide digitisation priorities, ensuring that what is being digitised represents a broad spectrum of relevant topics for potential future research (avoiding the pitfall that what is being digitised only reflects existing master narratives).

From a technical perspective other factors come into play, related to content: First of all the size of the collection affords different approaches when dealing with hundreds, thousands or millions of images. Furthermore the technical provenance of the images (raster images, photographs, etc.) comes into play while resolution and file size of the scanned images require different strategies depending on the size of the collection. And finally possible research questions and topics require certain technical possibilities, for example, certain types of metadata to allow a researcher to find relevant materials. In the case of images, high-quality and consistent metadata are of crucial importance as they provide, at least so far, the only way to find relevant non-textual materials (as compared to being able to perform a full-text search in OCR'ed textual materials). Conversely, new technological possibilities can help to open up new avenues of research and generate new research questions. Here one can think about interlinking materials from various repositories, for example through the so-called International Image Interoperability Framework[5].

State of the Art

Let's consider a couple of example of relevant digital picture archives for the history of education. Pictura Paedagogica Online is the BBF's digital picture archive, Historywallcharts is a collaborative project offering history wallcharts from Germany, The Netherlands and Denmark; and DigiPorta is a digital portrait archive. These archives differ considerably when it comes to search and browsing options, extent and quality of metadata, possibilities to save and/or export found objects and their metadata, etc. As image repositories they function well but there is much room for improvement, especially when search options and quality of metadata are concerned. One factor to keep in mind here is that the migration of data from legacy websites to newer more state of the art content and or asset management systems is costly. In many cases, the question then is how existing databases can be improved until funding is secured for entirely new solutions.

5 See https://iiif.io

Potential

Can existing digital picture archives meet the demands of the visual history of education? This, of course, all depends on how one formulates these demands. To provide an example: suppose we wanted to conduct a comparative wallchart analysis of the depiction of World War II in Germany, Denmark and The Netherlands based upon the collection in http://historywallcharts.eu/. This can certainly be done, yet it requires quite some time as there is no advanced keyword search that would allow us to retrieve all relevant images at once and/or per country; moreover, one needs to search using multiple languages to obtain all possibly relevant results. In this particular example the main point to address would be the quality and consistency of metadata. A different approach would be to use IIIF to interlink the original databases the wallcharts come from, obviating the need for a new application that brings them together in a new database.
Websites like DigiPorta allow users to export metadata, but only for individual records. If this could be done for all relevant records that a search yields the options for research could be significant. Consider the following example, a description by Dutch historian Martijn Kleppe of his research into iconic images used in Dutch history textbooks:

> "This presentation will focus on the methods applied to establish which photos can be called iconic. One of the characteristics of iconic photos is the repetitive publication of the same image. We therefore made an inventory of all photos that were published in Dutch High School History textbooks during 1970 – 2000. A total of 412 books have been analysed and 5.395 photos were identified. All the photos were digitised and added into a database, using software package Fotostation Pro. A total of 42 variables containing information about the photo and the textbook were written down and saved in the Exif file of each photo. This enabled the researcher not only to 'read' the information in different types of Photo- editing and viewing software but we could also export the data into statistical software like SPSS, enabling us to calculate which photos were used most often, resulting in a list of most used photos."[6]

If we move to the realm of computer vision technologies we have other options. Apart from using, for example, deep learning approaches to determine the type of image we are looking at (a drawing, photo, engraving, etc) we could look for all kinds of categories of interest, such as depictions of war, cities, cars, animals etc.

6 Martijn Kleppe, 'Photographic Icons – Building and researching large-scale photo collections', Brainstorm Meeting – e-Humanities: Innovating Scholarship (29 March 2011, NIAS Wassenaar). URL: https://www.ehumanities.nl/v02/beheer/wp-content/uploads/2011/04/Booklet-e-Humanities-Meeting1.pdf.

Concluding remarks

The above was only a very short exploration of digital picture archives in historical research and the visual history of education. What is clear to us is that a multilayered strategy is necessary to realise the potential of digital picture archives for the visual history of education more fully. Enriching and improving the quality and consistency of metadata of existing repositories is one important approach as is exploring what improvements in browsing and advanced search options could be implemented. As to new solutions, migration to more modern systems is costly but of course preferred. Interlinking repositories, through IIIF and Linked Open Data should be part of such an effort.

For research, a way to export metadata of search results is crucial to open up more possibilities for digital historical analysis with some of the existing repositories. Nonetheless, whereas the design and technical possibilities embedded in digital archives obviously shape and constrain what researchers can do with the materials located within them, a researcher's creativity, imagination and willingness to experiment are equally important. In the end, though, we have to return to the question posed in the beginning: what are the specific requirements in the history of education from the perspective of its researchers? Only by formulating these can we hope to build corpuses that meet researcher's requirements.

Programm | August 28 2018

9:00-10:30

Welcome

Tijs van Ruiten – **Old Gold - The Remarkable Archive of a Dutch Publisher (1890-1980)**
From the collection of the Nationaal Onderwijsmuseum (National Museum of Education), Dordrecht, the Netherlands

Jacques Dane – **Dutch Biblical School Wallcharts (1850-1950). Collection of the National Onderwijsmuseum (NOM), Dordrecht, The Netherlands**

Liane Strauß – **History Wallcharts Crossing Borders - The Series „Schoolplaten voor de Vaderlandse Geschiedenis" in Germany**

11:00-12:30

Meng (Stella) Wang – **A Visual History of Colonial School Architecture in Hong Kong 1921-1941**

Sandy Eleanor Brewer – **Macmillan's Nature Classroom Pictures: How the Complications of Copyright Impede the Development of Digitised Archives**

Panna Berta-Szénási – **Decoration in the Classroom**

12:30-13:30 **Lunch Break**

13:30-15:00

Sylvia Kesper-Biermann – **Where Fandom Meets Science: Comics Archives, Comics Databases and the History of Education**

Sjaak Braster and María del Mar del Pozo Andrés –
Engravings as a Blind Spot in the History of Education. Notes about a Private Collection

Gwendolin Schneider and Bettina Irina Reimers – **DigiPortA**

15:30-17:15

Stefanie Kollmann and Lars Müller – **Imagining the World**

Chanjong Im, Thomas Mandl, Wiebke Helm, Sebastian Schmideler –
Automatic Image Processing in the Digital Humanities: A Pre-study for Children Books in the 19th Century

Lars Wieneke and Gerben Zaagsma – **Digital Resources and Tools in Historical Research**

Closing discussion

17:30 optional: Library Tour

BBF Bibliothek für Bildungsgeschichtliche Forschung des DIPF

onderwijsmuseum