Industrial Typefounding in Sweden: Berlingska Stilgjuteriet, 1837–1980

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Prologue

In 1983, the 500th anniversary of the first printed book in Sweden, the collection of fables known as *Dyalogus creaturarum moralizatus*, was celebrated. The book that accompanied the anniversary, *Den svenska boken 500 år*, offered a detailed survey of the industry standards of 1983. Phototypesetting and offset printing had by now replaced the original Gutenberg-style technology of letterpress printing, making printing types obsolete. New technology had pushed production speeds to astonishing new levels. In machine composition, four lines of type per minute had been the average speed, whereas phototypesetting increased the speed to 40 lines per minute. The brand new 'CRT' (cathode ray tube) machines enabled a speed of up to 1000 lines per minute, meaning that a novel of 300 pages could be set in less than half an hour.¹

In the same year, *Time Magazine* proclaimed the dawn of a 'New Economy': the global shift from a manufacturing-based economy to a service-based economy. An indication of this process in Sweden was the coinciding launch of a new award, Utmärkt Svensk Form (Excellent Swedish design), which had the purpose of raising awareness of Swedish design in times when more and more manufacturing industries were moving abroad or shutting down. Yet another sign that times were changing was the closing of the Berling typefoundry in Lund. Once one of the largest manufacturers of printing types in Scandinavia, the company was now about to become a museum object.

[I prologen ska jag skriva mer om jubileet 1983 och den nästan obefintliga bevakningen av Berlings avveckling vid samma tid. Stilgjuteriets grundande 1837 låg nära i tid till det stora Gutenbergjubileet 1840. Fredrik Berling hävdade att den första typen göts i stilgjuteriet samma dag som Thorvaldsens Gutenbergstaty avtäcktes i Mainz. Prologen är tänkt att kort rama in perioden genom dessa två jubileer – det ena präglat av optimism, det andra av nostalgi – och placera Berlings början och slut i ett större sammanhang av accelererande tekniska och mediala förändringar.]

¹ Svensson 1983, 65–67.

Introduction

The technology of mass communication that dominated the world for 500 years – moveabletype printing – relied on the technique of typefounding: the mass production of printing types. These small rectangular blocks, cast in metal, carrying the shapes of letters and other characters, were a key component in the making of books after the introduction of the printing press in Europe in the fifteenth century. [fig. 1, 2] Like paper and labour, types were a substantial running cost for the printer; they became worn after use, and the stock had to be renewed on regular basis. The availability of types of acceptable quality was therefore crucial for the book trade and the overall market for print media to develop in a region.

Even long after the first use of a printing press in Sweden in 1483, printers here were more or less dependent on imported type. Local typefounding did occur but it was fairly limited.² When Berlingska Stilgjuteriet (the Berling typefoundry) was established in Lund in 1837, this essential part of the printing process would, to a greater extent, be produced locally. The typefoundry started as an expansion of the Berling printing office, whose origins can be traced back to the first University printer in Lund, who set up his press there in 1668 around the same time as the founding of the University. The printing office was critical as means for the University to communicate its activities, and it was an important instrument of power in the Swedification of Scania, which had been annexed from Denmark in 1658.³ In 1745, the University printing office was acquired by Carl Gustav Berling, an immigrant from the German town of Lauenburg. His older brother, Ernst Henrich Berling, had already established himself as a printer in Copenhagen and would later start what was to become Denmark's longest-lasting newspaper, Berlingske Tidende. For more than a century, the workshop in Lund was run as a family business that was passed down from father to son through generations. It was the fourth generation, Fredrik Johan Berling, who expanded the printing office with a typefoundry.

The foundry was established in response to an increasing demand for type at a time when the market for print was growing in Sweden and the craft of printing was becoming industrialized. The company would evolve into the leading foundry in Scandinavia, offering

² Bengtsson 1956, Wollin 1943, etc.

³ Hanne Sanders, försvenskningen av Skåne

printers here a wide range of type at a lower price and with shorter delivery time in comparison with its foreign, mainly German, competitors. However, as the more efficient technologies of phototypesetting and offset printing developed during the twentieth century, the role of moveable type diminished. When the Berling foundry closed down in 1980, the market for metal type had more or less ceased to exist.

The aim of this study is to describe and analyze the business of typefounding in Sweden during its industrial phase. Of particular interest are questions about the ways in which Berling's typeface designs, and the knowledge of how to make them, moved across regional markets and national borders. From the outset, Berling assumed a combined role of agency and manufacturer. Types were cast using moulds, so-called matrices, that were designed abroad and imported to Lund. [fig. 3] An early advertisement of 1837 stated that Swedish printers would now have easier access to types 'of the newest kind, engraved [cut] by outstanding punchcutters in Paris'.⁴ Gradually, however, greater emphasis would be placed on national independence. An advertisement from 1870 informed that Berling was now able to deliver complete sets of type of various kinds 'without using other resources than our own, so that not a single letter need be imported'.⁵ In this manner, the foundry's marketing increasingly highlighted the benefits of patronizing the domestic industry, particularly concerning the raw material of which type was made. The company denounced the 'inappropriate' export of Swedish metal to foreign foundries, urging its clients on regular basis to 'buy Swedish type' and 'support Swedish industry'.⁶ [fig. 4, 5] In step with this development, the company started to provide its typefaces with Swedish names and describe their form as especially suitable for Swedish printing. Yet the foundry was largely dependent on matrices that were either imported or plagiarized copies of foreign designs, since expertise and capital required in the making of original matrices were in short supply in the country. Even well into the twentieth century, when Berling eventually achieved the capacity to produce original type of its own design – a fact that was heavily stressed in the marketing – the company relied on foreign resources in the form of imported labour.

⁴ 'Antiqua och Cursiv Stilarne äro af nyaste slaget, graverade af utmärkte stempelskärare i Paris.' Circular from Fredrik Berling to the Stockholm printer Carl Erik Deleen, October 10, 1837. Berlingska boktryckeri- och stilgjuteriaktiebolaget: samling av trycksaker, National Library of Sweden, Stockholm.

⁵ ·... utan anlitande af andra krafter än våra egna, så att icke en enda bokstaf behöft hemtas från utlandet.' Nordisk boktryckeritidning 1870, nr 7, bilaga.

⁶ 'Utsänd ej Eder metall till utlandet – den behöves väl i Sverige. [...] Att utförsel av bly, tenn och antimon i dessa tider ej är lämpligt eller ekonomiskt är väl rätt tydligt, detta så mycket mer som det är alldeles onödigt. [...] Köp Svenska typer!' NB 1916.

Research questions and purpose

The tension between manufacturing and marketing in the operations of the Berling foundry is an underlying theme in this study. The research will examine two broad questions concerning the production and distribution of Berling's type: How was type made, and how was type sold? In order to investigate these overarching issues, a number of more specific inquiries will be made, of which the following are the most essential.

Understanding how type was made at Berling requires an examination of the company's means of production. What kind of machinery, tools and raw material were employed at the foundry, and how were these acquired? Who worked at the foundry, how were different professional responsibilities distributed, and how was the work organized? What did the company's relation to external consultants and subcontractors look like? The process of product development is of special interest. How were Berling's typefaces designed? If Berling's products did not originate there, how did they become part of Berling's product range? In what ways did the design and production of type depend on imported technology and labour? A wider technological context also needs consideration. How did the development of machine composition and other printing technologies affect Berling's production?

The question how Berling's products were sold can be further broken down into inquiries regarding the description, marketing, distribution and historical reception of the company's typefaces. How were typefaces presented in terms of functionality, identity, origin and other qualitative aspects? How were factors of product development and manufacture mirrored in the advertising of Berling's typefaces? To what degree did the type designer appear in the company's marketing? Which function did trade journals, exhibitions, agents and wholesale dealers have in the operations? How were the company and its products displayed in these contexts? How has Berling been portrayed in history? Moreover, the general market for type during the period will be examined. Berling's clients are obviously crucial in this regard. Who were they, and what did the relationship between them and the foundry look like? Understanding the nature of Berling's competitors is of equal importance. How did the company position itself in relation to foreign foundries as well as to its main domestic rival,

the Norstedt foundry in Stockholm? Did Berling sell its products outside the Scandinavian market, and if so, what were the circumstances?

Finally, there are questions concerning aspects of both the making of type and the selling of type that need to be addressed. The idea that a specific design of goods could be owned and protected as property developed and became codified during the period. New laws concerning copyright and patent rights of intellectual property – a category to which typefaces could *potentially* belong – had effects on the market for type, if not always legally then at least morally. Even if it was not unlawful for foundries to copy each other's products, changing attitudes during the period seem to have made it more problematic to do so. How did Berling adapt to these changes in attitudes and laws regarding the ownership of visual design? How did legal and moral issues of intellectual property influence the making and selling of Berling's products?

The history of the Berling foundry and the making of printing types in Sweden during the nineteenth and twentieth centuries lends itself well to studying changes in society and communication technologies during the period. In a broad sense, the study is a response to the general lack of knowledge regarding the history and technology of media with major importance to humanity. This problem is becoming increasingly apparent in the age of digital media with its rapid transformation of channels and formats that determine people's abilities to communicate with each other. The study aims to increase knowledge of the material culture, social conditions and technologies that shaped the nineteenth- and twentieth-century printing types, which form the basis for today's digital fonts and so-called visual identities which permeate people's everyday lives.

Previous research

Typefounding in Sweden

Research on typefounding in Sweden has generally been extensive. The subject was brought up in the early overviews on Swedish printing history by Johan and Samuel Alnander (1722/1756) and Gustaf Klemming and Johan Gabriel Nordin (1883).⁷ Articles on the history of typefounding in Sweden were occasionally featured in the trade journal Nordisk Boktryckarekonst after its establishment in 1900.8 Gustaf Rudbeck and Carl Björkbom presented research in 1925 and 1934, respectively, on Peter van Selow, the earliest known independent typefounder to have worked in Sweden (in the seventeenth century).⁹ Both of which were minor studies but laid the ground for further research. Carl Björkbom's bibliography of Swedish type specimens before 1850, first published in Nordisk *Boktryckarekonst*, was important for shedding light on significant material.¹⁰ The first substantial monograph was the art historian Nils G. Wollin's 1943 study on the Stockholm foundry Svenska Stilgjuteriet, established in the late 1730s.¹¹ [expand] Wollin's research was followed by Bengt Bengtsson whose dissertation in art history, Svenskt stilgjuteri före år 1700 (1956), dealt with the making of type in Sweden from the early days of printing until 1700. Bengtsson's study was partly a survey of techniques and tools, partly an inventory of the typefounders that were active in the country during the period. Bengtsson's academic field was art history, and he accordingly treating his material – type and corresponding printed matter – as 'forms of artistic expression'.¹² This was done in reaction to a perspective which he believed had been prevalent in previous research: the bibliographical, 'unhistorical approach'.¹³ In the latter, according to Bengtsson, typefaces from different periods were compared without consideration of the specific historical context in which they had evolved. In his view, progressive at the time, a Baroque typeface should be analyzed as such, and not be judged in comparison with a typeface stemming from another epoch (representing another art historical style). Bengtsson broadened the historical discussion on typefaces, but he also consolidated an individualistic and stylistic perspective, typical of traditional art history. Continuations of this approach – with its focus on typefaces' capacity to express art historical styles and visual zeitgeist - can be seen in an increasingly narrow understanding of the material culture of typefaces in subsequent research on the history of typography in Sweden,

⁷ Alnander 1722 / 1756 / 1959; Klemming & Nordin, 1883.

⁸ See, for example: Hugo Lagerström, 'Några af Sveriges första stilgjutare I', NB 1906, 89–93; Hugo Lagerström, 'Några av Sveriges första stilgjutare II', NB 1911, 15–19; Pehr Johnsson, 'Peter Momma: en framstående boktryckare från 1700-talet', NB 1920, 320–322.

⁹ Gustaf Rudbeck, 'Peter van Selow: stilgjutare och boktryckare i Stockholm 1618–1648', in Bok- och bibliotekshistoriska studier tillägnade Isak Collijn, Uppsala 1925, 303–334; Carl Björkbom, 'Några anteckningar rörande ryskt boktryck i Sverige', NTBB 1934, 121–130.

¹⁰ Björkbom, Svenska stilprov före år 1850, 1934.

¹¹ Wollin 1943.

¹² Bengtsson 1956, 241. Sten G. Lindbergs recension NB 1956, 295ff har tillägg.

¹³ Bengtsson 1956, 241.

mainly undertaken by art historians.¹⁴ The approach has promoted the notion that typefaces are works of art and that they are creations of individuals, who are frequently regarded as artists. The present study seeks to broaden these previous approaches by incorporating economic and social perspectives, treating the subject – typefaces and their material culture – more as everyday commodities rather than artistic expressions.

Berling and nineteenth- and twentieth-century typefounding in Sweden

Despite the relatively strong interest in the history of typefounding in Sweden, the Berling foundry, and nineteenth- and twentieth-century typefounding conditions in general, have not attracted the attention of historians to the same degree as typefounding of earlier times.

Art historian Christian Axel-Nilsson touched upon nineteenth- and twentieth-century conditions in his 1983 study on matrices kept in the Norstedt collection at Nordiska Museet in Stockholm.¹⁵ This collection of more than 100,000 matrices was donated by the Norstedt company to the museum shortly before the foundry's operations ceased in the 1970s. The foundry was established in 1823, yet the company owned substantial amounts of matrices from earlier times which had been obtained through the acquisition of other foundries. Among the punchcutters represented in the collection are Robert Granjon and François Guyot. It was primarily this earlier material - hand-made matrices from the sixteenth to the mid-nineteenth century - that was the focus in Axel-Nilsson's study. His research was aimed at inventorying and describing the material, and the major contribution of the work was the catalogue of printed specimens, made with new types that were cast from the matrices, by which the collection became available for further research. Thus, the catalogue is a great resource for studying the history of preindustrial typefounding in Sweden and Europe. Furthermore, as Axel-Nilsson dealt with the history of Norstedt, one of the main nineteenthand twentieth-century manufacturers of type in Sweden, he made a valuable contribution to the history of industrial typefounding in the region. His research has been useful to the present study particularly for its data concerning the practitioners active in the trade of typefounding preceding and during the time when the Berling foundry was established.

¹⁴ For example: Gram 1994; Johannesson 2007; Jönsson 2008.

¹⁵ Axel-Nilsson 1983. See also Axel-Nilsson 1963.

In addition, the corporate histories written on the Norstedt foundry, especially the anniversary books of 1904 and 1923, are relevant here as they provide insights into the structure and development of Berling's principal competitor in the country.¹⁶

Bengt Bengtsson has also provided essential research on the conditions of nineteenth-century typefounding in Sweden.¹⁷ His scope, however, is limited to mainly technological developments. [expand]

Axel-Nilsson remarked in 1995 that a comprehensive history of the Berling foundry was missing, calling for an in-depth study which he believed would be highly valuable from a cultural-historical point of view, both from a local and national perspective.¹⁸ The lack of research, which was still the case when the present study was initiated, is remarkable considering the substantial archival material that is available, as well as the important role that Berling played in the Swedish printing industry during this period.

There are a couple of corporate histories concerning the Berling company, such as the ones written by Theodor Tufvesson and Lennart Wester, but these are fairly schematic and preoccupied with the activities of the printing office and not the foundry.¹⁹ In the 1940s, Bert Möller attempted to write a thorough history of the Berling company, but the project was not completed when he passed away in 1947.²⁰ An extract of Möller's work was included in a book published as part of the 200th anniversary of the Berling printing office in 1945, which remains the most extensive overview of the printing business from its origins up until the late nineteenth century.²¹ These accounts, however, have all been sponsored or issued by the company itself, and they are consequently celebratory and narrow in their scope.

Möller's study on the precursors to the Berling printing office and foundry, featured as well in the anniversary book of 1945, must also be mentioned for its foundational research on the

¹⁶ Minnesblad 1904, PAN 100 år 1923.

¹⁷ Bengtsson 1946 (Stockholms konstförvanter); Bengtsson 1951 (Bröderna Lindhs brevväxling).

¹⁸ 'En redogörelse för Berlings Stilgjuteris historia och typografiska resurser från starten 1837 saknas. En modern analys vore högst värdefull ur kulturhistorisk synpunkt såväl i ett lundensiskt som nationellt perspektiv.' Axel-Nilsson 1995, 107.

¹⁹ Tufvesson 1922, republished in Tufvesson 1926; Voitkans & Wester 1979.

²⁰ Möller 1945, 6.

²¹ Möller 1945, Berlingska boktryckeriet genom fyra generationer.

local context in which the Berling printers developed their business.²² Studies on the history of printing, book binding and book trading in Lund have also been carried out by Pontus Sjöbeck, Ewert Wrangel, William Karlson as well as, more recently, Kristina Lundblad and Björn Dal.²³ Möller's research has been supplemented by Henry Hellsen's and Torkild Vogel-Jørgensen's respective corporate histories on the Copenhagen branch of the Berling family, in which the branch in Lund appears to some degree.²⁴ Nils-Arvid Bringéus' study on Scanian catchpenny prints is largely focused on the Berling printers' output in this matter.²⁵

There are, furthermore, several minor studies undertaken in the past on the activities of the Berling company which must be mentioned. Karl Jönsson, who worked as a typefounder there, is the author of a brief but valuable report on the working conditions at the foundry in the twentieth century.²⁶ A related study by Lars Olsson, who has written extensively on the industrialization of printing in Sweden, is focused on the relationship between the facilities of the Berling factory and the working conditions in the nineteenth century.²⁷ Bo Berndal's documentation of Berling's endeavours in the making of matrices for machine composition in the 1950s and 1960s must also be noted for its insights into production from the viewpoints of the type designer and the engraver.²⁸ Moreover, the company's most celebrated product, the typeface Berling Antikva, has been dealt with in numerous historical accounts.²⁹ Yet several critical perspectives on the typeface are lacking in these histories, and the present study aims to remedy that. Findings from my preliminary studies for the thesis have been published in the journal *Biblis* and in the booklet *Typographic Novelties (Iaspis door numbers)*.³⁰

Additionally, there is previous research on the subject of Berling which has not been published. In 1997, Mats Larsson compiled a bibliography of type specimens issued by the Berling foundry, consisting of 97 books, brochures and leaflets found in the collections of the

²² Möller 1945, Lunds första boktryckare.

²³ Sjöbeck 1918 (Haberegger); Wrangel 1926 (Gleerup); Karlson 1939 (Bokband); Lundblad (Från Winstrup till Gleerup); Dal (Bunden uti Lund); Lundblad 2023 (domkyrkoboken).

²⁴ Hellssen 1933 (To Hundrede Aar: Det Berlingske Bogtrykkeri); Hellsen 1958 (Foregangsmanden Ernst Henrich Berling [första utgåvan 1932]); Torkild Vogel-Jørgensen 1949.

²⁵ Bringéus 1995.

²⁶ Jönsson 1988.

²⁷ Olsson 1991a; 1991b. Se också Olssons artikel i 'Va har harrn' och 'En typ bland typer i Lund'.

²⁸ Berndal 1997.

²⁹ Forsberg 1982 (Biblis), 1992 (Data); Lindberg 1994; Nordling 2004; Gram.

³⁰ Lämningar (Biblis); Typographic Novelties (Iaspis door numbers) (Iaspis/The Swedish Arts Grants Committee's International Programme for Visual and Applied Artists)

National Library, the Lund University Library and Grafiska Museet in Helsingborg.³¹ Although not a complete bibliography of the foundry's output, it is highly valuable for its charting of printed material that is normally not catalogued by libraries. Included in the bibliography is information on stamps and handwritten notes found on the library copies, as well as data from legal deposit lists, indicating the time of printing or delivery to the library. Records such as these enable an estimate of the year of publication of many of Berling's specimens that were otherwise printed without date. More recently, Einar Ljungström has begun inventorying the Berling matrices kept at Kulturen in Lund, which is crucial to the understanding of Berling's operations.³² Kulturen moreover offers the permanent exhibition *Bokkulturen* where several machines and tools employed at Berling are on display.

One reason why the Berling foundry has been relatively undocumented for so long, despite its economic and cultural significance, may be that the history of printing in Sweden, like so much other historiography, has been preoccupied with topics with a geographical proximity to Stockholm. Previous research on typographic practices in Sweden has, to a high degree, been undertaken through institutions such as the National Library, Svenska Slöjdföreningen/Svensk Form, Stockholms Typografiska Gille and Svensk Bokkonst which tend to focus on topics relating to the capital, failing to acknowledge conditions prevalent in the rest of the country. The present study seeks to balance this state of affairs. Furthermore, it extends the local and national perspective, that Axel-Nilsson called for, to an international context.

Typefounding in Europe and the United States

Dan Reynolds' thesis *Schriftkünstler* deals with questions about the relationships between type designers (or lettering artists) working in Germany between 1871 and 1914 and the craftsmen who realized their designs. During the period that Reynolds investigates, these roles – the responsibility of the typeface design on the one hand, and its technical implementation on the other – were divided between two or more individuals. The finished product was a result of a collaborative process involving a number of professions in addition

³¹ Larsson 1997 (B-uppsats).

³² At the time of writing there is no publication of Ljungström's findings. Kulturen 2017.

to the type designer: punchcutters or engravers, draughtspersons, matrix justifiers, typecasters, finishers among others. However, as stated by Reynolds, while 'it is easy to find records of the names of the type designers, the dates of typefaces' publication, or drawings from certain typefaces' development', significantly less information has been recorded in regards to the individuals, the 'type makers', who carried those designs out.³³ The key question in Reynolds' thesis – what influence did these individuals have on the design of typefaces – is addressed also in the present thesis and applied to its specific material. [work in progress]

Swedish design, Swedish typography

Collaborations between the manufacturing industry and individual designers and artists are a central theme in the history of Swedish design, which has largely been shaped by the twentieth-century pursuit of vackrare vardagsvara – better things for everyday life.³⁴ This slogan and manifesto, first promoted in 1919 by Svenska Slöjdföreningen for the sake of stimulating interest in the production of everyday goods, had a strong influence on the history of twentieth-century industrial design in Sweden. One would think that the Berling foundry, the largest Swedish manufacturer of typefaces for the graphic industry in the nineteenth and twentieth centuries, had a place in this history, but that is not the case. Here the objects of interior design and the household - furniture, glassware, textiles, ceramics and so forth have dominated, whereas type design is largely absent.³⁵ Perhaps mass-produced letterforms have been too much of a thing of everyday life - virtually unnoticeable - for attracting the attention of Swedish design historians. It may also be the case that the design of letters is not sufficiently associated with consumer goods for the home, which has been the main focus in histories of Swedish design. There are, indeed, publications in which the acclaimed Berling Antikva is featured. But in these cases, it is often only the type designer, Karl-Erik Forsberg, who is acknowledged. For example, the monograph Den svenska formen (1985) states that Forsberg 'created the Berling typeface' without even mentioning the foundry.³⁶ And in cases

³³ Reynolds 2020, 4, 53.

³⁴ For an English translation of Vackrare vardagsvara, see: Paulsson 2008.

³⁵ Typical examples of this kind of history are Wickman 1995 and Söderholm 2005.

³⁶'Han har [...] skapat typsnittet Berling, idag det enda svenska typsnitt för brödtext som finns och som man även träffar på utanför landets gränser'. Inez Svensson, 'Grafisk formgivning', in Monica Boman (ed.), Den svenska formen 1985, 130.

where the subject of the foundry behind Berling Antikva is actually brought up, the aspect of collaboration between designer and manufacturer is rarely discussed. *Swedish Design: a history* (2019), for instance, notes that Berling Antikva was 'developed' at the Berling foundry, but at the same time the product is referred to as Forsberg's 'self-designed' typeface.³⁷

The manufacturer behind Berling Antikva has not received much attention even in histories of Swedish typography and graphic design. In most cases, the designer and the end product are in focus, and perspectives on how the company's economic conditions, means of production and workers influenced the product development of Berling Antikva are largely left out. If the foundry emerges as an agent in the story, it is mainly the company management that stands out in its role as commissioner.³⁸ One reason for this may be that the majority of historical accounts on the making of the type has been written by the designer himself, and by people in his close circle, and subsequent chroniclers have gathered data mostly from these statements – based on the designer's interest and memory.

Research material and method

There are several company archives related to the Berling foundry, kept at the Swedish National Archives in Lund, which form the basis of research material employed in the study. Most of the material has been sourced from the archive of Berlingska Boktryckeri- och Stilgjuteriaktiebolaget, the formal name of the limited company which included the foundry alongside the printing business.³⁹ Archives relating to the owner of the Berling business from 1943 onwards, the Håkan Ohlsson printing office in Lund, have also been consulted.⁴⁰ In addition, there are a couple of minor archives containing material from the various subsidiaries within the Håkan Ohlsson corporate group which have been useful in the research.⁴¹

³⁷ Brunnström Swedish Design, 138. The wording in Swedish is: '[Forbergs] stil gled efterhand över mot det kalligrafiska och klassiska hållet, i synnerhet efter 1952 när hans egendesignade typsnitt Berling antikva var fördigutvecklat vid Berlingska stilgjuteriet i Lund.' Brunnström Svensk designhistoria, 246.

³⁸ Forsberg 1992, 149. Finns liknande formulering i Bokstaven i mitt liv?

³⁹ Berlingska Boktryckeri- och Stilgjuteriaktiebolaget, Riksarkivet

⁴⁰ Håkan Ohlssonkoncernen and AB Håkan Ohlssons Boktryckeri, Riksarkivet

⁴¹ Berlings Grafiska and Berling Matris. Nämn Berling-relaterade arkiv som inte konsulterats

The Berling company archives consist of a rich and wide range of business documents such as annual reports, correspondence, board minutes, accounting books, sales statistics and blueprints for typefaces, as well as promotional documents such as type specimens, price lists and circulars. Altogether, these collections are fairly unique in Europe since many equivalent archives of Berling's competitors, most of which were located in Germany, were destroyed in the Second World War. There are other exceptions to this gap in resources, such as the Berthold foundry company archive, kept at the Deutsches Technikmuseum in Berlin, but the oldest material therein dates from after the Second World War.⁴² Indeed, there are many collections of typeface drawings, type specimens and other documents and materials relating to the history of typefounding, which have survived also from the time before the Second World War. In Europe, the collections housed in the Klingspor Museum in Offenbach am Main, the Museum für Druckkunst in Leipzig, the Haus für Industriekultur in Darmstadt and the St Bride Foundation in London are notable resources in this regard. Yet there are not many corporate archives that have been preserved in whole. Documents regarding the business and economic aspects of typefounding, the management, administration and organization of work - in short, the daily activities of the factory - have not been preserved to the same degree as materials relating to the work of type designers and the finished products such as type specimens and other promotional matter.

The Einar Hansen collection in Lund, including the collections of Svenskt Bokmuseum, Erik Gjethwoldsén and Arne Heine, is a considerable resource for studying the development of Berling and the typefounding industry.⁴³ The collection is particularly useful for examining the company's external communication with its clients and the industry. In addition to a dozen specimen books covering the foundry's product range from the whole period, there are large amounts of ephemera in the form of specimen booklets, price lists and various promotional brochures. Business stationery such as letter paper, business cards, invoices and forms are also preserved here, much thanks to Alexis Hasselquist, who after leaving his position as director of the Berling company in 1902 was engaged in establishing the collection of Svenskt Bokmuseum.⁴⁴ Older samples of work produced at the Berling printing office and its predecessors in Lund, dating back to the seventeenth century, are also available

⁴² Reynolds 2020, 71.

⁴³ During most of the time when this study was undertaken, the collection was deposited at the Lund University Library. In 2024 it was moved to its own premises at Skomakaregatan 1 in Lund.

⁴⁴ Lundblad artiklar om Svenskt bokmuseum.

in the special collection of work samples from Swedish printers (Svenskt tryckprovssamling).⁴⁵ Moreover, the collection includes material from Berling's competitors, the Stockholm foundries of Norstedt and Erik Petterson as well as European and American foundries who are represented by a large number of specimen books and other sales material. Furthermore, the collection's complete sets of volumes of Swedish and foreign trade journals have made it possible to follow the Berling company's operations through advertisements and reviews.

Bert Möller's personal archive, kept at the Lund University Library, has also been very useful to the study. Möller worked for many years as a librarian at the University Library and was the author of several studies on the history of the book in Sweden.⁴⁶ In 1943, Möller was engaged by the Berling company to write the above-mentioned commemorative book to be published in conjunction with the 200th anniversary of the printing office. The work was envisioned as a two-volume in-depth study of the history of printing in Lund ('det lundensiska boktryckets historia'), but at the time of the anniversary in 1945, Möller had not been able to finish the project due to illness, and he passed away in 1947.⁴⁷ Nevertheless, Möller completed two overviews that are included as chapters in the anniversary book, covering 'Lund's first printers' and 'the Berling printing office through four generations'.⁴⁸ It is evident from material in the archive that Möller was still involved in Berling-related research at the time of his death.⁴⁹ There are also documents in the Berling company archive (at the Swedish National Archives) containing corrections and additional information surfacing after the publication of the anniversary book, indicating that the project continued even after 1945.⁵⁰ [check board minutes] Moreover, Möller was working on a study on the history of printing in Scania, titled Skånsk boktryckerihistoria, for which source material, notes and drafts have been preserved in his personal archive. It is not clear whether this study was to be included in the two volumes commissioned by Berling, it may also have been intended as a separate monograph. In any case, the discovery of Möller's papers has been highly valuable for the present thesis. For instance, Carl Gustav Berling's 1751 type

⁴⁵ Vitus Haberegger, Abraham Haberegger, Ludvig Decreaux, Carl Fredrik Berling, Christian Fredrik Berling, Fr. Berlings boktryckeri och stilgjuteri, Fredrik Johan Berling, Berlingska boktryckeriet (samling av trycksaker).

⁴⁶ Möller 1931 (Svensk bokhistoria); Möller 1933 (En gammal bokhandel).

⁴⁷ Möller 1945, 6. Ref till Bert Möller bio.

⁴⁸ Möller 1945.

⁴⁹ For instance, there is a clipping among the material from August 1947, on the death of Berling's former director Hjalmar Rosén, only a few months before Möller himself died.

⁵⁰ Ref to Möller's folder, Riksarkivet.

specimen, of which a photographic copy is kept among Möller's papers, has presumably never before been documented in any history on the subject. [fig. 6] Moreover, the sections below on the prehistory of the Berling typefoundry build mainly on Möller's research. This prehistory was already outlined in the 1945 anniversary book, but it has been beneficial to compare the information therein with Möller's archive – which includes transcriptions and photographic copies of source material – since the anniversary book lacks references. The emphasis in Möller's work is on the period before the nineteenth century.⁵¹ Yet his archive contains several documents from the nineteenth and twentieth centuries which have been crucial to the present study. Fredrik Johan Berling's memoirs, for instance, is a highly significant source, of which a transcribed copy has been preserved thanks to Möller.⁵² [where is the original document?]

The following archives and collections are less substantial compared to the above-mentioned resources, yet they are also important to the study. The ephemera collection of the National Library of Sweden has a large amount of material from Berling which has not always been saved in the company archives. Several circulars and product brochures preserved here seem to be unique for this collection.⁵³

The Lund University Library and the Swedish National Archives in Lund holds documents concerning the Berling family in Lund.⁵⁴ [expand]

The Uppsala University Library holds a collection of Karl-Erik Forsberg's works, which includes material related to the typefaces he designed for Berling.⁵⁵ [expand]

Besides matrices and machinery, the Kulturen museum in Lund also holds archival material concerning the Berling company and family.⁵⁶ A large portion is correspondence, and much of this is merely of biographic interest, but several letters written by Per Adolf Norstedt to

⁵⁴ Berlingska Släktarkivet + Fredrik Johan Berlings brevsamling, LUB; Berlingska familjepappren, Riksarkivet.

⁵¹ Among the surviving papers is a handwritten note containing a preliminary table of content for *Skånsk boktryckerihistoria*, covering the following subjects: prehistory, medieval writing in Lund, Christiern Pedersen, Georg Hantsch, Peder Winstrup, Vitus Haberegger, David Kämpe, Ludvig Decreaux, prices and wages, working conditions, censorship, the Almanac, Carl Gustav Berling, Johan Lundblad, Christian Fredrik Berling, eighteenth-century newspapers in Lund. Källa.

⁵² Fredrik Berlings levnadsminnen. [appendix]

⁵³ For example, circulars from Fredrik Berling, and 'Typografiska Nyheter'. Kungliga Biblioteket, Vardagstryck

⁵⁵ UUB, Karl-Erik Forsbergs donation.

⁵⁶ Berlingska Samlingen, Kulturen.

Carl Fredrik Berling, concerning the buying and selling of type, have been of great value to the study.

Other sources employed in the writing of this thesis include trade-related monographs, journals and handbooks, all of which are listed in the bibliography. Especially the trade journals *Nordisk Boktryckarekonst* and *Nordisk Boktryckeritidning* are important sources due to their advertisements and attached supplements containing specimens and circulars from the Berling foundry. Numerous reviews of Berling's typefaces in *Nordisk Boktryckarekonst*, as well as the company's advertisements that appeared in virtually all of the journal's sixty-two volumes, from the years 1900–1961, have been useful in the dating of Berling's products and the understanding of their presence and reception in the trade press.

Theoretical perspectives

Terminology

Outline

Chapter 1. The techniques and materials of typefounding

The craft of printing consisted in fact of several crafts. Making paper, composing type and operating the press, for example, were all distinct professions involved in the manufacture of printed goods. Like most human innovations, moveable-type printing relied on existing technology, and the new crafts evolving out of printing were dependent on knowledge that was already available. 'This knowledge', writes Fred Smeijers, 'was taken out of its usual contexts, brought together, and put into another context. Then something else could be done with it, namely printing.⁵⁷ Elizabeth Eisenstein referred to this process as 'occupational mutations'.⁵⁸ One of the new crafts of printing was typefounding: the making of type. Yet the principles of this craft, as developed in the fifteenth century and attributed to Johannes Gutenberg, were not new. Typefounding combined what is arguably mankind's first techniques for mechanical reproduction of artefacts: stamping and founding.⁵⁹ Engravers of medals and coins, as well as other metal workers making steel punches and striking them in softer metals, had developed these principles long before the introduction of moveable-type printing. The first makers of printing type were in many cases goldsmiths, a professional field to which also Gutenberg reportedly belonged.⁶⁰ In its earliest days, type was produced within or in close proximity to the printer's workshop by craftsmen such as metalworkers who made type on request, as a side job. With the growth of the printing trade, however, the makers of type soon evolved into a specialist field of independent contractors.⁶¹ [fig. 7. 8]

Typefounding, in turn, also included several professions. In the most basic terms, the procedure involved the making of a mould that depicted a character (such as a letter) wherein molten metal was poured and solidified into a 'sort' – a piece of type. The work process was roughly divided into three main stages: the cutting of punches, the making of matrices and the casting of type. A typefounder or a typefoundry could be engaged in any combination of these

⁵⁷ Smeijers 1996, 59.

⁵⁸ Eisenstein 2012, 27.

⁵⁹ Benjamin, The work of art: 'In principle a work of art has always been reproducible. Man-made artifacts could always be imitated by men. Replicas were made by pupils in practice of their craft, by masters for diffusing their works, and, finally, by third parties in the pursuit of gain. Mechanical reproduction of a work of art, however, represents something new. Historically, it advanced intermittently and in leaps at long intervals, but with accelerated intensity. The Greeks knew only two procedures of technically reproducing works of art: founding and stamping. Bronzes, terra cottas, and coins were the only art works which they could produce in quantity. All others were unique and could not be mechanically reproduced.'

⁶⁰ Carter 1969, 17, 93f; White 2017, 25.

⁶¹ Smeijers 1996, 61; Carter 1969, 10; Reynolds 2020, 116.

activities.⁶² Gradually, the meaning of 'typefounder' – strictly 'typecaster' – came to absorb the occupations of punchcutting and matrix-making, especially after industrialization. That was to be expected, explains Harry Carter: 'when various trades are carried on in a factory, only an expert knows what they are; an average person is content to call the factory after its product'.⁶³ The techniques, however, remained fairly unchanged from as early as the second half of the sixteenth century, perhaps even earlier, to well into the nineteenth century.⁶⁴ Bengt Bengtsson observed that the first known detailed explanation of type-making, found in the *Dialogues françois pour les jeunes enfans*, issued in 1567 from Plantin's press in Antwerp, and a trade manual of 1881, Johan Gabriel Nordin's *Handbok i boktryckarekonsten*, include descriptions of contemporary tools that are more or less identical.⁶⁵ Even in the late 1960s, Harry Carter noted that the equipment and methods described in the *Dialogues* of 1567 'were those remembered by older men in the trade today'.⁶⁶

In the preindustrial era, before the introduction of typecasting machines [fig. 9, 10], the primary devices used in the making of type were the punch, the matrix and the typecasting mould. In what follows, the basic principles of the production process will be described, drawing mainly on previous research by Bengt Bengtsson, Harry Carter, Dan Reynolds and Fred Smeijers, who in turn build on historical accounts of typefounding, primarily Joseph Moxon's *Mechanick exercises* (1683–1684) and Pierre-Simon Fournier's *Manuel Typographique* (1764–1766).

5. See also: Carter 1909, 1

⁶² Reynolds 2020, 113; Carter 1969, 93.

⁶³ Carter 1969, 93.

⁶⁴ Even though punches, matrices, moulds – the basic devices used in typefounding – are mentioned in sources from the fifteenth century, there is no documentation from this time of how they were used. Dan Reynolds has pointed out that: 'Explanations of Gutenberg's inventions typically include descriptions of the method for casting pieces of type current in the mid-sixteenth century – about a century after Gutenberg's books were printed; these explanations presume this method was introduced by him, and not by later printers. [...] The method could have been developed in Gutenberg's workshop, or by another early printer, but no concrete documentation about their methods survive.' Reynolds 2020, 113, 117. Harry Carter regarded the *Dialogues françois pour les jeunes enfans* of 1567 as the 'earliest trustworthy' source on the making of type. Carter 1969, 5. See also: Carter 1969, 19.

⁶⁵ Bengtsson 1946, 19–22.

⁶⁶ Carter 1969, 7.

The punch

The making of type began with the making of punches: stamps carrying the form of a character. The raw material was a bar of steel or other hard metal. Punches for smaller sizes of type were normally around $6 \ge 1 \ge 1 \ge 10^{-67}$ Dimensions varied depending on the size of the fount and the width of the letter.

First, the steel was annealed to make it softer and more workable, after which one end of the bar was filed to a flat and smooth surface. Here the outline of the character was marked reversed left to right – with a needle or a pen. Gravers and files were then applied to remove the steel surrounding the outlined character.⁶⁸ Any 'counters' within the character – the interior space of letters such as O, B and D – were eliminated by either digging the metal out with a graver or using a so-called counterpunch. By pressing in the character's interior shapes with a corresponding counterpunch, instead of digging them out, the punchcutter simplified and systematized the cumbersome work of making punches. One counterpunch could be used for several characters; the shape of [•], for instance, could be applied to b, d, p and q.69 Eventually the character stood out in relief. 'It must be borne in mind', Fournier advised, 'that it is impossible to judge of the perfection of the punch without taking an impression of it, since the letters are all cut in reverse, thus: [mirrored C, D, E, F,] and are apt to look differently when seen the right way around'.⁷⁰ To obtain such an impression, smoke proofs could be made, meaning that the punch was placed over a flame, generating a thin layer of soot on the character which was then stamped on paper, enabling the punchcutter to evaluate the design in progress.⁷¹ When the punchcutter was satisfied with the shape of the character, the punch was hardened by heating and thereafter cooled in water.⁷²

One punch was made for every desired character in every desired size. A fount of type would commonly require 100–120 punches: upper- and lowercase letters, numbers, ligatures, punctuation marks, letters with diacritics, etc. Fred Smeijers has estimated that it was possible for a skilled punchcutter to make up to three or four punches in a working day.⁷³

⁶⁷ Bengtsson 1956, 31.

⁶⁸ Bengtsson 1956, 31; Moxon, quoted in Reynolds 2020, 127.

⁶⁹ Fournier, quoted in Smeijers 1996, 92.

⁷⁰ Fournier 1764, trans. Carter, quoted in Smeijers 1996, 98.

⁷¹ Reynolds 2020, 185.

⁷² Bengtsson 1956, 31.

⁷³ Smeijers 1996, 124.

The matrix

When the punch was finished, work began on the matrix. The first step was to make a socalled strike, meaning that the punch was hit into a piece of softer metal, commonly copper, where it left an impression of the character in its non-reversed shape. Justification was the next stage in the completion of the matrix. The rough strike had to be trimmed with high precision in order to function effectively, as the dimensions of all the matrices in a fount had to correspond with each other. The depth of the impression had to be equal, and the space above, below and on the sides of the character had to be precisely defined. All the matrices of a certain fount had to align in height. Furthermore, the character had to be parallel with the sides of the matrix, and it had to be level. The justifier worked mainly with files and a number of measuring instruments. Test castings were made to control the result.⁷⁴ Justification was traditionally the task of punchcutters, however after industrialization it evolved into a specialist occupation: the matrix justifier.⁷⁵ Harry Carter and Herbert Davis have emphasized the great patience and accuracy needed in the craft of justification, describing it as a 'science'. They cite an anonymous authority who, when thinking of the practitioners of matrix justification, was reportedly moved to say: 'Any fool can cut a punch.'76

The typecasting mould

After justification, the matrix was ready to be placed in a typecasting mould. [fig. 11, 12] This was an apparatus, commonly made of brass or iron, consisting of several parts, mainly two halves, that when put together could accommodate one matrix at a time.⁷⁷ The metal parts were attached to a wooden clothing that protected the typecaster's fingers from the heat emerging in the casting process. The size of a mould belonging to the Berling foundry, preserved in Kulturen, measures about X cm square. The mould was calibrated for the height

⁷⁴ Bengtsson 1956, 36; Moxon/Davis/Carter 1958, 155–161.

⁷⁵ Smeijers 1996, 121f. See also Reynolds 2020, 115f.

⁷⁶ Moxon/Davis/Carter 1958, 162.

⁷⁷ Axel-Nilsson 1983, 20; Bengtsson 1956, 40–45.

of one set of matrices, meaning that the same mould could be used for all the characters in a fount, but not for different type sizes.⁷⁸ Since matrices were of variable widths, determined by the width of the character, the aperture of the mould had to be adjustable. The two halves were brought together in such a way that the aperture was closed as far as the matrix allowed.⁷⁹

When the mould was assembled, the typecaster held it in one hand, and with the other, holding a ladle, he poured molten metal into the aperture. When the metal had hardened, after a few seconds, the mould was opened and the piece of type could be ejected. Finally, the sort was finished; unnecessary metal was removed, and it was evened with a grindstone and planed down to the desired height.⁸⁰ [fig. 13, 14] The character on the sort was reversed left to right, so, when inked and pressed on paper, it would leave a right-reading impression.

How many sorts could be generated in one day? Fournier gave the figure of 2000–3000, while Moxon made the estimation of 4000.⁸¹ Improved hand moulds in the nineteenth century made it easier to eject the matrix, and the possible output increased to 6000 sorts per day according to several sources from the 1860s onward.⁸² Johan Gabriel Nordin asserted in 1881 that the daily output could be anything between 3000 and 7000 sorts depending on the skill of the typecaster.⁸³ Even though the hand-held mould was largely replaced by typecasting machines in the nineteenth century, it was still used well into the twentieth century for test castings.⁸⁴

Raw material

The metals primarily used for making punches and matrices were, as mentioned, steel and copper respectively. For the punch, steel allowed for the most exact engraving while still being a tough material. A punch of steel could be used many times, producing a sharp impression. For the matrix, copper offered the best qualities for receiving the impression, as

⁷⁸ Reynolds 2020, 117.

⁷⁹ Carter 1969, 7.

⁸⁰ Smeijers 1996, 55; Reynolds 2020, 116f; Bengtsson 1956, 45–51.

⁸¹ Moxon/Davis/Carter 1958, 173.

⁸² Moxon/Davis/Carter 1958, 173; Reynolds 2020, 117.

⁸³ Nordin 1881, 62.

⁸⁴ Bauer Wie eine Buchdruckschrift entsteht, 14; G&H Schriftguss 1950s.

the metal is relatively soft but fairly resistant to abrasion. It was important that the matrix could withstand the high temperature of molten metal and that its surface was not oxidized or otherwise corroded in the process of casting.⁸⁵ Other metals were also used to make punches and matrices. When a certain sort required less detail, and for larger type sizes in general, a softer material such as brass, bronze or lead could serve for the punches. These materials were easier for the punchcutter to process, and matrices in lead were well suited for these softer kinds of punches.⁸⁶

As for the type, it usually consisted of lead, antimony and tin, an alloy known as typemetal. Lead made up the largest part. It has been said that there were as many recipes for typemetal as there were foundries.⁸⁷ And the formula of the alloy was often a trade secret that typefounders were reluctant to share.⁸⁸ The Berling foundry's typemetal in the 1950s comprised of 64–67 percent lead, 27–30 percent antimony and 6 percent tin.⁸⁹ It is fairly similar to what Harry Carter in the 1960s called a standard mixture: 60 percent lead, 25 percent antimony, and 15 percent tin. This may be compared to the alloy Plantin supposedly used around 1580: 82 percent lead, 6 percent antimony, and 9 percent tin.⁹⁰ The proportions of the ingredient metals varied depending on the type's application. Antimony made the type harder, and so did tin; the latter also lowered the melting point and increased the alloy's fluidity. It was important that the metal filled completely all the cavities of the matrix, so metal for smaller sizes had to be more fluid and thus contained more tin. Lead was the cheapest of the three substances, so more lead in the alloy reduced production costs.⁹¹ However, too much lead made the type softer and less durable. Typemetal for composing machines had to be of a fairly low melting point, so as to not overheat and damage the machine, and it did not have to be very strong since type cast by composing machines was normally used only once and then remelted. Foundry type required a harder alloy and therefore contained larger amounts of antimony and tin, as well as a small amount of copper to further increase the hardness.⁹² It was not only the composition that affected the quality of type, but also the ingredient metals themselves, which could contain more or less impurities.

⁸⁹ Grafiska uppsatser, 19.

⁹¹ Grafiska uppsatser, 18; NB 1911, 153.

⁸⁵ Bengtsson 1956, 36.

⁸⁶ Bengtsson 1956, 37–39; G&H Chronik 1908, 12.

⁸⁷ NB 1935, 473.

⁸⁸ Carter 1969, 7.

⁹⁰ Carter 1969, 21.

⁹² Grafiska uppsatser, 18–19.

Foundries competed with each other on who had the most durable type. Like many other foundries, Berling frequently emphasized in advertising that its typemetal was of the best quality.⁹³

Brass was another material used by foundries primarily for leading and rules. [fig. 15] Type intended for use by bookbinders, in the gilding of books, was also generally cast in brass. Berling offered these products in typemetal as well, as a cheaper alternative, since brass was more expensive than typemetal. Berling's type for bookbinders and 'metal rules' (*metallinjer*) were cast in typemetal specially composed for each purpose.⁹⁴ What could be seen as a material deficiency – typemetal was less durable than brass – was promoted as useful; the typemetal rules could be shaped by bending, and they could be jabbed with a knife to make printed lines appear as if they were drawn by hand.⁹⁵ [fig. 16] Historically, brass was also used as material for casting letters in larger sizes, to be used, for instance, on title pages. Larger type sizes were difficult to cast with a hand-held mould, so techniques were developed, notably by the Frankfurt-typefounder Jacques Sabon in the 1570s, using moulds made out of sand or plaster, producing type in which brass was the main ingredient.⁹⁶

In the nineteenth century, larger sizes of type were increasingly cut in wood. The technique of printing texts with wood type dates back to at least the eighth century, when the first known specimens of printed texts originated in China.⁹⁷ The material came into new use around 1828 when Darius Wells, a printer in New York City, began mass-producing wood type with a special saw, the lateral router, that could cut out the contours of letters in wood. The technology was developed by William Leavenworth of Syracuse, New York, who in 1834 provided the saw with a pantograph.⁹⁸ An operator could now trace a pattern by hand, and this movement directed the saw which cut the letterform according to the drawing. It was a fairly simple and cheap machinery that met a growing demand in the nineteenth century for

⁹³ 'Vårt material är det bästa tänkbara, då vi använda en metall-legering, som är af den största fullkomlighet.' Bradley Serie specimen, c. 1900; 'Vår stilmetall är den bästa!' Teutonia specimen, 1909; 'För våra tillverkningar kommer endast den bästa och hårdaste metallegeringen till användning, varföre vi kunna garantera ett hållbart och slitstarkt stilmaterial.' Saxo specimen, 1932.

⁹⁴ Utval av typer för handförgyllning specimen, 1911; Bradley Serie specimen.

⁹⁵ Bradley Serie specimen.

⁹⁶ Carter 1969, 15f.

⁹⁷ White 2017, 18; Cynthia Brokaw, 'Medieval and Early Modern East Asia', in: The Oxford Illustrated History of the Book, ed. James Raven (Oxford: Oxford University Press, 2020), 85.

⁹⁸ Shortly thereafter, Edwin Allen in Norwich, Connecticut, also combined the router with a pantograph, independently of Leavenworth. Rob Roy Kelly, American Wood Type: 1828–1900, reissue 2010 [1969], 36–38.

larger types and ornaments to be used in posters. As the technology spread, companies specializing in wood type were established alongside the foundries. Svensk Trästil was one such company operating in Stockholm.⁹⁹ Foundries did not necessarily make type in wood in addition to metal, however several companies, Berling for example, produced type in both materials.¹⁰⁰

After the industrial production of aluminium began in the second half of the nineteenth century, type was also cast in this metal around Europe.¹⁰¹ The new material was promoted as superior to lead due to its weight – five times as light – which facilitated the handling of type in greater quantities. Lighter-weight type would make it easier for apprentices (boys) to carry large formes, and costs of transportation and customs duties could be reduced. Furthermore, sorts of aluminium did not stick together in the same way as those of lead, making it easier to separate the sorts when distributing them back into the type case after the presswork was done.¹⁰² Aluminium was moreover seen as a healthier alternative to lead; the latter was known to be one of the main causes of the widespread problem of lead poisoning among the workers of printing.¹⁰³ As aluminium itself was too brittle and not durable enough for making type, there were many attempts at creating a reliable alloy. Despite much experimentation, however, aluminium typemetal was never widely embraced. As the methods for cutting aluminium developed, the material was employed as an alternative to wood for large-size type intended for posters and advertising.¹⁰⁴ One of the leading suppliers of wood type to the Swedish market in the early 1900s, Holztypenfabrik Roman Scherer in Lucerne, Switzerland, expanded its business with production of aluminium type in the 1910s.¹⁰⁵

⁹⁹ Svensk Trästil operated in Stockholm in the early 1920s. Brochure, 1922 (SVB 31:9 Oidentifierade svenska stilprov).

¹⁰⁰ Reynolds 2020, 407f.

¹⁰¹ Journal für Buchdruckerkunst, 1860, nr 2, 13–14. 'Stil af aluminium', Tenakeln 1892, 5 mars.

¹⁰² 'Stil af aluminium', Tenakeln 1892, 5 mars.

¹⁰³ 'Aluminium som typmetall', NB 1905, 330.

¹⁰⁴ 'Aluminiumtyper användas som modern ersättning för trätyper.' Grafisk uppslagsbok: aluminium, spalt 11. ¹⁰⁵ NB1913, 380. The company was frequently advertised in NB in the 1910s and 1920s and was represented by at least three agencies in Sweden during this time. See also: Philipp Messner, 'Die Holztypenfabrik Roman Scherer in Luzern (1877–1966)', https://isotype.ch/home/schriftgeschichten-5-die-holztypenfabrik-romanscherer-in-luzern/ (22 Feb 2024).

The making and handling of typemetal

The smelting of typemetal was done in large cast-iron cauldrons, after which it was shaped into ingots ready for use by the typecaster. [fig. 17] A pot for molten metal was typically placed in the centre of the typecasters' working table.¹⁰⁶ [fig. 18, 19] Traditionally, the mixing of metals was the responsibility of the typecaster or an apprentice. After industrialization, factories specializing in the making of metal alloys supplied typemetal to foundries as well as to printing offices equipped with composing machines. According to a 1911 report in *Nordisk Boktryckarekonst*, there was at this point no independent manufacturer of typemetal in Sweden, so the foundries and printers here had to either mix the alloy themselves or import from foreign factories. In the early nineteenth century, it was primarily the composing machine companies that provided their particular alloy, however independent production also existed, for example at Kempewerk in Nuremberg.¹⁰⁷ As the use of composing machines increased, more manufacturers of typemetal were established. In the late 1940s there were at least a handful factories offering typemetal only in southern Sweden.¹⁰⁸

A 1937 report on the health hazards in the graphic industry provides an insight into how the handling of typemetal affected the typefoundry workers. The report dealt with contemporary European conditions and is not necessarily applicable to other contexts, although certain hazards were embedded in the very nature of typefounding regarding the materials and techniques, such as the toxic lead and the intense heat in the workrooms resulting from the high temperature required in the smelting process.

The average temperature in a typefoundry at the time was 30 degrees Celsius, depending on the size and height of the room and the nature of the ventilation system. According to the report, the high figure 'fully justifies the complaints of headaches and dizziness often heard

¹⁰⁶ Grafisk revy 1937, 49; Axel-Nilsson 1995, 109.

¹⁰⁷ Kempewerk was seen as an authority on the market in NB 1906, 355 and 1911, 153–158. Some British manufacturers offering typemetal on the Swedish market around 1920 were the Cookson Lead & Antimony Company in Newcastle, the Eyre Smelting Company (Tandem Works) and the Phosphor Bronze Company in London, according to advertisements in NB 1920–1922.

¹⁰⁸ The following five suppliers of typemetal are listed in Svensk industrikalender of 1947: Paul Bergsöe & Son AB., Landskrona; AB. Göteborgs Kapsylfabrik, Göteborg, A. Lagerwalls Metallaffär AB., Stockholm, AB. Metallegeringar, Göteborg, AB. Nyby Metallverk, Nybybruk. Svensk industrikalender, 1947, 14. Around the same time, AB Tryckfärger in Stockholm also produced typemetal. Svensk industrikalender 1947, 589.

from smelters and typecasters in typefoundries'.¹⁰⁹ Moxon, in his time, described the stage of smelting typemetal as 'Labour [that] would make *Hercules* sweat'.¹¹⁰ Axel-Nilsson has pointed out that there were ventilation pipes in Berling's premises, directly adjacent to the typecasting machines and the work tables for casting by hand, for the sake of removing harmful fumes. The pipes are shown in photographs of the workrooms around 1900.¹¹¹ [fig. 20] The same can be seen in contemporary images of larger European foundries, and a similar ventilation system is depicted by Fournier.¹¹² [fig. 21, 18] Moxon mentioned the poisonous fumes deriving especially from molten antimony.¹¹³ According to the 1937 report, however, the fumes were not a major health problem, at least not at this time. A contemporary study carried out at the Reichsdruckerei in Berlin showed that there were no traces of lead in the fumes produced in the smelting process. In order for lead to spread through the fumes, a higher temperature was required than was usually needed for the melting of typemetal. Although not necessarily poisonous, the fumes could have an unpleasant smell which was curbed by good ventilation.¹¹⁴

The health problem above all was lead particles, secreted from the sorts, which spread with the dust in the premises. It arose, for example, during the finishing of the sorts, when they were grinded and planed. Workers ingested this substance just by breathing or touching their mouth with dirty hands, for example when eating and smoking. The frequent contact with typemetal was a significant cause of lead poisoning among typefoundry workers.¹¹⁵

The wear of type

According to an estimate presented in the Association of Swedish printers' journal in 1905, foundry type that was made of a well-composed alloy ought to hold for about 5,000,000 prints and even thereafter be in a fairly good condition.¹¹⁶ The wear of type meant higher

¹⁰⁹ 'I allmänhet finner man i ett stilgjuteri en genomsnittstemperatur av 30 grader Celsius, vilket är mycket för högt och fullt berättigar de klagomål över huvudvärk och svindelkänsla, som ofta höras från smältare och gjutare inom stilgjuterierna.' Grafisk revy: teknisk tidskrift för Svenska Typografförbundet, 1937, nr 1–2, 50. ¹¹⁰ Moxon/Davis/Carter 1958, 167.

¹¹¹ Axel-Nilsson 1995, 109.

¹¹² G&H Erinnerungen 1908; Werden und Wachsen 1937; Axel-Nilsson 1983; Fournier i Bengtsson 1956, 45.

¹¹³ Moxon/Davis/Carter 1958, 167.

¹¹⁴ Grafisk revy 1937, 51

¹¹⁵ Grafisk revy 1937, 54.

¹¹⁶ 'Sätteri och tryckeri: Behandling af stilmateriel', SBFM 1905, 200.

running costs for printers, so it was in their interest to handle and store it in such a way that it would not be damaged. Besides the quality of the alloy, two factors affected the deterioration of type. One was the abrasive wear in the process of printing, the other was oxidation.

Abrasion could occur from poorly assembled formes or incorrect operation of the press. The quality of paper and printing ink might also be more or less harmful to the type. Humid air contributed to oxidation, so it was important to keep moisture out of the composing room and pressroom. The cabinets in which type cases were stored needed to be constructed to promote air circulation and were not to be placed too close to walls. After the presswork was done and the sorts were cleaned from ink, they had to dry completely before being distributed back into the type case. To prevent oxidation, the sorts were treated with petroleum.¹¹⁷

Discarded worn and damaged sorts still had an economic value. When acquiring new types, printers usually received a discount if they returned worn-out sorts to the foundry, where the metal was melted and recycled. [expand]

Typecasting machines

Pantographic engraving

Machine composition

¹¹⁷ 'Sätteri och tryckeri: Behandling af stilmateriel', SBFM 1905, 201.

Chapter 3. The Berling printing office and typefoundry

A brief history of the Berling printing office before 1837

The Berling typefoundry was established in 1837 as a division of the Berling printing office. The company's presence in Lund can be traced back to the time of the University's founding in the 1660s, when Vitus Haberegger (1620s–1690s) was appointed Printer to the University.¹¹⁸ The printing office played an essential role in the activities of the new University to disseminate knowledge, and it was an important instrument of power in the Swedification of the Scania province, which had been annexed from Denmark in 1658. The printing of Bibles, psalm books, catechisms and ABC books in Swedish was part of the process of establishing the new rule. The transition of Scania from being primarily a Danish to Swedish language region was however gradual, and the market for books in Danish continued to be profitable in Lund and its surroundings long after Denmark lost Scania to Sweden.¹¹⁹

Little is known about the immigrant Haberegger. Alnander describes him as a refugee Hungarian nobleman that fled his native country for religious reasons.¹²⁰ According to Möller, he was born in the 1620s in the town of Eperjes in the Kingdom of Hungary (presentday Prešov in Slovakia). After working as a bookbinder, first in Copenhagen and later in Malmö where he was appointed Printer to the General Government of Scania, Haberegger moved his business to Lund in 1668.¹²¹ Besides being the University printer, Haberegger also served some years as its bookbinder.¹²²

Lucien Febvre and Henri-Jean Martin have described the economic reality of printing in the seventeenth century, particularly in the provincial towns, as one in which the craftsmen 'dragged out a miserable existence, living from day to day executing orders from some township or some individual [due to] lack of capital. The only printers who succeeded in

¹¹⁸ Möller 1945, 15.

 ¹¹⁹ The Haberegger office, for example, issued Danish editions of the legend of Faust in 1691, 1698 and 1707.
Möller 1945, 20. [Ref Winstrups pasquiller (Klemming 214, Möller 18). Försvenskningen Kulturen 1995]
¹²⁰ Alnander 1959, 46.

¹²¹ Möller 1945, 14f.

¹²² Karlson 1939, 37.

setting up an adequate printing outfit were those who managed to find a backer.¹²³ Moreover, printing in Sweden at this time was highly restricted, and the few printers that were allowed to work here operated under the control of the Crown. In Danish Scania, the first printer came to Malmö in 1528, and in the following decades a couple of presses were set up in the area. In the seventeenth century, however, printing in Scania declined and for many years there was no functioning printer in the region. With the new University in Lund came the necessary demand and funding required to run a printing business to a place where previous attempts to establish such activity had been short-lived.¹²⁴ This is not to say that being the Printer to the University was an easy task. The continued conflict between the countries during the Scanian War meant that the University's operations came to a halt, and Haberegger moved his printing office back to Malmö in 1675. When the University resumed its activities in 1682, dissertations were printed by Haberegger in Malmö. The business and title were acquired by his son Abraham Haberegger (c. 1659–1738), who in 1692 relocated it to Lund.¹²⁵ The following year, the workshop was destroyed in a fire, but Abraham was able to rebuild it with financial support from the Swedish Crown. New sets of type were imported from Jobst Rüdemann's foundry in Lübeck, which can be seen in two specimen sheets issued in 1695 and 1697.126

Abraham Haberegger ran the business until the mid-1720s. In addition to commissions from the University such as dissertations, treatises and programs, the output by Haberegger during these years includes the state official newspaper issued in 1717–1718 as *Lundska Lögerdagz (Onsdagz) Courant* (among other names).¹²⁷ After an inheritance dispute, Haberegger's business came into the possession of his nephew Ludvig Decreaux (1708–1764) who in 1729, at the age of twenty-one, was appointed Printer to the University. Running the printing office

¹²³ Febvre & Martin 1976, 115. The bookbinders in Lund at the time faced the same economic difficulties, which may be a reason why Haberegger maintained both crafts of printing and bookbinding. See Karlson 1939, 39.

¹²⁴ The earliest known printer in Lund, Georg Hantsch, who had previously worked in Malmö and Sorø in Denmark, stayed in Lund for two years, 1663–1665, before continuing his business in Stockholm. Lundblad 2023, 459–461.

 ¹²⁵ Möller 1945, 16–19. Abraham died in 1738 according to Lunds domkyrkoförsamlings kyrkoarkiv, Död- och begravningsböcker, 1703–1750, https://sok.riksarkivet.se/bildvisning/C0067260_00118 (accessed 2023.10.06).
¹²⁶ The specimens are reproduced in Sjöbeck 1918, 248. Jobst Rüdemann is mentioned in BauerChronik1928, X.
¹²⁷ Möller 1945, 19–20.

was apparently not an easy task for the unexperienced Decreaux.¹²⁸ Eventually, in 1745, he sold the business to Carl Gustav Berling (1716–1789).¹²⁹

Carl Gustav Berling

Berling immigrated to Lund from the town of Lauenburg near Hamburg. Before moving to Lund, he worked for a few years at the printing office in Copenhagen owned by his older brother, Ernst Henrich Berling (1708–1750), who had set up his workshop there in 1733.¹³⁰ Prior to moving to Copenhagen, Ernst Henrich had apprenticed at his cousin Albrecht Christian Pfeiffer's printing office in Lauenburg, and it is possible that this is where also Carl Gustav was first introduced to the trade.¹³¹

It is worth noting that the shortage of type was a problem that many printers in the region, aspiring as well as established ones, had to face when trying to pursue business. Consequently, it was desirable for printers to be self-sufficient in that matter. Ernst Henrich had initially relied on types from the Breitkopf foundry in Leipzig as there was no typefoundry in Denmark at that point.¹³² In 1738, another German immigrant, Dietrich Christian Hesse, started a foundry in Copenhagen with money from the Danish Crown. Hesse received the privilege as the country's sole manufacturer of types, which was followed in 1742 by a ban on importing types to Denmark, making his privilege even more exclusive. After complaints to the Board of Commerce (*kommercekollegiet*) from Ernst Henrich and other printers regarding the poor quality of Hesse's types, the privilege was transferred in 1747 to Ernst Henrich. The range of types offered by the Berling foundry in Copenhagen can be seen in a surviving specimen of 1748.¹³³ [fig. 22] Ernst Henrich continued expanding his business, and in 1749 he began publishing what was to become Denmark's longest-lasting newspaper, today called *Berlingske* (formerly *Berlingske Tidende*). The business set up by Ernst Henrich in Copenhagen stayed within the Danish branch of the Berling family for over

¹²⁸ Tufvesson 1922, 28, Möller 1945, 23f., 26.

¹²⁹ Möller 1945, 23–28. Carl Gustav is the correct spelling, not Carl Gustaf, which can be seen in many sources. Following the spelling that was used in the books he printed.

¹³⁰ Vogel-Jørgensen 1949 vol I, 18.

¹³¹ Thus speculates Möller 1945, 26. The cousin's printing house was previously run by his father, Albrecht Pfeiffer (the Berling brothers' uncle). Vogel-Jørgensen 1949, vol I, 18.

¹³² Hellssen 1958, 12.

¹³³ Axel-Nilsson 1983, 53–56; Vogel-Jørgensen 1949 vol I, 49–51.

two centuries. The typefoundry, however, was separated from the company in 1755 when the foundry's foreman Johann Gottfried Pöetzsch, originally from Stötteriz near Leipzig, took over the privilege and ownership. Pöetzsch continued operating the foundry in Copenhagen for almost thirty years until his death in 1783, becoming a well-known and respected supplier of types to printers in all the Nordic countries.¹³⁴

Carl Gustav had joined his brother in Copenhagen around 1740, and by 1742 he was ready to set up his own workshop. He applied to take over the privilege for printing one of the influential newspapers in the region, the *Altonaischer Mercur*, published in Altona, but his application was denied and he continued working for his brother, likely as a foreman. In 1744 Carl Gustav turned to the governor in Malmö (*landshövdingen*), inquiring for the possibility to start a printing business in either Malmö or Lund, which gave him the opportunity to buy the University's printing office in Lund. Equipment including more than one press as well as types were part of the purchase. The price was 2000 silver dalers, which Carl Gustav paid partly with inherited money.¹³⁵

Ties between the Swedish and the Danish branches of the family continued to be close for more than a century. The printing office in Copenhagen would on many occasions function as a resource of knowledge for the operations in Lund.¹³⁶ It is likely that types used by Berling in Lund were acquired from his older brother's (and later Pöetzsch's) foundry in Copenhagen.¹³⁷ The inventories that Berling took over from Decreaux were apparently in a poor condition, as the former complained to the University board that he had to 'repair and put in order a workshop completely in decay'.¹³⁸

A year after buying the business, Berling was formally appointed Printer to the University.¹³⁹ The privilege entailed that Berling, for an annual salary of 100 silver dalers, was expected to print dissertations, programs, lecture catalogues, ceremonial speeches and other occasional

¹³⁴ Axel-Nilsson 1983, 56f; Vogel-Jørgensen1949 vol I, 51.

¹³⁵ Vogel-Jørgensen 1949 vol I, 53, vol III:1, 97. Möller 1945, 25f.

¹³⁶ Tufvesson 28–30. Vogel-Jørgensen 1949 vol I, 17–18.

¹³⁷ The type specimens of Ernst Henrich of 1748, Carl Gustav of 1751 and Pöetzsch of c. 1760 show several similarities, not only in types and ornaments, but also the text used to demonstrate the types. Compare, for instance, their Kleine/Mindre Missal Antiqua ('OMNIA VEN') and their Grobe/Stor Canon Antiqua ('A JOVE PRINCIPUM').

 ¹³⁸ 'han nu så ansenl:n måst reparera och i stånd sättia det aldeles förfalne tryckeriet'. BMP pdf nr 34, 3.
¹³⁹ Möller 1945, 28.

jobs for the University.¹⁴⁰ Additional commissions, for which the printer was allowed to charge, could be eulogies, broadside ballads and hymn books. Almanacs were printed by Berling and his predecessors until 1748, after which the Royal Swedish Academy of Sciences acquired the privilege to issue such books.¹⁴¹ Berling eventually became one of the country's largest producers of catchpenny prints which were issued regularly well into the nineteenth century.¹⁴² In 1775, he began publishing the weekly newspaper *Lunds Wecko-Blad*, later *Lunds Dagblad*. At this time, the role of the printer was largely integrated with the roles of the publisher (in the sense of financer) and bookseller (in the sense of distributor), and the printing office was a place where books could be acquired by the public.¹⁴³

The range of typefaces

Carl Gustav Berling issued a specimen sheet in 1751 demonstrating 49 founts, of which eighteen were roman, seven italic, seventeen fraktur, three schwabacher, two Greek and two Hebrew.¹⁴⁴ The number of founts had increased to the double of what Abraham Haberegger's type specimen offered half a century earlier.¹⁴⁵ Samuel Alnander, a contemporary of Carl Gustav Berling, addressed the importance of printers being able to offer a 'diversity of types' (*stylarnas mångfallighet*), but this was not, argued Alnander, a question of 'thicker or thinner, larger och smaller appearances' – but of languages. A printer's stock of founts was satisfactory, he believed, 'when one does not have to print Arabic, Syriac and other such foreign languages with Hebrew types, or, which is even worse, with Latin characters'.¹⁴⁶ Besides Latin (roman) and 'Swedish' (blackletter) types, Alnander held that a printer should be furnished with Greek, Hebrew, Syriac, Arabic, Runic and Cyrillic types.¹⁴⁷ This was

¹⁴⁰ Lundblad, 'Från Winstrup till Gleerup', 51.

¹⁴¹ Möller 1945, 35. The privilege was acquired by the Academy in 1747. For an overview of the history of almanacs in Sweden, see Sigfrid Svensson, 'Almanackan', in Våra äldsta folkböcker 1967.

¹⁴² Ridderstad 1995, 69; Tufvesson 1922, 31. Bringéus 1995, 106–213.

¹⁴³ Books were also sold in Lund by bookbinders and specialized bookshops. Wrangel 1926, 4. See also Lundblad 2017.

¹⁴⁴ appendix

¹⁴⁵ Haberegger's type specimen of 1697 presented 25 founts, of which seven were roman, three italic, twelve fraktur, two Greek and one Hebrew. Sjöbeck 1918, 249.

¹⁴⁶ 'Min mening är icke, att stylarnas mångfallighet skall sökas uti deras gröfre eller finare, större eller mindre utseende, utan i deras skiljaktighet i anseende till språken. Ty då säges et boktryckeri äfwen wara fullkomligt, när man icke behöfwer uttrycka arabiska, syriska, och andra sådana långwägade språk, med ebraiska, eller, som ännu sämre wore, med latinska characterer.' Alnander 1959, 61.

¹⁴⁷ Alnander 1959, 61–63. Runic types had been used in Sweden since the 1610s for runology studies, most notably by Johannes Bureus who was the first to use runic types in his Rvna ABC book of 1611. Peter van Selow was the first to cast Cyrillic types in Sweden around 1618 for use in books aimed at the Russian-speaking

especially true for a university printer who was expected to print scholarly works in a variety of languages. But as we know, types were in short supply.

When the University 'inspector typographiæ', the professor in mathematics Nils Schenmark, surveyed Berling's workshop in 1765 the latter was questioned regarding his stock of types. The University wanted to ensure a sufficient amount of Hebrew, Greek and Latin founts, and the inspector furthermore asked for a number of specific characters needed for setting works on mathematics, astronomy and chemistry. The printer was also reminded that he already in 1746 had been instructed by the University board to acquire Syriac and Arabic types – a request which he had not yet fulfilled.¹⁴⁸ Berling could still not present such types when Matthias Norberg, professor of 'Eastern languages' and Greek, wished to print two dissertations in Arabic in the summer of 1783. The fact that the Printer to the University thus prevented dissertations from being published caused great concern. Norberg applied for permission to print the dissertations elsewhere, but Berling objected, referring to his privilege. When the University board complained, Berling defended himself by claiming that he could not be expected to provide Arabic type when text of this kind was so uncommon, and when there was a need, he argued, it had previously been customary to use Hebrew type. The purchase of Arabic and Syriac types was obviously a major expense for Berling.¹⁴⁹ Nevertheless, he now ordered types of these kinds from Breitkopf in Leipzig.¹⁵⁰ The two dissertations were in spite of that printed later that year in Copenhagen, by the university printer there, likely because the delivery of types from Leipzig was delayed.¹⁵¹ In the spring of 1784, however, Berling was finally able to carry out work of this nature.¹⁵² [fig. 23] At the time of Carl Gustav's death in 1789, his son Christian Friedrich boasted that the printing office had the capacity to set texts in Arabic, Persian, Turkish and Syriac, making it one of the

peoples of the Swedish Baltic Sea provinces.[Bengtsson 1956] Arabic types were brought to Sweden in the 1630s by Petrus Kirstenius.[Nordisk familjebok; Alnander 1959, 62] Syriac types were part of the inventory of the Printer to the University in Uppsala, Eskil Mattson, in the 1650s. Bengtsson 1956, 105.

¹⁴⁸ BMP pdf nr 10, 13–14 inspektion 1765. Enligt 1769 års Trycktaxa för disputationer kan Berling bara erbjuda grekiska och hebreiska som icke-latinska skriftspråk [?kopia i BMP nr 3?].

¹⁴⁹ Kostnaden var 20 skålpund för vardera stil. BMP pdf nr 7, 10.

¹⁵⁰ Brev från CGB 27/8 1783, BMP pdf nr 7, 4.

¹⁵¹ The two dissertations by Nils Sinius dealt with the *Pronuntiatione linguæ Arabicæ ejusque usu* and the *Optima methodo linguas orientales discendi*. They were printed by P.M. Høpffner.

¹⁵² Arabic type was used by Berling in the second part of Jöns Olsson's dissertation titled *Notitia morum* orientalium interpreti sacro necessaria (1784). Berling's first larger work set in Syriac was Matthias Norberg's *Codex syriaco-hexaplaris ambrosiano-mediolanensis* (1787). Among Berling's most extensive works set in a non-Latin language was Norberg's Codex Nasaræus (1815–16) [in three volumes comprising nearly 1000 pages of Syriac text and its Latin translation]. Moberg(Möller 1945), 127-139.

most well-equipped in the country for printing in various languages.¹⁵³ Berling's specimen catalogue of 1833 contains four Greek, three Hebrew, one Syriac and two Arabic founts with additional Persian characters.¹⁵⁴ [fig. 24, 25] Additionally, the specimen catalogues from the 1890s demonstrate Runic and Sanskrit types. [fig. 26] This capacity must have required at least some knowledge of these languages among the compositors. According to Wilhelm G. Ekström, the fact that scholarly printing often relied on specialized typesetting might be one reason why hand composition had a strong position among the printing offices in Lund long after machine composition was introduced in the late nineteenth century.¹⁵⁵ [fig. 27]

Expansion and competition

After Carl Gustav Berling's death in 1789, ownership of the business was inherited by Christian Friedrich Berling (1748–1809), who was trained both by his father and by his relatives in Copenhagen. The workshop was at that point operated by three journeymen and two apprentices in addition to the owner, the printer, who himself worked in the printing office, which consisted of two presses and around 45 founts.¹⁵⁶ The number of presses had thus not increased since the 1690s, when the Haberegger printers also worked with two presses,¹⁵⁷ and the amount of type had apparently not changed much since the early 1750s. The business, however, was about to expand. Christian Friedrich's son, Carl Fredrik Berling (1785–1847), started working for his father a few years prior to formally taking over the ownership in 1810.¹⁵⁸ Around that time the business was modernized with, as Carl Fredrik later recalled, 'a number of new founts from the most renowned foundries aboard'.¹⁵⁹

For decades, the printing office under Carl Gustav Berling's management was the only one not only in Lund but in all of Scania. Berling worked against and succeeded in preventing the establishment of new printing businesses in Scania on at least two occasions.¹⁶⁰ The first to become Berling's competitor in Lund was the University's own bookseller, Johan Lundblad

¹⁵³ Möller 1945, 41. Tufvesson 1922, 31.

¹⁵⁴ Specimen 1833.

¹⁵⁵ Ekström 1939, 6.

¹⁵⁶ Tufvesson 1922, 30.

¹⁵⁷ Möller 1945, 19.

¹⁵⁸ Möller 1945, 46f.

¹⁵⁹ Jag förskaffade genast en mängd nya stilar från de mest berömda utländska stilgjuterier.' CFB självbiografi, BMP pdf 32, 4. See also Tufvesson 1922, 31.

¹⁶⁰ Wrigsén in Malmö (Möller 1945, 39), Svinhufvud in Kristianstad (Klemming 1883, 277).

(1753–1820), who in 1785 applied to the Chancery College (Kanslikollegium) for a permission to establish a printing office as an extension to his bookshop. His application was first turned down, but after a second attempt it was granted in 1788, in spite of Berling's protests. Berling did however maintain his monopoly on all commissions relating to the University.¹⁶¹ Lundblad ran his printing office in Lund until 1809, when it was sold and moved to Kristianstad. In connection with this, Carl Fredrik Berling applied to regain exclusive rights to all printing in the entire county of Malmöhus, but the request was rejected due to the new Freedom of the Press Act of 1810, which allowed for printers to freely establish their workshops in cities without permission from the government.¹⁶² In 1811, Lundblad founded a new printing office in Lund which after only a few years of operation was bought by Carl Fredrik.¹⁶³ Eventually, several printing businesses were set up in the city, but the Berling printers would maintain their exclusive right to print for the University until around 1840. [When exactly and why was the privilege/title Printer to the University abolished?] Carl Fredrik held the title of Printer to the University until 1838, when it was transferred to his son Fredrik Johan Berling (1808–1876).¹⁶⁴ But shortly thereafter, in 1842 at the latest, the competing printer in town, Nils Petter Lundberg, started receiving commissions from the University as well.¹⁶⁵ A business that eventually became Berling's largest competitor in town was established in 1862 by the student Håkan Ohlsson. Apart from the Berling and Ohlsson companies, there were a handful of printers in Lund at the turn of the century.¹⁶⁶ During the nineteenth century, the number of printing offices in Sweden had increased from 35 to 305.167

[work in progress]

¹⁶¹ Klemming 258f. See also Tersmeden 2021.

¹⁶² Klemming 1883, 488.

¹⁶³ Lundblad founded the business with Carl Adolf Agadh and called it Agardh & C:o. Before it was acquired by Berling in 1814, it was also owned and run by Jonas Brag and Johan Svanborg under the name of Svanborg & C:o. Ridderstad 1995, 72. Möller 1945, 48.

¹⁶⁴ Klemming 1883, 488.

¹⁶⁵ Ridderstad 1995, 72.

¹⁶⁶ The following printers are listed in BK 1898–99: Berlingska Boktryckeri- och Stilgjuteri-Aktiebolaget, Carlströms boktryckeri, Christian Bülows boktryckeri, Otto Grahn, E. Malmström, Håkan Ohlsson, M. Rahms boktryckeri, BK 1898–1899, 161. See also: Ridderstad 1995.

¹⁶⁷ Wessel 1917 suppl., 468f.
Chapter 5. Plagiarized type (case study: Grotesk nr 11)

This chapter is a study of how nineteenth- and twentieth-century typefoundries copied each other's products by way of electrotyping. The method was developed in the 1830s and became widely used in the production of printing type until phototypesetting more or less replaced manual and mechanical typesetting in the 1970s. During this period, numerous typefaces sold by foundries were in fact copies of other foundries' designs. Electrotyping made it possible to re-create matrices out of already cast type – a reverse procedure – and the reproduced matrices were then used to cast new type. In time, voices were raised against the method which increasingly became associated with plagiarism. Still, electrotyping was not unlawful, and many foundries operated in a grey zone, as they were tempted to easily incorporate existing profitable designs into their product range even though the means used were generally considered immoral. The subject of this study, the Berling typefoundry in Lund, was no exception to this practice. One of several cases was the copy of the highly popular typeface Futura, originally produced at the Bauer typefoundry in Frankfurt, which was sold by Berling under the name of Grotesk nr 11.¹⁶⁸ [fig. 28, 29] Departing from this case, the chapter is an attempt to shed light on this widespread yet dubious and controversial method that was crucial to the business of typefounding in the industrial period. Drawing on correspondence between the two companies Bauer and Berling – arguing about the similarities and differences between original and copy, as well as the moral and economic implications of copying – the method of electrotyping will be analyzed from technological, aesthetic-visual and legal perspectives.

Among the many copies of and competitors to Futura that are featured in the three major English-language studies on the typeface thus far, there is no mentioning of Grotesk nr 11.¹⁶⁹ This is hardly surprising given the limited reach of this particular copy and the countless Futura look-alikes that have been spread around the world. However, also in Sweden, where the use of Grotesk nr 11 was fairly common, the history of the typeface is virtually

¹⁶⁸ Berling issued at least four specimen brochures for Grotesk nr 11: ABT-Grotesk, Röd och svart 11, Bred fet, en rättfram och okomplicerad stil. (Larsson 60 [ABT-Grotesk - Halvfet och Fet] M. blyerts på KB:s ex.: "1955?"), (Larsson 72 [Röd och svart 11 - Halvfet och Fet] U.å.), (Larsson 83 [Bred fet] M. blyerts på KB:s ex.:

^{1961), (}Larsson 88 [en rättfram och okomplicerad stil - Halvfet, Fet, Bredfet, Kursiv] M. blyerts på KB:s ex.: 1962)

¹⁶⁹ Burke; Never use Futura; Futura the typeface.

unknown.¹⁷⁰ Interestingly, Grotesk nr 11 is not to be found in Berling's last specimen catalogue, issued around 1960 – despite it being one of the company's best-selling products at the time.¹⁷¹ To identify and discuss possible reasons for this obscurity is one of the aims of the chapter. Another is to follow the business of type design in a larger network of actors within the printing industry, the 'communication circuit' if you will, attempting especially to understand the complex relations between the producers of type and the wholesale dealers that sold the commodity.

The following sections serve to introduce the method of electrotyping and outline how it was practiced at the Berling foundry. Thereafter, the case of Grotesk nr 11 versus Futura will be analyzed.

A background to electrotyping

To put it simply, electrotyping (or galvanoplasty)¹⁷² is a technique by which a metal object is formed after a model through an electrochemical process. Several experimenters developed the method simultaneously and independent of each other around 1837 – the same year as Fredrik Berling set up his foundry.¹⁷³ The first to publish on the subject was the Prussian-Russian physicist Moritz Hermann Jacobi, whose findings were summarized in a treatise, *Die*

¹⁷⁰ Valter Falk's encyclopaedia Bokstavsformer och typsnitt genom tiderna (1975) is perhaps the only historical survey of printing types in which Grotesk nr 11 is mentioned, in passing, at page 102.

¹⁷¹ At least Grotesk nr 11 sold better than the Berling foundry's flagship product Berling Antikva. Enligt företagets egen statistik 1959 säljer man Grotesk nr 11 för ett värde av '94.623.63 kr' ('5066.070 kg'). Detta är mer än Berling antikva som samma år säljer för ett värde av '78.615.41 kr' ('4164.045 kg'). Maskinskrivet kort i arkivet (30771/F 8/2). [kolla statistik om vilken typ säljer bäst]

¹⁷² The terminology in the area is not consistent. In what follows, 'electrotyping' is used to describe the process which in other contexts has been called 'galvanoplasty' and 'electroforming'. 'Electrotyping' is used here because it appears to be the most generally adopted term to describe the process, at least in the history of printing and type design. See for instance Lawson, Lommen, Reynolds. 'Galvanoplastik' (galvanoplasty) was a commonly used term in the nineteenth century among Swedish printers and typefounders such as Berling, and it is occasionally used here in translations for the sake of being true to the original wording. 'Electroforming' is used by David M. MacMillan (Circuitous Root) to distinguish the process of replicating typefaces from other areas of electrotyping such as the reproduction of printing plates and electroplating. The latter is a more specific term for the coating of an object in a layer of metal in order to make it more durable or more beautiful (synonymous with the common understanding today of 'galvanization'). In Swedish literature relating to the field of printing, there has been at least four established terms for the method: elektrotypi [NB], galvanoplastik (galvanotypi) [NB], kopparfällning (or nickelfällning) [Grafisk Uppslagsbok] and eftergalvanisering [Ludwig Brann/Per-Håkan Ohlsson].

¹⁷³ Herbert Heinrich, 'The Discovery of Galvanoplasty and Electrotyping', Journal of Chemical Education, 15:12 (1938), 565–75. Petra Trnkova (2021) 'Electrifying Daguerreotypes: On Correlations Between Electricity and Photography around 1840', History of Photography, 45:2, 111–127.

Galvanoplastik, that came out in St. Petersburg in 1840.¹⁷⁴ By using this name for the method, Jacobi referenced the highly fashionable field of contemporary science called galvanism, which concerned the relationship between chemical reactions and electricity. Galvanism as a term was coined in the 1790s by the Italian physicist Alessandro Volta among others, referring to the experiments of the Italian physician Luigi Galvani, who had found that the muscles of dead frogs' legs twitched when exposed to electric current. Galvani falsely assumed that the muscle contraction was caused by specific 'animal electricity' inherent in living beings. Nevertheless, his research led Volta to develop the first practical electric battery, presented in 1800, laying the groundwork for the field of electrochemistry.¹⁷⁵ Following Galvani's and Volta's research, the early nineteenth century saw numerous experiments testing the incredible hypothesis that electricity could animate dead organic matter. Mary Shelley's 1818 novel *Frankenstein* is among the most popular examples of fiction inspired by the theory. To 'galvanize' thus came to mean the act of exciting something into action – or life. It was, however, in the sense of 'forming by electricity' that Jacobi used the term of *Galvanoplastik*.

In his treatise, Jacobi described how electrotyping could be applied in the reproduction of engravings such as copperplates and woodcuts, and the first visual demonstrations of the new invention were published around 1840.¹⁷⁶ Electrotyping was soon widely adopted throughout Europe and the United States in many areas of the arts and sciences, and considered among the most significant contemporary inventions alongside telegraphy, gas lighting, balloon flight and photography.¹⁷⁷

¹⁷⁴ Moritz H. Jacobi, Die Galvanoplastik oder das Verfahren cohärentes Kupfer in Platten oder nach sonst gegebenen Formen, unmittelbar aus Kupferauflösungen, auf galvanischem Wege zu produciren, St. Petersburg 1840. The discovery was first described by Jacobi in an article published in several St. Petersburg newspapers of December 25, 1838, which was copied by German, French, and English papers leading to widespread publicity. Heinrich, 567.

 ¹⁷⁵ Bresadola 2008, 'Animal electricity at the end of the 18th century: the many facets of a great scientific controversy'; Marco Piccolino & Marco Bresadola, Shocking frogs: Galvani, Volta, and the electric origins of neuroscience, trans. Nicholas Wade, Oxford: Oxford University Press, 2013, 4; 'Electrochemistry', The Encyclopedia of Physics, ed. Robert M. Besançon, third edition, New York: Springer, 1990, 341.
 ¹⁷⁶ Some of the earliest examples of prints made from electrotyped plates are shown in Heinrich, 572.

¹⁷⁷ Sednare tiders vigtigaste vetenskapliga upptäckter och uppfinningar, framställde med afseende å deras beskaffenhet och utveckling. Första delen. Galvanoplastiken. Telegrafien. Luftseglingskonsten, Ångmachinen I. Andra delen. Ångmachinen II, III. Gaslysningen. Etherisationen. Fotografien (Bonniers, 1854-1856). Lommen 113. Rollo G. Silver, 'Trans-Atlantic crossing: the beginning of electrotyping in America', Journal of the Printing Historical Society, First Series, 10, 1974/5, 84–103.

The principles of electrotyping

This is not the place for a comprehensive description of the complex procedure of electrotyping.¹⁷⁸ Nor would it be possible to explain the method thoroughly in a way that is applicable to all contexts, since there were many variations in practices during the time, roughly from the mid-nineteenth to the mid-twentieth century, when electrotyping found widespread use in the service of printing.¹⁷⁹ Still, a technical overview is necessary in order to understand the role of electrotyping in the making of type at the Berling foundry and generally during the period. Thus, the main principles of the process will be outlined in what follows.

The first step was to make a mould out of the model to be copied. The model – a woodcut for example – was pressed into soft material such as wax, gutta-percha or ozokerite.¹⁸⁰ A copying press or a nipping press was used so that the mould would come out even and level.¹⁸¹ The mould was then covered with a thin layer of graphite powder in order to make it conductive, after which it was immersed into a container or 'bath' of electrolyte solution. [fig. 30] If the copy were to be formed in copper (other metals could also be used), the solution would typically contain copper sulphate and sulphuric acid.¹⁸² Additionally, a piece of copper was placed in the solution just opposite to the mould. The mould and the piece of copper were both connected with wires to an electrical power supply such as a battery or dynamo. After switching on the electric current, the copper slowly dissolved into bits that migrated to the mould's conducting surface, where a coating or 'shell' of the metal was 'grown'.¹⁸³ When reaching the desired thickness, after several hours, the mould and its attached shell were taken out of the solution, and the shell was separated from the mould. Finally, the shell was strengthened with a backing of soft metal, trimmed and planed, and mounted on a wood block – ready for use in the printing press.¹⁸⁴

¹⁷⁸ For in-depth descriptions, see: Practical Printing, Anderson. CircuitousRoot. Hatch 1918. Partridge 1908. In Swedish: Dahl, Kempe, Nordin 1881.

¹⁷⁹ Hatch 1918, Part I. Electrotyping. Introductory.

¹⁸⁰ Partridge 67f.

¹⁸¹ Practical Printing, 483.

¹⁸² Practical Printing, 488.

¹⁸³ Hatch 1918, 13; Gaskell, 206.

¹⁸⁴ Partridge 18, Practical Printing, 490–492; Hatch 19f.

The general use of electrotyping in printing

In addition to engravings, electrotyped plates could also be made out of set formes of type. This was indeed already possible by way of stereotyping: a method developed in the eighteenth century by which formes of loose type could be cast, using plaster moulds, into cohesive plates. The main benefits of stereotyping were the reduction of wear on type, and the possibility to store copies of set formes for additional printings. However, in comparison to the metal used in stereotyping - more or less the same alloy as typemetal - the copper and nickel plates made through electrotyping were stronger and could serve for several years without losing quality. This was especially useful in large print runs, where type and plates were exposed to heavy strain, as well as for periodical publications with recurring content such as mastheads. An 1869 report in Nordisk Boktryckeritidning gave examples of this extraordinary quality, noting that a recently published primer, Per Siljeström's Läsebok, had been printed with electrotyped copies of wood blocks in an edition of 70,000, and an electrotype of the title page in the Royal Swedish Academy of Sciences' almanac had been used for nearly 1,000,000 printed copies – without losing its quality.¹⁸⁵ In addition to the demands of larger editions, electrotyping also served marketing purposes. Copied plates for ads, for instance, could be inserted in multiple publications simultaneously for a lower price than if the original were to be recreated in large quantities.¹⁸⁶

The use of electrotyping in the production of typematrices

Jacobi foresaw that the method would be applied also in the production of matrices for type,¹⁸⁷ a 'benefit' which was highlighted in the press coverage of the new invention at an early stage. With the help of electrotyping, *Sveriges Statstidning* reported in 1841,

it is possible to obtain precise matrices for each sort cast in typemetal, without having to use the original steel punches; this is an enormous advantage for typefoundries,

¹⁸⁵ NBT 1869 juli, 8.

¹⁸⁶ Uppfinningarna / 7. Från runristning till rotationspress, 1926, 57.

¹⁸⁷ Jacobi 1840, X.

whose most expensive inventory consists of matrices. The price of type should thus soon be reduced.¹⁸⁸

Electrotyping indeed proved to be beneficial for typefoundries in the production of matrices, and the technique was not only used for copying other foundries' typefaces but just as much in the making of matrices of their own design. For example, at the Hamburg foundry Genzsch & Heyse, electrotyping became integral in the production of new faces after its introduction there in 1852. Previously, the smaller type sizes (up to 28 or 36 points) were cut in steel and cast from copper matrices, whereas larger sizes were cut in lead and cast from lead matrices. The reason for this was that lead, being softer than steel, was easier to process. But lead matrices were less durable and allowed only a few casts of good quality. With the introduction of electrotyping, the larger sizes of type, although cut in lead, could be cast from copper matrices as well.¹⁸⁹

The German type designer Konrad F. Bauer recounted how the method was performed in the making of new designs at the Bauer foundry around 1930 as a more efficient and less costly alternative to the laborious process of cutting punches in steel and striking matrices manually. Here, the preferred metal for electrotyped matrices was nickel. The punch – cut in typemetal – was suspended directly into the electrochemical bath alongside a piece of nickel, Bauer explains, and when the electricity was switched on, a layer of nickel was slowly deposited around the face of the punch. Thus, a negative form of the punch was grown until reaching the right thickness, after which it was removed. This nickel deposit was then cast into a housing block of zinc and further justified in the same manner as a conventionally-made matrix.¹⁹⁰

Typefoundries employed the technique to an increasing degree in the twentieth century. Judging from a brochure issued by Genzsch & Heyse in the 1950s, demonstrating the company's production methods at the time, it seems that the stage of making matrices relied

¹⁸⁸ 'Det kunde lätt förutses att galvanoplastiken äfven skulle komma att gagna den egentliga boktryckarekonsten. Man kan t.ex. med dess tillhjelp skaffa sig noggranna matriser, efter hvarje blott i stilmetall gjuten bokstaf, utan att för sådant behof anlita de ursprungliga stålpatriserna; detta är en ofantlig fördel för stilgjuterierna, hvilkas dyrbaraste inventarium består af matriser. Priset på stil bör derigenom snart kunna nedsättas.' Sveriges Stats-Tidning (Post- och Inrikes Tidningar), 1841-08-14.

¹⁹⁰ Konrad Bauer ca1929, 6. See also Reynolds 2020, 175. Samuelsson 1957, 182.

solely on electrotyping.¹⁹¹ [fig. 31] Similarly, when Berling set up its engraving department around 1950, the primary means of making matrices for original designs was electrotyping.¹⁹²

A further benefit with the method was that it enabled foundries to re-create damaged or lost matrices. If the original matrix or punch for some reason was unavailable, the production of new sorts could still be maintained. Axel-Nilsson has pointed out that the matrices of many types, the originals of which may have disappeared through the ravages of war or rationalization, have been preserved only in the form of their electrotyped copies.¹⁹³ Indeed, electrotyping played a significant role after the First and Second World Wars when foundries, whose inventories had been destroyed in bombings, used the method in the process of restoring their matrices.¹⁹⁴

The electrotyping of matrices was, however, not only seen as favourable. In Genzsch & Heyse's commemorative book of 1908, the technique was described in both positive and negative terms: 'While the introduction of electrotyping was a blessing [*Segen*] for the typefounding business, it also gave rise to piracy [...].' As a result of the new technique, many 'unscrupulous' (*gewissenlose*) foundries stopped buying original matrices, and instead acquired cast types that were made into matrices cheaply with the aid of electrotyping.¹⁹⁵ Konrad F. Bauer also highlighted the problem that foundries could easily replicate their competitors' typefaces and sell them under new names. Especially 'certain companies abroad', Bauer complained, 'still use this unauthorized technique to acquire matrices of successful, foreign – especially German – typefaces'.¹⁹⁶

¹⁹¹ G&H 'Die Schriftguss' Brochure.

¹⁹² Pantographic drilling of matrices in bronze, as well as conventional matrix-making – the striking of copper or nickel matrices from manually-cut punches of steel – did also occur. Samuelsson 1957, 182.

¹⁹³ Axel-Nilsson 1983, 50. Axel-Nilsson 1963, 58.

¹⁹⁴ An example of this is given in G&H Chronik 1958, 24.

¹⁹⁵ 'War so die Einführung der Galvanoplastik ein Segen für die Schriftgießerei, so gab sie anderseits den Anlaß zur Freibeuterei, denn viele gewissenlose Schriftgießer kauften jetzt nicht mehr die Matrizen guter Originalschriften, sondern verschafften sich auf Umwegen Minima der gegossenen Schriften, um mit Hülfe der

Galvanoplastik auf billige Weise in den Besitz der Matrizen zu kommen.' G&H Chronik 1908, 12.

¹⁹⁶ Konrad Bauer ca1929, X.

The spread of electrotyping in Sweden

Jacobi's treatise was translated into Swedish and published in Stockholm in 1841, and during the following years the new invention gained widespread attention in the Swedish press.¹⁹⁷ Yet it is difficult to find information on when and by whom electrotyping was first performed in the service of printing in the country. One of the pioneers was surely the Norstedt printing office and typefoundry, which exhibited an electrotyped plate at the 1847 craft exposition in Stockholm.¹⁹⁸ The printer-publisher of Jacobi's treatise in Swedish, Lars Johan Hierta, ran a typefoundry as well, and he might also have been practising electrotyping in the 1840s as part of his business.¹⁹⁹ By the late 1860s, the method was well-established among Swedish printers, albeit as a specialized field.²⁰⁰ Around 1883, six of the country's 186 printing offices had the capacity to perform electrotyping, among which one was Berling.²⁰¹ In addition to these departments within printing offices, which were mainly operated for internal use, there were separate companies offering stereotyping and electrotyping services especially for printers.²⁰² The gradual spreading of the method during the latter part of the nineteenth century is reflected in a growing amount of literature on the subject.²⁰³ Nordin's printing handbook of 1881, for instance, covered electrotyping extensively,²⁰⁴ and the trade journal Nordisk Boktryckarekonst regularly treated the subject in instructive articles aimed at spreading the knowledge on electrotyping within the field.²⁰⁵

Electrotyping was practiced commercially in Lund since at least 1853, when pharmacist Erik Wilhelm Björklund started a business 'for electrometallurgy and galvanoplasty', offering

¹⁹⁷ Afhandling om galvanoplastiken 1841. En sökning efter 'galvanoplastik' i tidningar.kb.se ger många träffar under 1840-talet.

¹⁹⁸ På 1847 års utställning i Stockholm av svenska slöjdprodukter presenterade Norstedt 'en titel och stilkolumn, öfwerdragna med koppar genom glavanoplastik, hwarigenom stilarne skola blifwa nästan outslitliga.' (Stockholms Dagblad 1847-06-30).

¹⁹⁹ Hierta was at least the first in Sweden to use stereotyping as part of a printing business in 1837. Bengtsson 1946, 55–62.

²⁰⁰ NBT 1869.

²⁰¹ Klemming 1883, 591, 595f.

²⁰² For instance J. R. Rydberg's Stereotypgjuteri & Galvanoplastisk Anstalt in Stockholm (Stilprov från Rydberg finns i SVB 31:77 och SVB 31:kps 1.), J. Lindholms Klichefabrik (NB1903:356), Ivar Ivarsson Ljunggrens 'Stilhandel' (BK 1896), M. Rydbergs Klichefabrik (NB 1903, 304).

²⁰³ Manuals in Swedish from the period include: Frans Dahl, Handbok i Galvanoplastik för konstnärer, industriidkare och vänner av numismatiken (1852), Carl Kempe, Vägledning i stereotypi, reglettgjutning, rotationstryck och galvanoplastik, trans. Axel Carlson (1892).

²⁰⁴ Nordin 1881, 79–92. In Fahlgrén's printing handbook of 1853, *Handbok i boktryckerikonsten för unga sättare*, however, there is no reference to electrotyping, although stereotyping is mentioned at p. 131.

²⁰⁵ See, for instance, John Lindholm's article series on 'Galvanoplastik' in NB 1901 (15f., 79f., 207f.), 1902 (86–88), 1903 (56f.).

electrotyped copies of woodcuts and copperplates as well as moulds for all kinds of metal casting.²⁰⁶ In an 1855 review in the Stockholm newspaper *Aftonbladet*, Björklund was portrayed as 'the first in Sweden to have developed the art of electrotyping on a larger scale', and his products – such as replicas of classical sculptures and works of Bertel Thorvaldsen – were praised for their likeness to the originals as well as their affordable price.²⁰⁷ Both Björklund and Berling were among the prize winners at the 1857 industrial exposition in Malmö, where the former exhibited electrotypes and the latter exhibited printing types and stereotypes.²⁰⁸ In 1859, Björklund sold his business due to illness, but to whom is not known.

Berling's department of galvanoplasty

When Fredrik Berling initiated the 'department of galvanoplasty' (*galvanoplastiskanstalten*) as part of his business is uncertain. There is no reference to electrotyping in his autobiographic notes or in any of his obituaries (wherein his interest in stereotyping was emphasized).²⁰⁹ Considering that information on the electrotyping service was more or less mandatory in the company's ads from the 1890s to the 1930s²¹⁰ – indicating that it served an important function in the business – it seems strange that the subject is not even mentioned in Möller's and Tufvesson's historical overviews.²¹¹ In Axel-Nilsson's overview, the subject is briefly touched upon in a caption to a photo of the foundry foreman's office in the early 1900s.²¹² [fig. 32] Present in the photo is an apparatus – two containers connected to an electrotyping matrices. That could very well be true. Yet in another photo accompanying the article, the department of galvanoplasty is indeed shown [fig. 33], however described

²⁰⁶ Snällposten 1853-11-10; Lunds Weckoblad 1853-12-22; Snällposten 1859-03-31. Erik Wilhelm Björklund (1808-1860) 'provisor' i nekrolog. 'teknokemiker' [används troligen i Redogörelse 1858]

²⁰⁷ 'Hr Björklund är den förste som i vårt land drivit den galvanoplastiska konsten i stor skala och med betydande apparater samt användt den, icke ensamt till förgyllning eller försilfring, utan till aftryckning eller afgjutning i koppar på elektrometallurgisk väg, efter modeller i metall, trä, gips o.s.v. De konstsaker, som förekomma och som utgöra på detta sätt åstadkomna efterbildningar af Thorvaldsens arbeten, antika och renaissanceskulpturer m.m. utmärka sig för mycken finhet och trohet [och] bli mycket billiga till sitt pris.' Aftonbladet 1855-08-03.

 ²⁰⁸ [Redogörelse för Malmö industriförenings werksamhet, 1858, cit. i dagstidningar 1858 (tidningar.kb.se)]
 ²⁰⁹ Fredrik Berlings levnadsminnen. Obituaries mentioning stereotyping can be found in Lunds Weckoblad

^{1876.02.22} and Ny Illustrerad Tidning 1876.05.06. ²¹⁰ Sett till annonserna i BK 1893–1921 och NB 1900–1936 (efter 1936 nämns i regel inget om galvanoplastik i

²¹⁰ Sett till annonserna i BK 1893–1921 och NB 1900–1936 (efter 1936 namns i regel inget om galvanoplastik i annonserna).

²¹¹ Möller 1945; Tufvesson 1922. På titelsidorna till företagets provböcker från 1895 och 1909 framhävs avdelningarna 'messingslinie-fabrik' och 'galvanoplastisk anstalt'.

²¹² Axel-Nilsson 1995, 109–111.

incorrectly as the punchcutter's workshop (*stämpelskärarens verkstad*).²¹³ [Kan bilden föreställa både stämpelskärarens verkstad <u>och</u> galvanoplastiska anstalten? Annonser i Lunds Weckoblad 1902–1906 anger att Berling hade 'egna stämpelskärare'. Norstedt hade också 'gravörer' vid samma tid] The caption claims that this is the room where punches were cut, not mentioning the container for electrolyte and the electrical unit which are central in the image. Axel-Nilsson further assumes that the press seen in the foreground was used for 'driving punches into copper bars in the making of matrices', but more likely it has been used to prepare the moulds for the electrochemical bath.²¹⁴

The earliest found record of electrotyping at Berling dates to 1864.²¹⁵ By 1869 it was, alongside stereotyping, a firmly established practice within the business. An ad of this year informed that the company offered electrotyped vignettes, mastheads, headings and the like in sizes from a square inch to a quarto page.²¹⁶ There is no mentioning of copying types in the ad, yet it was highlighted that all the foundry's roman and fraktur types were cast in 'original' matrices (*originalmatriser*), implying the probability that other kinds of type were cast in matrices that were not original, in other words electrotyped.²¹⁷

The extent of electrotyped matrices at the Berling foundry

It is difficult to account for how many of Berling's types were actually made in electrotyped matrices. One indicator is the label 'cast in original matrices' (*gjuten i originalmatriser*), a piece of information that accompanied some of the typefaces in Berling's specimens from at least the 1860s until the 1930s.²¹⁸ This practice of labelling was common at the time also among the German foundries and can be found in numerous specimen books from the

²¹⁵ Electrotyping at Berling is mentioned in several 1864 reports on the inventor Martin Wiberg's difference engine, a machine designed for the automatic calculation and printing of logarithmic tables, which were to be reproduced using electrotyping. ('Wibergs räknemaskin', Daedalus 1933, 98–99) Fredrik Berling was a member of the Board of Wibergska Tabellaktiebolaget, the company that financed the development of the machine (Snällposten 1864-09-17). Moreover, Wiberg was the designer of an early typesetting machine presented in London in 1854 (Svenska Tidningen 1854-01-25). [Se Möller arkiv om räknemaskinen]

²¹³ Att det rör sig om den galvanoplastiska anstalten framgår av en broschyr 1907 omtryckt 1911.

²¹⁴ When making the mould for the electrotyping process, the model was inserted into the wax with the aid of a press. Uppfinningarnas bok. Kempe.

²¹⁶ 'Beställningar utföras af alla möjliga Vignetter, Tidningstitlar, Rubriker m. m., från en Qvadrattum till hela Qvart- och Octavsidor äfvensom andra arbeten af hvad omfång som helst.' NBT 1869.

²¹⁷ 'alla de så kallade brödstilarne såväl i Antiqua som Fraktur gjutas i Originalmatriser'. NBT 1869.
²¹⁸ NBT 1869 anger originalmatriser. 1895, 1909 anger OM. Italiensk antikva c1922 OM. Saxo 1932 OM. Inga OM i 1935 eller därefter.

period.²¹⁹ Berling's specimen book of 1909 contains X out of a total of X typefaces that are cast in 'original matrices'.

For comparison it may be noted that a large majority of the matrices used at the Norstedt foundry had been produced by way of electrotyping. After an inventory of their collection of matrices in the 1960s, Christian Axel-Nilsson estimated that 80 percent of the total amount of around 100,000 matrices were electrotypes. What is further striking is that the remaining 20 percent original matrices date from the beginning of the nineteenth century or earlier, and these were acquired by Norstedt after the firm was established in 1823.²²⁰ Based on these observations, it seems like most matrices that were ever made at Norstedt were electrotyped.

The original Futura

The geometric sanserif typeface Futura was developed in the mid-1920s by the German artist and book designer Paul Renner and the typefoundry Bauersche Giesserei (Bauer) in Frankfurt am Main. The project was supervised by the foundry's artistic adviser, Heinrich Jost, and its proprietor, Georg Hartmann. First released in 1927–1928 in three variants, Mager, Halbfett and Fett (light, regular and bold), Futura's popularity grew rapidly, and the coming years saw a number of additional variants released by Bauer. Compared to other similar voguish designs from the late 1920s, such as the typefaces Erbar and Kabel produced by Bauer's competitors,²²¹ the use of Futura turned out to be more widespread and long-lasting.²²² Futura was not only an immediate commercial success, it also became one of the best-selling printing types globally for decades.²²³ Bauer's Swedish agent, Erik Dahlberg, noted in the early 1940s that 'not many days of the year go by without an order of Futura.'²²⁴ Similarly, Heinrich Jost wrote to Paul Renner in 1945, more than fifteen years after its release, that Futura was still the most popular of the company's typefaces: 'I could sell 5,000 marks worth of Futura per day alone'.²²⁵

²¹⁹ 'Original-Erzeugnis' is the term often used in the German foundries' specimen catalogues. For instance, Bauer c1915, more examples.

²²⁰ Axel-Nilsson 1963, 58, 1983:21.

 ²²¹ Erbar-Grotesk, named after its designer Jakob Erbar, was issued in 1926 by the Ludwig & Mayer foundry.
 Kabel, designed by Rudolf Koch and produced by the Klingspor foundry, came on the market in 1927. See: X.
 ²²² Reasons behind Futura's success are discussed in: Never use Futura, X; Burke, X.

²²³ Burke, 110.

²²⁴ 'Det går ej många dagar på året utan någon beställning på Futura.' 25 år, 19.

²²⁵ Burke, 110.

Like several typefaces of the period, a principle behind Futura was to return to the essential form of the alphabet in Roman architectural inscriptions. Simultaneously, Renner wanted to rid these elemental letterforms from archaic burdens, like serifs and other traces of handwriting and inscriptional techniques of the past, addressing the contemporary needs of industrial printing and mass communication.²²⁶ Reflecting this ambition to make a typeface that captured the zeitgeist of the era, Futura was advertised as 'the typeface of our time' (*die Schrift unserer Zeit*). Yet Renner also strove after universality: an objective and timeless letterform relieved of personal and local features.²²⁷ In the Swedish ads from Erik Dahlberg, the typeface was marketed as both 'classical' (*den klassiska stilen*) and 'of the future' (*framtidens stil*).²²⁸ [fig. 34, 35]

Futura became the emblematic typeface of the modernist movement evolving at the time called the New Typography [see page X], in which the sanserif was viewed as the supreme letterform.²²⁹ In order to keep up with the times, typefoundries were pushed to offer their customers if not a Futura copy then at least a similar design that reflected the same degree of novelty. In regard to Berling, the trend materialized in two products in particular, André Kursiv and Saxo, launched in the early 1930s.²³⁰ Obviously, sanserif typefaces had been an integral part of the foundries' product lines also before the success of Futura and similar geometric sanserif designs. The Berling foundry, for instance, had already in the 1910s started to invest more in the grotesque as a product segment, as can be seen in a 1914 specimen booklet presenting separately the company's complete range of grotesque typefaces.²³¹ Yet the geometric sanserif designs of the 1920s offered something new. In contrast to the nineteenth-century grotesques, the geometric sanserifs in general showed stronger affinity between upper and lowercase letters, as well as better consistency among sizes and weights. Furthermore, the geometric form, which appeared to be rationally drawn

²²⁶ Burke, 95–97.

²²⁷ Burke, 103, 111.

²²⁸ NB 1933, GF 1935.

²²⁹ Lagerström Den nya stilens enda bokstavsform, NB1929, 369; Tschichold, X.

²³⁰ André förekommer i annons NB 1930 (dec), rec i NB1931, 118. Saxo rec i NB 1933, 70. Saxo = Wagner & Schmidt Kristall grotesk.

²³¹ Grotesk-stilar från Berlingska stilgjuteriet [1914]. NB 1914, 371. The booklet contains 25 different 'grotesk' typefaces, although some are not grotesques in the strict sense, like Favorit-Grotesk and Carola-Grotesk, which rather belong to the category of display or jobbing types.

with compass and ruler, aligned with contemporary modernist visions of a society designed by engineers.²³²

Early signs of Futura in Sweden were seen in ads in *Nordisk Boktryckarekonst* in the autumn of 1928. [fig. 36] Valter Falk, then compositor at *Dagens Nyheter*, later claimed that he was the first to have employed the typeface in a Swedish daily paper in 1929.²³³ The fact that Falk, in his history of typefaces, made a point of him pioneering the use of Futura says something about its high status. It was presented extensively in the trade press during 1929–1931,²³⁴ and in the following years it became almost mandatory for printers to offer if not the original Futura then at least something that resembled it.

Due to its huge commercial success, Futura was naturally the subject of numerous copies and licenses. In France, the Deberny & Peignot foundry bought the rights to sell the type under the name of Europe.²³⁵ The first licensed adaptation for machine typesetting was released for the Intertype composing machine around 1933.²³⁶ In regard to unlicensed versions of the typeface, Airport Gothic was the name given to an early American copy sold by the Baltimore Type Foundry, presumably cast in electrotyped matrices.²³⁷ Unlicensed copies were not necessarily produced by way of electrotyping. They could also be made through altogether new matrices based on the original typeface. In that case, a printed specimen of the existing type could serve as a model after which new matrices were made, generating emulations that were more or less true to the original face. Further American interpretations of Futura include Tempo, released in 1930 for the Ludlow composing machine, Twentieth Century, released in 1937 by Monotype, as well as Spartan, a collaboration between Linotype and American Type Founders released in 1939.²³⁸ As pointed out by Douglas Thomas, the use of copies and competitors of Futura in the United States was amplified due to the disrupted trade relations with Germany around the Second World War. However, Thomas continues: 'By the 1950s, when anti-German sentiments had quieted and German-American trade had resumed, Bauer's Futura enjoyed an easy reentry into the American market, where demand for the product,

²³² Dock var Futura inte särskilt regelbundet ritad. See Burke, X.

²³³ Falk, 99; NB 1928, 368.

²³⁴ besides ads, several supplements to NB and GF, for instance NB 1929 (dec), NB 1930 (mar), NB 1931 (feb), GF 1931 (feb).

²³⁵ Burke, 110.

²³⁶ Burke, 111 states 1934, yet: NB 1933 ad.

²³⁷ Never use Futura, 52.

²³⁸ Burke, 111; Never use Futura, 53.

name, and aesthetic had never died.²³⁹ In the 1950s, Futura was adapted officially for Linotype composing machines.²⁴⁰

Before examining the Futura copy, Grotesk nr 11, that is the primary concern here, there are, in addition to the Berling foundry, four parties in the case that need to be introduced: 1) the company behind Futura, the Bauer foundry; 2) the company that first produced Grotesk nr 11, Erik Pettersons Stilgjuteri; as well as Bauer's Swedish agents, 3) Erik Dahlberg and 4) Tryckfärger/Tedeco, both of which sold both the original Futura and its copy. Further actors with which we will make acquaintance later on are the Swedish Council of Business Ethics (Näringslivets Opinionsnämnd) and the Ludwig Brann patent office.

Bauer

The Bauer foundry was established by Johann Christian Bauer in Frankfurt am Main in 1837, coincidentally the same year as Fredrik Berling started his foundry in Lund and the same year as Jacobi and others were conducting the experiments that led to the discovery of electrotyping. Bauer was a skilled punchcutter who designed a number of typefaces during his career. When he died in 1867, he reportedly left behind nearly 10,000 punches.²⁴¹ His types were at that point widely spread internationally. Berling in Lund offered several of Bauer's types from the 1850s onwards. In a circular of 1854, Berling proudly announced the coming addition of 'extraordinarily beautiful' Bauer fraktur types to his product range, and Bauer was furthermore credited as a punchcutter in Berling's specimen catalogues of the 1850s.²⁴² Matrices for these types were likely bought by Berling directly from Bauer. Several other types from Bauer can be seen in Berling's specimen catalogues. Whether all of these were cast using matrices licensed from Bauer is difficult to say.

²³⁹ Never use Futura, 59.

²⁴⁰ Burke, 111.

²⁴¹ Werden und Wachsen 1937, 27.

²⁴² 'Tit. erhåller härmed 2:dra Häftet af mitt Stilprof. Åtskilliga blad fela väl ännu, hvilka bland annat komma att innehålla 5 grader af de utmärkt vackra Bauerska Fraktur-stilarne jämte flera grader Engelska Original-stilar samt Linier, Klammer, Mathematiska, Arithmetiska och Astronomiska tecken m. m., och skola dessa blad, så fort tiden det medgifver, blifva Tit. tillsände.' Circular, July 1854; 'Nyaste snitt av J. Ch. Bauer' Specimen 1854c.

After the death of Bauer, his company continued expanding. Through the acquisition of other typefoundries, extensive stocks of matrices were obtained in addition to facilities and workforce. From 1885, the Neufville foundry in Barcelona was run as a subsidiary of Bauer. In the 1910s, the company bought the Numrich foundry in Leipzig and the Flinsch foundry in Frankfurt, and during the 1920s Bauer employed over 500 workers.²⁴³ A sales office was opened in New York in 1927, coinciding with the launch of Futura.²⁴⁴ Ten years later, when the company celebrated its centenary, it was described in the Swedish press as one of the largest suppliers of type to the country's printers; Futura in particular had been sold to 'several hundred' (*flera hundra*) printers here.²⁴⁵

Erik Pettersons Stilgjuteri

The origin of Grotesk nr 11 was the Stockholm foundry Erik Pettersons Stilgjuteri (Petterson). Established in 1887 by Erik Petterson (1856–1938), the foundry produced types, leading and brass rules.²⁴⁶ Petterson's son, Erik Menckel (1887–19XX) took over the leadership in 19XX.²⁴⁷ The company employed ten workers in 1947.²⁴⁸ In 1952, the company was bought by the Berling foundry.²⁴⁹ [work in progress]

Wholesalers

[A section introducing the business of wholesale dealers and agents within the printing industry. Who represented the major German foundries in Sweden? C.F. Strömbäck, Gust. Carlsson (Linotype), Gumaelius maskinaffär 1883, Fredr. Wagner 1895, Vilhelm Johnsen.

²⁴³ BK 1921, 81; NB 1928, 453.

²⁴⁴ Werden und Wachsen, 1937.

²⁴⁵ Grafisk revy, 1937, 23–26.

²⁴⁶ The year 1887 appears in the company's ad in SBFM 1898, nr 12, 4. Wessel 1916/17 supplement, 419, however, states the year 1889 as the year of establishment; KBs 'porträttkatalogen'. The spelling of the name also differs. Petterson with one s is the spelling used in one of the company's few surviving specimen books: Stilprof från Erik Pettersons stilgjuteri, Stockholm, n.d. (SVB 31 / 82, http://libris.kb.se/bib/20897435).

²⁴⁸ Svensk industrikalender 1947, 440.

²⁴⁹ GF 1952, 301: 'Berlingska stilgjuteriet i Lund har i sommar övertagit Erik Peterssons stilgjuteri i Stockholm. Rörelsen kommer att fortsätta med kontor och lager i Stockholm men med tillverkningen i Lund.'

Gust. Carlsson-boken 1990. NB register/annonser över maskinfirmor. Organization: Svenska Tryckerileverantörernas förening.]

Erik Dahlberg

The Swedish agent of Bauer, Firma Erik Dahlberg in Stockholm, was founded in 1916 by Erik Dahlberg (1880–1950), the son of a printing office foreman.²⁵⁰ Dahlberg has gone down in history as a pioneer in Swedish film, involved in the making of at least two feature films in 1908: Kolingen and Gustaf III och Bellman.²⁵¹ After shifting career paths, working first as a compositor at a printing office and then as a sales representative for C.F. Strömbäck, he set up his own wholesale business that sold machines, furniture and equipment such as type, ink and paper to the printing industry.²⁵² Early on Dahlberg represented two major German companies on the Swedish market, from 1917 the printing machine manufacturer Maschinenfabrik Johannisberg and from 1921 the Bauer foundry, which proved to be highly profitable collaborations for decades.²⁵³ After its establishment during the war years, the business grew quickly and Dahlberg soon became a celebrated figure within the trade all over Sweden. In 1928, he combined his interests in film and printing when he arranged screenings in Stockholm, Gothenburg and Malmö of a film produced by Bauer on the making of a typeface, demonstrating the process from the first sketches to the finished product.²⁵⁴ He was regularly engaged in organizing compositors' competitions, often in collaboration with the Bauer foundry and the trade journal Nordisk Boktryckarekonst. A competition in 1932, in which the task was to design an advertisement for Dahlberg using solely Bauer types, attracted several hundred contestants. The submissions were commonly exhibited around Sweden in various trade-related locations and published in Nordisk Boktryckarekonst,

²⁵⁰ Vem är vem 1945, 222; NB 1950, 20.

 ²⁵¹ Only the latter has survived, partially, and is regarded the most advanced feature film to be produced in Sweden to that date. [Svensk filmdatabas, https://www.svenskfilmdatabas.se/sv/Item/?type=film&itemid=3215 (2023.10.26)] At the time, Dahlberg was the manager of two cinemas and reportedly the owner of one of the two existing film cameras in Stockholm. [Arvid Stålhane, *En Bellmansbok*, Stockholm 1947, 178]
 ²⁵² 25 år, 15–16.

²⁵³ 25 år, 16–19. When Dahlberg gained the sole rights to sell Bauer's products in Sweden, it was praised as a major economic achievement for the company. NB 1921, 253.

²⁵⁴ The film *Hur en bokstavstyp kommer till (Wie ein Druckbuchstabe entsteht)* was produced by Bauer in 1926 (Werden und Wachsen, 53). It was screened in Stockholm at Odéonbiografen on October 27 and November 11, 1928. SFB berättelse 1928–1929, 15. NB 1928, 453. See also 25 år, 67–70. [fjärrlåna: "Wie ein Druck-Buchstabe entsteht. Ein Werk- und Werbefilm der Bauerschen Gießerei Frankfurt a.M.", Verlag: Bauersche Gießerei, Frankfurt, 1927]

resulting in extensive publicity for both Dahlberg and Bauer.²⁵⁵ Dahlberg was also an active sponsor of Skolan för bokhantverk (The school of book craft), instating in 1930s the Erik Dahlberg travel grant (*Erik Dahlbergs resestipendiefond*) and donating equipment such as printing types, paper and ink to be used in the training of students.²⁵⁶ When the Berling printing office marked its 200th anniversary in 1945, Dahlberg was among the guests of honour at the celebration.²⁵⁷ The company was reconstructed as a limited company, Erik Dahlberg Tryckerimateriel AB, in [1942–46]. After Dahlberg died in 1950, the company continued its activities until 1953 when it was acquired by its competitor AB Tryckfärger.

Tryckfärger/Tedeco

The Stockholm limited company Tryckfärger was partly a factory that produced ink for printing presses as well as typemetal, and partly a wholesale dealer that sold various equipment, including type, to the printing industry. Established in 1924, the company developed into a major player in the Swedish graphic industry, headed by civil engineer Sten Thiel from 1930.²⁵⁸ In 1952, Tryckfärger began collaborating with Berling, becoming the agent for Berling's matrices for composing machines.²⁵⁹ The following year, Tryckfärger bought Erik Dahlberg Tryckerimateriel AB and the companies were reconstructed into a new limited company, AB Tedeco, that took over the role of Bauer's Swedish agent.

Futura versus Grotesk nr 11: Initial negotiations

The problem of Grotesk nr 11 surfaced in December of 1958 in correspondence between the companies Berling, Bauer and Tedeco. The latter was at the time both Bauer's agent in Sweden as well as Berling's agent for selling matrices for composing machines. Tedeco's director, Sten Thiel, appeared in the correspondence as a negotiator of sorts, and the dialogue between the two foundries was repeatedly conducted through the agent. Bauer was mainly

²⁵⁵ NB1921, 142–150; 25 år, 49–54.

²⁵⁶ SFB berättelse 1929–1930, 15; SFB berättelse 1931–1932, 16; SFB berättelse 1934–1935, 15.

²⁵⁷ Jubileumstryck 1945, bordsplacering.

²⁵⁸ Svensk industrikalender 1947, 589; Vem är vem? Stor-Stockholm 1962, 1290.

²⁵⁹ Berndal 1997, 45.

represented by the technical director Karl Herbert, while the spokespersons for Berling was the director Per-Håkan Ohlsson.

The discussion was initiated by Herbert who had two separate issues regarding his company's main competitor in Sweden. One issue concerned Berling's typeface Grotesk nr 11, which Herbert claimed to be a plagiarism of Bauer's Futura. Herbert held that Grotesk nr 11 was a product of the immoral practice of electrotyping which should not be sold. Furthermore, he accused Berling's sales representatives for marketing Grotesk nr 11 under the false name of Futura. Herbert thus claimed that not only was Berling manufacturing and selling a plagiarism of Futura, the company also promoted the copy as if it were the original. The second issue, of an entirely different nature, concerned Bauer's wish to adapt some of its foundry type for use in machine composition. Berling had for some years expanded its business with the manufacture of matrices for composing machines – a product for which a separate sister company, Berling Matris AB, had been formed in 1953 (see chapter X) – and since Bauer lacked the capacity for making such matrices, it had an interest in Berling's possibilities to act as a subcontractor.²⁶⁰ Thus, the situation was quite intricate: Bauer accused Berling of plagiarism while at the same time surveyed the conditions for a collaboration.

Regarding the accusation of electrotyping, Ohlsson immediately replied that Grotesk nr 11 had entered Berling's product line six years earlier, in 1952, when the company acquired the Petterson foundry. And since then, Ohlsson claimed, had there been no electrotyping of matrices for Grotesk nr 11. Instead, when needed, new matrices had been produced after Berling's own patterns (*schabloner*), which had resulted in a new rendering of the typeface.²⁶¹ Concerning the claim that Berling had sold Grotesk nr 11 under the name of Futura, Ohlsson clarified:

I would like to confirm that, despite having previously emphasized to our sales representatives on repeated occasions that our typeface Grotesk nr 11 may *not* be issued or sold as the original Futura, I will once again point this out to them.²⁶²

²⁶⁰ Letter from Thiel to BG 10/12 1958.

²⁶¹ Letter from BS to BG 13/12 1958.

²⁶² 'Ich möchte bestätigen dass ich, trotz dass ich vorher bei wiederholten Gelegenheiten unsren Vertretern gegenüber betont habe, dass unsere Schrift Grotesk 11 *nicht* als Original-Futura ausgegeben oder verkauft werden darf, noch einmal diesen Umstand für unsere Vertreter unterstreichen werde.' Letter from BS to BG 13/12 1958.

There was, obviously, truth in the accusation that Berling's typeface had been marketed as Futura. On the issue of cooperation in the production of matrices for composing machines, Ohlsson was very positive – since Berling intended to expand its production in this area – and he therefore invited Herbert to come back with more specific requests for a continued discussion.

Bauer answered, via Thiel, that regardless of whether Berling's production of Grotesk nr 11 was based on own patterns and matrices or not, it was nevertheless a 'slavish imitation' (*slavisk efterbildning*).²⁶³ Even though it was not criminal in the legal sense, Bauer saw the typeface as a case of unfair business practice (*affärssed*) and therefore Bauer had considered requesting Berling to cease its production and sale of Grotesk nr 11. However, Thiel continued, if an agreement could be reached between the two foundries regarding the manufacture of matrices for machine composition, Bauer could waive this request. Thiel further reported that Bauer was interested in learning more about Berling's capacity, delivery time and general conditions for such a collaboration. And so the seemingly separate issues of plagiarism and collaboration became intertwined. In early January of 1959, Thiel turned to Ohlsson in a confidential tone:

It would be fortunate from many points of view if such an agreement could be reached. For one thing, the unpleasant issue of the Futura copy would disappear and the sale of Grotesk nr 11 could continue without interference, and moreover such an agreement could lead to profitable business for Berling.²⁶⁴

A copy of Ohlsson's answer is missing in the Berling archive and further correspondence on the subject during the spring and summer of 1959 has not been found there either. The issues of both collaboration and plagiarism were, however, still unresolved in October of 1959, when Thiel again wrote to Ohlsson, informing him that Bauer was willing to let the matter rest until Ohlsson had the chance to visit the Bauer office in Frankfurt and discuss the matter with Herbert in person. Thiel also mentioned that Bauer had now brought up the case of

²⁶³ Letter from ABT to BS 2/1 1959.

²⁶⁴ 'Det vore ju ur många synpunkter lyckligt, om ett dylikt avtal kunde komma till stånd. Dels skulle väl därmed den otrevliga frågan om efterbildning av Futura bringas ur världen och försäljningen av Grotesk nr 11 ostört kunna fortgå, dels skulle ju ett dylikt avtal kunna leda till en för [Berling Matris] vinstgivande verksamhet.' Letter from ABT to BS 2/1 1959.

Grotesk nr 11 with the Verein Deutscher Schriftgiessereien, the German industrial organisation for typefoundry owners, and the letter ended on a somewhat threatening note: 'Should you not visit Herbert by January of next year [1960] at the latest, he will without further delay bring the issue to the attention of the Swedish Council of Business Ethics [Näringslivets Opinionsnämnd].'²⁶⁵

So, in January of 1960, Ohlsson visited Bauer in Frankfurt together with Carl Göran Regnéll, one of Berling's board members.²⁶⁶ In the archival material, it is not clear which of Bauer's employees Ohlsson and Regnéll met. Herbert probably took part in the meeting. The company director, Ernst Vischer, was however not present. According to Ohlsson's minutes, the Bauer employees revealed that they had made 'microscopic examinations' (mikroskopiska undersökningar) of Grotesk nr 11 and found that some matrices were most likely electrotyped since the types showed specific traces of engraving that were identical with the original Futura matrices.²⁶⁷ It was also mentioned that Bauer previously had a large market in the United States, which had now declined due to the Americans' unrestrained copying of their types. Bauer could, however, accept that Berling continued selling Grotesk nr 11 under the same conditions as if a license for Futura had been granted from the beginning, namely that Berling would pay 10 percent in royalties of their sales of the type. In addition, Bauer requested compensation for the sales to date: a separate sum of 10,000 kronor. The financial compensation primarily concerned the Halvfet and Fet variants of Grotesk nr 11. When Ohlsson and Regnéll showed a sample of Berling's Bred fet (bold extended) variant of the typeface, the Bauer employees admitted that there was no such design in the company's product range. [fig. 37] Nevertheless, they maintained it was an unmistakable 'species' (art) of Futura.

Besides the infected subject of plagiarism, the parties also discussed the issue of cooperation in the manufacture of matrices for machine composition, and the Bauer employees expressed

²⁶⁵ 'Skulle Du icke senast i januari nästa år [1960] besöka Dr. Herbert, kommer han att utan vidare uppskov förelägga ärendet för Näringslivets Opinionsnämnd.' Letter from ABT to BS 14/10 1959.

²⁶⁶ Vid tiden befinner sig Regnéll i Strasbourg där han deltar i möte i Europarådet [Parliamentary Assembly of the Council of Europe] Regnéll var styrelseledamot i HO/Berlings? vilka år?. Regnéll och Ohlsson var födda i Lund samma år 1916 och var båda aktiva som kommunpolitiker i Högerpartiet/Moderaterna, Regnéll var även riksdagsledamot. År 1947 blev Regnéll bankdirektör i Skandinaviska bankens lokalkontor i Lund, 1956 biträdande direktör i samma banks centralkontor i Malmö. Suppleant i Europarådets rådgivande församling 1958–1962. [See "Portrait book: Tvåkammar-riksdagen 1867-", Vem är det: Svensk biografisk handbok, 1977, 839.]

²⁶⁷ Minutes signed PHO/BO 23/1 1960.

their wish to soon visit Lund for the sake of studying Berling's facilities more closely in this matter.

In a follow-up letter from Herbert to Ohlsson, he repeated Bauer's demand for financial compensation: 'Since the matter has been going on for so long, we are very keen to have it resolved as quickly as possible.'²⁶⁸

[Av minnesanteckningar från Ohlsson framgår att han efter brevet 26/1 överlägger med Thiel: 'Matriser: annan firma (anbud som är attraktivt), inget avgjort.' Ohlsson träffar även Tengelin (NO) som tycker att Ohlsson ska 'ta det lungt'.]

Ohlsson replied to Herbert, with a copy to Thiel, that he intended to convene the board as soon as possible to decide in the matter. However, Ohlsson anticipated, the majority of the board members would probably oppose the proposal.²⁶⁹ Around the same time, the plans for Bauer's trip to Lund were firming up in dialogue with Tedeco. In addition to visiting Berling in April, Bauer's employees, [Schneider and Hartmann (Wolfgang who is still alive?)], were also scheduled to meet with a representative of Tedeco in Malmö.²⁷⁰ In mid-March of 1960, Ohlsson notified Herbert that the board had decided not to meet Bauer's demand for financial compensation. Nor could the board accept Bauer's request that Berling should cease its production of Grotesk nr 11.²⁷¹ In Herbert's reply, he regretted the decision and added that he would like Ohlsson to send a fount each of 28 pt. Halvfet and 16 pt. Fet Grotesk nr 11 to Bauer so they could 'complete [their] investigation'.²⁷² Ohlsson replied that he would ensure that the requested founts were sent to Bauer, and practicalities regarding shipping were discussed in further letters in March and April.²⁷³ Nothing, however, was mentioned in the following correspondence regarding Bauer's planned visit to Lund, and no further proof that the visit actually took place has been found. [check board minutes] In any event, the projected collaboration did not come about.²⁷⁴ When the issue of Grotesk nr 11 was resumed the year after, it had become a case for the Council of Business Ethics, and the

²⁶⁸ 'Da die Angelegenheit schon so lange ansteht, ist uns sehr daran gelegen, dass sie so rasch wie möglich bereinigt wird.' Letter from BG to BS 26/1 1960.

²⁶⁹ Letter from BS to BG 12/2 1960.

²⁷⁰ Letter from BG to BS 29/2 1960. Letter from ABT to BS 11/3 1960.

²⁷¹ Letter from BS to BG 16/3 1960.

²⁷² 'Zur Vervollständigung unserer Untersuchungen [...]'. Letter from BG to BS 18/3 1960.

²⁷³ Letters 24/3, 25/3, 2/4, 13/4.

²⁷⁴ Berndal 1997, 49.

communication between the two parties was now conducted through Bauer's legal representative in Sweden: Ludwig Brann.

The matter is handed over to the Council of Business Ethics

The Swedish Council of Business Ethics was formed in the early 1950s as a self-regulating business court handling complaints regarding improper marketing and unfair competition. The Council interpreted and applied the International Chamber of Commerce marketing codes of conduct.²⁷⁵ [work in progress]

In February of 1961, the Council of Business Ethics received the first missive from Brann.²⁷⁶ In Brann's introduction to the matter, he explained that Bauer had become aware in 1958 that Berling was manufacturing and selling Grotesk nr 11, an identical copy of their Futura. Bauer's typeface, according to Brann, distinguished itself through its particular character; it had become 'a new prototype', prompting other foundries to produce similar products.²⁷⁷ However, Brann naively claimed, no other foundry in Europe had undertaken any identical copying, nor had there been any electrotyping of Futura, as the companies wished to sell only their own products and not plagiarize other foundries' designs. Brann referred to the Association Typographique Internationale (ATypI), of which the 'reputable typefoundries' of Europe and the United States were members, whose mission was to secure that the rights of original typefaces were recognized internationally. (Bauer was a member of ATypI, while Berling was not.) It was apparent, argued Brann, that Grotesk nr 11 stood in opposition to the ethical standards of ATypI, as it was so identical to Futura that it must have been cast in electrotyped matrices. He illustrated the likeness using specimens of the two typefaces as well as copies of both of these on transparent foil, so that one could be superimposed over the other for comparison.

Brann concluded that, since Berling was neither ready to pay damages to Bauer 'for the harm caused by the copying' nor willing to refrain from selling the copy, Bauer now called for the

²⁷⁵ When the Swedish Marketing Act came into force in 1971, Näringslivets Opinionsnämnd was replaced by Marknadsdomstolen (the Market Court) and Konsumentombudsmannen (the Consumer Ombudsman).

²⁷⁶ Sten Tengelin is the assigned case manager and the case reference number is 366/61.

²⁷⁷ 'utmärker sig genom sin särskilda egenart'; 'skapat en ny prototyp'. Letter from LB to NO 3/2 1961.

Council to take a stand on the issue and declare Berling's actions as unfair business practice. In other words, it seems that Bauer at this point had given up hope of financial compensation, and the reporting of the case to the Council was primarily aimed at trying to get Berling to cease the production and selling of Grotesk nr 11. Before the Council would make its decision, the parties were allowed to give further views on the matter, and Berling was first asked to return with a response to Brann's missive.²⁷⁸

The defence of Berling

In Ohlsson's answer to the Council in March of 1961, he first provided a more detailed background to the making of Grotesk nr 11.²⁷⁹ As mentioned, the Petterson foundry was the origin of the typeface. When Berling acquired this company in 1952, Ohlsson had been told that Grotesk nr 11 was first made for the 1930 Stockholm Exhibition. During the preparations for the exhibition in the late 1920s, Petterson was commissioned to produce a type which would correspond to the intentions of the exhibition architects regarding signs, advertising, and printed matter in connection with the exhibition. The order had been placed by a representative of Svenska Slöjdföreningen on behalf of Gregor Paulsson, the association's chairman at the time and also the chief curator of the exhibition.

Ohlsson further revealed that Bauer's former agent in Sweden, Erik Dahlberg, was aware of Grotesk nr 11, and that he during the Second World War had asked Petterson to provide him with the type as a replacement for Futura since it was difficult to import the latter from Germany. [The factory in Frankfurt was bombed in 194X. (Burke 110)] After the war, Dahlberg was again able to sell Futura from Germany, and so he reportedly ceased selling Grotesk nr 11. On top of that, Ohlsson informed, Grotesk nr 11 had been sold by Tryckfärger since the 1930s. This company had regularly bought the type from Petterson and resold it under the name of ABT-Grotesk. [fig. 38] When Tryckfärger acquired Dahlberg's company around 1954 it took over the responsibility of being Bauer's Swedish agent. Consequently, Tryckfärger's sale of ABT-Grotesk was terminated and the residual stock was transferred to

²⁷⁸ Letter from NO to BS 11/2 1961.

²⁷⁹ Letter from BS to NO 10/3 1961.

Berling since they had recently acquired Petterson's business. The agent, Ohlsson presumed, had thus considered Grotesk nr 11 and Futura not to be identical.

Considering the fact that Bauer's agent was well-informed about Petterson's activities, Ohlsson dismissed the claim that Bauer first knew of Grotesk nr 11 in 1958 as false. When Berling took over Petterson's inventory in 1952 there had been no reason to believe that Bauer and its agent were not aware of Grotesk nr 11 and that all parties did not understand that the typeface was different from Futura. Only after Berling further developed Grotesk nr 11 with 'greater technical capacity' (*större tekniska resurser*), investing substantially in the making of new patterns and new matrices, were objections raised from Bauer. This, Ohlsson surmised, was a result of intensified market competition. Once again rejecting the accusations of electrotyping, Ohlsson held that Bauer's efforts to bring Berling to trial was an attempt to discredit Berling for anti-competitive purposes, which ought to be dismissed.

Bauer's reply

A month later, Brann replied to Ohlsson's missive, explaining that it was irrelevant whether Berling continued to manufacture and sell Grotesk nr 11 in good faith, since Bauer no longer sought damages or compensation but only wanted the sale of the plagiarized Futura to cease.²⁸⁰ Even if Bauer only became aware of Grotesk nr 11 in 1958, Brann maintained, it did not change the fact that Berling's sale of the typeface was a clear case of unfair business practice since the product in question was doubtlessly plagiarism. Grotesk nr 11 was, after all, initially an electrotyped copy of Futura, and although Berling had made later additions of its own, these additions were also an 'exact imitation' of Futura, argued Brann. Buyers failed to distinguish between the two typefaces, and this was proof enough, he believed, that the manufacture and sale of Grotesk nr 11 was unethical.

Bauer disputed the claim that they ought to have known about Dahlberg's trading with Grotesk nr 11 as a replacement for Futura during the war – Dahlberg did so without informing Bauer. Nor were they aware of Tryckfärger's sale of ABT-Grotesk. If Tryckfärger ceased selling ABT-Grotesk and transferred the remaining stock to Berling, Brann argued, it

²⁸⁰ Letter from LB to NO 20/4 1961.

showed that Tryckfärger did not see it as compatible with being Bauer's agency to sell a plagiarism of their product.

Finally, Brann emphasized that Bauer had invested a considerable amount of organizational and artistic work in the creation of Futura, requiring the company to sell the type at a reasonably high price. On the contrary, whoever copied the type had no expenses for product development, making it possible to sell the copy at a lower price. Consequently, Berling's Grotesk nr 11 was cheaper than Futura, and the dumping of prices, Brann concluded, should also be taken into account when assessing Berling's actions.

Technical evidence

Brann returned to the Council in May of 1961 with technical evidence in the form of micrographs, photographs taken through a microscope, of the founts Bauer had requested from Berling a year earlier.²⁸¹ [fig. 39] The micrographs depicted five different sorts – Ä, D, q, 2, ú – of 28 pt. Halbfett Futura as well as the corresponding sorts of Grotesk nr 11. With these, Bauer sought to prove that particular microscopic details in the Futura sorts reappeared in Grotesk nr 11, suggesting that the matrices for Grotesk nr 11 had indeed been electrotyped and modelled after Futura. Material features such as grooves, holes, hatching – not relating to the face of the letter and not visible in print – were distinctive to the matrix (and the sort) as a kind of fingerprint, and these characteristics were transferred from the model to the copy in the process of electrotyping.

Bauer highlighted the following details. The original matrices for the 28 pt. Halbfett Futura had been made in bronze with a pantographic engraving machine, and the Ä and D sorts of Grotesk nr 11 showed marks from the drill identical to the corresponding sorts of Futura. The Ä sort had a groove in the neck [Konus] along the left stroke of the letter, which according to Bauer arose in the original matrix due to a 'slightly damaged drill'. On the upper side of the D sort, the contour was somewhat irregular, and transverse grooves [Querriefen/tvärräfflor] could be spotted in the neck, which according to Bauer was caused by imprecise manoeuvring of the pattern by the machine operator. The q and 2 sorts showed identical

²⁸¹ Letter from LB to NO 25/5 1961.

machining traces by the [Handschneider] in both Grotesk nr 11 and Futura. On the left side of the q sort, unique traces of a graver were visible in the form of hatching between the face of the sort and its shoulder. The same could be seen on the lower left side of the 2 sort. Finally, the ú sort showed unique marks from soldering and a graver between the u and the accent, which was a result of the soldering of the accent in the making of the original matrix. In addition, the [punch] of the ú sort had been damaged resulting in two microscopic holes. By this demonstration, infinitesimal defects in Bauer's manufacture of Futura were highlighted – defects also found in Grotesk nr 11 – in order to prove that the sorts of the latter had been cast in electrotyped matrices.

Ohlsson replied in the height of summer, in July of $1961.^{282}$ In response to Bauer's technical evidence, Ohlsson claimed that none of the sorts photographed by Bauer corresponded to the ones that Berling made available in 1960. As counterevidence, Ohlsson presented a new series of micrographs depicting Grotesk nr 11 – of Berling's production, he emphasizes. The sorts shown in the micrographs were also supplied as attachment.²⁸³ [fig. 40]

The specific features and defects, which Bauer had brought up, were each commented on by Ohlsson, who pointed out the following differences in Berling's sorts. On the Ä sort, the groove along the left stroke of the letter was missing. In the neck of the D sort, no transverse grooves were visible. On the Q sort, the hatching had a different slope than on the corresponding sort of Futura. The 2 sort, said Ohlsson, was completely different, obvious even to the eye upon closer examination (why he considered a photograph unnecessary). Finally, the ú sort showed no holes from any damaged [punch], and moreover, Ohlsson specified, no accents were soldered onto the [punch] in Berling's production, rather the engraving of [punches?] with accents was [made in one piece].

Not only was Ohlsson's rebuttal convincing, rhetorically, it also implicated that Berling's matrix production was of higher precision than Bauer's. Ohlsson concluded by once more rejecting the claim that Berling had violated any code of fair business practice and asked the Council to ignore Bauer's accusations.

²⁸² Letter from BS to NO 10/7 1961.

²⁸³ The sorts have been preserved in the archive.

After Brann and Bauer had received Ohlsson's reply, they returned to the Council in September of 1961 with a brief message informing about their decision to withdraw the case.²⁸⁴ No explanation followed. Berling was allowed to respond, and Ohlsson had no further comments. Thus, in accordance with the wishes of both parties, the case was closed by the Council on September 20, 1961.²⁸⁵

Aftermath

As mentioned, Grotesk nr 11 was selling well, even though it was not present in the company's main specimen book of 1959. The reason for not including the typeface therein might have been the process with Bauer, which was going on at the time of finalizing the book and whose outcome was uncertain. If Berling had lost the process and been pushed to withdraw Grotesk nr 11 from its product line, the specimen book would have to be discarded as well. After the fortunate outcome of the process for Berling, the company could continue offering the profitable product – and now even more publicly – which it also did throughout the 1960s. In ads from around 1970, Grotesk nr 11 is mentioned together with Berling Antikva and Carolus as the company's principal products.²⁸⁶ It was sold also by Arne Roos as late as 1973.²⁸⁷

[work in progress]

²⁸⁴ Letter from LB to NO 7/9 1961.

²⁸⁵ Letter from NO to BS 20/9 1961.

²⁸⁶ ad GF 1968, 418 (nr 7/8): 'Berlingantikvan, Carolus, Grotesk 11, Spartan' – beskrivning i bruna provbladet från 1960-talet om Grotesk nr 11 vid sidan av 'den stora' Berling antikva.
²⁸⁷ ad Arma Bases CE 1072, 4

²⁸⁷ ad Arne Roos GF 1973, 4.

Chapter 6. Original type (case study: Berling Antikva)

The Berling typefoundry is today less known than its flagship product from the early 1950s: the typeface Berling Antikva. [fig. 41] Originally designed as metal type for hand composition, it would later be converted for use in phototypesetting and digital typesetting, after the closing of the foundry in 1980. The typeface is still quite common in Sweden and regarded as an important cultural heritage, habitually labelled Sweden's 'national typeface' (*nationaltypsnitt, rikstypsnitt*) and a 'national treasure' (*nationalklenod*).²⁸⁸ Several public institutions in Sweden, such as the Government Offices and the National Library, have employed Berling Antikva as part of their visual identity. The typeface is commonly used in monographs on Swedish design as a way of illustrating the theme in the layout.²⁸⁹

When the type came out on the market in 1952, it was an immediate success for the Berling foundry and the designer, Karl-Erik Forsberg. The fact that a Swedish foundry had managed to engrave and cast an original roman type, drawn by a Swede, was considered by critics as a national achievement of great distinction.²⁹⁰ For a small country, often described as typographically underdeveloped, an effort of this kind had long been in demand.²⁹¹ The news was widely reported in the press, and Berling Antikva would soon be known as 'the first fully Swedish typeface'. This epithet was reinforced by a general belief that it was designed with special regard to the appearance of the Swedish language in print. Later in life, Forsberg would dismiss this belief as a misunderstanding and a false rumour.

This chapter is a study of how the Berling Antikva project came about. Questions regarding product development, manufacturing, marketing, reception and historization will be investigated alongside the allegation that it was designed for texts in Swedish. Is the claim that Berling Antikva was adapted for Swedish only a misunderstanding, as Forsberg has

²⁸⁸ Geith, 258; Postens frimärksserie Typsnitt 2012; Biblis 27, 7.

²⁸⁹ Examples of such monographs are: Wickman/Formens rörelse 1995, Söderholm/Svenska Formgivare 2005, Design: Stockholm Nationalmuseum 2004.

²⁹⁰ 'Detta är en utomordentligt märklig tilldragelse, lika sällsynt som betydelsefull för vårt land.' Lagerström NB 1952, 244; '[...] man frågar sig i all stillsamhet hur många konstnärliga insatser i dagens Sverige, som har lika stora utsikter att bli bestående inför framtidens dom, som [Berling antikva]' Ulf Hård af Segerstad, SvD ?1955-11-09?; '[Berling antikva] betecknar [...] en förnäm nationell framstöt.' Gustaf Näsström, Stockholms-Tidningen, 1952, quoted in NB 1952 häfte 10.

²⁹¹ Kinross Modern Typography, 146 describes Sweden as 'a less developed typographic culture' (compared to Switzerland). Ulmaja and Borg 63 holds that Sweden has 'a very limited typographic history and no solid tradition to lean on' ('Sverige har som redan nämnts en mycket begränsad typografisk historia och ingen gedigen tradition att luta sig mot').

suggested? What role did advertising and historical reception play in the spreading of ideas regarding the presumed Swedishness of the typeface? Furthermore, the chapter is a study of the historical context in which Berling Antikva came to be known as the first fully Swedish typeface. How does this product from the 1950s relate to preceding discussions on 'Swedish letterform' which took place in the early 1900s? These questions will be discussed and answered below.

Swedish letterform: a background

The idea of a Swedish typeface evolved slowly and was conditioned by economic and cultural factors. Since the beginning of print, it was crucial that printers had the right equipment of a certain quality for production to flow smoothly. When type became worn, legibility and layout of the printed products were affected. So, without functioning type, printers had trouble selling their goods. In times when the import of types was unreliable for one reason or the other, local production was seen as an answer to the problem of insufficient supply. It was also a matter of reducing expenses, since locally-produced type could entail lower costs for the printers. However, as has been discussed above, establishing manufacture of this kind, on an adequate scale and of decent quality, was not an easy task.

Even though the eighteenth and nineteenth centuries saw advancements in Swedish typefounding, there were recurring complaints that the nation's foundries were unreliable, and that they did not live up to the standards of foreign production. During the 1880s, critique would surface from time to time in the trade journal *Nordisk Typograf-tidning*. For instance, an exhibition held in 1883 at the National Library in Stockholm, showing recent works from Swedish printers, was accused of being marked by German influence, for which the country's two foundries at the time, Berling and Norstedt, were blamed due to their incompetence of producing more than 'plagiarized foreign designs'.²⁹² There was nothing wrong with German quality – it was just not Swedish. In an article of 1885 in the same journal, the Hamburg foundry Genzsch & Heyse was praised for their high efficiency and well-made products,

²⁹² 'Det ligger här ganska nära till hands att se hvilken verksamhet Sveriges tvänne stilgjuterifirmor utöfva. På hvad sätt sköta de sitt kall? Jo, genom att uteslutande plagiera utländska alster – ett ornamentgarnityr tyckes vara något alldeles omöjligt att få utfördt efter egen fantasi, allting är långods.' 'Typografiska utställningen', Nordisk Typograf-tidning 1883 nr 11 sign Hippo.

explaining why the majority of newspapers in Stockholm at this time used their types. In contrast, the Swedish foundries were belittled for not keeping up with the times, forcing the country's printers to import types from abroad.²⁹³

The dispute of scripts

In addition to the crucial economic necessities for printers of securing a local supply of type as well as reducing costs, the quest for a locally-produced printing type came to be a matter of taste and ideology. The idea that spoken and written language reflects national character was far from new, but the nineteenth century saw a heightened discussion on this issue across Europe. A statement by Alexis Hasselquist, the director at Berling around the turn of the century, represents a common belief at the time:

Just like the individual's handwriting unconsciously reflects a certain personality, the spiritual peculiarities of whole nations are expressed in their letterforms.²⁹⁴

In regard to this view, choosing between the blackletter and roman letterform had become increasingly controversial. The rise of the idea that blackletter script is inherently German was a consequence of growing political tensions between the German states and France during the nineteenth century. Blackletter was politicized as *Deutsche Schrift*, 'German type', in opposition to the 'foreign' roman letterform which was dominant in France.²⁹⁵ Critics of this belief argued that the general drive of the times for international standardization should also be applied to written and printed language. Thus was the reasoning in an 1874 appeal from the Swiss printers' association urging that blackletter should be 'banned' in favour of roman type:

One wants unity in measurements and weights, in coinage, in the railway, postal and telegraph systems. The printers also strive for unity in their profession: the same type

²⁹³ Nordisk Typograf-tidning 1885, 42f.

²⁹⁴ 'Liksom individen synas hela nationer omedvetet i sina bokstafstecken hafva gifvit uttryck åt sina andliga egendomligheter, ty skriften företer stora olikheter, och ännu i dag torde karaktären hos olika nationers skrift hänvisa på de skilda ländernas skaplynne.' Hasselquist, 'Principer för bokdekoration. Föredrag hållet vid föreningens för bokhandtverk årssammanträde den 26 februari 1906'. in: Föreningen för bokhandtverk: Meddelanden 1906, Stockholm: Lagerström 1906, 6.

²⁹⁵ Willberg Blackletter, 40f. Lindmark, 88f. Dahlgren, 39.

sizes, the same [Schrifthöhe], the same paper formats, the same wage rates, etc. Yes, there will certainly come a time, even if only in thousands of years, [...] when all human beings speak the same language. The first step towards this is surely the unification of letterforms.²⁹⁶

Since roman type was more common across Europe at this point, it was seen by the Swiss printers as the most viable to become the norm. The same discussion in Germany – the so-called *Schriftstreit*, the 'Dispute of Scripts' – lead to a motion, proposed in the Reichstag in 1911, for a legislation that would make roman 'the only official type' and abolish blackletter as the official school script.²⁹⁷ In a final referendum the motion was rejected by a narrow margin, and blackletter maintained, for the time being, its status as the primary German letterform.

Historically, blackletter had a strong position also in the Scandinavian countries. It was virtually the only existing type during the first decades of printing in Sweden. In the sixteenth century, when roman type started to appear in the region, it was employed mainly for texts in Latin, the international language of the erudite, and other foreign languages.²⁹⁸ Hereby blackletter became known in Sweden as 'Swedish type' (*svensk stil*) or 'Swedish letters' (*svenska bokstäver*).²⁹⁹ In the early seventeenth century, Johannes Bureus attempted, with little success, to reinstitute the runes as the official writing system for Swedish.³⁰⁰ During the eighteenth century, roman type became more common for texts in Swedish after a growing number of prestigious publications, such as the Royal Swedish Academy of Sciences' *Handlingar*, had shifted from blackletter to roman.³⁰¹ It has been speculated whether this transition was an effect of cultural influences from France during the period.³⁰² In any case,

²⁹⁶ 'Man will Einheit im Maass und Gewicht, im Münzfuss, im Eisenbahn-, Post- und Telegraphenwesen. Auch die Buchdrucker spüren das Drängen nach Einheit in ihrem Beruf: Gleicher Kegel, gleiche Schrifthöhe, gleichmässige Papierformate, gleiche Tarife u.s.w. Ja, es wird sicherlich, wenn auch erst in Jahrtausenden, das Wort des Präsidenten der Vereinigten Staaten: dass die Zeit einmal kommen werde, wo alle Völker der Erde nur noch eine Sprache sprechen, sich bewahrheiten. Der erste Schrift dahin ist wohl die Annahme gleichartiger Schriftzeichen.' Osign, 'Die Verbannung der Fractur', *Annalen der Typographie: der verwandten Künste und Gewerbe*, 1874, 278–279, referat i NBT 1874, nr 10.

²⁹⁷ Willberg Blackletter, 41. Se även Hartmann, 1999.

²⁹⁸ Dahlgren 1928, 13f.

²⁹⁹ See, for example, the 1697 specimen from Abraham Haberegger, reproduced in NB 1918, 248. Alnander 1959[1722/1756], 61.

 ³⁰⁰ Bureus was later appointed the country's first State Antiquary (antiquarius regni). Rvna ABC 1611.
 Bengtsson 1956, 210. De yverbornes typografi 39. Matthew Norris

³⁰¹ Antikvan och vetenskaperna 19–35. Dahlgren 1928.

³⁰² Carl B. Lorck, Handbuch der Geschichte der Buchdruckerkunst, Zweiter Teil, Leipzig: Weber, 1883, 450. Lagerström Svensk bokstavsform, Svensk Bokkonst, 69.

the change to roman was motivated at the time with the benefits of modernization: one letterform instead of two would make writing, printing and reading easier, and roman letters were promoted as more 'clean, simple and clear' than blackletter.³⁰³ By the early nineteenth century, roughly half of the books printed in Swedish were set in roman.³⁰⁴ The dual usage of blackletter and roman lived on in Sweden during the nineteenth century, like elsewhere in Europe.³⁰⁵ Popular and religious literature was set in blackletter while scientific texts were set in roman. This division has been seen as reflecting a widening rift between popular and elite culture.³⁰⁶ Although roman type gradually became more common for all texts in Swedish including popular and religious literature, it can be noted in Berling's specimen books from most of the nineteenth century that roman type was demonstrated with Latin text samples, and blackletter was shown in Swedish.³⁰⁷ When the problem of national letterform resurfaced with new force in Sweden towards the end of the nineteenth century, however, blackletter was out of the question. The issue then was which kind of roman typeface was the most suitable for Swedish.

The Stockholm Exhibition of 1897

In 1897, Stockholm was the stage for the industrial fair Allmänna konst- och industriutställningen (The General Art and Industrial Exposition), commonly known as the Stockholm Exhibition of 1897, organized to honour the 25th anniversary of King Oscar II's reign. The exhibition took place on the island of Djurgården and ran during the summer months. On view were the latest industrial achievements and inventions. New media technologies such as film and the phonograph were for the first time introduced to a Swedish audience. The printing industry was represented in several exhibitions. The Berling company

³⁰³ I en skrivelse till Vetenskapsakademien 1739 förespråkar Christopher Polhem antikvan på grund av dess 'reena, simpla och tydeliga' bokstavsform. Citerad i Antikvan och Vetenskaperna 26. Se också Dahlgren 21–23. I 'Swänska språkets rätta skrifsätt', utgiven 1753, kritiserade Sven Hof bruket av två bokstavsformer eftersom 'konsten att läsa och skrifwa blifwer swårare, hwilken dock på alt sätt bör giöras lätt' (115). Cit. i Hazelius, "Om svensk rättstafning", band 2, 197. [Cit./kopierad i Lagerström Svensk bokstavsform, Svensk Bokkonst, 69.]

³⁰⁵ Willberg Blackletter, 40; Lindmark, 89f.

³⁰⁶ Lindmark, 90. Bondgods och rövarromaner, 52. Lundblad TFL, 69.

³⁰⁷ In the 1878 specimen book, roman is exclusively demonstrated with Latin text. It is only in the specimen book of 1888 that a few roman types are shown in Swedish, while the majority of roman is still presented in Latin. The ratio is the opposite in the 1909 specimen book: here the roman types are more or less set in Swedish. The amount of blackletter types is heavily reduced in the 1935 specimen book, and by the time of the c1960 specimen book they are no longer in the product range.

had its own booth in the building of Nordiska Museet, demonstrating printing types, matrices, specimens among other things, for which the company was awarded a silver medal.³⁰⁸

Attracting 1.5 million visitors, the exhibition was generally seen as a tremendous success: a manifestation of the country's strength, a nation on the verge of a new era.³⁰⁹ The author Ellen Key saw the exhibition as proof of Sweden's 'enormous national power and national intelligence'.³¹⁰ Also among printers, the exhibition was regarded as a sign of progress, however concerns were soon raised that there was something missing in the printed products on display.

In a review published later that year, in the annual trade journal *Boktryckerikalender* (Printing calendar), printer Erik Oldenburg reflected on what could be learnt from the exhibition. Despite that the exhibited material was of undoubtedly high quality - 'typography stands high in our nation' – the printed goods did not manifest any taste or style (*smakriktning*) that was typical for Sweden, lamented Oldenburg.³¹¹ One of the main barriers for such a style to be realized, he believed, was the rivalry within the industry, the cutting of prices, resulting in compromises with quality and the disunity among professionals. Oldenburg pleaded that these competitive forces were to be overcome and turned towards competing together for a mutual goal, in order to 'by all means possible liberate ourselves from the given patterns and try to find, or rather build a *typographic taste of our own!*'.³¹²

The publisher of *Boktryckerikalender*, printer Waldemar Zachrisson, also expressed his views on the exhibition. Like Oldenburg he addressed the contradicting state that Sweden was one of the leading nations in the world, if not the leading, in terms of technical aspects of printing, and at the same time lacked a national style. At this high technical level, he argued, the development of an independent style was the next step. For this to be achieved, Zachrisson urged for a deeper coherence between the various visual and material components of the book - text, cover art, vignettes, paper, binding - criticizing the publishing houses for not giving

³⁰⁸ Hasselgren, Andreas, Utställningen i Stockholm 1897. Beskrifning i ord och bild öfver Allmänna konst- & industriutställningen, 625.

³⁰⁹ Källa besöksantal.

³¹⁰ 'hvilka oerhörda summor af nationell kraft och nationell intelligens, som voro representerade på storindustriens och uppfinningarnas områden' Ellen Key, Tankebilder del 2, 1898, 16f. ³¹¹ 'typografien står högt inom vårt land'. BK 1897, 39.

³¹² 'låtom oss därvid i möjligaste mån frigöra oss från förut kända mönster samt söka finna, eller rättare bilda en egen svensk typografisk smak!' BK 1897, 40.

economic priority in this matter. A more thoroughly coordinated book design process, supervised by a printer in close collaboration with typographers, artists, illustrators, bookbinders and other professionals, was a prerequisite for a consistent national style. Two maxims were stressed that in time would become increasingly associated with Swedish modernist design: form should follow function (or content), and irrelevant ornamentation must be avoided.³¹³

An underlying theme of Oldenburg's and Zachrisson's articles was the strengthening of the trade's status in society. The raising of awareness of a more refined level of style and taste would increase the value of printed goods, resulting in a market more concerned with high quality than low prices.

Oldenburg's review came to symbolize an awakening, and criticism of this kind became more common in the years that followed, spurring an interest in strengthening the nation's printing industry. Signs of this activity around the turn of the century were the establishment of institutions such as Föreningen för bokhantverk (The society of book craft) and Svenskt Bokindustrimuseum (The Swedish book industry museum), the arranging of the exhibition Svenska Bokindustriutställningen (The Swedish book industry exhibition), and the founding of a new trade journal, *Nordisk Boktryckarekonst* (Northern printing). [fig. 42] The latter became the principal national forum for discussions on typography in the years to come. Also of great importance was Skolan för bokhantverk (The school of book craft), the first school in Sweden for typographers, which began its activities in 1903 in Stockholm.³¹⁴

Northern printing

The editors behind *Nordisk Boktryckarekonst* were the brothers Carl and Hugo Lagerström who at the time worked as foremen in printing offices in Copenhagen and Stockholm, respectively. In 1903 they started their own company in Stockholm, Bröderna Lagerström

³¹³ 'utstyrseln måste stå i direkt samklang med innehållet'. 'låt hellre all utsmyckning uteblifva än att använda sådan som icke helt öfverensstämmer med typerna och innehållet' BK 1897, 70, 72.

³¹⁴ Den hette till en början "Allmänna svenska boktryckareföreningens yrkesskola för bokhandtverk i Stockholm", allmänt kallad "Yrkesskolan för bokhantverk" (The trade school of book craft). The name was changed in 19XX to Skolan för bokhantverk. In the early years the school was open one day per week, in the premises of Tekniska Skolan. (Berättelse för åren 1903–1906, tryckt 1910.) Egna lokaler 190X. Ref till vidare läsning.

(The Lagerström brothers), which was to become one of the most respected printing offices in Sweden for many years. *Nordisk Boktryckarekonst* and Hugo Lagerström in particular would soon take on a leading role in the quest for a national typographic style, as declared in the article 'Svensk Typografi' published in the first volume of the journal:

It has only been the great affluent nations who have been blessed with typefoundries; only these have so far been able to create a somewhat national character [in typography] [...]. But even if Sweden has been largely unfortunate with regard to its typefoundries, one can still discern remarkable aspirations for a national character, which reproduces the rugged, calm grandeur of our nature and our temper. [...] I am not alone in my opinion, on the contrary it has been stated several times as possible and likely, that Sweden could really come forth with a style of its own. The necessary requirements for this, of which *interest* in the profession is the most important, are beginning to be more noticeable among our professionals. England and America have formed their own styles [...]. Germany and France no less; yes, even little Denmark can demonstrate a clear national character in many of their works from recent years; why shouldn't Sweden also be able to do it!³¹⁵

The debate soon turned to the need for a specific national typeface. In the 1903 volume of *Boktryckerikalender*, Zachrisson asserted that Sweden was 'waiting' for a printing type suitable for 'our taste and temper'.³¹⁶ This national-romantic criterion – the typeface as a representation of a particular Swedish nature, taste, temper and such – would in the coming years be supplemented with more elaborate demands from various actors in the field.

³¹⁵ 'Det har endast varit de stora penningstarka nationerna förunnadt, att ega stilgjuterier; endast dessa hafva hittills kunnat skapa sig en någotsånär nationel prägel [...]. Men änskönt att Sverige med afseende å egna typgjuterier varit i hög grad vanlottadt, skönjer man dock märkliga sträfvanden till en nationel prägel, hvilken återgifver det karga, lugna, storslagna i vår natur och vårt kynne. [...] Jag är icke ensam i denna min mening, utan har det tvärtom flere gånger uttalats som möjligt och sannolikt, att Sverige verkligen skulle kunna utbilda sig ett eget manér. De nödvändiga fordringarne därför, af hvilket intresset för yrket är numro ett, börja allt mer och mer att vara tillstädes hos våra yrkesmän. England och Amerika hafva bildat sina egna manér [...]. Tyskland och Frankrike icke mindre; ja äfven lilla Danmark kan uppvisa tydlig nationel prägel å många af sina senare års arbeten; hvarför skulle icke Sverige äfven kunna göra det!' Lagerström, 'Svensk typografi' NB 1900, 383–384.
³¹⁶ 'Hemma i Sverige gå vi emellertid fortfarande och vänta på en för vår smak och vårt kynne passande stil [...].'Zachrisson, 'Tankar om bokutstyrsel', BK 1902–03, 114.

Lagerström's article of 1905

Lagerström published his first article on the subject of a Swedish printing type in Nordisk Boktryckarekonst in 1905, presenting a thesis he would return to on numerous occasions during the following decades. His idea was straightforward: conceiving a national type was not necessarily a question of designing something new, but rather to look back in time, to printing practices of the past, and bring forth a letterform which had historically found widespread popularity among Swedish printers and readers. In other words, a Swedish type was a matter not necessarily of origin, but of Swedish tradition. 'Perhaps our country has not produced any noteworthy luminaries in typography, generating something out of the ordinary - but is it not precisely this "ordinary" that is Swedish?', Lagerström argued.³¹⁷ Bold letterforms, like heavy blackletter or stout roman typefaces, were rarely seen in Swedish printing, he asserted. It was rather the 'light, bright, admittedly monotonous grey' letterforms that were characteristic of the country's typographic tradition.³¹⁸ A central point of reference in Lagerström's argument – that a Swedish typeface must rely on Swedish tradition – was the Gustavian style.³¹⁹ Inspired by the French neoclassical Louis Seize style, it dominated Swedish arts and crafts during the late eighteenth and early nineteenth century. Lagerström saw this period in Swedish typography as a time of progress during which a national style was formed. The late eighteenth century was significant, he believed, as this was the period when the use of blackletter and the dependence on German foundries diminished due to a stronger influence from France and an increasing use of 'light and bright' roman types in Swedish printing.³²⁰

³¹⁸ 'Det allmänna kännetecknet på våra böcker och de typer som där kommit till användning är väl just det lätta, ljusa, visserligen monotont gråa. Under hela det 19:de århundradet har i Sverige knappast användts annan boktyp än vanlig antikva samt här och hvar någon frakturart. Ej heller ha de på den senaste tiden framkomna kraftiga, tunga götiska och semigötiska eller tunga svarta antikva arter i Sverige vunnit några egentliga anhängare [...]. Detta vittnar om att sådana typer icke tilltala vår estetiska uppfattning.' Lagerström, NB 1905.
³¹⁹ Lagerström does not mention explicitly the 'Gustavian' era in his 1905 article but he discusses the period. In subsequent versions and in later articles on the subject, however, there are a growing number of references to Gustavian typography. See 1913, 1918, 1920. For a thorough study on the Gustavian style and its revivals, see Mårdh, A Century of Swedish Gustavian Style.

³¹⁷ 'Vårt land äger måhända enligt mångens förmenande just icke några erkända storheter på boktryckets område, hvilka frambringat något utöfver det vanliga – men är icke månne detta "vanliga" just det, som är svenskt?'

³²⁰ '[Under andra hälften av 1700-talet vinner antikvan allt större spridning i Sverige] tills innemot 1700-talets senare hälft antikvan blev rätt allmän, särskilt under den gustavianska tiden, var smakriktning även beträffande boktrycket var hämtad från Frankrike, med dess ljusa och lätta antikvasnitt och dekorativa anordningar.' ESB 1913, 11. 'Vi kunna [...] med rätt goda skäl kalla den bokutstyrsel från senare hälften av 1700-talet och början av 1800-talet, svensk. Den är i hög grad påverkad av en konststil, som i Sverige skattas högt, nämligen den gustavianska, och har väl därigenom vunnit en viss hävd som svensk bokkonst.' ESB 1913, 17.
This 'Swedish taste' (svensk smak), Lagerström believed, corresponded to a contemporary roman transitional-style type called Mediaeval.³²¹ Originally named Old Style, it was first cut in 1858 and completed as a series around 1860 at the Edinburgh-foundry Miller & Richard.³²² [fig. 43] It was a revival of the London typefounder William Caslon I's types from the 1720s, which in turn had been inspired by Dutch Baroque types evolving out of the roman types of the Renaissance – hence 'Old Style'. The name Mediaeval came about in a German context around 1868, when Genzsch & Heyse acquired the matrices and the rights to sell the type from Miller & Richard. This purchase is said to have been encouraged by Fredrik Nyholm, foreman at the Stockholm printing office of Ivar Haeggström and a steady customer of Genzsch & Heyse.³²³ Mediaeval was a commercial success, not least in Sweden; as of 1905, the type had been sold to 160–200 printers here (to the extent of 150,000–200,000 kg).³²⁴ Lagerström saw its wide spread in Sweden as evidence of its popularity and therefore, at the time being, the most appropriate as a national type. He emphasized, however, that the existing Mediaeval should not be seen as a definitive solution. Certain features in the design could be improved – thicker crossbars (hårlinjer) and longer ascenders and descenders (staplar) would make it more pleasing – but in principle he regarded the type as the most suitable for Swedish printing because of its historical significance in the country.

Lagerström's article was accompanied by a call to typographers to discuss the issue within the local sections of the trade union (Svenska typografförbundet). It was urged that section meeting minutes and individual statements should be sent to the editors of *Nordisk Boktryckarekonst*, who intended to compile the gathered opinions as a basis for further discussion on the matter. Several reactions were published in the journal that year. The printer Oscar Isacson supported Lagerström's initiative but he dismissed Mediaeval as too thin, too light – and too English. Instead, he believed that D'Antiqua, a roman modern-style type produced by the Rudhard'sche foundry in Offenbach, could serve as a model. [fig. 44] Isacson also suggested a competition in which artists and architects were to submit proposals for a national type.³²⁵ A statement from the Lund section of the typographers' union, represented by Jöns Fritz Larsson, a typesetter at the Berling printing office, supported the

³²¹ NB 1905, 10.

³²² Morison Tally, 16.

³²³ Hermann Genzsch, Till medieval-stilens historia [1915], övers. Carl Wiker, Göteborg: Skolan för bokindustri, 1938, 14f.

³²⁴ According to the foundry, cited in NB 1905, 13.

³²⁵ NB 1905, 170–174.

idea of a competition. Larsson presumed that the Berling foundry would be interested in the matter, and hoped for the company to take an initiative. Moreover, he reported, the Lund section had previously held discussions on the subject, in which Berling's roman type Italiensk Antikva, a [licenced? originalmatriser] copy of the Leipzig foundry Schelter & Giesecke's Romanisch type, had been brought forth as an existing 'beautiful and sustainable' (*vacker och hållbar*) candidate for a Swedish type.³²⁶ [fig. 45]

Nordische Antiqua and Axel A. Carlson's national letters

The following years saw several proposals for a national printing type. One of the most successful outcomes, in terms of sales, was Nordische Antiqua. [fig. 46] Developed at Genzsch & Heyse in Hamburg under the artistic direction of Friedrich Bauer, the type first came on the market in two variants, roman and italic, in 1907.³²⁷ Waldemar Zachrisson had been involved in the process as an adviser, and he was also the first to use the type in Boktryckerikalender, where it was introduced as Nordisk Antikva: 'a new type which corresponds to our Swedish needs'.³²⁸ Exactly how the design answered to particular Swedish needs was not further explained by Zachrisson in any of his public presentations of the type.³²⁹ According to a later account by his son, Zachrisson had wished for a design that was 'not too round and not too soft', that it should rather have 'a certain hardness and strength in order to obtain the stern Nordic character'.³³⁰ The 'Nordic' quality of the type, however, lied foremost in its name. It was a way for Genzsch & Heyse to gain presence on the Scandinavian market. Their collaboration with Zachrisson was strategic considering his good reputation among Swedish printers. In 1912, however, after the product series was completed with eight variants in more than 120 sizes, the type was renamed Genzsch Antiqua by the foundry.³³¹ In the specimen booklet reintroducing the product with its new name, there was no mentioning of any Swedish or Nordic needs or character. On the contrary it was described as an endeavour to revive the essence from the roman types of the Renaissance, trying to achieve a neutral, 'impersonal' printing type that would provide flexibility for a variety of

³²⁶ NB 1905, 450. A record of this statement is also included in Ekström 1939, 48.

³²⁷ G&H Chronik 1908, 64.

³²⁸ Zachrisson 1906, 6.

³²⁹ NB 1907; BK 1906.

³³⁰ 'daß die Schrift nicht zu rund, nicht so weich sein dürfte sondern eine gewiße Härte und Stärke haben müsse um den strengen nordischen Charakter zu bekommen'. kolla WZ-brev citerat i Bondeson 209.
³³¹ NB 1912, 183.

uses.³³² The reason for the new name was not explained in the specimen. Removing the 'Northern' label could have been an attempt to make the product more appealing to a wider market. The type's commercial success might also have been a factor. Considering its popularity, the name of the type was a chance for the foundry to advertise itself through the product. A later example of this approach to product naming is the case of Berling Antikva which we will return to below. Despite the formal name change, however, Genzsch Antiqua would hereafter still be widely referred to as Nordische Antiqua, especially in Sweden. Many years later, in the 1950s, when the Berling foundry acquired the matrices for the type, it was sold as Nordisk Antikva.³³³

Lagerström was obviously annoyed by the news of Nordische Antiqua: 'Simply choosing a type among the many and calling it Swedish or Nordic does not induce respect', he wrote in a review in *Nordisk Boktryckarekonst*³³⁴ He went on accusing the Swedish foundries for being idle, finding it embarrassing that an alleged Swedish type had been conceived by a German foundry. Lagerström pointed to the numerous initiatives in terms of articles, lectures and study circles, initiated by typographic professionals across the country, which were aimed at achieving a Swedish type. Despite this activity and dedication, he lamented, there was no sign that the foundries took interest in the issue. Without mentioning Berling by name, he criticized the company between the lines:

They complain that Swedish industry is not patronized, and at the same time they do not seem to care about an issue like this, in which all the country's more prominent professionals are interested – they do not even care to participate in the discussion to show their interest in an issue that must be vital to them. [...] I believe that in the last ten or fifteen years not even a single ornament has been drawn by a Swedish artist, engraved and cast in a domestic foundry – everything has been German, miserably German!³³⁵

³³² '[...] die klassischen Versalien harmonieren gut mit wohlgestalteten, alles in Buchschriften durchaus überflüssige Absonderliche und Persönliche vermeidenden deutlichen Gemeinen.' Specimen 1912. Se vidare Hans Andree Nordische Antiqua, 7–8.

³³³ Berling specimen 1960s. När t.ex. Tschichold skrev om typsnittet på 1920-talet (och senare?) kallade han det Nordische Antiqua. Tschichold, Zeitgemässe buchgestaltung, 121; Die neue Typographie? Buch'kunst'?
³³⁴ 'Att direkt taga en typ bland de många och kalla den en svensk typ, en nordisk typ, inger ingen respekt.' NB 1907, 50.

 $^{^{335}}$ 'Man klagar från dessa och andra håll öfver att svensk industri ej gynnas, men man är där ej så pass påpasslig att i en fråga som denna, i hvilken landets alla mera framstående fackmän äro intresserade, söker slå ett slag – ej ens gitter deltaga i diskussionen för att visa sitt intresse i en fråga som för dem måste vara vital. [...] Jag tror

Lagerström saw it as a missed opportunity; the Swedish foundries had overlooked a great chance to gain market shares among the Swedish printers and to some extent thereby 'curb the foreign deluge [*störtfloden*]' of inappropriate typefaces.³³⁶

Another actor in the debate, photoengraver Axel A. Carlson, wrote immensely on the subject of 'national typography' in the years 1914–1918. In the journal of the typographers' union, *Svensk Typograftidning*, he presented at least three proposals for a Swedish typeface, among which one was an altogether new writing system for the Swedish language made up of signs relating to what he perceived to be fundamental aspects of Swedish culture. [fig. 47] These 'national letters' (*nationalbokstäver*), as he called them, were motivated by the proposition that the Latin 'foreign' alphabet was not genuinely Swedish.³³⁷ Carlson's aim to radically transform Swedish written language was widely ridiculed and led to intense polemic with Lagerström and others. In contrast to the hyperbolic ambitions of Carlson, Lagerström came out of the debate as the more authoritative and reasonable voice, which confirmed his self-appointed leadership in the quest for a Swedish printing type.

Svenska Slöjdföreningen's competition

The debate culminated after Svenska Slöjdföreningen (The Swedish arts and crafts society) announced a competition in 1916 inviting artists, architects and illustrators to create proposals for a national type. In addition to Lagerström, who was mainly responsible for the initiative, the jury consisted of well-known figures from the Stockholm art scene: Gregor Paulsson and Erik Wettergren, both curators and members of the board of Svenska Slöjdföreningen, Olle Hjortzberg, painter and professor at the Royal Art Academy, as well as Carl G. Laurin, art historian and editor at the Norstedt publishing house. The competition was co-organized with Berling's primary Swedish competitor, the Norstedt foundry, which financed the prize money and undertook to produce the winning proposal. The results were

icke att under de senaste 10 eller 15 åren framkommit en enda liten blomma tecknad af en svensk konstnär, graverad och gjuten i inhemskt gjuteri – allt har varit tyskt, eländigt tyskt!' 'Till Sveriges stilgjuterier'. NB 1907, 51f.

³³⁶ 'försuttit en stor möjlighet att vinna insteg i boktryckerierna och i någon mån därigenom hämma den utländska störtfloden [...]' Till Sveriges stilgjuterier. NB 1907, 51.
³³⁷ STT 1916, 14, 22–23. Ref till IGN-artikel (Biblis).

unveiled in 1917.³³⁸ Out of 39 proposals, Berta Svensson won the first prize, followed by Torsten Schonberg and Eigil Schwab. An honourable mention was given to John Dunge.³³⁹ All of the prize winners were established artists from Stockholm working with book illustration.

Gregor Paulsson expressed his appreciation of the results and hoped that the winning submissions would soon be put into production.³⁴⁰ His view was shared by Lagerström, who encouraged the Norstedt foundry to proceed with the preparations for engraving and casting one of the winning typefaces.³⁴¹ Others were less enthusiastic. Art critic August Brunius dismissed the winning submissions as banal and tasteless, lacking artistic qualities.³⁴² The printer Carl Z. Haeggström praised the Norstedt foundry, describing the company as the most distinguished of the country's foundries due to its commitment in the matter of a Swedish type and its interest in 'leading the nation's typefounding industry on a new and independent path'.³⁴³ The winning typefaces, however, he felt, were too stylistic, illegible – even ugly – and generally infeasible as printing types. Overall, he saw the possibility of putting a Swedish roman type into production as unrealistic considering that the country's foundries were still so poorly equipped. Regarding the competition's motive of generating a national printing type, Haeggström believed, it had to be seen as a 'complete failure', but as a forum for gathering artists and connecting them with the printing industry it might, in time, be proven a success.³⁴⁴

None of the submitted sketches were ever realised as printing types. For Berling's part it was probably a good outcome, as it had been an apparent loss of prestige not to be involved in the competition. One of the contestants, John Dunge, continued working on his typeface and presented, under the patronage of Lagerström, new versions in 1922 and 1923, but they were nowhere near of being materialised into type. [fig. 48] In Lagerström's presentations of the proposals by Dunge, there were no mentioning of production aspects, and the foundries were not explicitly addressed. Whether Dunge was engaged in dialogue in this matter with either

³³⁸ NB 1917

³³⁹ Svenska Slöjdföreningens tidskrift 1918, 'Föreningens verksamhet år 1917', X.

³⁴⁰ Gregor Paulsson, Stockholms Dagblad 25 maj 1917.

³⁴¹ NB 1917, 147.

³⁴² '... ett återfall i banaliteten och konstlösheten'. August Brunius in Svenska Dagbladet, 1917.05.23.

³⁴³ "leda den svenska typgjutningen in på en ny och självständig bana". The country's 'three' foundries at the time were Erik Petterson, Berling and Norstedt.

³⁴⁴ Haeggström in Nordisk tidskrift för bok- och biblioteksväsen, vol. 4 (1917), 242–246.

Norstedt or Berling is unknown.³⁴⁵ The question was, however, not idle at Berling. In the early 1920s, J. Fritz Larsson, now senior foreman at the Berling printing office, maintained that type was still 'unfortunately' to a fairly large extent imported from abroad (mainly from Germany, England, North America, France, Spain and the Netherlands).³⁴⁶

Language adaptation

In connection with the competition, Lagerström formulated a criterion for a Swedish type which was to become increasingly important in the discussion: language adaptation. A commentator in *Nordisk Boktryckarekonst* of 1906 had put forth that a Swedish type should include specially-designed 'Å', 'Ä' and 'Ö', since these sorts were often fragile, due to the diacritics, and therefore easily damaged.³⁴⁷ For the most part this perspective was not given much attention in the debate before 1916. In the instructions for the competition, however, it was emphasized that the type should be adapted to the 'distinctive letters and disposition of words' of the Swedish language.³⁴⁸

Lagerström illustrated this principle with diagrams showing text samples in different languages that use the Latin-script alphabet: Latin, Swedish, English, German, etc.³⁴⁹ When comparing these samples, he observed that each language demonstrated characteristic features that require special attention when designing a printing type. It was a problem of orthography. Specific conventions for writing a certain language, including norms of spelling, capitalization, punctuation and so forth, made typefaces more or less suitable for that particular language. For instance, Lagerström explained, the high frequency of capitalized words in written German, such as nouns, was taken in consideration by German foundries in the design of types primarily aimed for use in the German language.³⁵⁰

³⁴⁵ [Any traces in Berling correspondence of 1910s 1920s?] Dunge continued working with lettering and type design throughout the 1920s and 1930s, resulting in the text book Olika bokstavsformer, published by Lagerström 1927, second extended edition in 1937.

³⁴⁶ Boken 40. Larsson började som lärling vid Berlings, blev senare sätterifaktor och tillträdde 1908 tjänsten som teknisk ledare och chef för boktryckeriavdelningen. J. Fritz Larsson minnesruna i Arbetet 1924-03-21.
³⁴⁷ NB 1906, 103, sign. L. B-n.

³⁴⁸ 'säregna bokstäver och ordsammansättningar'. inbjudan NB 1916.

³⁴⁹ NB 1917, 147; Svensk bokstavform 1918, 19; Svensk bokkonst 1920, 78f.

³⁵⁰ NB 1916, 285.

When compared to other languages, one could discern visual particularities in written Swedish as well. In addition to the most obvious elements, the letters 'å', 'ä' and 'ö', Lagerström pointed to recurrent letter combinations as a factor to be taken into account. The guidelines to the competition listed 'fi', 'fl', 'fö', 'dr' and 'st' as examples of the most usual ones in Swedish.³⁵¹ In a later statement by Lagerström the list was extended with 'ff', 'gj', 'ng', 'sk' and 'tj'.³⁵²

Yet another aspect, increasingly highlighted after the competition, was the frequent occurrence of ascenders ('b', 'd', 'f', 'h', 'k', 'l', 't') and descenders ('g', 'j', 'p', 'q', 'y') in written Swedish: an issue that would later be particularly addressed in relation to Berling Antikva which we will return to below. The large amounts of ascenders and descenders was seen as an obstacle to beauty and legibility: vertical lines that disturbed the horizontal flow of reading. In Dunge's typeface proposals of 1922 and 1923, he approached this 'problem' by putting horizontal emphasis to the serifs. This was said to 'calm down' the disturbingly high frequency of ascenders and descenders in Swedish. Additionally, the ascenders of Dunge's typeface were tapered – narrower at the top – so as to reduce their visual presence.³⁵³ The alignment of diacritics – the dots in 'i', 'j', 'ä', 'ö', and the ring in 'å' – with the ascender height, as well as a curtailed 'g' were also seen as features that would give horizontal emphasis to the typeface make text in Swedish more pleasant and legible.³⁵⁴

All of these aspects, seen as distinctive for Swedish, Lagerström argued, were disregarded in the design of type produced by European foundries:

In the making of German types, the peculiarities of other languages can naturally not be taken into account, which means that when these types are used for the Swedish language, they are inappropriate, they do not achieve the same decorative results as in the language for which they are designed.³⁵⁵

³⁵¹ NB 1916, 285–286.

³⁵² NB 1923, 69.

³⁵³ NB 1922, 1923.

³⁵⁴ Dunge NB 1923, 69f. Ref till Curtailed G, skiver Burke om (dansk) språklig anpassning?

³⁵⁵ 'Vid tyska typers förfärdigande kan givetvis hänsyn till andra språks egenheter icke tagas, vilket gör att när dessa typer användas för svenskt språk, de icke passa för detta, icke ge samma dekorativa resultat som i det språk för vilket de äro ritade.' NB 1916, 285.

In addition to aspects of taste and legibility, Lagerström pointed out that a Swedish-made type was also a question of economic importance. The printing companies would benefit financially if the number of typefaces used in the composing rooms could be reduced, since storage and handling of type of varying qualities and standards were costly. Furthermore, the domestic typefounding industry could be strengthened if Swedish printers procured type of local origin.³⁵⁶

The New typography

Lagerström took further action in 1924, when he and his brother announced the release of a modified version of Genzsch & Heyse's Mediaeval that included specially-designed 'å', 'ä', and 'ö'. The type was presented in a specimen catalogue titled En svensk boktryckstyp (A Swedish printing type) with an introduction stating that: 'This type has been so widely used in Sweden that there are good reasons for calling it SWEDISH'.³⁵⁷ [fig. 49] At this point, however, the discussion on Swedish letterform was cooling down. The specimen catalogue for the new Mediaeval – which had been printed in a limited edition of 200 copies – was still available for sale in 1927, three years after its release, indicating the question was not evoking any greater interest.³⁵⁸ Instead, new impulses from Central Europe labelled *Die neue* Typographie, the New Typography, was gaining attention. The writings of German typographer Jan Tschichold, the leading figure of this movement, was introduced to the readers of Nordisk Boktryckarekonst in 1927.359 Tschichold represented a modernist and decidedly anti-nationalist approach to printing and type design that were to have a major impact in the graphic industry across Europe and globally during the coming years.³⁶⁰ [introduce New typography] Lagerström, who initially held a sceptical stance to Tschichold's ideas, soon became one of the most active proponents for the New Typography in Sweden. What at first seemed like a threat could be fused with the desire for a national style: 'The New typography's value lies in its pursuit of simplicity and readability - in this it corresponds with "Swedish" style', Lagerström argued in 1929.³⁶¹ The 'new style' (den nya stilen), as it

³⁵⁶ NB 1923, 71 Dunge-text.

³⁵⁷ En svensk boktryckstyp, 1924.

³⁵⁸ According to an advertisment in NB 1927, 340.

³⁵⁹ NB 1927, 131.

³⁶⁰ Ref till vidare läsning.

³⁶¹ 'Vad som är värdefullt i den nya stilen är dess strävan till enkelhet och lättlästhet – däri sammanfaller den med "svensk" stil [...]'. 'Bokstavsformen och den nya stilen', SGÅ 1929, X.

was commonly called here, became increasingly popular after the Stockholm Exhibition of modern architecture and design in 1930, where it was generally applied in the exhibition lettering and printed matter.³⁶² Lagerström declared that the new movement sought to break with 'tradition and nationalism' in favour of purpose and function, praising the sanserif style of type as the 'only letterform' of a new era.³⁶³

Forsberg's background: Berta Svensson and Skolan för bokhantverk

The winner of the 1916 typeface competition, Berta Svensson, had begun her career as an artist and illustrator in the 1910s, specializing in calligraphy and book design. During this period, she was regularly hired by Bröderna Lagerström, and her illustrations, vignettes, initials and lettering appeared frequently in *Nordisk Boktryckarekonst*. One of her most prestigious commissions was the Nobel Prize in Literature diploma, which she designed on a yearly basis with few exceptions from 1919 until 1962.³⁶⁴ Shortly after winning the competition, Svensson was recruited to teach at Skolan för bokhantverk, becoming responsible for the course 'lettering and typographic sketching' (*textning och typografisk skissering*), a position which she would hold for many years ahead.³⁶⁵

With Lagerström being one of the organisers and the first headmaster of the school, the question of a Swedish printing type was naturally present in the curriculum.³⁶⁶ During the early years, Lagerström's 1905 article on the subject was often used as a placeholder text in composing exercises.³⁶⁷ Two booklets containing Lagerström's further articles on 'A Swedish printing type' and 'Swedish letterform' were produced by students and published by the school in 1913 and 1918, respectively.³⁶⁸ Moreover, the school was the site where the submitted typefaces to the 1916 competition were exhibited to the public.³⁶⁹ Svensson's

³⁶² Lagerström was a member of the working committee for the Stockholm Exhibition and together with CZH, through Utställningsförlaget, mainly responsible for the graphic communication surrounding the exhibition.

³⁶³ Lagerström 'Den nya stilens enda bokstavsform' NB 1929, 369.

³⁶⁴ Svenskt konstnärslexikon band V, 356, Gram/SBL.

³⁶⁵ SFB berättelse 1917–1918, 9. 1937–1938 was Svensson's final school year as a teacher at SFB. SFB berättelse 1937–1938, 18.

³⁶⁶ Lagerström's function in YSFB: 'föreståndare' och 'inspektor' sedan 1907, 'vilken organiserat och inspekterat undervisningen'. [Den nya stilens genombrott, 18–19]

³⁶⁷ SFB arkiv.

³⁶⁸ En svensk boktryckstyp 1913; Svensk bokstavsform 1918.

³⁶⁹ SBFM 1917, 58.

students were trained to draw letters and drafts for layout,³⁷⁰ and considering the general interest at the school in the question of Swedish letterform as well as Svensson's association with the competition, it is likely that the subject was addressed in the course. Especially one of her students, Karl-Erik Forsberg, eventually became particularly connected to the question of a Swedish printing type.

Forsberg was born in 1914 in Munsö just outside Stockholm. During his primary school years his family moved to Stockholm, and there he continued school until finishing eighth grade in 1928.³⁷¹ In the following years he was an apprentice in several printing offices in Stockholm, including Albert Bonnier, where he was encouraged and helped to apply to Skolan för bokhantverk. Forsberg began his studies there in 1929, attending the evening course while maintaining his day job as a compositor apprentice.³⁷² It was during this time that he became interested in the design of letterforms, he later claimed, very much thanks to his teacher Svensson. 'In the Nobel prize diplomas', Forsberg noted in 1982, 'you can see how Berta Svensson applied the Mediaeval capitals, and it was these letters that I had to practice [in her classes]. It was a useful and stimulating lesson that gave me basic knowledge of classical letterforms.'³⁷³

Alongside exercises in traditional typography and lettering, the training at Skolan för bokhantverk around 1930 was much influenced by the New typography. Lagerström, still the headmaster, was at this point one of the chief spokesmen of the New typography in Sweden.³⁷⁴ The new style's most emblematic typeface, Futura, was acquired by the school in 1929 and can be seen in many of the students' works during these years, some of which were exhibited at the school's booth at the Stockholm Exhibition.³⁷⁵ The books and booklets published by the school in the 1930s include – in addition to numerous articles by Lagerström promoting the New typography – a special edition of the chapter 'Form' from the 1931

³⁷⁰ Yrkesskolan för bokhantverk i Stockholm. Vad den vill och vad den gör, 1917, 6.

³⁷¹ Biblis 1981, 9; 7 decennier, 10.

³⁷² Biblis 1981, 11.

³⁷³ 'I Nobel-diplomen ser man hur Bertha Svensson utnyttjar Medieval-versalerna och det var också dessa som jag fick öva mig på [under studietiden i SFB]. Det var en nyttig och stimulerande undervisning som gav mig grundläggande kunskaper om bokstavens klassiska former.' Biblis 1981, 13.

³⁷⁴ Lagerström retired from this position in 1934. SFB berättelse 1933–34, 17.

³⁷⁵ SFB berättelse 1929–1930, 15.

functionalist manifesto *Acceptera* as well as a Swedish translation of Jan Tschichold's 1935 handbook *Typographische Gestaltung*.³⁷⁶

The professions educated at the school were compositors and pressmen: two student groups that had both shared and separate courses. The curriculum was reflected in the floor plan of the premises at Herkulesgatan 24 in Stockholm, which consisted of three main areas: a composing room, a pressroom and a classroom for lectures and writing exercises.³⁷⁷ It was in the latter that Svensson's teaching in type design and calligraphy was conducted. Additional activities around the time of Forsberg's studies show that knowledge in the process of type design was encouraged by the school. Among the companies that were visited by the students on field trips in the years 1929–1931 were the Erik Petterson foundry in Stockholm, the Genzsch & Heyse foundry in Hamburg, and the Berthold foundry in Berlin.³⁷⁸ A Swedish translation of *Wie eine Buchdruckschrift entsteht* (How a printing type is made), written by the German type designer Konrad F. Bauer, was published by the school in 1931.³⁷⁹

Forsberg graduated in 1931.³⁸⁰ His apprenticeship was finished in 1934 when he was hired as a compositor at F.V. Ohlsson in Leksand.³⁸¹ After returning to Stockholm in [193X], he worked as a compositor at several printing offices there until [193X] when he was hired as a foreman at Satsotryck, where he stayed throughout the 1930s.³⁸² In 1939 he was recruited as a teacher to Skolan för bokhantverk.³⁸³

³⁷⁹ Hur en boktryckstyp framställes, 1931. Bauer's text appeared in a specimen brochure for the Bauer foundry's typeface Beton. Before that: Bauers film-broschyrer (check Reynolds). Konrad F. Bauer's father and the designer of Nordische Antiqua, Friedrich Bauer, had previously written a similar article titled *Wie eine Druckschrift entsteht*, describing the production process behind Nordische Antiqua. See Wörgötter. ³⁸⁰ SFB berättelse 1930–1931, 14.

³⁷⁶ Form. Ett kapitel ur 'Acceptera' av Gunnar Asplund, Wolter Gahn, Sven Markelius, Gregor Paulsson, Eskil Sundahl, Uno Åhrén (1932); Lagerström, 'Den nya stilens genombrott' (1933); Lagerström, 'Ny tid: trenne nya företeelser i svensk typografi' (1934); Tschichold, Typografisk gestaltning (1937).

³⁷⁷ År 1931 var lokalerna på Herkulesgatan 24 indelade i en sätterilokal (65 kvm), en tryckerilokal (45 kvm), en lärosal (65 kvm), samt lärare- och expeditionsrum, frukostrum jämte nödiga toalett- och tamburutrymmen. (SFB berättelse 1930-1931:12) Läsåret 1937–1938 började undervisning även i maskinsättning och för detta inrättades ett särskilt maskinsätteri. SFB berättelse 1937–1938, 15.

³⁷⁸ SFB berättelse 1928–1929, 15; resan till Hamburg arrangerades i samarbete med G&H:s direktör Gustaf Günther. SFB berättelse 1929–1930, 16 (se även rapport i NB 1930); SFB berättelse 1930–1931, 16.

³⁸¹ Biblis 1981, 22f.

³⁸² Hitta tillförlitliga källor. Calamus 1994, Biblis 1981, UUB2014.

³⁸³ SFB berättelse 1939–1940, 7.

Parad and Lunda

The contact between Forsberg and Berling began in the early 1930s when he presented himself to the foundry with a proposal for a jobbing type.³⁸⁴ The design, which he later referred to as 'Ballong', was made up of simple geometric modules and reportedly inspired by two recent type novelties: Bifur, designed by A.M. Cassandre and produced by Deberny & Peignot, and Futura Black, designed by Paul Renner and produced by Bauer.³⁸⁵ Released in 1929, both of these stencil-form display types were featured in a Nordisk Boktryckarekonst article on 'Today's letterforms and tomorrow's', in which they were described as 'extremely controversial' (synnerligen omtvistade) yet in certain cases quite useful, especially in advertising.³⁸⁶ Forsberg's intention with Ballong, as he later recalled, was a display type in larger sizes aimed for use in advertising and posters. The idea was to produce it as wood type, by cutting the letters with the aid of a pantograph: a considerably easier and cheaper process than engraving matrices for metal type in smaller sizes. Ballong appeared 'interesting' to the director Hjalmar Rosén, who nevertheless rejected it as 'too original' and not quite fitting in with the rest of the foundry's product range. The economic depression of the early 1930s was probably another reason why the company could not allow itself to undertake any new ventures with unknown teenagers. Yet Forsberg was encouraged to return with more proposals, and during the coming years he would regularly submit drawings to Berling as well as to several German foundries.³⁸⁷ According to his own account, he did not consider approaching the other two foundries in Sweden, Norstedt and Erik Petterson, whom he believed to be relatively minor players in the field and not likely to engage in new type design projects.³⁸⁸ Eventually Berling accepted one of Forsberg's submissions which led to their first collaboration: Parad. [fig. 50]

Released in 1941, Parad was an all-capitals jobbing type, produced in eight sizes from 10 to 60 points.³⁸⁹ Advertisements from Berling informed that Parad was 'an altogether Swedish type' designed exclusively for the foundry.³⁹⁰ It was met with great enthusiasm in the trade

³⁸⁴ Forsberg has claimed in various statements that it was either 1931 (Biblis 1981, 18), 1932 (7 decennier, 20) or 1933 (10 års knåp).

³⁸⁵ Biblis 1981, 18.

³⁸⁶ Lenning, 'Dagens bokstavsformer och morgondagens' NB 1930, 278.

³⁸⁷ Biblis 1981, 19. According to an interview with Forsberg in 1994, he sent new proposals to Berling on a monthly basis during a couple of years. Calamus 1994, 52.

³⁸⁸ Biblis 1981, 18.

³⁸⁹ 'Parad', Grafisk Faktorstidning 1941, 174. Sign N. B-t. [Nils Buskqvist]

³⁹⁰ 'Den är en helt igenom svensk stil med ensamrätt för vårt stilgjuteri.' GF 1941, 305; NB 1941, 272.

press: 'A new Swedish jobbing type [*accidenstyp*]' was the headline of a review in *Nordisk Boktryckarekonst*, authored by the journal's editor Sten Lagerström, the son of Hugo Lagerström. The most important aspects of the type were, according to the reviewer, that it was made in Sweden and designed with regard to Swedish conditions:

The Swedish production of new printing types has been virtually non-existent in recent decades. That is why it is with so much greater interest that one receives the news that a Swedish jobbing type has been introduced to the market. [...] Forsberg has certainly not wished to appear with large claims with this new type, it has rather been created as an addition to the already rich supply of display types [*fantasityper*] but with special adaptation for the Swedish language and Swedish sense of form [*svensk formkänsla*].³⁹¹

What this 'adaptation' really meant, however, was not further specified. In a review in Grafiskt Forum, also titled 'A new Swedish typeface', Parad was likened to the 'austere' character' (strama karaktär) of Corvinus, designed by the Hungarian type designer Imre Reiner and issued by Bauer in several variants during 1930s.³⁹² By the early 1940s Corvinus was widely spread and frequently used in headings and advertising. Many of the German foundries offered similar designs at the time, for instance Akropolis (Ludwig Wagner), Mondial (Stempel) and Patria (Schriftguss), and so Parad came through as a fashionable and contemporary jobbing type. Yet a distinctive quality of Parad was the parallel lines that formed a raster making the letters appear as three-dimensional. Lagerström found this effect impressive, but mainly in the larger sizes in which the contrast in lines was more obvious. The smaller sizes, on the contrary, turned out to be difficult to print as the fine lines tended to smear.³⁹³ On the whole, Lagerström regarded the 27-year-old designer to be one of the country's most promising younger professionals and he saw indications that Forsberg would soon 'try his hand at more demanding tasks in Swedish book art. [...] In all probability, he [...] has not said the last word regarding the creation of printing types of entirely Swedish origin'.³⁹⁴

³⁹¹ NB 1941, 283, 284.

³⁹² 'Ett nytt svenskt typsnitt', GF 1941, 283. Sign. Y.K. [Yngve Kernell]

³⁹³ Se bilaga-stilprov NB 1943. Fler exempel? Consequently, it seems like the smaller sizes were later removed from the product line. In the 1960s specimen only the larger sizes (from X to X) are presented. Specimen 1960. ³⁹⁴ NB 1941, 284.

Berling and Forsberg continued collaborating, and their next project, a cursive jobbing type named Lunda, came on the market in early 1943.³⁹⁵ [fig. 51] Compared to Parad, Lunda was more extensive: issued in ten sizes, from 8 to 60 points, and also featuring lowercase letters. The characters 'Å', 'Ä' and 'Ö' came in two versions: one with the diacritics above the ascender height, and one with the diacritics below. It was a subtle sign of language adaptation. 'The new Swedish jobbing type' (Den nya svenska accidensstilen) was the heading of the specimen brochure, which also boasted that Lunda was the foundry's second 'altogether Swedish' printing type designed by Forsberg. It was further highlighted that the type was drawn exclusively for the foundry.³⁹⁶ The press reviews were equally excited. Nordisk Boktryckarekonst praised the foundry for their efforts in employing and promoting Swedish designers in the making of types. The specimen brochure was lauded for showing the same high quality of the ones issued by Europe's great foundries before the war. Lunda was moreover compared to Parad, to which it was seen as complimentary and 'formally related' (formsläktskap).³⁹⁷ The reviewer in Grafisk Faktorstidning also referred to Parad, however praising Lunda as being much more useful and superior by way of its 'force, stature and artistic air'.³⁹⁸ Later that year, Berling issued a mutual brochure for Parad and Lunda presenting them under the heading 'Swedish design with Swedish type' (Svensk form med svenska stilar), illustrated with a photograph of emblematic Swedish industrially-made ceramic vases.³⁹⁹ [fig. 52]

The name of Lunda was an obvious reference to the locality of the foundry. Similarly, the name of Parad can be interpreted as alluding to 'Lundakarnevalen', a major parade organized regularly in Lund since the 1890s by the University student union. Yet a more distinct connotation at the time of its release in 1941 was possibly the common sight of military parades.

After examining the marketing material and press reviews for Parad and Lunda one question still remains. Were these types really of 'altogether Swedish' origin? In the contemporary printed sources covering the release of the types there is no explicit mentioning that the

³⁹⁵ 'Typsnittet Lunda', GF 1943, 13.

³⁹⁶ Lunda specimen 1943.

³⁹⁷ 'En ny svensk accidenstyp', NB 1943, 30.

³⁹⁸ 'kraft, resning och artistiska air' 'Lunda – en ny accidenstyp', Grafisk Faktorstidning, 1943, 10. Sign. Bt. [Nils Buskqvist]

³⁹⁹ 'Medföljer som bilaga till NB' (1943 juli)

matrices were really engraved at the Berling foundry. Neither do Forsberg's nor the foundry's own historical accounts shed light on this matter. Two later testimonies point in opposite directions. On the one hand, it is implied in a 1951 article by Sten Lagerström that Parad and Lunda were engraved at the Berling foundry in Lund.⁴⁰⁰ On the other hand, Bo Berndal claimed in 1997 that the matrices for both Parad and Lunda were engraved in Germany, however without mentioning any subcontractor or further sources.⁴⁰¹ [Search for Bucher and Thebis in the company archive. 'Herrar Thebis och Bucher äro till yrket stämpelskärare, d.v.s. specialutbildade gravörer, som tillverka matriser för stilgjuterier. De inneha i Leipzig en egen firma sedan 25 à 30 år tillbaka och ha levererat matriser till såväl tyska som övriga stilgjuterier i Europa. Berlingska Stilgjuteriet har varit i kontinuerlig kontakt med dem i omkring 20 år. Bolaget har emellertid tidigare även kunnat täcka sitt behov av matriser från andra stämpelskärarefirmor.' (Brev från Per-Håkan Ohlsson till C.W. Curtman, Kungl. Arbetsmarknadsstyrelsen, 1950.11.02)]

Parad and Lunda have been fairly disregarded in the history of Forsberg. The types are often referred to as key events in his development as a type designer, but at the same time they are repeatedly set aside as juvenile experiments of the 1930s, thought to be conceived under too much influence of the New typography and advertising design. In the self-biographic essay 'Bokstaven i mitt liv', published in 1982, Forsberg mentions Parad and Lunda just briefly, implying they were products of immaturity.⁴⁰² Sten G. Lindberg, Forsberg's friend and patron, later claimed that Forsberg had denounced these types as 'excursions' (*utflykter*) away from the thoroughfare of classical typography.⁴⁰³ The brief and reluctant handling of these types in the history of Forsberg can be noticed in the often-quoted misinformation regarding their production. Where the matrices were engraved is, as mentioned above, seldomly discussed, and the release dates are frequently wrong. Valter Falk's *Bokstavsformer och typsnitt genom tiderna*, which states that Parad and Lunda were released in 1938 and 1941, respectively, several years prior to their actual release (1941 and 1943), has been quoted repeatedly in later studies on the work of Forsberg.⁴⁰⁴

⁴⁰⁰ Lagerström NB 1952, 248.

⁴⁰¹ Berndal 1997, [8].

⁴⁰² '[...] då de [Parad och Lunda] kom ut som färdiga typsnitt hade jag fått en mognare inställning till bokstavsformer och typografi. Med andra ord, jag borde ha gjort något annat.' Biblis 1981, 24. See also Vandring, 146.

⁴⁰³ 7 decennier, 20.

⁴⁰⁴ Falk 1975, 15f. T.ex. Lindberg 1994. Geith. Forsberg.

Kumlien-Antiqua, Cochin and Scandinavia Antikva

Before further investigating the collaboration between Forsberg and Berling, leading up to the completion of Berling Antikva, three additional types from these years must be mentioned: Scandinavia Antikva, Cochin and Kumlien-Antiqua.

Scandinavia Antikva was a product from the Wilhelm Woellmer foundry in Berlin. [fig. 53] It was reviewed in Nordisk Boktryckarekonst in 1935 as a 'new' type, however the same design had been featured in the journal already in 1929, albeit under a different name: Zabel.⁴⁰⁵ Designed by Lucian Zabel and first released in two variants in 1929, the type was renamed, at least on the Swedish market, and relaunched with additional variants in 1935.⁴⁰⁶ Like several other typefaces of the same period, Scandinavia was inspired by the classical letterform, reportedly based on the letters on Trajan's Column in Rome.⁴⁰⁷ The reviewer in Nordisk Boktryckarekonst saw Scandinavia as following in the tradition of Mediaeval, 'a style of type that more than any other harmonizes with Swedish taste'.⁴⁰⁸ A new type specimen, designed by the foreman Nils Buskqvist, was also highlighted because it contained text samples in Swedish, a feature which was seen as unusual. The foundry and its agent in Sweden, Pappersfirman Ernst Söderberg, apparently wanted the typeface presented in Swedish so as to demonstrate its suitability for the language. Around the same time, a set of Scandinavia was donated to Skolan för bokhantverk as a gift from Wilhelm Woellmer, to be used by the students in their assignments.⁴⁰⁹ Despite these marketing efforts, the type does not seem to have gained any larger spread in Sweden.⁴¹⁰

Kumlien-Antiqua had no real commercial success either.⁴¹¹ [fig. 54] Yet it has, unlike Scandinavia, received significant fame in terms of historical documentation; it has frequently

⁴⁰⁵ NB 1929, 160.

⁴⁰⁶ kolla Woellmer stilprov 1934–

⁴⁰⁷ NB 1929, 160. Other designs reportedly inspired by or based on Roman inscriptions: Jost Mediaeval (Ludwig & Mayer), Zabel (Wilhelm Woellmer), Elisabeth (Bauer), Futura (Bauer).

⁴⁰⁸ 'Det är nu en gång så, att denna typkaraktär [Mediaeval] mer än någon annan harmonierar med svenskt kynne.' NB 1935, 434.

⁴⁰⁹ SFB berättelse 1935–36.

⁴¹⁰ Except for a 1939 specimen brochure, *Typinventarium*, issued by Skolan för bokhantverk, I have not been able to find the typeface in any Swedish printer's specimen book from the years 1935–1960. Zabel/Scandinavia is not even mentioned in *Bokstavsformer och typsnitt genom tiderna*.

⁴¹¹ Bagge om Kumlien i SVBL, Gram 1994, 110f, 184.

been compared to Berling Antikva for its more-or-less Swedish qualities.⁴¹² The type was named after its designer, Akke Kumlien. Educated as an art historian, Kumlien was hired in 1916 as artistic adviser at the Norstedt publishing house, eventually gaining reputation as one of the country's most respected book designers. Alongside his position at Norstedt, which he held until his passing in 1949, he worked for many years as curator at Nationalmuseum, teacher at the Royal Art Academy, and headmaster at Skolan för bok- och reklamkonst (The school of book and advertising art) in Stockholm. His book designs for Norstedt became known for their calligraphic covers and recurrent use of the 'Cochin' type series. [fig. 55] Launched around 1914 by the G. Peignot et Fils foundry in Paris, the Cochin series was acquired by Norstedt in 1919 as part of Kumlien's initiative to modernize the company's graphic profile.⁴¹³ The choice was motivated much like Lagerström had argued for the Mediaeval type. In a 1923 promotional brochure from Norstedt, Cochin was described as a contemporary revival, based on French roman typefaces from the 1700s and 'closely related to the best Swedish types' of the period. 'This was the heyday of Swedish erudition [vitterhet]', the brochure further stated, 'and Swedish craftsmanship was at the time in almost all its branches at an exceptionally high artistic level and also possessed a truly national character.'⁴¹⁴ Distinctive of this Gustavian period in typography was 'a monumentality achieved with the simplest means'.⁴¹⁵ By using Cochin, Kumlien sought to ground the design of Norstedt's books in a Gustavian tradition. Lagerström, however, was critical of Cochin and considered it 'too weak' and 'too much 1700s' for modern Swedish printing.⁴¹⁶ Applied to the Swedish language, he objected, the typeface gave a 'foreign, uneasy' impression.⁴¹⁷

In 1937, Kumlien started drawing a roman typeface commissioned by the Gebr. Klingspor foundry in Offenbach am Main.⁴¹⁸ Due to interruptions caused by the Second World War, the type was not available for sale until 1949, and only in one weight.⁴¹⁹ Italic, semibold and

⁴¹² Kumlien berömd i Sverige. Gram, Hellmark. Typsnittet har digitaliserats.

⁴¹³ Gram 1994, 92. Les cochins: caractères & vignettes renouvelés du XVIII siècle [type specimen], Paris: G. Peignot & fils, 1914.

⁴¹⁴ 'Den svenska vitterheten hade då sin storhetstid, och svenskt konsthantverk stod samtidigt inom nästan alla sina grenar på ett konstnärligt sett utomordentligt hög nivå och ägde dessutom en verkligt nationell särprägel.' PAN 1923, 7. [Billows ord]

⁴¹⁵ 'en med de enklaste medel åstadkommen monumentalitet' PAN 1923, 7.

⁴¹⁶ NB 1923, 235 '[Cochin] är för vek och för typisk 1700-tal för att i modernt svenskt tryck verka tidsenlig.'

 ⁴¹⁷ NB 1922, 114 '[Cochin] icke alls är lämplig för svenskt [språk], där den verkar främmande, orolig.'
 ⁴¹⁸ Gram 1994, 107f.

⁴¹⁹ Sten Lagerström, 'Kumlien-medieval: ett svenskt typsnitt' NB 1949, 368, 8 bilagor. One of the first uses of the type, however, was on the cover of Kumlien's own book on typography, *Bokstav och ande*, published 1948.

swash variations as well as matrices for Linotype were issued during the following years.⁴²⁰ As Kumlien passed away shortly before the release of the first weight, he was not alive to contribute to the type's marketing and history, nor could he respond to its reception.

Kumlien-Antiqua was advertised in Sweden as 'a *Swedish* typeface produced by Gebr. Klingspor'.⁴²¹ According to Fredric Bagge, long-time headmaster at Skolan för bokhantverk, the project came about on the initiative of the foundry's director, Karl Klingspor, who had invited Kumlien to 'draw a "Swedish" typeface, the first in modern time'.⁴²² Bagge further claimed that it was Kumlien's wish to draw a roman typeface with special attention to the Swedish language.⁴²³ Similarly, type designer Walter Tiemann, who was involved in the design process, affirmed around 1950 that Kumlien had wished to draw a roman typeface 'for Sweden', to which Klingspor responded with enthusiasm.⁴²⁴

These reports are somewhat confirmed by letters sent between Klingspor and Kumlien while developing the type.⁴²⁵ Herein Kumlien refers to 'Swedish tradition' when motivating a certain form in some of the characters. At the same time, it was in the interest of Klingspor that the typeface would not give a strange impression in other countries. For instance, a particular design of 'Y' that Kumlien proposed was criticized by Klingspor, who felt that it might appear as 'too unusual' in England and the United States, 'where we also want to sell the type'.⁴²⁶

⁴²⁰ According to ad in NB 1951, 67 (finns notiser?)

⁴²¹ 'en svensk stil som gjutes av Gebr. Klingspor' (ad in NB 1951, 67). My emphasis.

⁴²² 'Stilgjuteriet Klingspor i Offenbach a/M med Walter Tiemann som kontaktman erbjöd [...] vid 30-talets början Kumlien att teckna ett "svenskt" typsnitt, det första i modern tid.' (Bagge om Kumlien i Svenskt biografisk lexikon). Gram 1976, 94 also holds that the project came about on the initiative of the foundry. ⁴²³ 'med särskild hänsyn till *svenska* språket' emphasis in original. Bagge 1949, cit. i Gram 1994, 183. ⁴²⁴ I ett typoscript som förvaras i mappen med provtryck av Kumlien-Antiqua från 1944 (Klingspor-Museum) lämnas en beskrivning av samarbetet mellan Klingspor och Kumlien. Texten är inte signerad men av innehållet framgår att det är Tiemann som är författaren och texten är skriven efter att både Klingspor och Kumlien har gått bort (Klingspor dog 1950); delar av texten återkommer i Tiemanns minnesord om Kumlien i Linotype-Post 1951:2 och i Calamus 1951, nr 15. Det var genom Tiemann som Kumlien fick kontakt med Klingspor. I texten skriver Tiemann om hur Klingspor... 'Dr. Klingspor, der dem buchkünstlerischen Schaffen des schwedischen Meisters von jeher ein reges Interesse und lebhafte Sympathie entgegengebracht hatte, war von der Idee Kumliens, eine Antiqua "für Schweden" zu gestalten, sehr angetan.' ([Walter Tiemann], 'Der gemeinsamen Arbeit des Meisters der schwedischen Buchgestaltung mit Dr. Klingspor sei noch eine kurze Betrachtung gewidmet', unpublished typescript, Klingspor Museum, page 1). Furthermore, Kumlien's son stated in a 1955 article on the work behind the type that, 'Kumlien must have felt it as both a duty and a joy to create a national printing type' ('[för] Kumlien torde det ha känts både som en plikt och som en glädje att få skapa en nationell boktrycksstil') Bertil Kumlien, 'Kumlien-antikvan och dess tillkomst', Bokvännen 1955, nr 10, 109-111. ⁴²⁵ Quoted in Gram 1976, 94-100.

Contrary to these sources, there is an entry in the encyclopaedia *Buchdruckschriften im 20. Jahrhundert*, published in 1995, claiming that Kumlien-Antiqua was the result of Klingspor's desire to revive one of the foundry's earlier types, Behrens-Mediaeval from 1914, drawn by German architect Peter Behrens. According to this account, Klingspor commissioned Kumlien to draw a new roman typeface with italics based on Behrens' design.⁴²⁷ The source for this claim is not to be found, yet there are obvious formal similarities between Kumlien-Antiqua and Behrens-Mediaeval.⁴²⁸

The finished typeface has indeed relatively short descenders, which could be interpreted as Kumlien's response to the 'problem' of the many ascenders and descenders in Swedish, although there is no evidence that this particular reasoning influenced the design. It is, however, clear that the idea of national letterform was central in Kumlien's work, as demonstrated in his 1948 essay *Bokstav och ande* (Letter and spirit), in a passage titled '*Bokstavens ansikte*' (The face of the letter):

It appears to me that a printing type could be compared with the human face. Altogether, the elements therein are quite few in number: a pair of eyes, nose, mouth, chin, forehead, cheeks, ears, hairline. And yet the whole can, by the slightest changes in proportions, be given the most diverse characters and appearances without limit. Like the human face, also printing types clearly display features of groups, races, national characteristics, but also among these related types: family traits, deviations,

⁴²⁷ [I artikeln om Kumlien-Antiqua står: 'Als letzte erfolgreichen Schriften von Peter Behrens erschien 1914 bei der Schriftgiesserei Gebr. Klingspor in Offenbach die Behrens Mediaeval. Diese Schrift wünschte Karl Klingspor wieder zu beleben. Einzelne Formen wie die Versalien C G und die geringe Mittelgänge sprachen gegen einen Neuguss. So beauftragte Klingspor den schwedischen Künstler Akke Kumlien um 1937, nach der Idee der Behrens Mediaeval eine neue Antiqua mit Kursiv zu entwerfen. Die steilen und ausgeprägten Serifen der gemeinen sind beiden Schriften gemeinsam; dennoch entstand in der Kumlien Antiqua eine neue eigenständige Schrift.' Philipp Bertheau, Eva Hanebutt-Benz, Hans Reichardt, Buchdruckschriften im 20. Jahrhundert, Atlas zur Geschichte der Schrift, 1995, 408. Samma påstående görs i artikeln om Behrens typsnitt, 129.]

⁴²⁸ The claim that Behrens was a point of reference in the process is further supported by a folder of proofs of the first versions of Kumlien-Antiqua kept in the Klingspor-Museum (Kumlien folder in Klingspor-Museum). The proofs were printed as an edition and presented by the foundry to Kumlien on his 60th birthday in 1944, and one of the sheets includes an excerpt from an account by Behrens reflecting on the work of type design. Furthermore, the possibility that Kumlien based his typeface on Behrens' cannot be dismissed considering that another previous design from the Klingspor foundry, the typeface Euphorion, drawn by Walter Tiemann and released [1935/36?], was explicitly used as a model for the cursive accompanying Kumlien-Antiqua. Gram 1994, 109, ref även Falk om Euphorion/Kumlien. Gram's studies on Kumlien cover in detail his collaboration with Klingspor, but there is no mentioning of Behrens. And Kumlien's intention to design a 'Swedish' typeface is not mentioned explicitly, yet it is implied both in 1976 and in 1994, partly by comparing Kumlien-Antiqua with Berling Antikva and mentioning Kumlien's considerations of orthographic problems (svenska ordbilden) in the process.

combinations. And in all of the distinctive forms one can detect strong types and weak types, healthy and degenerated.⁴²⁹

Regardless whether the type was designed 'for Sweden' or not, a view that Kumlien-Antiqua reflects certain *German* qualities – and therefore is not 'fully Swedish' – has prevailed in the history of the typeface, at least in a Swedish context.⁴³⁰ Valter Falk believed that Kumlien-Antiqua did not come across as a 'typically Swedish letterform' for the reason that Klingspor likely 'influenced the result towards a more German-oriented than Swedish form'.⁴³¹ Magdalena Gram has also supported the idea that the typeface has a distinct 'German look'⁴³² and has further claimed that Kumlien himself 'lamented [...] that the result was influenced too much by German design ideals'.⁴³³ It must be added that there is no talk of national features or language adaptation in the foundry's own specimen brochure demonstrating the typeface – what is emphasized there is a classical heritage.⁴³⁴

As mentioned, Kumlien-Antiqua did not have much commercial success. A common objection was that it was too calligraphic: 'The typeface is too strongly marked by the artist's hand to ever gain any popularity in Scandinavia', was a critique in the Danish trade press.⁴³⁵ The association to Germany might also have had negative effects; the country's damaged reputation after the war was possibly not to the product's advantage.⁴³⁶ A couple years later Berling Antikva was available for sale, which further overshadowed Kumlien-Antiqua. The two types had been developed and released during the same years, but they came to represent

⁴²⁹ 'Det förefaller mig som om man skulle kunna likna en bokstavstyp vid människans ansikte. Det är ju på det hela taget ganska få element däri. Två ögon, näsa, mun, haka, panna, kinder, öron, hårfäste. Men hur kan icke allt detta genom ytterst små förändringar i proportionerna förlänas de mest skilda karaktärer och utseenden utan gräns. Liksom hos det mänskliga anletet visa även bokstavstyperna stora, tydliga gruppdrag, raser, nationalitetsdrag, men inom dessa släkttyper familjedrag, avarter, kombinationer. Och inom alla de utpräglade

formerna kan man urskilja starka typer och svaga, friska och degenererade.' Kumlien 1948, 15. ⁴³⁰ See, for example: Fredric Bagge held that the type was only 'partially' Swedish because it was produced by a German foundry (Bagge om Kumlien i SBL), fler?

⁴³¹ 'Att Kumlien medieval inte framträder som en typiskt svensk bokstavsform är lättförståeligt [eftersom] det intima samarbetet med stilgjuteriets konstnärliga ledning vid detaljutförandet [torde] starkt ha påverkat resultatet mot en mer tyskorienterad än svensk form'. Falk 1975, 14.

⁴³² National Typography, 129.

 ⁴³³ 'beklagade [...] att resultatet präglades alltför mycket av tyskt formideal'. Gram 1994, 182. Uppgiften baseras på intervjuer gjorda med Gudmund Nyström och Bo Berndal mer än 40 år efter att Kumlien gick bort.
 ⁴³⁴ Kumlien-Schriften broschyr ca 1952 (den feta är ännu inte klar 1951)

⁴³⁵ 'Skriften er for stærkt præget af kunstnerens artistiske særpræg til nogensinde att få nogen udbredelse i Skandinavien'. Skriftatlas for Bogvenner, 76, cit. i Gram 1994, 184. Hellmark kallar Kumlien Antiqua 'ett typografiskt misslyckande. De gemena bokstäverna är starkt kalligrafiska med brant sluttande serifer som det mest excentriska draget. Alltför originella, har Karl-Erik Forsberg kallat dem.' Bokstaven ordet texten, 148.
⁴³⁶ This is pointed out in Gram 1994, 184.

a generational shift: from Kumlien, the old, to Forsberg, the new. The fact that Forsberg was alive to promote and use his type – not least in his position as artistic adviser at Norstedt, which he took over after Kumlien in 1950 – likely contributed to Berling Antikva's subsequent popularity over Kumlien-Antiqua.⁴³⁷

The making of Berling Antikva

The naming of Berling Antikva

The marketing of Berling Antikva

The language adaptation of Berling Antikva

The history of Berling Antikva

⁴³⁷ Forsberg started implementing Berling Antikva in Norstedt's production in the 1950s. ['Från och med 1953 och några år framöver blev det [...] regel att Berling skulle användas för Norstedts normala produktion.'] Gram 2014, 35.