Abstract of doctoral dissertation

Katarzyna Wolny-Grządziel Academy of Fine Arts and Design in Katowice Selection and interpretation of typefaces

The dissertation, written by Katarzyna Wolny-Grządziel and supervised by Professor Tomasz Bierkowski at the Art Faculty of the Academy of Fine Arts and Design in Katowice, constitutes an attempt to define the criteria for typeface selection in the work of a visual communication designer. Referring to the available literature on the subject and the theoretical considerations of Ferdinand de Saussure on semiotics, along with the theory of metaphor by George Lakoff and Mark Johnson, the doctoral candidate opens a discussion on the selection and interpretation of typefaces. This discussion is based not only on objective design and technical considerations but also on the interpretative layer resulting from cultural codes in which we are immersed.

Origin of the Subject

The need to analyze the problem of the selection and interpretation of type-faces arises from several years of professional practice in the area of graphic design (particularly book design) and parallel research and teaching work in the field of graphic design fundamentals, typography, editorial graphics, and book graphics. In both of the above-mentioned fields, the author of the dissertation has daily contact with people who do not have adequate knowledge of visual communication design, with particular emphasis on its inherent element: typefaces.

In the cases analyzed, solving communication problems between designer and consumer (client), or lecturer and student, is only possible by educating and discussing how to design typographic messages. Both of these activities require the acquisition of specific, professional knowledge. Depending on the level of awareness of the interlocutor, this may involve the use of specialist terms that belong to visual communication design theory, or attempts to describe typefaces in terms of their functional context, as well as their aesthetic qualities. Additionally, typefaces may be assigned to visual codes familiar to both parties. The hierarchy of stakeholders involved in the communication process is also an important factor. While students can (and should) be required to gain and continually deepen their knowledge of the discipline, in the case of result-oriented clients who disregard the details of the design process, the vocabulary used must be accessible to both sides of the communication act.

The motivation for describing typeface selection criteria and typeface characteristics from a new perspective was the recognition of the limitations of the vocabulary surrounding typefaces, and its often hermetic and difficult-to-explain nature. Typography, understood as a design discipline dealing with typeface design and use – both on a macro level (layout) and a micro-typographic level (letter details, typeface design) – does not yet have a constituted, coherent scientific theory, despite the rich literature on the

subject. Experience in design and the analysis of the typeface market shows its continuous transformation and unprecedented rapid development. This raises questions about the degree of professionalization of designers and the quality of the hundreds of thousands of typefaces available. The assessment of their technical suitability by graphic designers, who mediate the communication process between typeface designers and the end user, requires the acquisition of expert knowledge.

Knowledge-based typeface selection criteria have long been described in books on visual communication design and typeface design. This dissertation attempts to summarize them. As noted in the body of the dissertation, the list of criteria created remains open-ended but covers the most important issues from the author's perspective, identified during the review of available literature on the subject, as indicated in the attached bibliography. The topics covered include general themes that are permanently present in the educational programs of design faculties, as well as specialized topics closely related to typeface design. Knowledge of these helps visual communication designers select typefaces appropriately for communication purposes. One such topic is the link between typeface characteristics and the scale of its implementation, including the issue of inclusive design, which is still underexplored in the available literature. Each of the topics covered deserves separate study, which is impossible to include in this work; however, books available on the publishing market address most of the issues cited. Their condensed summary in Part II enables designers to identify their problems and deepen their knowledge by referring to the quoted sources.

Additionally, at the beginning of the dissertation, the formulated thesis states that typography, as one of the components of visual communication, is its most egalitarian element, due to its ubiquity and its role in conveying information that cannot be replaced by any other medium. Its prominence increases as handwritten messages gradually diminish in our everyday lives. At the same time, the underestimated and misunderstood role of typefaces in visual communication design requires constant education and deepening of knowledge. Typefaces are often believed to be solely an aesthetic element of the message, while their inherent characteristic is legibility (and readability), which is crucial for the effectiveness of the communication process and can only be achieved through the intentional use of typefaces.

The aesthetic function cannot be overlooked in the design process, and its use often proves to be a decisive factor in the impact of the typographic message and the achievement of the intended communication goal. However, it should not be the first and only criterion considered.

A research area that has not been comprehensively explored so far is the subconscious, disconnected from professional knowledge, attributing additional meanings to the form of typefaces and combining them with the message. The author has attempted to identify disciplines and theories outside the field of visual communication design that can serve as tools to explore this territory. Thanks to technological development, whether typographic messages are implemented in print or on mobile and computer screens is no longer an issue. Typefaces function as a meta-tool for communication, used across all graphic design disciplines. This is why it is so important to emphasize the transfer of knowledge about them and the development of typography as a scientific discipline.

User

The publication is aimed at graphic designers, whether or not they combine their role with teaching. Due to the level of detail in the subject matter, the work is not a textbook and does not compile basic knowledge of typography and its standards. Instead, it points to sources and research on the basis of which the standards applicable to the design of typographic messages were formulated. The following sections address linguistic theories (semiotics as viewed by Ferdinand de Saussure – Part I), a number of technical issues related to typeface design (Part II), and the interpreted connotations of typefaces (Part III). A thorough description of the research interviews conducted is also included, offering an opportunity to confront attitudes and views on visual communication design and typeface design (Part IV). The extensive and varied bibliography provides a reference point for further research on issues of concern to the reader.

Dissertation Objectives and Design Process

The first stage of the work involved gathering a bibliography and identifying the state of research on the issue, which facilitated the selection of the problems analyzed in Part II. In addition to the literature on graphic design, the author consulted primary sources in semiotics/semiology, linking the theories contained therein to the design problems.

This was followed by research interviews with typeface designers and graphic designers. Careful sampling and in-depth interviews allowed the addition of new aspects and insights, as well as the confrontation of the attitudes and viewpoints of designers from various disciplines (wayfinding, branding, book design, typeface design, digital product design, poster design, illustration, exhibition design, brand strategy development).

The final stage of the work involved developing the form and implementing the publication. An important element at this stage was the collection of illustrations.

The objectives guiding the dissertation are:

- To open a discourse on the impact of typeface form on the end user.
- To attempt to determine the relationship between the typeface's impact on the user and the intentions of visual communication designers.
- To seek ways of communicating the subconscious impact of typefaces that can be understood by the lay public.

To achieve these objectives, it is necessary to identify, collect, and organize the criteria for the selection and interpretation of typefaces described in the specialist literature. A further aim is to identify areas where typeface design theory and visual message design can be expanded, made more specific, or where new definitions and concepts may need to be created. Additionally, through the interviews conducted, the attitudes and views of designers from diverse design disciplines are probed. The final aim of the work is to identify theories proposing a vocabulary distinct from the technical one for describing typefaces. Through critical analysis, a discussion can emerge about new resources of terminology for communicating the features and characteristics of typefaces on many levels, not only in professional discourse.

**Problematic Aspects** 

In formulating the author's research questions, the designer identifies the scope of the topics covered. This includes the constant and variable criteria behind the choice of typeface, their hierarchy and application in practice, the need to specify or define the elements of the relationship between the typeface and the constructed message, how the recipient decodes the message, the designers' awareness of the importance of their typeface choices, and questions about typographic and non-typographic aspects of the user's perception of the message.

The topics covered include key aspects such as distinguishing basic concepts (typography/literature/calligraphy, legibility, readability, etc.), identifying and differentiating basic visual communication disciplines and media, defining the audience, economics and ergonomics, the relationship between the message and its purpose, and the role of aesthetics in constructing the typographic message. A speculative section is also presented, identifying criteria for the selection of typefaces subjective to the canon and the history of typographic development (e.g., the relationship between content and text, subjective perception through the prism of cultural background).

The dissertation begins by defining the basic terms necessary to understand and fully engage with the content: typography, typographic communication, visual communication, and graphic design. In the introduction, the issues of functionality in relation to typefaces are discussed. Synthesizing various sources of information, the doctoral candidate defines its conditions, such as the influence of the typographic message on the communication process without interfering with legibility, the interplay of typography with all macro-typographic measures, and functionality as a counterbalance to aestheticization. He also explains the role of typography in a design approach aligned with human-centered design principles. Moving on to the design strategies of the typographic message and their characteristics, the doctoral candidate describes the dichotomy of typographic strategies, including, on the one hand, the need to limit the impact of the typeface on the viewer (transparent typography) and, on the other hand, the need to draw attention and emphasize the overtones of the message. Criteria for the selection of typefaces are indicated, with an emphasis on defining the objectives and the recipients of the message, as well as the design discipline.

In Part I of the thesis, which summarizes the linguistic and design theories used, the PhD candidate discusses elements of semiology/semiotics as a foundation for understanding typography. The linguistic theories analyzed in the thesis include Ferdinand de Saussure's definitions of 'signifier' (signifiant) and 'signified' (signifié), denotation and connotation, as well as 'code/

language' insofar as they are compatible with considerations of typeface interpretation. By using elements of semiotic theory, the work also fits into the meta-theoretical discipline of design research, as defined by Christopher Frayling. Based on semiotic theory, typography is placed at the intersection of signifier and signified, referring to the Polish author Teodor Zbierski. The process of communication and reading, and their consequences for the choice of typographic parameters, are also described in detail.

The following chapters of Part II describe the fixed elements of typography subordinate to signifier and typeface relationships. Using the definition of denotation proposed by Anna Burzyńska, the dissertation presents it as the basic meaning range of the concept of a sign. The dissertation analyzes the criteria for the selection of typefaces based on knowledge and design experience related to functional requirements, referred to as fixed criteria. These include the question of preserving the basic design of glyphs and ensuring the distinguishability of signs, the economics and ergonomics of printing, multi-screen design and its social impact, vernacularism and skeuomorphism, fashion and anti-aesthetics, typography in inclusive design, and the scale of implementation in relation to typeface selection.

Moving on to the variable elements of typography subordinated to the signifier (Part III), the paper defines visual metaphors, or connotations, as the extended meaning field of a sign, and the idea that signs can be transferred from one context to another, as discussed by Theo van Leeuwen. The paper extensively examines the concept and types of metaphor as conceived by Lakoff and Johnson, progressing to Adrian Frutiger's theory, which systematizes the elements of a sign, starting with the smallest modules, through basic signs, and their combinations, to illustrate the relationship between the physical characteristics of the elements and their subconscious perception. Next, Theo van Leeuwen's engaging use of semiotics to interpret the formal features of typography is presented. The PhD candidate lists and discusses van Leeuwen's proposed classifications of distinctive features of typefaces and the interpretive fields assigned to them.

Part IV of the dissertation contains in-depth interviews conducted with designers of visual communication and typefaces. The interviewees are graduates from most of the major centers in Poland and abroad that educate in visual communication and typeface design (Katowice, Krakow, Warsaw, Łódź, Gdańsk, Poznań, Wrocław, KABK The Hague, University of Reading). By confronting them with the theses presented in the study, the aim was to identify new, non-obvious topics requiring further analysis. Conclusions formulated based on the interviews summarize aspects of the selection and interpretation of typefaces in diverse design disciplines.

The dissertation ends with conclusions and recommendations. The author formulates five conclusions and three recommendations related to the education of visual communication and typeface designers, the perspectives on the development of visual communication as a practical discipline, the development of visual communication design theory as a scientific discipline, and ways of communicating typographic expertise.

## Form and Medium

The theory formulated by the author is contained in a comprehensively designed book measuring 170×245 mm, a reduced B5 format so it can be printed in both digital and offset printing. Due to the large volume of the publication (200 pages), it is bound in a hardback, half-binding with an open spine. The cover uses bookbinding canvas combined with printed veneer and hot stamping. The endpapers are made of blue paper. The book is printed on uncoated Munken Lynx 130g paper in natural white shade for optimal legibility and contrast between the lettering and the paper.

## **Publication Grid**

The pages of the publication are divided using a module size of 15 points, which is both the basic leading of the body text and the distance of the baseline grid. An asymmetrical grid was used, divided into 7 columns and 5 horizontal modules. The continuous text is contained on the outer 5 columns, while the inner two columns are used for subtitles and illustration elements. Thanks to the open-spine binding, which ensures the spread opens fully, it was possible to design narrow inner margins. Page numbering and navigation consist of two elements placed on the bottom margin: the designation of the part of the work (on the inner 2 pagination) and the chapter title (below the body text). On the chapter title pages, the main text is lowered by one horizontal module. The modular grid also regulates the proportions of the illustrations placed.

## Structure of the Text

The text is divided into four main parts: preface, introduction, conclusions, and recommendations. Each section begins on the right page, while the left page indicates the opening section, optionally with key definitions (for Parts II and III). Numerous subtitles are placed in a separate column (spanning two modules) on the side of the inner margin. The inner column is also used in interviews to include the name of the person quoted or formulating the thesis highlighted in the text. A typographical highlight used in the text is the underlining of significant passages. Bibliographical footnotes have been developed in the Harvard system (excluding footnotes related to internet sources, which are at the bottom). The accompanying factual footnotes are placed at the bottom of the body text. Subsequent sections of the continuous text are separated by paragraph lines in addition to the inclusion of a subtitle. In the structure of the text, the research questions are set out in a larger typeface. Page numbering and navigation are placed in the lower margin, divided into two columns: one containing information about the part, and the other about the chapter. At the end of the publication, a bibliography (divided into books and internet sources) and sources of illustrations are included.

## **Typeface**

Two typefaces are used in the publication: the serif typeface Lyon Text and the sans-serif Neue Haas Grotesk Text. The Lyon typeface family is distributed by Commercial Type. The typeface was designed in 2006 by Kai Bernau at the Type and Media faculty of the Royal Academy (KABK) in The Hague. In 2009, it was implemented in the typesetting of the New York Times Magazine. It is an old-style serif typeface, inspired by the work of the Renaissance typographer

Robert Granjon, and designed for the typesetting of text in small sizes<sup>1</sup>. Lyon Text is used for the typesetting of body text at a size of 10 pt on 15 pt leading. The second typeface used in the book, Neue Haas Grotesk Text, by Christian Schwartz and Max Miedinger, is a modern adaptation of the Helvetica typeface, incorporating changes made by Miedinger in the 1980s to improve legibility<sup>2</sup>.

Neue Haas Grotesk was used for: titles (14 pts), research questions (11 pts), subtitles (9.1 pts), long quotations (9.1 pts), captions to illustrations (9.1 pts), footnotes (8.4 pts), navigation and page numbering (8.4 pts), numbered lists, and other highlighted text elements.

On a technical level, both typefaces were adjusted for maximum legibility. Conceptually, the combination of the serif typeface, which has been the basis for typesetting works of art for centuries, and the typeface referring to Helvetica, which symbolizes the twentieth-century modernist revolution in Swiss design, tiestogether the broad spectrum of issues discussed and the typefaces themselves. Both typefaces also meet the conditions for adaptation to the scale of implementation described in Part II of the dissertation. The Neue Haas Grotesk family has two versions – Display and Text – differing in letter width (wider for body texts), element thickness (thicker for body texts), and tracking (smaller for the display version). The Lyon serif typeface in the Text version has two variants: Regular (suitable for both coated and uncoated papers) and Regular No. 2 (with stronger strokes, ideal for coated paper and color inversion printing).

Illustrations

The text is accompanied by illustrations in the form of photographs, diagrams, and typeface examples. Each illustration is accompanied by a caption to expand on the context or indicate important details. The illustrations are aligned with the top margin, and their descriptions are aligned with the bottom margin. The charts and typeface comparisons were developed by the author, while the illustrations were obtained from online sources. The color scheme of the illustrations and charts is limited to black and white. This approach helps the viewer focus on the form of the letter/object being illustrated, as color is secondary to the issues discussed. The paper used guarantees good reproduction of detail and saturation of blacks.

Despite efforts to ensure all images are in the public domain, some historical examples, which are integral to the narrative, are cited under quotation rights. A detailed list of the images, including source and copyright status, is provided at the end of the publication. All copyrights to the images and typefaces remain with the designers or their heirs and the institutions holding the creators' legacy.

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1 https://commercialtype.com/catalog/lyon\_text

2 https://www.myfonts.com/collections/neue-haas-grotesk-text-font-linotype?gad\_source=1&-gclid=CjwKCAjw8fu1BhBsEiwAwDrsjEcXbantXsSWHs9UoT\_E2grp0zwbfBwqKVYX60Q-GeFzPiF6kQcSepxoC1zIQAvD\_BwE#aboutThisFont