LEARNING TO SEE: COMPARISONS OF POST-BACCALAUREATE AND

GRADUATE TYPEFACE DESIGN EDUCATION IN ENGLAND,

THE NETHERLANDS, AND THE UNITED STATES IN

THE EARLY TWENTY-FIRST CENTURY

by

Patrick Gosnell, BFA

A thesis submitted to the Graduate Council of
Texas State University in partial fulfillment
of the requirements for the degree of
Master of Fine Arts
with a Major in Communication Design
August 2015

Committee Members:

Claudia Röschmann, Chair

Michael Niblett

Maia Wright

DEDICATION

This work is dedicated to Karen, Janie, and Sammie—

the incredible loves of my life.

– Philippians 4:13 –

ACKNOWLEDGEMENTS

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CHAPTER I

INTRODUCTION

Typeface design is the process of crafting a stylistically unified collection of letters, numbers, punctuation, and other symbols for use in typesetting. Since the 15th century, the manner in which a typeface is designed has evolved from hand-carving in wood or metal to the use of digital rendering software. For reasons most often proprietary, typeface designers' methodologies were rarely shared or documented. Thankfully, access to typeface design knowledge has greatly increased since the days of the master-apprenticeship model. Typeface design is no longer a closely guarded[1] practice, but rather, an inexpensive and democratically dispersed activity. Throughout the more than five hundred years that typography and printing have existed, a gradual progression towards openness allowed numerous modes of ingress for learning type design to develop, including post-baccalaureate and graduate-level education.

 This thesis focuses on the pedagogical and curricular approaches to teaching typeface design—hereafter referred to as *type design*—in England, the Netherlands, and the United States at these particular levels of higher education. In 1998, a designer at the University of Reading named Christopher Burke established a new master's course in type design—now the oldest of its kind still in operation.[2] Accompanying the University of Reading's MA in Typeface Design (MATD) are three additional case studies: the Type]Media[3] master's program at the Royal Academy of Art (KABK) in The Hague, Netherlands; the Type@Cooper postgraduate certificate program at the Cooper Union in New York City; and the Typography as Language independent certificate program at the School of Visual Arts (SVA), also in New York City.

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[1] Alexander S. Lawson, "Type Making from Punch to Computer," *Anatomy of a Typeface,* (Boston: Godine, 1990) 384 – 386.

[2] Gerry Leonidas, Personal interview, 16 Mar. 2015.

[3] The name of the program, *Type and Media,* is commonly abbreviated as Type]Media, or simply, t]m.

This research will serve the graphic design and educational communities by analyzing the current state of international type design education through its cultural implications, advantages, and methodologies for helping students to learn to see beyond type's basic formal characteristics, and to successfully navigate a myriad of miniscule yet critical decisions.

CHAPTER II

CHANGING PERSPECTIVES IN TYPE DESIGN

Definition of Terms

The field of type design is rife with an expansive and exacting vocabulary; this section defines several terms which are critical for the comprehension of this topic. *Moveable type,* ostensibly invented in the West by Johannes Gutenberg (c. 1398 – 1468) in 15th century Germany, allowed texts to be replicated through the use of individual *characters* [4] cast in metal, arranged by hand to form the words of the printed page. This process was faster than copying individual manuscripts by hand, and the appearance of the first metal types mimicked the commonly used Gothic Textura handwriting style so as to not be off-putting to potential readers.[5] Even so, the physiognomy of metal characters swiftly began to accommodate cultural and aesthetic properties in distinguishable styles known as typefaces. Carolina de Bartolo's and Erik Spiekermann's book, *Explorations in Typography: Mastering the Art of Fine Typesetting,* defines a *typeface* as "a complete group of characters designed to work as a set."[6] For example, the typeface used to typeset this thesis, Adobe Garamond Pro, has many styles such as regular, *italic,* and **bold,** which were all designed using a unified visual approach. The name of a typeface simply refers to this (or any other) group of subtly varied yet structurally harmonious styles using a single collective moniker. Presently, the term *font* is often used synonymously with typeface, yet it connotes a distinct technical difference: its original definition refers to "a single *point size* and *weight* [7] in a specific typeface." The process of creating a functional

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[4] A *character* is a printed or written letter or symbol.

[5] Kimberly Elam, "Handwritten Typography," *Expressive Typography: The Word as Image,* (New York: Van Nostrand Reinhold, 1990) 26.

[6] Carolina De Bartolo and Erik Spiekermann, *Explorations in Typography: Mastering the Art of Fine Typesetting: A Visual Textbook for Intermediate to Advanced Typography,* (San Anselmo: 101 Editions, 2011) 187.

[7] The term *point size* refers to the relative size of a font. A point is equal to 1/72 of an inch. The term *weight* is used to refer to the different optical styles of a particular typeface. Common distinctions for weight include light, roman, book, medium, bold, and black.

and stylistic system of typographic forms to be typeset is called *type design.* The finalized typographic forms were originally made of metal or wood, but are now frequently created digitally by designers and distributed as individual software files. Their creation consists of three identifiable stages: sketching, refinement, and fabrication (or digitization). The entire process took months or even years to complete during the days of metal type fabrication, but has been accelerated thanks to advancements in digital rendering technologies.[8]

Dutch designer Jan Middendorp (born 1956), author of many widely read books about type, succinctly characterizes *typography* as "the shaping of texts."[9] More specifically, typography is the deliberate arrangement of characters on a printed page or substrate. This act is performed daily by anyone with access to a keyboard and screen in the ubiquitous world of desktop publishing.[10] Professionally, it is handled by a typographic designer, or *typographer* for short. This title should not be confused with *type designer,* who is wholly responsible for defining the proportional and aesthetic properties of a complete set of typographic characters.

Lastly, in order to address the linguistic difficulties in comparing full one-year master's programs to shorter post-baccalaureate and certificate courses, the broad term *type design education* will be used whenever possible to collectively refer to the four case studies examined in this thesis.

The Role of Type Design

The founder of Information Architects (iA), Oliver Reichenstein (born 1971), says that "it is not the hand that makes the designer, it's the eye. Learning to design is learning to see."[11] This

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[8] John Brownlee, "Two Typefaces, Five Days: Inside A Fabulously Nerdy Type Marathon," Co.Design, 08 May 2015, *Fast Company,* 20 May 2015 < http://www.fastcodesign.com/3045992/two-typefaces-five-days-inside-a-fabulously-nerdy-type-marathon/>.

[9] Jan Middendorp, Introduction, *Shaping Text,* (Amsterdam: BIS, 2012) 7.

[10] JaapVan Triest, "FF Legato by Evert Bloemsma," *Made with FontFont: Type for Independent Minds,* By Jan Middendorp and Erik Spiekermann, (New York: Mark Batty, 2007) 239.

[11] Oliver Reichenstein, "Learning to See," iA.net, 19 Mar. 2013, *Information Architects, Inc.,* 06 July 2015 <https://ia.net/know-how/learning-to-see>.

statement, while referring to design in comprehensive terms, can be acutely applied to type design. This maxim, initially appearing to conflict with a practice so heavily tied to writing systems and typesetting—both acts of the hand—reveals a truth about type design that is difficult for the layman to see: it is as much about developing a sense of space, balance, systems thinking, and historical and aesthetic contexts as it is about drawing a black letterform on a white field. *Learning to see,* as a pedagogical process for type design education, is about making students aware of the subtle relationships between typographic forms and the spaces that they occupy, for the explicit purpose of designing useful, intelligent, and unique typefaces.

Type design is an exacting endeavor which requires patience and attention to detail, yet also provides considerable opportunities for the type designer to exercise their creativity. Type historian David Consuegra (1939 – 2004) describes the litany of roles that type design can play in his book, *American Type Design & Designers:*

> The creation of new [typefaces] can be seen as a problem solving activity, aimed at improving legibility and readability, clearer letterforms and more functional texts; it can also be viewed as a vehicle for self-expression. It can also be […] caused by stylistic trends; to satisfy the particular demand of a client; or as an answer to solve a particular design problem. Type design is also the vanguard of technology; technological advances require new type designs in new media.[12]

The functional role of type in modern society has been frequently acknowledged, yet type's vernacular has only recently been adopted into the mainstream. Australian typographer Stephen Banham (born 1968) says the discussion of type is "no longer the esoteric language of the printing and publishing trade [as] everybody has an opinion (or many) on the letters that surround us. They are now broadly accepted as a part of our everyday lives."[13]

Several factors have contributed to increased attention on type design in recent decades. First, the number of available typefaces has dramatically risen. At least 10,000 different type designs were estimated to have been created in 1968.[14] This number multiplied

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[12] David Consuegra, Introduction, *American Type Design & Designers,* (New York: Allworth, 2004) IX.

[13] Stephen Banham, "Who We Are, Letter by Letter," *Characters: Cultural Stories Revealed through Typography,* (Port Melbourne, Vic.: Thames & Hudson Australia, 2011) 17.

[14] J. Ben Lieberman, *Types of Typefaces and How to Recognize Them,* (New York: Sterling, 1968) 9.

to over 100,000 different designs in 2010,[15] and then to over 150,000 only three years later.[16] Second, the manner in which type appears in modern web browsers has expanded. In early 2010, Typekit, Google Fonts, and other online type foundries revolutionized the state of web typography by making it possible for web designers to incorporate an ever-expanding selection of digital typefaces. The limitation of using only "web-safe" fonts such as Georgia, Arial, and Times New Roman is no longer an issue, which in turn means readers encounter a never-before-seen variety of type in this digital medium.[17] Third, an increasing number of bachelor and master's graphic design programs now incorporate type design into their curricula.[18] In the February 2015 issue of *Print* magazine, educator and type designer Cyrus Highsmith (born 1973) theorizes that type design could be critical to the survival of typographic education. Highsmith says that the traditional "type curriculum is shrinking to make room for things like programming, strategic design and writing." At the same time, noting a rise in the number of type design elective courses, he wonders "if there is a growing need for something in design programs that type design can meet. […] *Maybe* the future of typographic education is in type design."[19]

Typefaces have little intrinsic value by themselves. Their true value comes from their ability to beautifully and effectively build words, sentences, and paragraphs. One of the United States' most prolific typeface designers,[20] Frederic W. Goudy (1865 – 1947), called letters "the elements of written expression, details of an accomplished system for transmitting

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[15] Simon Garfield, Introduction, *Just My Type: A Book about Fonts,* (New York: Gotham, 2010) 4.

[16] Peter Dawson, Introduction, *The Field Guide to Typography: Typefaces in the Urban Landscape,* (New York: Prestel, 2013) 10.

[17] Jason Teague, "Web Type Revolution," 20 July 2012, *HOW Design,* 28 Apr. 2015, <http://www.howdesign.com/design-creativity/fonts-typography/web-typography-revolution/>.

[18] Jan Middendorp, ed. *Creative Characters: The MyFonts interviews, vol.1,* (Amsterdam: BIS, 2010) 6.

[19] Cyrus Highsmith, "The Typographic Collaboration: Is Type Design the Future of Typographic Education?" *Print* 69.1 Feb. 2015: 39.

[20] Goudy designed over one-hundred different typefaces before his death. [Sebastian Carter, Foreword, *Twentieth Century Type Designers: New Edition,* (New York: Norton, 1995) 42.]

man's conceptions or recording his activities."[21] The design of an original typeface is a rarefied process, full of criteria both vast and minute. A type designer must account for "making [human] thoughts visible,"[22] while also considering the size of the dot in the lowercase *i*. Goudy continues, "As there is no sure recipe for design, neither is there one for the making of letters; but some knowledge of their history and development is necessary, as well as taste enlarged by study and analysis of beautiful forms."[23] Where will this knowledge and taste for "making letters" be developed? Increasingly, the answer is found in higher education.

Historical Background

The processes for the design and production of typefaces were historically divulged through a strict apprenticeship model. This information gradually became the concern of expansive corporations like Monotype, Linotype, and American Type Founders (ATF), who continued to keep typographic knowledge bound up with their proprietary mechanical typesetting machinery. The situation began to change dramatically in the late 1980s when the encryption code for the PostScript software format[24] was released by its developer, Adobe Systems Inc. This, combined with the design capabilities of the new Apple Macintosh computer, liberated the process of designing original typefaces from the grasp of the large corporations.[25] Not surprisingly, a glut of independent type designers quickly filled the market with new experimental designs.

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[21] Frederic W. Goudy, "What Letters Are," *The Alphabet and Elements of Lettering,* (New York: Dover Publications, 1963) 23.

[22] Goudy, 24.

[23] Goudy, 25.

[24] *PostScript* is a computer processing language that allows fonts viewed on a monitor to match their printed counterparts.

[25] See Barnbrook 9, and King, especially Chapter 1, for more in-depth discussion on type's liberation.

Bringing a stalwart typeface to completion requires a high degree of technical labor, and sent a portion of these designers searching for alternative career paths by the late 1990s.[26] Nevertheless, a few dedicated type designers committed themselves to their discipline and redoubled their efforts to create and release high-quality typefaces.[27] They documented their processes, improved specialized software, and increasingly shared their knowledge in online forums, at conferences,[28] and through other educational settings. This trend stands in stark contrast to the typographic industry's modus operandi prior to the 1980s.

Today, the subject of type design commands more attention than ever. This is due in part to the liberal stance on typographic knowledge currently embraced by the industry. The quality of information available and its ease of dissemination have resulted in more people becoming interested in type. The number of new type foundries[29] steadily increased as the 21st century unfolded, now armed with modalities heralded by those who, during the previous decade, fought through the battle of self-education. The structural shake-up of the type design industry in the 1980s and 1990s has exposed the need for the latest developmental stage in type design education: the autonomous type design degree or certificate program.

Research

Primary research for this thesis was conducted in the form of face-to-face interviews with the designers and instructors who run—and in some cases founded—the post-baccalaureate and graduate type design programs. Those interviewed for this thesis are regarded as experts

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[26] Jonathan Barnbrook, "Fonts As Self-Expression," *An A-Z of Type Designers,* By Neil Macmillan, (New Haven: Yale UP, 2006) 10.

[27] Emily King, "New Faces: Type Design in the First Decade of Device-independent Digital Typesetting (1987 – 1997)," Diss. Kingston U, 1999, Essays, 2005, *Typotheque.com,* 13 Jan. 2015.

[28] Type-related conferences have increased in number since the 1980s. Prior to then the ATypI conference, which has existed since the 1950s, was the only notable example. Momentum for these events began to swell in the 1990s with the founding of Typo Berlin (Germany) in 1995 and TypeCon (United States) in 1998, and others, like TypoTechnica and the St. Bride Library Conference soon followed. The most recent additions to the type conference list are Robothon (The Hague), Kerning Conference (Italy), and Typographics, founded in 2015 in association with the Herb Lubalin Study Center at Cooper Union in New York City.

[29] A *type foundry* is a company concerned with the design and/or the distribution of original typefaces.

in the field whose contributions are of value critically, practically, and academically. The interview process was supplemented by visits to all four locations which afforded a practical awareness of their physical spaces and resources (both academic and technical). Secondary research was drawn from a core group of published texts on type design and typography from contemporary and historical authors. It should be emphasized that the focus of this thesis is on the process of teaching type design in an academic environment, and while the list of books that survey type's historical development, important luminaries, and innovative designs is not short, there is a dearth of academic writing about the practice of type design and the manner in which it is taught.[30] Establishing a record of post-baccalaureate and graduate type design education in England, the Netherlands, and the United States in the early years of the 21st century is the central aim of this thesis.

Regarding the Exclusivity of Programs

The four schools highlighted in this thesis are not the only examples of type design education that exist beyond the undergraduate level. Type design is commonly included within the general graphic design curriculum. There are examples of this at both the undergraduate and graduate levels, and at both private art schools and liberal arts institutions. Other master's (or equivalent) programs operating at the time of this writing include: the MA Art Direction: Type Design at École cantonale d'art de Lausanne and the MAS Type Design and Typography at Zürcher Hochschule der Künste in Switzerland, the Master's of Type Design at Centro de Estudios Gestalt in Mexico, the Specialization in Typeface Design at Universidad de Buenos Aires in Argentina, the Postgraduate Typography as Language at École Supérieure D'art et de Design and the DSAA Création Typographique at École Estienne in France, and the Diplom Type-Design at Hochschule für Grafik und Buchkunst Leipzig, Germany.

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[30] Carter, 6; Allan Daastrup, "Christopher Burke on Type," 2002, *Made with FontFont: Type for Independent Minds,* By Jan Middendorp and Erik Spiekermann, (New York: Mark Batty, 2007) 137.

Running tandem to this list, but operating outside the realm of higher education, are numerous workshops, classes, and seminars. Examples include the workshops and lectures hosted by TypeTogether,[31] a foundry comprised of two graduates of the MATD at the University of Reading; Typography Summer School, a ten-day London-based program; and Type Camp International, founded in 2007 by Dr. Shelley Gruendler (born 1972).[32]

The scope of this research is limited to dedicated, English-language type design courses only. This allows for the two longest-running programs in Europe and the (currently) only available options for study in the United States to be compared as case studies.

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The field of type design has garnered a great deal of attention since the late 1980s, but the skill's pedagogical and curricular approaches have managed to elude the spotlight of academic scrutiny. This thesis will provide a clear view of the current state of post-baccalaureate and graduate type design education in England, the Netherlands, and the United States. Before dispensing with detailed comparisons of the case study programs contained in chapter four, it will be necessary to summarize the steps which led us to our present condition. Chapter two will compare and contrast the different higher education systems operating in the three countries of concern, with a particular focus on structure and vernacular. The third chapter will review the history of type design's development and discuss the various challenges that come with teaching such an intricate skill.

[31] "Workshops and Lectures by TypeTogether," Education, 2015, *TypeTogether,* 30 Apr. 2015 <http://www.type-together.com/education>.

[32] Linda Kwon, "Learning on Location," Eye No. 85 Vol. 22, 2013, *Eye Magazine,* 30 Apr. 2015 <http://www.eyemagazine.com/feature/article/learning-on-location>.

CHAPTER III

EDUCATIONAL SYSTEMS STUDY

Charting the establishment and benefits of post-baccalaureate and graduate type design

education in England, the Netherlands, and the United States necessitates a comparison of

their educational systems. This shall be done partly to ascertain the presence of any funneling

mechanisms which may influence enrollment. The task of evaluating the merit of these

educational systems does not fall within the purview of this thesis, nor does recounting their

detailed historical trajectories. Instead, a structural synopsis of each country's educational system

will be included, serving to parse the language used to describe and qualify students' courses

of study. It is necessary to codify this terminology due to endemic differences between the

selected type design case study programs. These differences include their duration, the type of

school in which the courses are located, and whether a certificate or master's degree is conferred.

Education in England

England's educational system is divided into five parts (Figure 1): early years, primary,

secondary, Further Education (FE) and Higher Education (HE). Students may attend public

school for free or pay for private *(independent)* schooling.[33] In England, school attendance

is compulsory from ages five to eighteen. Since 1988, all public schools have followed a system

of study called the National Curriculum, which has five Key Stages: (1) Foundation year

and Years 1 – 2 (ages 5 – 7); (2) Years 3 – 6 (ages 8 – 11); (3) Years 7 – 9 (ages 12 – 14); (4) Years

10 – 11 (ages 15 – 16); and (5) Years 12 – 13 (ages 17 – 18). Upon reaching Key Stage 4, students

are required to take the General Certificate of Secondary Education (GCSE) exams, which

cover a battery of foundational subjects. Successful completion of these tests is comparable

to graduating from the secondary phase (high school) in the United States.[34]

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[33] According to a 2015 census conducted by the Independent School Council, 7% of students in England are enrolled in private schools. "Research," 2015, *Independent Schools Council,* 11 May 2015 <http://www.isc.co.uk/research/index>.

[34] "The British Education System," HMC Projects, n.d. *HMC*, 12 Apr. 2015 < http://www.hmc.org.uk/about-hmc/projects/the-british-education-system/>.

The primary learning focus for students in Key Stage 5 is the General Certificate of Education (GCE)/Advanced Level, or *A-Levels* for short. These courses represent the pinnacle of the secondary education phase in England as they are an opportunity for students to engage in rigorous study of up to four subjects of their choice. Students are tested on their knowledge twice during a two-year period. Their scores help to determine admission to British universities.[35] The HE structure in England mirrors that of the United States. Beginning with a four-year bachelor's (or a two-year foundational degree), students may then elect to pursue a master's degree, and possibly a doctorate. It takes one to two years to complete a master's degree program in England, and three years for a doctorate.[36]

Education in the Netherlands

Compulsory education in the Netherlands lasts from ages five to eighteen, with a relaxation in frequency after the age of sixteen (Figure 2). Students attend one of three state-funded schooling options: public, *special* (religious), or *general-special* (neutral); there are few private schools in the Netherlands. The first phase of the Dutch educational system is elementary school, and covers grades (groups) one through eight. In this first phase, students are introduced to English in addition to basic literacy and mathematics skills. The majority of students take an aptitude test called the *Citotoets* (Cito test) at the end of group eight, which aids teachers and parents in deciding which level of secondary education will fit the child.[37]

The three levels of Dutch secondary education (high school) are *voorbereidend middelbaar beroepsonderwijs* (VMBO), *hoger algemeen voortgezet onderwijs* (HAVO), and *voorbereidend wetenschappelijk onderwijs* (VWO). Parameters of the three secondary education tracks are as follows: VMBO—four grades, attended from age 12–16 (which includes 60% of

[35] "Why Choose A Levels?" 2015, *British Council,* 12 May 2015 <http://www.britishcouncil.org.bd/en/exam/igcse-school/choosing/why-a-as-levels>.

[36] "Education System in the UK," n.d., *gov.uk,* 13 Apr. 2015 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219167/v01-2012ukes.pdf>.

[37] "Explaining the Cito Exams," Education, 18 Mar. 2004, *Expatica Communications BV,* 12 May 2015 <http://www.expatica.com/nl/education/Explaining-the-Cito-exams_100820.html>.

national student enrollment); HAVO—five grades, attended from age 12 – 17; and VWO—six grades, attended from age 12 – 18. HE is offered by way of a binary track in the Netherlands: universities of applied sciences (HBO), which is open to graduates of either HAVO or VWO, and research universities (WO), which only admit students from the VWO track. Dutch students have access to the same three-cycle HE system as the United States and England, beginning with bachelor's and master's degrees available in both the HBO and WO tracks, and terminating with a doctoral degree (WO track only). Master's programs are typically one to two years in duration, and pursuing a doctorate is, at minimum, a four-year commitment.[38]

Education in the United States

In the United States, compulsory education begins at age five or six with the child enrolling in either kindergarten or the first grade (Figure 3). Parents may choose to enroll their children in either private (religious or secular) or state-funded public schools. Students continue this system for twelve years, divided into three distinct sections: elementary (pre-K – grade 5), middle school (grades 6 – 8), and secondary (grades 9 – 12). It is at this point that passing students, at the age of seventeen or eighteen, earn a diploma that permits them to enter the HE system.

The first phase of HE in the United States is the undergraduate level, and awards students with either an associate's or bachelor's degree upon graduation. Some students begin at a community or junior college, and then transfer to a university after a period of two years, though many attend the same college or university for an average of four to five years. As in the first phase, students will have a choice between public and private universities and colleges.[39] Approximately 40% of college students will choose to continue on to the second phase of HE

[38] "Pursuing a PhD in Holland," 01 Oct. 2014, *Study in Holland,* 16 Apr. 2015 <https://www.studyinholland.nl/education-system/degrees/phd>.

[39] In the United States, 74% of students attend public universities and colleges while 26% attend private institutions according to the National Center for Education Statistics. ("College Enrollment Statistics," 07 Apr. 2015, *Statistic Brain,* 11 May 2015 <http://www.statisticbrain.com/college-enrollment-statistics/>.)

according to a 2012 *US News* survey,[40] where they can pursue academic or professional master's and doctoral degrees. A graduate student spends an average of two to three years earning a master's degree in the United States, and an average of 8.2 years earning a doctoral degree.[41]

The Bologna Process

The following brief overview outlines the *Bologna Process* (BP) and the ensuant *European Higher Education Area* (EHEA). It is included to clarify notable differences between the HE systems found in the three focal countries, and to establish common parameters through which their respective type design programs will be compared.

In 1999, the United Kingdom and the Netherlands were two of the twenty-nine founding countries that agreed to a radical transformation of European higher education known as the Bologna Process—named for the oldest educational institution on the continent. Through an intense yet cooperative focus on higher education, participating nations set forth a series of action lines which, if successful, would bring to Europe both economic gain and increased influence on the world stage. Participation in BP is voluntary, and its efforts are not under the political influence of the European Union (EU).

Paul Gaston (born 1943), in his 2010 book *The Challenge of Bologna,* emphasizes that the goal of BP is not to form a "single European system of higher education," but instead seeks:

> National systems of higher education presenting closely comparable structures, offering expanded opportunities for mobility across borders, maintaining academic records according to a shared protocol, and engaging in quality assurance measures according to shared overarching standards.[42]

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[40] Kelsey Sheehy, "10 Colleges That Lead to Grad School," US News & World Report, 02 Jan. 2013, *US News,* 12 May 2015 <http://www.usnews.com/education/best-colleges/the-short-list-college/articles/2013/01/02/10-colleges-that-lead-to-grad-school>.

[41] Joseph Berger, "Exploring Ways to Shorten the Ascent to a Ph.D," The New York Times, 02 Oct. 2007, *The New York Times,* 12 Apr. 2015 < http://www.nytimes.com/2007/10/03/education/03education.html>.

[42] Paul L.Gaston, *The Challenge of Bologna: What United States Higher Education Has to Learn from Europe, and Why It Matters That We Learn It,* (2010): 27, *ProQuest Ebrary,* 14 Apr. 2015 <http://site.ebrary.com.libproxy.txstate.edu/lib/txstate/reader.action?docID=10545772&ppg=22>.

Divergent national approaches to HE made the transfer of career and study options difficult throughout Europe.[43] Bologna's action lines have promoted appreciable progress to overcome this challenge. Most of the participating nations now offer a three-cycle degree progression and more equitably define the value of those degrees.

Curricular parity is reinforced by the European Credit Transfer and Accumulation System (ECTS). According to the European Commission's website, "Each learning outcome is expressed in terms of credits, with a student workload ranging from 1,500 – 1,800 hours for an academic year, and one credit generally corresponds to 25 – 30 hours of work. A master's program that is one to two years long equals 60 – 120 ECTS-credit points under BP.[44]

Undergraduate Graphic Design Education

The preceding overview provided a broad comparison of the educational system structures in England, the Netherlands, and the United States. To build a firmer foundation on which to compare dedicated type design programs in chapter four, a magnified view of the bachelor level of graphic design education at all four case study institutions will now be offered.

Undergraduates in England spend three to four years earning a Bachelor of Arts (BA) degree, with the three-year BA referred to as a *Basic* or *Minors Bachelor,* and the four-year degree termed an "Honours Bachelor."[45] The University of Reading's full-time, three-year BA Graphic Communication program focuses on developing practical design skills, working with real clients, and building a professional portfolio. Because of their status as a major research institution, historical and theoretical perspectives on design are also included in

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[43] "The Bologna Process and the European Higher Education Area," Education and Training, 31 Mar. 2015, *European Commission,* 15 Apr. 2015 <http://ec.europa.eu/education/policy/higher-education/bologna-process_en.htm>.

[44] Jennifer Weingarten, "All You Need to Know about the European Credit System ECTS," Study Portals, 10 Apr. 2013, *MastersPortal.eu,* 13 Apr. 2015 <http://www.mastersportal.eu/articles/388/all-you-need-to-know-about-the-european-credit-system-ects.html>.

[45] "2,456 Bachelor of Arts Programmes in United Kingdom," Bachelors Portal, 2015, *Study Portals,* 18 May 2015 <http://www.bachelorsportal.eu/countries/degrees/537362446/bachelor-of-arts-in-united-kingdom.html>.

the curriculum.[46] By admitting only forty students per year, the University of Reading's BA Graphic Communications program promotes intimate learning experiences.[47]

In the Netherlands, BA degrees at WO schools take three years to earn, while bachelor's programs at HBO schools last four years (a primary year with a three-year core that follows).[48] The four-year (240 ECTS-credit points) BA in Graphic Design program at the Royal Academy of Art in The Hague focuses on four core pillars: design, interaction, image, and typography, with an underlying focus on the study of letters. Acceptance to the program requires a "high school diploma comparable to [the] Dutch VWO, HAVO, or MBO 4 diploma."[49] Creative independence is encouraged by the teaching staff, and opportunities for "avant-garde research" are combined with work for "external clients" are contained within the curriculum.[50]

The United States offers BA and Bachelor of Fine Arts (BFA) degrees—the primary difference being the percentage of time spent on fine arts curricula is higher for a BFA compared to the liberal arts. Both degrees usually take four or more years to complete, with the first year primarily reserved for foundational skills, and more specialized study taking place from the second year onward.[51] Students at the Cooper Union must complete 130 credits over the course of four years to earn a Bachelor of Fine Arts degree in Graphic Design. All candidates begin with the Foundational Program during their first year, which exposes them to each discipline that their curriculum offers, and then progress through the graphic design studio

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[46] "Course Description," BA Graphic Communication, 2015, *University of Reading,* 17 May 2015 <http://www.reading.ac.uk/typography/ug/typ-ugbagraphiccommunication.aspx>.

[47] "Graphic Communication at Reading," Department of Typography & Graphic Communication, *University of Reading,* 17 May 2015 <http://www.reading.ac.uk/web/FILES/typography/B09204_BA_Graphic_ Communication_Brochure.pdf>.

[48] "Bachelor's," Education System, 02 Apr. 2014, *Study in Holland,* 18 May 2015 <https://www.studyinholland.nl/education-system/degrees/bachelors>.

[49] "FAQS," KABK, 2015, *Royal Academy of Art, The Hague,* 17 May 2015 <http://www.kabk.nl/pageEN.php?id=0650>.

[50] "Description of the Study Programme," General Description | Graphic Design (BA) | KABK, 2015, *Royal Academy of Art, The Hague,* 17 May 2015 <http://www.kabk.nl/pagewideEN.php?id=0055>.

[51] "Study Fine Arts in the US," International Student, 2015, *N.p.,* 19 May 2015 <http://www.internationalstudent.com/study-fine-arts/>.

curriculum. Completion of the degree culminates with a required senior presentation.[52] At SVA, the Bachelor of Fine Arts degree in Design requirements must be completed within eight years, and 120 credits is the minimum requirement—60% is allotted to studio hours, and the remaining 40% is split between humanities, science, art history, and elective credits. Academic pursuits at SVA achieve a balance between the practical and the theoretical, with their promotional materials describing great design as "an alchemical mix of art and logic."[53]

Impact on Type Design Education

While there are some similarities in the educational systems of the three focal countries, differences do become manifest during the secondary phase of education. Students in England and the Netherlands are funneled into several possible academic tracks as they approach the HE stage, while students' trajectories remain more fluid in the United States. While these divisions in educational structure may influence decisions made by native applicants, dedicated type design courses tend to sidestep the ramifications of their native educational systems due to their diverse international enrollment. For example, the MATD course at the University of Reading admitted fourteen students from fourteen different countries during the 2014/2015 school year. The director of the MATD, Gerry Leonidas (born 1968), is thrilled by this diversity and says it is a repeated characteristic of the course. "It's fairly common," says Leonidas, "to have, at most, one person from the UK. Usually half of our people are from the wider [EU] countries, and the other half are from overseas."[54] (KABK, the Cooper Union, and SVA all follow similar trends in diversity.) He attributes this to "self-selection," meaning those who are truly interested in learning about type design will apply,

[52] "The School of Art: 2014-15 Course Catalog," 2014, *The Cooper Union,* 17 May 2015 <http://www.cooper.edu/sites/default/files/uploads/assets/site/files/catalogs/2014-Catalog_Art.pdf>.

[53] "BFA Degree Program: Design," 2015, *SVA,* 17 May 2015 <http://www.sva.edu/continuing-education/bfa-degree-programs/design>.

[54] Leonidas.

regardless of their educational background. Duly, post-baccalaureate and graduate type design courses can be viewed as uniquely diverse enclaves within larger educational institutions.

<p align="center">❧</p>

There are distinct differences between the educational structures found in England, the Netherlands, and the United States, despite the systemic equilibrium encouraged by Europe's Bologna Process. One notable difference is the presence of rigid academic pathways in both England and the Netherlands as compared to the more fluid system of the United States. Regardless, type design is a field with high diversity in both nationality and educational background, and students in dedicated type design courses operate successfully within all three focal countries in spite of the educational system from which they emanate. While this chapter has provided a broad view of educational systems, it will be necessary to elaborate on type design education specifically. Chapter three will chart its development throughout the past five and one-half centuries of typographic innovation.

The Education System of England

Updated 2013

ISCED 6	Doctorate degree — 3 years
ISCED 5	Master's degree — 1 – 2 years; Bachelor's degree — 4 years; Post-graduate diplomas and certificates; Foundation degree — 2 years
ISCED 3	A Level / AS Level; Diploma / BTEC / NVQ (Advanced level); GCSE; Diploma / BTEC / NVQ (Foundation and Higher level)
ISCED 2	Secondary education — 3 years
ISCED 1	Primary education — 6 years

*ISCED = International Standard Classification of Education

Figure 1. The Education System of England. SOURCE: OECD, http://gpseducation.oecd.org/CountryProfile?primaryCountry=UKM&treshold=10&topic=AS

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The Education System of the Netherlands

Updated February 2015

Research universities

Third cycle higher education

Doctorate (Ph.D.) 4 years (min.)

PDEng **2 years**

Second cycle higher education

Medicine, dentistry, veterinary med., pharmacy **3 years**

MA/MSc **1 – 2 years**

Universities of applied sciences

Master's degree **1 – 2 years**

First cycle higher education, including short cycle

BA/BSC **3 years**

Bachelor's degree **4 years**

Associate's degree **2 years**

Senior secondary vocational education and training (MBO) **1–4 years**

level 4, 3–4 yrs

level 3, 2–4 yrs

level 2, 2–3 yrs

level 1, 0.5–1 yrs

Secondary education

University preparatory education (VWO) **6 years**

Senior general secondary education (HAVO) **5 years**

Preparatory vocational secondary education (VMBO) **4 years**

Primary education

Primary education **7 – 8 years**

Figure 2. The Education System of the Netherlands. SOURCE: Study In Holland, https://www.studyinholland.nl/documentation/the-dutch-education-system.pdf

The Education System of the United States

Updated 2013

Postdoctoral research

Doctorate degree
6–8 years

Master's degree

1–2 years

Professional schools (medicine, theology, law, etc.)

Bachelor's degree

4 years

Associate's degree or certificate

2 years

Vocational or technical degree

2 years

Secondary education

4 years

Middle School

3 years

Primary education   5–6 years

Figure 3. The Education System of the United States. SOURCE: National Center for Education Statistics, http://nces.ed.gov/programs/digest/d11/figures/fig_01.asp

CHAPTER IV

A BRIEF HISTORY OF TYPE DESIGN EDUCATION

The period of typographic development immediately following Johannes Gutenberg's invention of the printing press and moveable type can be described as largely utilitarian. *Typefounders*—those who were involved with the production of type and printing—made early efforts to replicate the look and feel of scribal writing styles.[55] As transformative as the technology was, stylistic innovation did not rank as the typefounder's primary concern. In his book, *Counterpunch,* Fred Smeijers (born 1961) declares that "the goal of typography at first had nothing to do with type or design: it had everything to do with saving time. Producing multiple copies of books faster than they could be written was the point of typography: no more and no less."[56] In fact, the first roman[57] types did not appear until after moveable type had been available for a decade, and it was a half-century more before the arrival of italic variants.[58]

A Secretive Practice

Typeface development[59] was also, in its early years, a process shrouded in secrecy.[60] Some scholars attribute the lack of overt knowledge to non-necessity, saying, "The design of printing types is a study that formerly concerned few but typefounders, printers, and bibliophiles," and that, "very little was known about its development from the earliest

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[55] Gutenberg's first metal typeface was modelled after gothic blackletter and contained multiple variations of many of the characters which would replicate a hand-lettered transcription more accurately when printed. [Carter, 13; R. S. Hutchings, Preface, *The Western Heritage of Type Design; a Treasury of Currently Available Typefaces Demonstrating the Historical Development and Diversification of Form of Printed Letters,* (London: Cory, Adams & Mackay, 1963) 11.]

[56] Fred Smeijers, *Counterpunch: Making Type in the Sixteenth Century, Designing Typefaces Now,* 2nd ed., (London: Hyphen, 2011) 43.
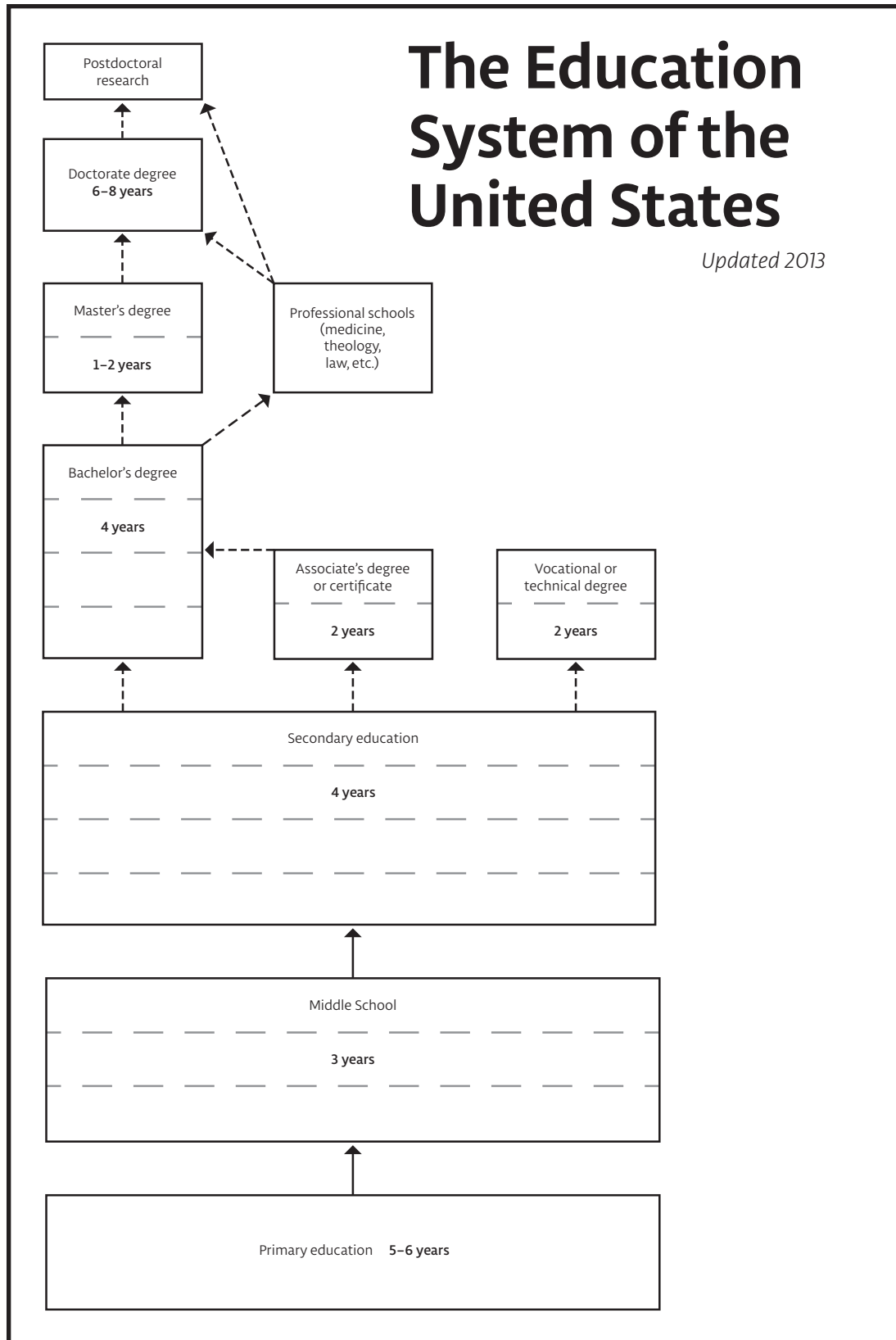
[57] The term *roman* here refers to characters constructed with an upright or vertical appearance, as opposed to the slanted or oblique nature of italic scripts. Roman types are also commonly referred to as *regular.*

[58] Hutchings, 11.

[59] The term *development* is used here instead of *design* to denote the 15th century's emphasis on the mechanics of typefaces and their functionality, not their artistic merit or aesthetic sensibilities.

[60] Ben Casey, Foreword, *Type Matters!* By Jim Williams, (London: Merrell, 2012) 7; Lawson, 386; Fred Smeijers, *Type Now: A Manifesto; Plus, Work So Far,* (London: Hyphen, 2003) 44.

printed books until modern times."[61] There are others involved with typefounding's history who took a more emphatic stance on the secrecy of the craft. Joseph Moxon (1627 – 1691), in his book *Mechanick Exercises* of 1683, called the process of creating type "a Handy-Work hitherto kept so conceal'd among the artificers of it, that I cannot learn any one hath taught it any other; But every one that has used it, Learnt it of his own Genuine Inclination."[62]

Almost two hundred years later, this trend was still found to be the dominant approach; the Englishman Vincent Figgins II (died 1860) declared in 1855, "The art had been perpetuated by a kind of Druidical or Masonic induction from the first."[63] Many *punchcutters*[64] were reluctant to divulge their proprietary skills to others, as they were often the result of many hours of intensely detailed labor.[65] When skills were passed on, it was done through a master-apprentice relationship.[66] A body of written accounts of typefounding practices did evolve, though more slowly than even the development of different letter styles.

Alexander Lawson (died 2002) covers several of these early written accounts with great detail in his book *Anatomy of a Typeface,* but the first significant example is the afore-mentioned *Mechanick Exercises* by Moxon, who was an English printer by trade. Not until the middle of the 18th century did a document on practical typeface design written by an actual typefounder[67] arrive: Pierre-Simon Fournier's (1712 – 1768) *Manuel Typographique,* published in 1764. Later translated to English and expanded with notes by the typographic historian Harry Carter (1901 – 1982), Fournier's text provides a thorough and unprecedented

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[61] Hutchings, 7.

[62] Moxon qtd. in Lawson, 385.

[63] Figgins qtd. in Lawson, 386.

[64] A *punchcutter* is one who fashions characters out of metal, called punches, which were then used to strike typographic molds for the typefounding process.

[65] Hutchings, 8.

[66] Leonidas; Smeijers, *Type Now,* 44.

[67] A *typefounder* casts or manufactures metallic types used in letterpress printing.

description of typefounding techniques.[68] Another text containing beautiful specimens—this time of modern typefaces—as well as a smattering of principles about typography and design is Giovanni Battista Bodoni's (1740 – 1813) *Manuale Tipografico,* completed and published posthumously by his wife in 1818.[69] Subsequent printing guides (containing varied degrees of technical information) appeared throughout the 18th and 19th centuries, often with decades marking the span between publication dates. Still, these manuals did serve to dislodge some typefounding knowledge from the controlling grasp of the archaic guild system.

The Role of Industry

The path to liberated typographic instruction was not paved with literature alone; sweeping industrial changes aided in bringing this highly technical procedure to light. Inside the span of a decade—towards the end of the 19th century—the invention of three machines completely transformed the typefounding industry. The first of these, invented in 1885 by Linn Boyd Benton (1844 – 1932), is the pantographic punchcutter. The pantograph cut duplicates of typographic punches at any size by first tracing the outlines of a larger master drawing. This further separated the technical aspects of typeface development from the creative, continuing the trend which began in the 16th century with the separation of labor between punchcutters and printers.[70] The others are the Linotype (invented in 1887 by Ottmar Mergenthaler (1854 – 1899)) and Monotype (invented in 1893 by Tolbert Lanston (1844 – 1913)) automatic typecasting machines. These two innovative machines are mentioned here because of their role in phasing out the age of the punchcutter and bringing an end to the first epoch of typographic education. Type *design* (as it would now deserve to be called) had become a corporate endeavor—one that brought with it greater economic competition and the need for more diverse typographic offerings.[71]

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[68] Lawson, 384 – 385.

[69] Neil Macmillan, "Giovanni Battista Bodoni." *An A-Z of Type Designers.* (New Haven: Yale UP, 2006) 53.

[70] Hutchings, 12; Smeijers, *Counterpunch,* 66; Smeijers, *Type Now,* 45.

[71] Smeijers, *Counterpunch,* 76.

As a process, the creation of type enjoyed relatively little formal innovation during its first five-hundred years of existence; this was not the case in the late 20th century. Delivery methods for type debuted at an extremely rapid pace. This led to the upending of the reign of hot metal type and, as a byproduct, managed to "democratize" typography.[72] Phototypesetting was the first of these major technological changes. This process was more cost effective and used photographic exposures to quickly set, manipulate, and even distort typefaces. However, output quality was an issue—certainly more dubious than letterpress printing had ever been—and the technique was soon overtaken by advancements in digital technology.[73] Dry transfer lettering made it easier for professionals, and those not trained in the traditionally closed-off world of typography, to arrange type of their choosing. Companies like Letraset offered dry transfer users a low cost of entry and a wide variety of styles to choose from. Although this technology proved to have a short half-life as well, it succeeded in raising the public's awareness of type.[74]

Digital typesetting completed the *coup d'état* of metal type's dominance, begun in haste by the phototypesetting process. The mid-1980s saw the Apple Macintosh personal computer and the PostScript software format come to market. These tools made typeface design accessible to anyone with the desire to try, since the entire means of production were now contained in relatively inexpensive font-design software programs.[75] More important than the plethora of new and experimental typefaces resulting from the liberation of type's creation process is the meteoric rise in type design's popularity. Barring the increased interest in the topic, there may not have been the market or need for dedicated type design courses. Commercially speaking, the creation of new typefaces had always been time-intensive and costly. The level of practice and education required to produce a viable result was best left

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[72] Casey, 9; Pohlen 28–29.

[73] Jan Middendorp, "From Designers by Designers," Introduction, *Made with FontFont: Type for Independent Minds,* By Jan Middendorp and Erik Spiekermann, (New York: Mark Batty, 2007) 10.

[74] Pohlen, 28.

[75] Smeijers, *Type Now,* 27.

to apprenticeship or industrial models in the pre-digital era. However, computer-aided technology eliminated many of the traditionally time-intensive barriers to type design and made the topic more compatible with the HE system.

Educational Programs

The formation of dedicated type design courses was neither quick nor spontaneous. They arose as the natural consequence of a number of factors: lowered barriers to entry, increased awareness of typographic development, and further bolstering of type design as an established career path. Type design has frequently been included in graphic design curricula, and there are many international examples of undergraduate graphic design programs known for their advanced pedagogical approach to type and typography. North American university programs such as Yale University School of Art and California Institute of the Arts, as well as the Basel School of Design in Switzerland are a few examples of these renowned programs. But in order for the momentum within educational institutions to sustain dedicated type design courses, internal factors would have to be coupled to the external factors previously mentioned.

Those internal factors have predominantly arrived in the form of academics who are both knowledgeable and passionate about type. These individuals laid the groundwork within their schools by cultivating the requisite mixture of people, resources, and interest to allow these new graduate programs to thrive. At the University of Reading, these foundations were laid by Michael Harvey (1931 – 2013), who taught the Letterforms course for over forty years, and Michael Twyman (born 1934), who originally instituted the Typography and Graphic Communication course (and eventually department) in 1968.[76] Inspired by the rich tradition of practice and research in typography at the University of Reading, Christopher Burke (born 1967), a doctoral student-turned-professor, established the one-year MATD course in 1998.[77]

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[76] Garrett Boge, "Professor Michael Twyman Interview," Lettering Tours, 1999, *Letter Perfect,* 19 Apr. 2015 <http://www.letterspace.com/lettering_tours/twyman_interview.htm>; Leonidas.

[77] Brigitte Schuster, "Christopher Burke." *158 Answers: Eleven Interviews Conducted by the Type]Media Class 2009/2010,* (Hague: Typotheque, 2011) 28-37.

At KABK in The Hague, it was the singular vision of Gerrit Noordzij (born 1931) that developed the framework of what would become the one-year Type]Media master's course. Noordzij taught typography classes at the school for thirty years beginning in 1960, and from 1970–1990 was the director of the Writing and Lettering program. In New York City, it was calligrapher Cara Di Edwardo (born 1962) and typeface designer Hannes Famira (born 1966) who generated the initial idea for the Type@Cooper program, and art director Angela Riechers (born 1962) who founded the Typography as Language course at SVA after a prompt from author and critic Steven Heller (born 1950).[78]

An early precursor to the four main programs studied in this thesis was the short-lived Masters in Digital Type Design at Stanford University. A cross-disciplinary effort between Charles Bigelow (born 1945) in the art department and Donald Knuth (born 1938) from computer science, the program managed to produce a small batch of graduates who made significant contributions to type during their careers, even though the course ran only once: from 1982 to 1984.[79] It is assumed that the program's short lifespan was attributed to a lack of support and understanding from the university.[80] While the course predated universities' current acceptance of interdisciplinary cooperation by several years, another factor—the immaturity of digital type design—may have also played a role in the program's early demise.

At the time of the Stanford program's inception, neither the Apple Macintosh computer nor the PostScript language had made their commercial debut. These two products completely changed the process through which typefaces were designed, and ushered in a period of intense experimentation, self-education, and disregard for time-honored techniques and traditions. Conversely, those involved with the Stanford master's course were championing the design of high quality typefaces for emerging technologies. It is doubtful that the program, with such an early inauguration, could have maintained the minimum

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[78] Heller is the author and/or editor of over 100 books on design, and has taught at SVA for over 25 years. (*Steven Heller: About,* n.d., *Heller Books,* 11 May 2015 <http://www.hellerbooks.com/docs/about.html>.)

[79] Consuegra, XII.

[80] Emily King, "New Faces," Chapter 2.

required enrollment during this period of typographic tumult, even if the university had displayed a more sympathetic attitude. It took fifteen years for another degree program dedicated solely to typeface design (the University of Reading MATD) to be established.

What has increased, after the successful establishment of the full-scale degree programs in Reading and The Hague, is the proliferation of post-baccalaureate short courses. Designed to condense the most important aspects of a one-year master's program into a concentrated period, short courses can last anywhere from one to five weeks. In 2009, the University of Reading began offering a two-week summer course called TDi.[81] This was followed quickly by the establishment of the Type@Cooper *condensed* program in 2011, which runs for five weeks during the summer and began immediately following the *extended* program's inaugural year. The Typography as Language course at SVA is currently only offered in a short course format—lasting four weeks in July—but program founder, Angela Riechers, includes adding an extended program as one of her personal goals.[82]

The short course in type design education has quickly proven to be popular with those who are interested in learning more about the process, but who cannot afford to disrupt their normal schedules for an entire year. The instructors of these courses freely admit that the entirety of knowledge needed to become a professional type designer cannot be imparted in such a truncated time span. This does not suggest that individuals who complete a type design short course could not subsequently enter the profession, but merely implies that further practice, study, and/or tutelage may be necessary to master the set of required skills. The benefits of a short course, however, include the chance to engage in an intense period of concentrated focus on the topic, opportunities for those who might not be seeking to become professional typeface designers to interact with practicing professionals and rare materials, and a lowered impact on finances and schedules. It seems that the promulgation of post-baccalaureate short courses will continue, at least for the immediate future. In the summer

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[81] TDi is the abbreviation for *Typeface Design intensive [program]*. (Leonidas.)

[82] Angela Riechers, Personal interview, 19 Mar. 2015.

of 2015, a new course will be founded in Paris by Jean François Porchez (born 1964), called Type@Paris.[83] It is loosely based on the curriculum of the Type@Cooper program, of which Porchez is a former instructor.

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Type design, which began as a utilitarian and somewhat secretive practice, has flourished in recent years to become a more popular and respected field. Since the 19th century, successive industrial advancements have necessitated the re-evaluation of methodologies within the typographic industry. The conspicuous nature of type design knowledge increased with reassessment—reaching its zenith with the advent of type design software and the PostScript programming language—and eventually led to the founding of educational programs dedicated to the topic. These programs have done a great deal to promote the merits of type design, both practical and academic. They have graduated numerous professional type designers since their formation in the early years of the 21st century, while imparting extensive typographic knowledge to graphic designers and other creative professionals.

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[83] "Type@Paris: About," Type@Paris, Ed. Stéphane Elbaz and Christopher Hall, 2015, *Typofonderie,* 14 May 2015 <https://www.typeparis.com/>.

CHAPTER V

CASE STUDIES

The manner in which cultural, academic, practical, and theoretical factors influence the process of teaching type design will best be discerned through a comparative study. Maurice Kogan (1930 – 2007), the renowned scholar and professor of education and public policy, outlined four primary categories of comparative studies: "single country studies; juxtapositions; thematic comparisons and causal explanations."[84] The third option, thematic comparison, will be used throughout the case studies contained herein. "Thematic comparisons," continues Kogan, "gather common data in order to generalize on the basis of those data. They attempt to establish regularities in different patterns of administration and deviation from this pattern."[85] There have been many studies related to typography, legibility, and experimental type design. Notwithstanding, type design education is relatively young as a formalized field, and little qualitative data has been collected regarding its various pedagogical methods. However, this is not required since comparative studies, according to Francis Castles (born 1943), can be used as "a mode of locating and exploring a phenomenon as yet insufficiently understood."[86]

Master of Arts in Typeface Design, University of Reading

The University of Reading, located forty miles due west of central London, has an extensive history of type and lettering education. Michael Harvey, author of six books on lettering design, taught the Letterforms course at the university for over forty years, beginning in the 1960s.[87] It was under his tutelage that the University of Reading became known as a place of rich, historically-driven research in the field of typographic design. In 1998, a Ph.D. student named Christopher Burke decided to set up a formalized master's-level type design

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[84] Maurice Kogan, "Comparing Higher Education Systems," *Higher Education* 32.4 (1996): 395, *jstor,* 12 Apr. 2015, <http://www.jstor.org/stable/3447986>.

[85] Kogan, 396.

[86] Castles qtd. in Kogan, 401.

[87] "Michael Harvey," *MyFonts,* 05 May 2015 <http://www.myfonts.com/person/Michael_Harvey/>.

course (now known as the MATD),[88] the first to operate in a "research-intensive university environment."[89] Currently in its seventeenth year, it is the longest running program of its kind in the world.

Although the central subject matter remains comparable between type design programs, each of the case studies presented here possesses a distinct set of values through which the content is filtered. Three key traits which characterize the MATD are: a strong emphasis on historical and theoretical knowledge, paired with practical application; an approach to type design founded on typographic models, not calligraphic; and a continual focus on global (*non-Latin*) scripts.

The blending of academic research with the practical skills of type design is an approach unique to the MATD. Gerry Leonidas says that it is vital that the program trains practitioners who comprehend the value of producing academic texts and research that will benefit those who may follow later.[90] The University of Reading's expansive reference libraries—along with the personal collections of the professors—are points of pride for the program, as is the frequency with which they are handled directly by the students. Students will often engage with original artifacts—some of which date back to the 15th century—to learn about the history of typography and type design, either during class or on their own. "It's how we like doing things," says Leonidas. "It's part of the unique [resources] that the department has. That some [items become] a bit more worn than would be ideal is a trade-off."[91]

This interaction with original source material not only aids the students in their research endeavors, but also teaches them about the construction of letterforms from a typographic perspective. This contrasts with the Type]Media program, which uses calligraphy as the basis for teaching type design. According to Leonidas, typefaces are intrinsically tied to the ways in which

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[88] "Christopher Burke," *MyFonts,* 14 May 2015. <https://www.myfonts.com/person/Christopher_Burke/>.

[89] Leonidas.

[90] Leonidas.

[91] Leonidas.

they are printed and subsequently read. Experiencing the physical nature of printed materials—and the specific scale at which the text is meant to be read—allows challenges inherent to the type design process to become clearer in students' minds, which typically leads to more sophisticated design solutions. "Just as a book designer needs to at least have read some of the book they're typesetting," says Leonidas, underscoring the need for familiarity, "the typeface designer should need to read some of the texts that they strive to have their typeface [used for]."[92]

The third defining trait that the University of Reading MATD is widely known for is a focus on designing global script type families, sometimes referred to as "non-Latin" scripts. Since the invention of moveable type, the Latin alphabet—the system of letters that readers of English would be most accustomed to seeing—has dominated all other scripts in terms of the number of usable typefaces existing in each. Armenian type design Hrant Papazian (born 1968) says that non-Latin scripts have often had to "play catch-up" to their Latin relatives. He explains one reason for this phenomenon:

> Self-instruction […] is something much harder to achieve in non-Latin due to the difficulty of finding the expertise in one particular script shared openly online. As a result most non-Latin type has been pretty shoddy, either technically or in terms of cultural integrity (which comes from research). Or both![93]

Only recently has the design of new, functional non-Latin scripts been widely recognized as a critical need. Explaining the rationale behind this increased awareness, Dr. Nadine Chahine (born 1978), the Arabic Specialist at Monotype, says that "the evolution of font technology has solved many of the problems facing non-Latin font production and this has opened up the field for further exploration, both by native and non-native designers."[94] Both Leonidas and Dr. Fiona Ross (born 1954) dispense their expertise in global script design to the MATD program. In 2014, Ross was recognized by the *Society of Typographic Aficionados* for her

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[92] Leonidas.

[93] Hrant Papazian, "MFA Thesis Question — Typeface Design Education," Message to the author, 11 May 2015, E-mail.

[94] Nadine Chahine, "MFA Thesis Question – Typeface Design Education," Message to the author, 4 May 2015, E-mail.

"profound influence on non-Latin and research-informed typeface design."[95] She also curates the department's Non-Latin Type Collection, which contains over ten-thousand original drawings from more than twenty different writing systems.[96] Leonidas—whose office is filled with bookcases full of new and old texts written in Greek and other languages—describes the growing awareness of these scripts since the inception of the MATD:

> We were doing global script support before people were really interested in it. It was seen as, perhaps, a curiosity. But [the MATD] led the way into this, [which] partially explains the success of our graduates. By the time they had graduated and developed their skills, the industry needed [designers] with these kinds of competencies, and they've done very well."[97]

The practical difficulties of designing typefaces for non-native speaking designers are partially offset due of the abundance of cultural resources belonging to the university, and the international makeup of the students, professors, and guest speakers associated with the MATD. Interest in global script design has continued to increase at Reading, and "students are currently working on [Arabic], Maldivian, Persian, Thai, and several other scripts."[98]

One final characteristic that makes the University of Reading's program unique amongst the other case studies is their support of doctoral research in the field of type design. This major research institution is easily able to support Ph.D. candidates' research into type design and typographic history. This opportunity, combined with the MATD, the BA Graphic Communication program, and the TDi summer short course, make the University of Reading a leading destination for learning about type design at every HE level.

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[95] "SOTA Typography Award Honors Fiona Ross," SOTA Typography Award, 2015, SOTA, May 2015 <http://www.typesociety.org/typography/>.

[96] Fiona Ross, "Re: Thesis research — typeface design education," Message to the author, 23 May 2015, E-mail.

[97] Leonidas.

[98] Gerard Unger, "Re: MFA Thesis research — Typeface Design Education," Message to the author, 2 May 2015, E-mail.

Schedule

The schedule for the one-year MATD program begins in mid-September with planned seminars, workshops, and presentations punctuating extensive studio time. The students' average work schedule consists of ten-hour days, six days per week. This pattern continues through to the following July, when students shift their attention to completing their written dissertations. Trips are planned throughout the year to expose students to a more expansive selection of research materials. The St. Bride Library in London, the Plantin-Moretus Museum in Antwerp, and the Enschedé Museum in Haarlem constitute a small sampling of these excursions.[99] The MATD program culminates with students submitting a type specimen,[100] which showcases their final typeface in context, and a reflective essay detailing their individual design processes.[101]

Teachers

The MATD professors and lecturers deliver a curriculum rooted equally in practice, theory, and research. Since 2000, Leonidas has been the program director, and he has near-daily contact with the students. Hailing from Greece, he began his career with a BSC degree in Business Administration, followed by a Diploma in Journalism and a Postgraduate Diploma in Typography and Graphic Communication. Quickly, he transitioned to type production, and is now an authority on Greek type design and enjoys procuring rare materials for the MATD program. Leonidas teaches alongside Dr. Fiona Ross, who specializes in non-Latin scripts. Dutch typeface designer Gerard Unger (born 1942) is another core instructor for the MATD program. Unger assisted designer Wim Crouwel (born 1928) after graduating from Amsterdam's Gerrit Rietveld Academy, and has himself designed a distinctive collection of

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[99] "MATD," Typeface Design at Reading, 19 Feb. 2013, *Department of Typography and Graphic Communication,* 02 May 2015 <http://typefacedesign.net/courses/matd/>.

[100] A *typeface specimen* is promotional document, usually printed, which details the characteristics of the fonts that make up a typeface (or group of typefaces). It shows the manner in which a font will appear in print or on screen and aids designers with typeface selection. Specimens for the MATD program can be accessed online at <http://typefacedesign.net/>.

[101] Gerry Leonidas, "Patrick Gosnell's Thesis Follow-Up," Message to the author, 11 May 2015, E-mail.

typefaces including Flora (1984), Swift (1985/1995), and Gulliver (1993).[102] James Mosley and Michael Twyman cover regular seminars, and workshops are taught by Wayne Hart, Ewan Clayton, Sarah Cowan, and Victor Gaultney.[103]

Pedagogy

The following are essential components to the pedagogical approach at the MATD, as outlined by the professors themselves: working directly with objects, generalizing from the specific, respectfully guiding students' ambitions, and teaching them to build sustainable methodologies through questioning. Regarding this last point, Leonidas explains: "The role of the teacher is not to give you answers, it's to help you ask the right questions, and to reinforce how you build methodologies for that."[104]

The skill of learning how to ask the right questions is introduced through the study and critique of the actual objects in which a student's typeface may by used. This might include magazines, newspapers, digital e-readers, or any other object that will help the students to build "connections to external practice." Once the students have learned to ask the right line of questioning to solve a particular design problem, the professors then ask them to extrapolate general principles from a specific example. "Because the point," says Leonidas, "is not just to fix the typeface you are working on now; but once you graduate, what is the method for [working with] any set of scripts?"[105]

While there are identifiable methodologies at work within the MATD, the professors do not have any predetermined ideas about what the work of their students should look like. Students' ideas are free to evolve once they arrive, soaking up inspiration from the vast resources belonging to the program. When asked if students should know what they want

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[102] "Creative Characters Interview with Gerard Unger," Interview by Jan Middendorp, Creative Characters, June 2011, *MyFonts,* 02 May 2015 <https://www.myfonts.com/newsletters/cc/201106.html>.

[103] "MATD."

[104] Leonidas.

[105] Leonidas.

to accomplish before starting the program, Leonidas says that it may be "helpful to have ideas, but […] when you come here we will expose you to a lot of things, and that will change the way that you think."[106] Unger adds that he is not interested in duplicating a singular pattern for type design. He says, "I like to start with what the students propose. It is then my task (and of Gerry and others) to help them to realize their plan, to improve the quality of their design, […] and to protect them [from] following too closely the work of others."[107] It is this respect for the individual's research and design process that continues to attract a full group of students every year who are willing to submit themselves to this extremely rigorous learning environment.

Extensive reading assignments contribute to the program's rigor. "We will show you more texts than you could possibly read," says Leonidas, "but the implied skill is that you have to prioritize. [You] learn how to skim-read a lot […] and pick the ones that are most relevant to your interests."[108] When comparing a range of historical texts, as well as contemporary publications, students are asked to critically consider: what are the authors' perspectives and how do they differ over the course of typography's development? For example, when comparing Frederic Goudy to W. A. Dwiggins (1880 – 1956) and Walter Tracy (1914 – 1995)—who are all approximately one generation apart from each other—it is important to note that their writings reflect perceptions of type design tied to a particular time and culture.[109] MATD students must to account for these differing perspectives as they form their own practical and theoretical methodologies. Encapsulating the MATD's pedagogical approach, Leonidas offers this story:

> In 2007, Paul Hunt was a student here, and I remember […] looking at some printouts of his on the wall, and he turned to me and said, 'So this master's is not really about typeface design, is it?' I said, 'What do you mean?' He replied, 'This is really a master's in *looking*—learning how to look at things.' He was absolutely right. It's about learning to question the things you see in front of you.[110]

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[106] Leonidas.

[107] Unger.

[108] Leonidas.

[109] Leonidas.

[110] Leonidas.

Function

The MATD program at the University of Reading sets itself apart from other type design
courses by placing heavy emphasis on research and academics. Ross goes so far as to say that
"the academic element of the course is as vital a part as the practical work, the dissertation
forming a significant component.[111] By supplementing exercises in practical type design with
skills in linguistics, language theory, and academic writing, Leonidas characterizes the MATD
as a "benchmark"[112] to which other programs might aspire. He goes on to explain why this
approach is self-sustaining: "You get people who can build the skills of analysis and research,
which they will use themselves when they become teachers, which in turn will enrich the
approaches to the subject."[113]

Students and Culture

While the pedagogy and curriculum profoundly shape the outcomes of a dedicated type
design course, the anthropological makeup of the student body also bears a significant
effect. The MATD program views its one-year duration as beneficial, in that it attracts
mature participants who can more easily take the time off from their professional lives, when
compared to the United States, where two years is often the timetable for a master's course.
The program also welcomes students from a diverse set of professional backgrounds, including
the humanities, computer science, industrial design, and architecture alongside graphic
design. "All of these backgrounds bring something rich to the environment, as does the range
of ages. If you have a 35-year-old [student], they are going to have a different influence on
the group than someone who is 25," says Leonidas.[114]

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[111] Ross.

[112] Leonidas.

[113] Leonidas.

[114] Leonidas.

Language is also a distinctly diverse characteristic for a program that specializes in the creation of typefaces. The course is taught in English, which is a second language for many of the students. Table 1 shows that the number of participants emanating from countries where English is not the official language has more than doubled those from English-speaking countries since the inception of the program. Due to the wide variances in age, culture, and professional background, Leonidas stresses the importance of focusing on the learning curve of the students, instead of particular outcomes. "You want people to face similar kinds of challenges rather than, necessarily, the same kinds of tasks," he explains. Not every student enters the MATD course with the goal of becoming a professional type designer, and therefore, professors support a variety of practical goals while promoting uniform academic rigor.[115]

Benefits

Leonidas emphasizes that while it is possible to learn the principles of type design and the tools involved independently, the learning curve is greatly accelerated when participating in a concentrated environment such as the MATD. Objective benefits also include the depth and frequency of feedback from experts in the field and consistent exposure to resources more difficult to access outside of the academic arena. Subjectively, obtaining a master's degree in type design gives job applicants in the industry potential advantages over a designer who is self-taught. Leonidas explains that "if you want to be a typeface designer in your career now, your competitors are people who *have* gone to a course," and will have demonstrated that "they can actually work with others," that they "have recommendation skills," and that they "have been through the process of building a research methodology. […] Other people applying for the same job [as you] will have been through all of these processes by attending a course like [the Reading MATD]."[116] The qualities that make dedicated type design courses more conducive for learning aid in promoting the design of typefaces that are solid in their

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[115] Leonidas.

[116] Leonidas.

construction, well researched, and ready for practical application. "Anybody can [create] a font," states Leonidas, "but [designing] a good typeface is something very different."[117]

Forecast

Leonidas appreciates the fact that the model he established fifteen years ago for type design education continues to spread and influence other programs globally, and welcomes the notion that more master's courses in type design could be founded in the coming decade. He also believes that the manner in which people view typographic design will evolve in the coming years, perhaps becoming more distinct from traditional graphic design curricula, saying: "The more we move towards having things that are screen-based rather than paper, the more animation or having some sort of moving image will take root in graphic design, and the more distance it will gain from typographic design."[118] "Type design education will thrive," adds Unger. "Personally I would like to see it a little less designer-oriented and more *reader-oriented.* [At] Reading we will increase our interest in [scripts other] than the Latin script and build more than ever on our […] collections."[119] In a manner of transparency rarely seen in the world of professional design, the MATD program has published a great deal of information about their techniques and the resources they utilize. In this new age of shared knowledge within the typographic community, Leonidas does not believe that this information should be confidential, and he is in the process of making even more content available online for those who cannot afford the time or cost involved in enrolling in a master's type design course. In this way, *seeing* implies greater access to materials. "It will be a complete failure if what happens at Reading stays at Reading," he says. "Then the idea of a specific model for education or a transformative approach has failed—it's bankrupt."[120]

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[117] Leonidas.

[118] Leonidas.

[119] Unger.

[120] Leonidas.

Type]Media Master's Program, Royal Academy of Art

Type]Media is a one-year Master of Arts degree program offered by the Royal Academy of Art (in Dutch, *Koninklijke Academie van Beeldende Kunsten,* or KABK), in The Hague—the capital city of South Holland in the Netherlands. Type]Media became an official master's course in 2003, and was officially accredited in 2006. However, its developmental trajectory has been described as "organic" by the instructors, going through two gestational phases before arriving in its current iteration—the earliest stemming from growing interest in type at the academy under the tutelage of Gerrit Noordzij (born 1931), who began teaching there in 1960. Noordzij taught in the graphic design department, and continuously developed and tested his theories about writing and letterform construction on his classes. The second phase of development came in 1994, when a postgraduate year—focused on type design— was offered as an addendum to the graphic design course for the first time. With humble beginnings[121] the program began to grow, first with students exclusively from the Netherlands, and eventually drawing participants from other countries in the region.[122] The transition to what is currently known as the Type]Media program came about as a result of enough sustained interest in the subject to justify the establishment of a program separate from graphic design, coupled with the standardization of European higher education after the enactment of the Bologna Process.

One essential trait that Type]Media has which differs from Reading's MATD is its use of calligraphic models as the basis for type design pedagogy. The instructors at Type]Media introduce the principles of letterform construction through a series of calligraphy exercises[123] with broad- and pointed-nibbed pens.[124] Drawing letters by hand familiarizes students—who,

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[121] In the beginning, there were only two to three students enrolled in the postgraduate program.

[122] Eric van Blokland, Paul van der Laan, and Peter Verheul, Personal interview, 18 Mar. 2015.

[123] Training through calligraphic exercises at Type]Media stems from the theory of writing developed by Gerrit Noordzij, which is detailed in his 1985 book, *The Stroke: Theory of Writing.*

[124] Martin Wenzel, "How to Get from A to A," *Made with FontFont: Type for Independent Minds,* By Jan Middendorp and Erik Spiekermann, (New York: Mark Batty, 2007) 169.

now, have worked their entire lives with computers—with more traditional tools. All of these techniques reveal substantial amounts of information about stroke contrast, stress within a character, and more decorative details like *serifs* or *finials*.[125] "They don't need to [become] calligraphers, but I think that it is important that everybody knows how to draw," says type designer and Type]Media faculty member, Erik van Blokland (born 1967). "Drawing trains your eye and allows you to judge shapes [more accurately]."[126] Although it is achieved through different methods, a focus on the act of seeing marks a strong comparison to the pedagogy of the MATD.

Type]Media's practical approach to type design and its art school environs are two more of its distinguishing factors. KABK is part of the HBO polytechnic track of the Dutch higher education system, and the successful completion of Type]Media will earn the graduate a Master of Arts degree in type design. While theory and history are discussed throughout the course, the emphasis is on doing and making. Along with drawing and sketching, stone carving is practiced with guest instructor Françoise Berserik. Students use these hand skills to develop an intimate knowledge of form and counter-form from the beginning. Commenting on this approach, Van Blokland says, "It's a very practical course. So they do things and we talk about [them], and then they do it again, and then we talk about it some more."[127]

The last distinguishing characteristic of the Type]Media program is the legacy of Gerrit Noordzij. He taught at KABK from 1960 to 1990, and from the 1970s onward Noordzij continually developed his theories about letterform construction as a response to students' inquiries. According to Van Blokland, Noordzij's theories achieved refinement through

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[125] A *serif* is a small linear projection attached to the end of a character's strokes in certain typefaces. As it relates to typography, a *finial* is a curved or bulbous decoration sometimes found at the finish of certain characters; finials are more frequently seen in italic typefaces, but can also appear in roman styles as they do in the typeface family *Archer*.

[126] Van Blokland, Van der Laan, and Verheul.

[127] Van Blokland, Van der Laan, and Verheul.

repeated testing on groups of students: "Every year he would show them his new version of his theories."[128] Later, the publishing of his books, *The Stroke of the Pen* and *LetterLetter,* brought Noordzij's theories on type design to a larger audience outside of The Hague. When asked to describe the value of Noordzij's influence within the current pedagogy at Type]Media, Van Blokland states:

> The thing about his approach is that it is a really good way to teach how these things work. [But] it's not necessarily the only way to make type. You can think of your own ways; you can do the opposite; you can do anything. But it's some sort of objective center: where does type come from? It *does* come from broad-nibbed writing. It *does* come from particular periods. It *does* come from particular tools. And those tools—you either ignore them or you don't. If you ignore them, then you're just looking at other people's interpretations of these tools. And if you don't, then you experience what these tools do firsthand.[129]

Whether the instructors use Noordzij's approach in their own design work or not, they all agree that it provides an excellent vocabulary from which to work with students in the foundations of the Type]Media program.

Schedule

The Type]Media program runs from September to July with the time being split into two even semesters. The first semester is filled with exercises and workshops that focus on the practical skills of writing and drawing letterforms, and each student also designs a historic typeface revival. The development of students' original typeface families[130] is the primary task of the second semester. The year is densely packed with instruction, presentations, and studio time. Students frequently spend eleven or twelve hours at school to work on their projects. The Type]Media curriculum also incorporates trips to a variety of typographic repositories

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[128] Van Blokland, Van der Laan, and Verheul.

[129] Van Blokland, Van der Laan, and Verheul.

[130] Typeface *families* "offer a wide and varied selection of weights and styles that shine as individuals but combine harmoniously when used together. […] They usually share the same basic foundation and structure, but with different finishing details." (Ilene Strizver, "Super Families," Fonts.com, n.d., *Monotype Imaging Inc.,* 14 May 2015 <http://www.fonts.com/content/learning/fyti/typefaces/super-families>.)

such as the Plantin-Moretus Museum and the Museum Meermanno—also called *House of the Book*—as well as TYPO-Berlin, the largest typographic conference in the world. The year culminates with an exhibition of large-scale type specimen posters which feature the students' final projects from the course.[131]

Teachers

A distinction of the Type]Media program is that its instructors tend to have graduated from the department of graphic design at KABK, including all three of the current heads of the program: Erik van Blokland, who started in 2001; Paul van der Laan (born 1972), who joined in 2003; and Peter Verheul (born 1965), who began teaching in the graphic design course in 1991 and now splits his teaching evenly between graphic design and t]m. In the days before an official type design course existed, it was Noordzij who led the typographic instruction. Petr van Blokland (born 1956), Erik's older brother, and Peter Matthais Noordzij (born 1961), Gerrit's son, were also instructors during the transitional years of the 1980s and 1990s. Until his retirement in 2014, Jan Willem Stas (born 1949) was the coordinator of the course. He is still involved in the organization of exhibitions and publications, and continues his role as the ambassador of Dutch culture for the students.[132]

Pedagogy

The current pedagogical approach used at t]m focuses on practical exposure to both ancient and modern tools, and developing the critical skills necessary to think, speak, and create with confidence as a type designer. During the first semester, students are encouraged to draw as much as possible, and learn the rationale behind the Latin alphabet's construction through calligraphy and stone carving. For this phase, Verheul and Van Blokland frequently

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[131] Van Blokland, Van der Laan, and Verheul.

[132] Van Blokland, Van der Laan, and Verheul.

use TypeCooker[133] recipes to teach students about weight, balance, contrast, and spacing. To this foundation they add the technological skills needed to produce digital typefaces by learning the Python[134] programming language and RoboFont[135] production software, under the tutelage of type designer Just van Rossum. Van Blokland cautions: "It's not *just* doing technical things, but some type design work involves production, which [needs] a large amount of data and numbers to be able to define what it is that you want."[136]

In Van der Laan's class, students are also asked to draw a faithful revival of a pre-1940 typeface of their choosing. Van der Laan places the historic restriction on the assignment so that students will be forced to interact with older physical objects. "The moment they have to look further […] into old specimens and collections," he says, "they realize that there is so much more that they probably never really had to look at."[137] When looking at historical printing types, students usually discover that type designers of the past often made quite puzzling design decisions. Van der Laan likes to see students wrestle with typographic conundrums: "It's a great way to make them more aware, and it gives them a way to talk about [possibilities]. They see that there is much more out there than the models we teach. And they *worked* as *type!* Exactly why or how they worked is still for them to find out."[138]

The instructors also try to instill confidence in the students' design sensibilities. One method used to accomplish this is the lack of a required technique or system for achieving a design outcome. Strategies and examples are shared, but students may choose any tool, digital

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[133] *TypeCooker* is a web-based software program designed by Erik van Blokland that generates random sets of criteria by which typefaces can be described. It is most often used in type drawing exercises and, as a tool, helps designers to develop a vocabulary related to type design. It can be accessed at: <http://typecooker.com/>.

[134] *Python* is a free object-oriented programming language commonly used in typeface design software such as RoboFont, RoboFab, Fontlab, and Glyphs.app. It can be accessed at: <https://www.python.org/>.

[135] *RoboFont* is one of several software programs used to draw and modify typefaces. It uses the Unified Font Object (UFO) format for storing font data, which is "human readable," "application independent," and "future proof." "The Unified Font Object," N.p., n.d., 15 May 2015. <http://unifiedfontobject.org/>.

[136] Van Blokland, Van der Laan, and Verheul.

[137] Van Blokland, Van der Laan, and Verheul.

[138] Van Blokland, Van der Laan, and Verheul.

or analog, with which to design. Van der Laan defends this position by saying, "Students must learn how they can work efficiently—to learn what they *need* to learn, and not to spend too much time on things that are not as important at that time."[139] While the method may be up to the student, Verheul recommends that his students draw often, and maintain a looseness with their designs. He tells them to "draw *all* of the letters! When they go back and look at details—like serifs—from the beginning to the end of the system, they will see a difference; they can learn from that. That's a phase that *nobody* looks at, and it's really valuable for the creation of a design."[140] Van Blokland agrees with his colleagues, adding: "If you draw [first], then you have formed an opinion about what the shape [of the letter] *could* be. And then with that opinion it's easier to start dealing with a computer. It needs to be a design decision [though], and not [just] some […] technical result."[141]

Formal instruction decreases in the second semester as students spend more time designing their original typeface families. The instructors check every student's progress each week, and differing opinions are often proffered. This serves to strengthen students' confidence as they must then make an informed decision on their own. "I think that is awesome when that happens! They [the students] get confused, and then they get grumpy, and then they do it themselves," says Van Blokland.[142] For students, discussion of their work is an important part of the creative process. Type]Media participants are required to formally present their ongoing work to an audience four times during the spring semester. "Making them aware of things; making them look at things; being able to talk about [the work]—I think that is one of the most important things we want to achieve with them," says Van der Laan.[143]

The three primary instructors each identify a separate characteristic or skill that they hope their students learn throughout their experience in Type]Media. Verheul wants his

[139] Van Blokland, Van der Laan, and Verheul.

[140] Van Blokland, Van der Laan, and Verheul.

[141] Van Blokland, Van der Laan, and Verheul.

[142] Van Blokland, Van der Laan, and Verheul.

[143] Van Blokland, Van der Laan, and Verheul.

students to develop a "happy dissatisfaction" with their work,[144] so as to stay motivated during the innovation and creation processes. Van der Laan hopes his students learn to see across a system. "To me, a lot of talking about type is making sure that you build relations between the things that you make," he says, adding, "You cannot look at only *one letter* when you talk about type. […] Their final project should be a family of at least three members […] with a specific coherency between [them]."[145] Van Blokland does not want students to underestimate the value of starting over. In doing this, he says, "your brain is already completely attuned to what it should be. You are able to address decisions that you [made] really early on." He continues: "If you have five characters it's easy to change the width. If you have five-hundred characters, it might still be *just as necessary* to change the width, but you're not going to—because it's *five hundred characters!* […] The next typeface will always be better."[146] From these observations, it is clear that the pedagogy of the Type]Media course fashions a cognitive and critical maturity in students far beyond what anyone might expect from a more practical polytechnic education.

Function

Although Type]Media is respected as the second-oldest type design master's program in the world, the instructors do not give much thought as to how they position themselves within the scheme of other type design courses. Van Blokland simply states, "We really focus on the students, and their ideas and what they need. And we try to run a good course."[147] Speaking from his experience with both the bachelor's and the master's courses, Verheul emphasizes that the primary goal of Type]Media is not to teach the basic, introductory levels of type design,

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[144] Van Blokland, Van der Laan, and Verheul.

[145] Van Blokland, Van der Laan, and Verheul.

[146] Van Blokland, Van der Laan, and Verheul.

[147] Van Blokland, Van der Laan, and Verheul.

but to provide a place where deeper development is possible.[148] He also views short courses in type design, such as the offerings from Cooper Union or SVA, as beneficial opportunities to learn the basics before enrolling in a year-long program such as t]m or the MATD.

Students and Culture

In the early stages of the Type]Media program, enrollment came entirely from inside Holland and the students had an option to complete the course in one or two years. As interest grew from outside the Netherlands, the two-year option was eliminated. Currently, almost the whole of applications received are international in origin. The program has accepted students from over forty different countries, with the highest numbers emanating from Germany, the Netherlands, and Switzerland (see Table 2). Van Blokland finds the camaraderie amongst the students inspiring, saying, "Even though everybody is from all over the place, they very easily find a way to work together. […] It's also [inspiring] to see that […] everybody has their own perspectives, yet everybody shares an interest in type."[149]

Type]Media's cultural diversity is something that Van der Laan values because it "brings a richness to the whole group."[150] He says that cultural influences from the students' home countries still shine through in the final designs, even though the course is taught in English and focuses primarily on the Latin script. When asked why a course with such a strong international enrollment does not teach the design of global scripts, Van Blokland says, "I think you have to be able to read and write [those languages] in order to make [those] typefaces work. We just focus on Latin because that's what we're really good at."[151] Global scripts, while not emphasized, are informally discussed, and students may include those styles in their final projects.

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[148] Van Blokland, Van der Laan, and Verheul.

[149] Van Blokland, Van der Laan, and Verheul.

[150] Van Blokland, Van der Laan, and Verheul.

[151] Van Blokland, Van der Laan, and Verheul.

Benefits

The Type]Media instructors candidly admit that type design is not a field that requires a graduate degree, excepting the student's desire to teach. Nevertheless, they concur with the benefits of enrolling in a dedicated type design course espoused by the Reading MATD program: a prolonged period of intense focus, a clarity of purpose free from external distractions, a direct feedback loop and personal contact with experts in the field, and access to resources exclusive to higher education. "Like any course where you study abroad with people that have the same interests […] it becomes a network. These people will be talking to each other for the rest of their lives," says Van Blokland.[152]

Forecast

Type]Media, like all type design courses, must wrestle with its future viability within an expanding landscape of type design education. Van der Laan concedes, "The first thing we're all concerned about is just maintaining the quality [of what] we do here." Van der Laan says that there is a fair amount of yearly evaluation as to the course content and possible improvements, yet confidently admits that there is no "master plan" for the kind of course that they *want* to be, because, as he puts it, "We already know *who we are.*"[153] Asked if he sees the growing number of type design courses as a positive thing for the field, Van Blokland says, "I think there is probably more need than we can provide. We accept twelve people every year from over one hundred applications. And I think it would be a waste if everybody gets disappointed and never looks at type again."[154] The instructors believe type design education will always be a timeless, fundamental element to the greater graphic design curriculum, and that the proliferation of short courses will give more people an acute sense of whether or not type design is a profession they should pursue. Yet a complete working knowledge of the skill

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[152] Van Blokland, Van der Laan, and Verheul.

[153] Van Blokland, Van der Laan, and Verheul.

[154] Van Blokland, Van der Laan, and Verheul.

of type design will require a commitment to extensive learning on the part of the designer—potentially aided by the establishment of more full-time dedicated type design programs throughout the world.

Type@Cooper Certificate Program, The Cooper Union

The Type@Cooper certificate program was co-founded by Cara Di Edwardo, Alexander ("Sasha")Tochilovsky (born 1977), and Jesse Ragan (born 1979) in 2010 as part of the Continuing Education Department of the Cooper Union in New York City. Although its founders refer to it as a "postgraduate certificate course," a bachelor's degree is not required in order to apply. The one-year *extended* program is comprised of three ten-week terms beginning in October, January, and June. In response to high demand, a five-week summer short course—known as the *condensed* program—was added in 2011. Unlike the master's degrees conferred by the University of Reading and KABK, the Type@Cooper program offers a certificate—the first to be offered for type design in the United States. The concept for the course originated from discussions between calligrapher Di Edwardo and type designer Hannes Famira, both instructors at the Cooper Union. The program was initially slow in developing, but once they found success with its first certificate program (offered by the Irwin S. Chanin School of Architecture), the path was cleared for an official course in type design.[155]

Schedule

The extended course is devised to cater to working professionals by offering classes in the evenings and weekends, and the condensed program consists of long working days for five straight weeks during the months of June and July.[156] If the year-long course is a marathon, then the condensed course is an all-out sprint. Each of the extended program's three terms has a different theme that aligns the design curriculum taught by Ragan and the other instructors

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[155] Jesse Ragan, Personal interview, 20, Mar. 2015.

[156] Ragan.

with Tochilovsky's more historical and theoretical lecture sessions. The first terms focuses on the tools and technology used to design type, and students are asked to draw a revival of a pre-1923 typeface.[157] The second term covers the different theories and motivations behind type design while students design their original typeface. The final term is filled with an abundance of one-on-one critique as students work to expand their original design to include two additional weights and an italic variation. The course concludes with a final critique of the students' work by a noteworthy professional type designer, past examples of which have included Matthew Carter (born 1937), Cyrus Highsmith, and Jonathan Hoefler (born 1970). Students also give a presentation on their process and display printed exhibition pieces, which include large-scale specimen posters and letterpress-printed type specimen books.[158] The timetable of the condensed course is shortened dramatically, allotting the first week to history and practice with form-making, the second week to visiting the collections of four major libraries in New York City, and the final three weeks to designing an original typeface. There is not time to mount an exhibition of work due to the quick pace of the condensed course, but students do produce process books, which they present to the class and instructors. An accomplished type designer also conducts a final critique of the work produced during the five-week course.[159]

Over the past five years, the Type@Cooper program has evolved to include what Tochilovsky describes as "multiple points of entry."[160] He says, "There are people out there that are very serious about doing typeface design as a career." These are who the extended and condensed programs were created for. Then there are people who want to learn about type design, but do not want to support themselves professionally with the skill. For them,

[157] Ragan.

[158] Cara Di Edwardo, "One more follow-up question for Patrick Gosnell's thesis," Message to the author,12 May 2015, E-mail.

[159] In addition to the designers listed previously, this group has also included Erik van Blokland and Just van Rossum in the past. (Sumner Stone, "One more follow-up question for Patrick Gosnell's thesis," Message to the author, 12 May 2015, E-mail.)

[160] Alexander Tochilovsky, Personal interview, 20 Mar. 2015.

Type@Cooper offers a series of short workshops such as "Principles of Typeface Design: From Pen to Pixel" taught by Famira.[161] Other topics in the series include calligraphy, Python programming, and hand-lettering, and they are offered as public workshops in addition to being elective classes for the certificate courses. They are taught by respected typographic experts such as John Downer (born 1951), Just Van Rossum (born 1966), Andy Clymer (born 1980), and Ben Kiel (born 1978). "And then," says Tochilovsky, "there are people that are just dabbling [with type design]." For this (or any) level of interest there is the free Lubalin Lecture Series, sponsored by the Lubalin Study Center of Design and Typography,[162] of which Tochilovsky is also the curator.

Teachers

Ragan, a professional type designer who taught at Pratt Institute before his stint at the Cooper Union, crafted the practical portion of the Type@Cooper curriculum from its inception to 2014. When Di Edwardo asked Ragan to become the primary design teacher for the new certificate program, he set out to design a well-rounded curriculum that would serve the industry. "I'm a pragmatic person," says Ragan. "I know what my strengths and weaknesses are as a teacher. […] So I curated a selection of people that would fill in the gaps. […] I [wanted to] take the boring stuff […] so that [the students could] have brilliant people come and tell them more about the big ideas."[163]

In 2014, Ragan left his position at Type@Cooper to devote more time to polishing and releasing his commercial typefaces, one of which is Cortado Script which he designed with

[161] "Principles of Typeface Design: From Pen to Pixel with Hannes F. Famira," Type@Cooper: Public Workshops, 2015, *The Cooper Union,* 15 May 2015 <http://coopertype.org/workshops/public_workshops/>.

[162] The Lubalin Study Center of Design and Typography was established as part of the Cooper Union in 1984. It preserves the collection of graphic design materials from designer Herb Lubalin (1918 – 1981), as well as books, posters, and typographic ephemera from many other designers. The center is free and open to the public by appointment. ("The Herb Lubalin Study Center," The Herb Lubalin Study Center of Design and Typography, N.p., n.d.,15 May 2015 <http://lubalincenter.cooper.edu/>.)

[163] Ragan.

Ben Kiel. Taking his place is Sumner Stone (born 1945), a type designer from California who, in the late 1980s, headed up the Adobe Originals program, and has since run the Stone Type Foundry. Stone initially taught in the condensed program, but has now adapted to the pace of the extended curriculum. He brings a knowledge of type design's history from the days of punchcutters onwards, and was also a key player in the transition to digital type production in the 1980s and 1990s. Stone uses this experience to introduce new paradigms to the Type@ Cooper program in order to educate the next generation of type designers.[164]

Tochilovsky has shaped the theoretical and historical perspectives of the Type@Cooper program since its beginning. Di Edwardo asked him to help found the program because of his experience with the Lubalin Study Center, where he spends most of his time curating and preserving a large collection of type-related texts, specimens, and artifacts. Tochilovsky lectures six times per term, once a week for two hours. Filling in the gaps between lectures are the guest speakers, who also present on the theme of that particular term. Tochilovsky enjoys bringing in a wide variety of speakers to share their experiences with the students, and sees the diversity of opinions as a key to success for the Type@Cooper program. He says, "I think it's been really successful because there isn't [just] one track—me—for people to follow. I think that people [who are] interested in typeface design see it from different vantage points. We want to give them *that,* rather than [only] offer one option."[165]

Pedagogy

Ragan filtered his pedagogy through his pragmatic design approach. He communicated a basic procedural approach for drawing a system of letterforms based on key characters.[166]

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[164] Sumner Stone, Personal interview, 20 Mar. 2015.

[165] Tochilovsky.

[166] This group usually containing a capital H, O, and P, would convey the foundational aspects of a typeface, such as straight, round, and hybrid forms. These aspects would then be applied to larger and larger character sets until, eventually, test words and sentences could be constructed (Ragan).

This approach did not omit the use of technology altogether, but an understanding of form, balance, and proportion was emphasized over mastery of software and other tools.[167]

Stone's pedagogy, though different from Ragan's, still provides a strong grasp of the historical lineage of letterform development, along with a blend of hand techniques (stemming from his calligraphic background) and digital font manipulation. As opposed to working with key characters, Stone prefers to have students work with full alphabets, initially drawing skeleton letterforms—a method outlined in Edward Johnston's *Writing and Illuminating and Lettering* (1906), Benson and Carey's *The Elements of Lettering* (1940), and Friedrich Neugebauer's *The Mystic Art of Written Forms* (1980)—and digitizing them.[168] Stone also takes his students to visit the archives and rare book rooms of four libraries in New York City: The Butler Rare Books Library at Columbia University, the Groiler Club, the Morgan Library, and the New York Public Library. Stone believes in the power of seeing type in its original context, saying, "When you see the original thing, somehow it has an effect. I don't know if it gives off fumes, or what the deal is, but it's not like seeing it online, even in a beautiful, high resolution image."[169] He then moves on to teaching basic stroke construction with a calligraphic pen, which the students then digitize and manipulate using RoboFont software to create test words.

In preparing students to work on their original typefaces, Stone guides them towards using historical models to inform their designs, but in a flexible fashion. "I like to think about the history of letterforms in a kind of *what if?* way," he says. "'What if they didn't do *that* path? What if they did *this* path?' And I think that's a reasonable way to get yourself into a slightly different variation on historical letterforms."[170] Stone also spends a great deal of time explaining the necessity of defining a new type design's purpose. "Believe it or not, that is one

[167] Ragan.

[168] Stone.

[169] Stone.

[170] Stone.

of the hardest things to get people to think about," he shares. "I don't care if you like them. What about everyone else? What is using this thing going to be like? […] Maybe you can use it well, but in general, we're not making them for ourselves. We're making them as tools for designers to use." Finally, Stone views critique as an integral part of the type design process. The critique of student projects used to be handled solely through individual feedback, but has now transitioned to project-centric online forums where every member of the class, along with Stone, can view and comment on their classmates' work.[171]

Tochilovsky sees the cognitive and aesthetic sides of type design as two halves of the same whole. His aim is to contextualize the events of the past in order to strengthen the methodologies of the Type@Cooper students. "Yes, [seeing] the context behind everything—behind the design decisions or the circumstances around those designs—is something that you can apply to your own process," says Tochilovsky.[172] His detailed lectures cover topics such as phototypesetting pitfalls, difficulties in designing type for newspapers, and the constraints that famous type designers worked under, like when Matthew Carter designed Bell Centennial for telephone directories. Tochilovsky supplements his lectures with readings from Joseph Moxon, W. A. Dwiggins, Stanley Morrison (1889 – 1967), and Adrian Frutiger (born 1928), and more contemporary articles like "Thirty-six Point Gorilla" (1996) written by Emily King, which navigates the difficult process of naming typefaces. In the third term, he uses his expertise and the extensive resources of the Lubalin Study Center to assist the students in designing a type specimen to promote their new designs.[173]

Function

Type@Cooper's structure is well tailored to the professional—and often hurried— lifestyle commonly found in the United States. Tochilovsky does not view the fact that Type@Cooper

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[171] Stone.

[172] Tochilovsky.

[173] Tochilovsky.

is a certificate program as a deficiency, saying: "The fact that people can still keep a job and go to class in the evenings, and handle the amount of homework that's involved, […] I think that provides a distinguishing factor to what we have [compared to Reading and KABK]."[174] Ragan knows that not everyone who enrolls in Type@Cooper has the goal of becoming a professional type designer, but he believes that the course fills a particular hole within type design education. He says, "It's the middle ground between taking a class and going to graduate school."[175] Quite often, the condensed program acts as an academic springboard for students to continue on to Reading or KABK to prolong their studies.[176] This suggests that the global perception of the MATD and t]m programs is that they are idyllic destinations for those who are interested in becoming professional type designers, while those who attend Type@Cooper are interested in type for a wider set of reasons. They do not, however, prove that moving to a master's degree model would benefit Type@Cooper, as evidence suggests that current market expectations vary drastically from the United States to Europe. Contributing factors to this disparity could be the imbalance of paid vacation days[177] and work week intensities[178] between Europe and the United States. For now it appears that a more accessible certificate program with multiple points of entry and less time commitment is the preferred model in the United States.

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[174] Tochilovsky.

[175] Ragan.

[176] Ragan.

[177] Carlo Davis, "World's Most Paid Vacation Days: Europe Guarantees Most Paid Leave For Workers," TheHuffingtonPost.com, 02 Aug. 2013, *The Huffington Post,* 17 May 2015 <http://www.huffingtonpost.com/2013/08/01/worlds-most-paid-vacation-days_n_3697394.html>.

[178] G. E. Miller, "The U.S. Is the Most Overworked Developed Nation in the World – When Do We Draw the Line?" 17 Jan. 2015, *20 Something Finance,* 17 May 2015 <http://20somethingfinance.com/american-hours-worked-productivity-vacation/>.

Students and Culture

Like Reading and KABK, a strong mix of foreign and domestic students can also be found at Type@Cooper, although a higher percentage of foreign students can be found in the condensed course as opposed to the extended. The condensed course's five-week duration minimizes issues with visas and costs associated with living in New York City, which are sometimes prohibitive for those wishing to enroll in the extended program.[179] In assessing the cultural influence on the Type@Cooper courses, Ragan feels that the prevalence of "internet culture" significantly negates the impact that geographic location might play. "I feel like in the US," he explains, "that it's all very diluted and multicultural, and most people working in the industry are just kind of working at their computer and engaging with online culture."[180]

Benefits

The professors at Type@Cooper note similar benefits to entering into a concentrated learning environment for type design as those who teach at Reading and KABK. Building a network, gaining mentors, and access to parsed information are all good reasons to enroll in a type design course, and graduating (with either a degree or a certificate) will be advantageous when applying for jobs in the typographic industry. However, the programs do differ on one particular point. Despite their international enrollment, the diverse cultural heritage does not seem to bear as much influence on the Type@Cooper milieu as it does in the European type design programs. Ragan attributes this to the prevalence of internet culture in the United States. He explains, "They see so many other things out there that it doesn't really—the geographic [point of origin] doesn't have *that* much impact."[181]

When discussing the pros and cons of Type@Cooper's pacing and structure, both Ragan and Tochilovsky are keen to point out that the course is not designed to bring someone from

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[179] Tochilovsky.

[180] Ragan.

[181] Ragan.

their initial discovery of type design to launching a career as a professional type designer. "There is a lot that goes into making professional-quality typefaces," says Ragan, "and we don't cover everything."[182] Tochilovsky recommends working at a type foundry after graduation to gain more hands-on experience and insights from mentors, because "it's very difficult to just start a foundry and start producing work [immediately]." He adds, "What the students experience in the extended program [are] breaks where they have time to sort of let things soak in, [where] they can reflect on things."[183]

Forecast

When asked what the future of type design education will look like, the Type@Cooper professors are cautiously optimistic. They all believe that more dedicated higher education programs will be established,[184] provided that educational institutions find them to be solvent ventures, and that a qualified pool of teachers exists. Stone hedges his bets by theorizing that before more independent degree programs are established, type design will be further integrated into more graphic design curricula, echoing the thoughts of Rhode Island School of Design (RISD) professor Cyrus Highsmith. Stone adds:

> I hope that it will spread even further than it has now. So far in academia what we have are paleographers who study ancient manuscripts, we have epigraphists who mostly study ancient inscriptions, and we have printing historians who are really connected with the library world. That's it. Those are the people who are interested in letterforms. We do not have any discipline in which people are really intrinsically interested in letterforms as cultural objects in themselves. […] I think that would be an ideal thing, because they're very important cultural objects. They're as important as architecture. They're as important as painting. They're as important as culture. They should be studied that way.[185]

Ragan expresses concerns about oversaturation in the independent type designer market: "I started working in 2001," he explains, "and I would say that there are maybe twice as many

[182] Ragan.

[183] Tochilovsky.

[184] Type@Paris.

[185] Stone.

full-time type designers than there were then. And there are probably fifty times as many people who have designed a typeface than there were back then."[186] Worries aside, Type@ Cooper is proud to be at the forefront of type design education in the United States.

Typography as Language Certificate Program, School for the Visual Arts

The Typography as Language independent certificate course at SVA in New York City is the second type design short course established in the United States. It was founded under the banner of Special Programs in the summer of 2014 through the efforts of Angela Riechers, who followed Steven Heller's suggestion that SVA launch a brand new typography intensive. The program allows everyone from current undergraduate students to working professionals to apply. Riechers was initially surprised to find how few type design programs already existed. Despite the fact that Typography as Language is taught in the same city as the now five-year-old Type@Cooper program, there is one major distinguishing factor: students are asked to enter the program with an idea of how their typeface will be used already in mind. "That's why we called it Typography as Language," explains Riechers. "We are trying to show how the type would tell a specific narrative for [your] project."[187]

Schedule

Students in the Typography as Language course work on a type design project of their choosing over four connected one-week modules. The first is called Drawing Letters/Making Alphabets and covers the basics of letterform construction and alphabet systems. Fluid Type, the second module, provides different strategies for working with type across all media and is tempered with a healthy portion of typographic history. In the third module, entitled Understanding Typographic Context, Tobias Frere-Jones (born 1970) discusses the impact of changes in history and culture on the profession of type design. The final module, called

[186] Ragan.

[187] Riechers.

Narrative Technique Through Typography, highlights a variety of narrative techniques through which typography can be expressed, and allows time for students to fine-tune their projects.[188]

The program's fifteen students have little time for anything else besides their type designs, working ten hours a day, five days per week. The course promotes a concentrated creative focus and is designed to be as compact as possible to better fit into the lives of working professionals. The main benefit of such an intensive working schedule is that there is little to no possibility of losing momentum. However, expectations must remain realistic: type design is too complex a skill to be mastered in the span of four weeks, and many students continue to refine their creations after completing the course. When asked if there are plans to expand the Typography as Language course into a one-year degree program, Riechers and Frere-Jones are open to the possibility, but agree that it is too early in the process to determine if expansion would be judicious.[189]

Teachers

After submitting the requisite paperwork to establish the new certificate course, Riechers entreated the help of Frere-Jones, a renowned type designer and professor of type design at Yale University, to set the curriculum. Frere-Jones asked a small group of well-known professionals to each direct one of the four weeks that comprise the summer intensive, including James Montalbano (born 1953), Dan Rhatigan (born 1970), and Jessica Hische (born 1984) in addition to himself. Accompanying this core group, Frere-Jones plans to have an ever-changing lineup of guest lecturers, the likes of whom include Matthew Carter, Ben Schott (born 1974), Gail Anderson (born 1962), and Nick Sherman (born 1983), who will help present course content and lead critiques.[190]

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[188] Angela Riechers, "Re: Form Submission - Contact Info - Question from MFA Thesis Student—re: research program at SVA," Message to the author, 21 Mar. 2015, E-mail.

[189] Tobias Frere-Jones, Personal interview, 20 Mar. 2015; Riechers.

[190] Frere-Jones.

Pedagogy

Frere-Jones has designed several of the most popular typefaces of the last two decades, including Gotham (2000) and Archer (2001), and is no stranger to teaching the subject of type design. Much of what he instituted with the program at SVA is taken from the outline of his graduate type design course at Yale University, which is part of their graphic design MFA. "As much as possible, the course is taught at a macro level," he explains. "The conversation always starts with 'What is this typeface designed for? What problem is it trying to solve?'"[191] This is important to decide early on in the process as it will affect almost every design decision that follows. The advantage of students deciding on a specific use case before the course begins is that all feedback can be funneled through one guiding purpose.

Another aspect borrowed from his course at Yale is a technique that Frere-Jones has developed over several years. All of his instruction is conducted through one-on-one meetings, and he encourages his fellow Typography as Language instructors to do the same. "I don't think [that] any of this can be taught from any kind of distance," he says, justifying his unique pedagogical approach. "For something that [students] are meant to incorporate directly into their own activity, I find that [group lectures] don't translate very well." Frere-Jones finds that focusing his individual attention on a student's design problems allows for more direct and constructive feedback.[192]

Students must learn to see how minute details can affect the integrity of an entire typographic system. Frere-Jones communicates this to his students as such:

> If you can crack this problem of seeing the micro and the macro at the same time, with your face buried in [it], and seeing it from across the room, at exactly the same time, you've cracked it and everything else is easy from here on out. […] That is also, incidentally, the lesson that applies most easily to other branches of design. If you can have this perspective when designing a website, or a book, then you're going to be much more powerful as a design thinker.[193]

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[191] Frere-Jones.

[192] Frere-Jones.

[193] Frere-Jones.

Most of what Frere-Jones tries to accomplish through practical instruction involves learning to see type as a system of interrelated parts and not as individual characters. Those in the Typography as Language program may not always have the time necessary to complete a commercial typeface family, but if they can incorporate the principles that Frere-Jones and the other instructors impart, they will develop mature perspectives in designing and using type.

Function

When addressing comparisons between type design courses, Frere-Jones sees SVA as the outlier of the group, saying: "It's already different because it's only one month long."[194] Riechers says that even if the SVA course expands into a one-year program like the other case study programs, that she believes the Typography as Language short course would remain a "good option for working professionals who really can't take an entire year off to go to school full-time." She also sees a bit more parity between the schools in New York City: "I think that Cooper and SVA are just known for general excellence. You're not going to go there and turn out something crummy […] first of all, you won't get in, and second of all, it wouldn't be allowed."[195]

Students and Culture

At the time of this writing, Typography as Language has run only once, during the summer of 2014. Even still, it has already demonstrated a large international draw. Students from Singapore, Denmark, Moldova, Shanghai, Siberia, Brazil, and the United States comprised the inaugural group (see Table 3)—a total of fifteen designers.[196] Riechers feels that the mix of diversity, long hours, and common goals help bring the students closer together. "They became very close," she says. "They were supportive […] and also very honest with each other."[197]

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[194] Frere-Jones.

[195] Riechers.

[196] Angela Riechers, "Follow-up question for Patrick Gosnell's thesis," Message to the author, 6 May 2015, E-mail.

[197] Riechers.

Benefits

Similar to the other case study programs, those involved with the SVA short course see intense, uninterrupted focus as one of the primary benefits of enrolling. "You never lose your momentum or speed," says Riechers, adding, "[It] is just all type, all the time! It's almost like type boot camp."[198] Frere-Jones believes that even though its four-week schedule is what makes Typography as Language distinctly different from the other type design courses, the short duration allows designers and creative professionals who enroll to "test the waters"[199] of type design and see if it is something that they want to commit a year of their lives to by enrolling in an extended course. Lastly, Riechers points out that type design is "almost a very arcane thing to learn,"[200] and guidance from experienced professionals is always helpful when starting out. "For such a narrow subject, there's such a wealth of things you should know," she says. "If you know these things on your own then great! But most people need someone like Tobias [Frere-Jones] to say, 'Well, this reminds me of Palatino over here, but this is looking more like Futura.' You almost need somebody who has been doing it to show you that."[201]

Forecast

Riechers extols the benefits of type design education, and at the same time, hesitates to say that more dedicated master's programs make up type design's future:

> To me, [type design] is like one of the arcane dark arts. You know, it's not easy. There's an awful lot you have to know [like] kerning pairs, and math, and x-heights, and ascenders, and the shape of the bowl of the *g* […] you have to care about it! […] Yet, I don't know if it's ever going to be profitable enough for schools to spin it off as its own discipline separate from graphic design. […] Education is a big business, and that's just a reality unfortunately.[202]

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[198] Riechers.

[199] Frere-Jones.

[200] Riechers.

[201] Riechers.

[202] Riechers.

While the structure and approach of Typography as Language differ considerably from the other three programs discussed in this thesis, its goal remains consistent: to develop mature design methodologies related to the creation of typographic systems within its students. The programs at SVA and the Cooper Union represent the entirety of dedicated type design courses that are currently offered in the United States, but together they are laying an important foundation for the future development of type design education around the world.

<p style="text-align:center">∿</p>

The diverse approaches to type design education covered in this chapter show that while the subject matter is similar, different ideologies can be used to structure type design education. Exposure to a variety of historical resources and opinions, a strong grasp of technique, and the freedom to pursue individual directives are tenets common to all four case studies, yet they are achieved through a variety of theoretical, practical, and cultural approaches. The corporate culture of the individual schools exerts influence in shaping pedagogical and curricular agendas to a greater degree than any particular national or local culture.

Table 1. Geographic Diversity of Students in the MATD Program	
Country/Region of Origin	**Total Number of Students (since 1998)**
European Union (excluding UK)	65
North America	31
South America	20
United Kingdom	16
Middle East/Africa	12
China /Japan /Korea	7
India	6
Australia	2
Russia	1

Table 2. Geographic Diversity of Students in the Type]Media Program	
Country/Region of Origin	**Total Number of Students (since 2002)**
European Union (excluding NL)	76
The Netherlands	11
South America	11
North America	10
Switzerland	8
China /Japan /Korea	5
Russia	5
Australia	4
Middle East/Africa	4
Iceland	1
India	1
Malaysia	1
New Zealand	1
Norway	1
Singapore	1

Table 3. Geographic Diversity of Students in the Typography as Language Program	
Country/Region of Origin	**Total Number of Students (since 2014)**
North America	7
European Union	3
China /Japan /Korea	1
Moldova	1
Russia	1
Singapore	1
South America	1

NOTE: Similar data was not provided by the Type@Cooper course.

CHAPTER VI

CONCLUSION

The primary aim of this thesis is to provide an accurate survey of the current status of post-baccalaureate and graduate type design education in England, the Netherlands, and the United States upon which future observations and analysis may be added. To achieve this, it has been necessary to look anew at the traditional account of type's development and maturation. We can now see autonomous type design degree and certificate programs for what they are: an inevitable outcome of an industry perpetually moving from the proprietary to the emancipated. Established analytic models for type design tend towards exercises in categorization, many of which devolve into treatises on semantics and taste.[203] This thesis has sought to establish a baseline model for discussing pedagogical and curricular influence on type design, a subject surprisingly overlooked by academic research thus far.

The lack of secondary research on type design education may be the result of its relative infancy as an academic discipline. The oldest programs of this kind were only established just prior to the start of the 21st century. Currently, most programs that offer a degree or certificate in type design have operated for less than a decade. In order to collect relevant data, it was necessary to visit all four case study locations and to interview those directly involved in establishing their pedagogy and curricula. The candid revelations shared by those interviewed for this thesis supports the fact that type design knowledge has become more open and available since the onset of digital type production. Comparisons have been made for the purpose of clarifying program functionality within the system of type design education, and not to judge or rank them in any way. The operating relationship between these four programs is predominantly collegial, with only scant references to competition between them. Ultimately, they all serve the same purpose, and by sharing their struggles, victories, and methodologies, they increase the chances of success for future programs of their ilk.

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[203] King, "New Faces," Introduction.

Time did not permit visits to every program around the world, and therefore the scope of research was limited to English-language post-baccalaureate and graduate type design programs. This parameter narrowed the field of options, yet retained the two oldest and most respected programs in Europe to compare with the only two examples to be found in the United States at the time of this writing. With the number of extended and short courses continuing to increase, along with an abundance of possibility for type design research in Arabic, Indic, Russian, Asian, and Latin American cultures, ample opportunities abound for continuations of this research.

Representatives from all four case study programs believe that more extended type design programs and short courses will be established around the world in the coming years. If this occurs, several questions will have to be answered: Will the United States eventually host one or more master's program(s) in type design? Can the United States support this model despite their systemic and structural differences? Are type design Ph.D. programs an eventual outcome of the current trajectory and how would they benefit the industry? Are international educational institutions willing to support more graduate-level type design programs, or will short courses become the preferred format due to their decreased financial risk? Will an increase in dedicated type design programs directly affect the number of professional type designers around the world, or will they instead lead to an increase in the number of designers and creative professionals who are educated about type but do not practice its creation? Will a continual increase in the number of dedicated type design program graduates eventually cause the process to stagnate as the market for independent type designers becomes increasingly saturated? And with this scenario in mind, will new programs be staffed purely by former course graduates who are struggling to find type design work? As programs are established in a wider number of locales, will national or local culture come to play a larger role in determining pedagogical and curricular methodologies? What insights could be gained from a comparative study of Western and Eastern approaches to type design pedagogy? The scope of this thesis may also raise additional questions beyond type design,

focusing on cross-national comparisons of broader graphic design pedagogy and curricula. Answers to these questions and more may take years to determine, yet with the rate of change that typographic culture has experienced in the last few decades, they may arrive sooner rather than later.

As has been established, type design remains a highly technical process with a plethora of minute factors to which the designer must be held to account. The master-apprentice model of the past may have been a viable method for disseminating this information before globalization and the invention of the internet; but we now live in a new typographic age. The waves of industrial control and experimental freedom have reached their crest, and have now subsided. There is no reason not to formalize the understanding of type design through academic programs whose sole aim is to amplify the technical prowess and creativity of the next generation of type designers. Autonomous type design education has survived the birthing pains of its first decade of existence, and have helped to raise the profile of type design as a free-standing discipline—a change welcomed by many of those interviewed for this research.

The aim of these four programs is to teach their students about the fundamentals of type design by exposing them to the historical developments within the field and practicing the skills needed to design typefaces on their own. However, the nature of the school to which the type design program belongs does influence its pedagogical process. Whether the host institution is a private art school, public art school, or research university correlates with each type design program's more practical, hybrid, or theoretical approach. For example, the University of Reading is a major research institution, and MATD students take a hands-on approach with their abundance of historic reference materials to aid them in their type design research. Conversely, KABK values a more practical design education, and immerses their students in hand skills such as calligraphy and stone carving to teach them about constructing the typographic form. The two certificate programs in New York City do a good job of mixing these practical and theoretical approaches in the shorter time frame they have allotted, while

admitting that the level of mastery achieved in type design could not equal that provided by the European master's programs—not that this should be expected. If full master's programs in type design are to be offered in the United States, it seems that the continued rise and popularity of post-baccalaureate certificate programs will have to prove the course offerings' viability first.

Surprisingly, the impact of geographic culture on type design education was found to be negligible. It was originally hypothesized that cultural differences would bear a significant effect on the pedagogical processes for teaching type design in different parts of the world. Since typefaces are intrinsically tied to language systems and written expression, this thesis sought to determine if type design curricula are skewed by the culture in which they are taught. And yet, little to no effect was observed in the four case study programs. The international makeup of the students, instructors, and guest speakers attached to all four of the case study programs—coupled with the increased connectivity of modern technology— breeds a neutral cultural influence. This is not to say that a student's own nationality does not bear any stylistic or practical influence on their designs, but simply means that any cultural bias found within the pedagogy of a course is neutralized by the diversity of backgrounds and opinions possessed by those who participate.

The structure of each focal country's educational system was also reviewed to determine if any "funneling" mechanisms existed that would either encourage or discourage certain types of students from enrolling in a post-baccalaureate or graduate type design program. After speaking with professionals in each of the four programs of concern, it quickly became apparent that an individualized desire to learn more about the topic of type design outweighs any systemic factor related to a student's educational background in determining enrollment. However, the level of attendance fees may play a prohibitive role according to Leonidas.

Additionally, variances in the pace and focus of each type design program are a product of different underlying goals. The curricula of the two programs in New York City are primarily geared to the post-baccalaureate level, and serve a more foundational, supplementary,

and/or exploratory purpose.[204] By contrast, the full-time master's programs in type design offered at the University of Reading and KABK are, by nature, more focused on cultivating deep comprehension and skilled mastery. Since student outcomes fall outside the scope of this thesis, it was not necessary to determine the impact of course structure on the successful design of a typeface, only to note that systemic factors influence the manner in which type design programs are outlined and delivered.

Despite these differences, the four case study programs share many things in common. They all agree on the benefits of pursuing a degree or certificate in type design, which include uninterrupted periods of intense focus, access to direct feedback from successful industry experts, and a competitive edge when applying for jobs in either the type design or graphic design fields. Exposure to original typographic artifacts—another commonality between programs—helps students to contextualize the history of type. This teaches them to parse the range of existing perspectives in order to strengthen their own views on type design.

Frequently, instructors in the four case study programs characterize the goal of their pedagogy as students *learning to see.* By this they mean the opening of their students' eyes to the profusion of details one must consider when designing a typeface. As has been covered in this thesis, much more is required than simply drawing a complete set of characters. A type designer's discernment for subtle variances in space, balance, harmony, scale, and historical and aesthetic influence must be honed through repeated and varied forms of practice. When coupled with issues such as expanded character sets, naming, marketing, and pricing structures, this creates a substantial list of considerations which must be reconciled by the type designer. By emphasizing the importance of seeing the larger picture, instructors equip their students to search for solutions to problems beyond that of crafting a particular letterform. In the MATD, this is achieved through the handling of physical materials on which the students' typefaces may eventually appear. The Type]Media program shows students that negative space is

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[204] Though the Type@Cooper extended program is as lengthy as the Reading MATD or Type]Media programs, the fact that it is conducted through night and weekend classes supports the argument that it was not designed as a full-time, immersive academic experience.

equally as important as the positive form through their drawing and calligraphic exercises. Type@Cooper widens the creative horizons of its students through its extensive series of lectures and workshops, and Typography as Language requires its participants to pre-visualize a final use for their typeface before beginning their projects.

Clearly, type design, while an exacting and regimented process, allows for wide parameters in its pedagogical approach. Yet while opinion and personal experience establish a clear presence in the classroom, the success of type design education stems from a shared desire to push the practice forward by understanding where it has been. The founding of the University of Reading MATD was a significant step towards formalizing type design as an autonomous academic discipline—capable of standing apart from graphic design and typography—and paved the way for other programs to follow suit. Type design has emerged from periods of corporate control and wild experimentation, to form a mature discipline promoting craftsmanship, theoretical research, and scientific innovation—mirroring our own progression from childhood to adolescence and adulthood. No longer the proprietary practice of a select few, type design has become an incredibly diverse and accessible creative profession, complete with burgeoning educational outlets which aid those who are continually learning to see.

APPENDIX SECTION

INTERVIEW TRANSCRIPTS

These interviews were conducted by the author as primary research in support of his comparative study of international post-baccalaureate and graduate type design courses. The designers selected for these interviews are the educators within and founders of the four case study programs covered by this thesis, and they are considered to be experts in their field. The interviews took place over the week of March 15 – 21, 2015, and were conducted face-to-face. The ensuing "clean-read" transcripts have been abridged and edited for syntax.

List of Interviews:

Gerry Leonidas – March 16, 2015*

Erik van Blokland, Paul van der Laan, and Peter Verheul – March 18, 2015*

Angela Riechers – March 19, 2015*

Sumner Stone – March 20, 2015

Jesse Ragan – March 20, 2015*

Alexander "Sasha" Tochilovsky – March 20, 2015

Tobias Frere-Jones – March 20, 2015*

Transcripts published herein are solely from those who have granted permission to the author.

[Patrick Gosnell]: Can you please state your name and your position in the department?

[Gerry Leonidas]: I'm Gerry Leonidas. I am an Associate Professor at the University of Reading. I am the program director for the typeface design program and course director for the TDI summer course.

Can you tell me a little bit about how this type design program was founded?

Yes, I should say a few things about the Department. It has just completed its 40th anniversary. It was the first typography department in a research-intensive university. From its very first days of its existence it combined the academic study of typographic design with practice—a fairly down-to-earth take on practice. There has always been a strand of research interest in teaching around letterforms and typefaces [at Reading], and that included, for example, Michael Harvey teaching lettering courses here for a number of years, until his retirement, to undergraduates. In 1998, a colleague, Chris Burke, put together the paperwork to set up a master's program. A year and a half later he left and I took over the program. I've been running it ever since.

I think that timing is one of the reasons the program was successful. It was when people were really beginning to focus on typefaces both as a necessary part of the reading process in new environments, but also because of a gradual shift into multi-script support. Our strong focus on global scripts is a big part of this. […] We [also] do a lot of historical and theoretical research. We have a lot of material; we have proper libraries and research collections in the Department, and regular engagement with this material is what we expect. We don't see typeface design as a practical discipline only, but a field of practice that has quite a long historical and theoretical side to it. You can see that our design practice has been much closer to what architects do in their discipline than artists do in theirs.

What are some of the biggest changes you've seen in the program since its inception?

Well, I re-wrote the program when I took it over, and a couple more times since; I'm currently rewriting it for 2016–17 onwards. The structure tries to respond not only to where the industry is going, but to guess where it will be. I think this is a more interesting challenge. For example, we were doing global script support before people were really interested in it. It was seen as, perhaps, a curiosity. But we led the way, and that partly explains the success of our graduates. By the time they had graduated and developed their skills, the industry needed people with these kinds of competencies—and they've done very well!

The other thing has to do with attempting to define a field of study and practice. Globally, there really isn't anything that is comparable to what happens here. There are a lot of courses that teach the practice of typeface design. There are courses in Prague, in Spain—one or two in Mexico and Buenos Aires—and they do very good work. Seeing typeface design as an academic discipline—where practitioners can also do top-notch research and produce academic texts that are not only regional pieces of research, but are actually relevant to the next phase of practitioners—this idea is core to what we do. A lot of this has to do with global support—the development, for example, of typographic complexity through new typefaces. Some of the stuff I was mentioning in the exhibition [referring to an earlier lecture on the history of Greek typeface development, on view at the university at the time of this interview], the imperative to define coordinated typeface families across scripts, with wide varieties of weights and styles. These are design problems that historical precedent can help you address, but precedent will not suggest the solutions. So there has to be some research-informed innovation there, and the University of Reading is the right environment to do this. So, we re-think the course every year; hopefully it's [always] moving in the right direction.

There is also—as an educator you will understand—the imperative of resisting the urge to define a course through outcomes. A lot of our students have very different backgrounds and very different age ranges. They might range from 25 to the mid-50s. The average age is

usually over 30. Because they have very different educational backgrounds, the learning curve is what you need to focus on. You want people to face similar kinds of challenges rather than necessarily the same kind of tasks. I'll give you an example: for a designer with 10 years of experience in designing publications, to develop a sense of changes at a very small scale (that's typeface design) is a big challenge. They are not trained to work in that way. They've spent 10 years designing compositions, visual narratives, and spreads, rather than little details that react cumulatively in a text that they don't control. That might not be so difficult for someone who is straight out of a course where they've done a lot of lettering exercises. These are very different challenges.

How does the university (and those in charge) view the program as "successful"?
Well I'm pretty sure someone is just looking at the bottom line. I define the success of the program [by the fact that] it recruits a good group of people every year, to the level that it can operate well. In the sense that there's a large enough group to isolate itself from the vicissitudes of individual personalities, but also small enough for us to be able to work intimately with every student. So 12 – 14 people is my goal every year—quite healthy numbers in terms of recruitment for a master's degree. In such a group there's a high expectation that students will work well together, that they'll collaborate in learning, but also that you can [devote] enough attention to those students who need particular input.

The other thing that I'm very keen on is that we have as wide of a selection of international students as possible. I joke that we occasionally recruit students from the United Kingdom for, um, equality reasons. But we generally have, at most, one person from the UK. Usually half of our people are from the wider European Union countries, and the other half are from overseas. This year (2014–15) is interesting with 14 different people from 14 different countries. Sometimes you will get 13 people from 10 countries; that's fairly common. That's a big part of the appeal of the course: people are exposed to very different cultures and other ways of learning; they are challenged to work with people from different environments. It's the same

thing with their backgrounds. You might have someone who comes from computing and someone from graphic design and someone from the humanities. We've had students from Industrial Design, Product Design, and Architecture, and all of these backgrounds have brought something rich to the environment. The range of ages does as well. If you have a 35 year-old, they're going to have a different influence on the group than someone who is 25. But bringing these different backgrounds together produces a very interesting mix.

Does that diversity serve to overcome any deficiencies that a particular background or age might bring in [to the program]?

I think it does. You're absolutely right; I think it does. The fact is that most of the students speak English as a second language. Most of them might not have a background that is directly rooted in research. But they see each other from all those different backgrounds achieving quite a lot, and working together shows them that their specific backgrounds are less important than their skills.

What is your program's role in the wider spectrum of typeface design education?

I think this program sets the benchmark for other programs to build. We teach typeface design that is not just practical; it explains why design can exist in a research-intensive discipline. It shows the methodologies for teaching scripts that people might not be able to read. It shows through example how designers can write. So in a sense, it upgrades the idea that designers have of themselves, and also, the ideas that others have of designers.

Often designers hide behind the practice of their discipline to avoid communicating. But our program shows that you can get someone with an entirely practical background and get them to produce a piece of academic writing that is not only readable, but also enjoyable and very useful to others. You get people who can build the skills of analysis and research, which they will use themselves when they become teachers, which in turn will enrich the approaches to the subject.

I have a very strong view against design practice happening at the moment that it is executed, and ignores memory. I would like to see a design practice that would continue to draw from a long tradition of practice, of responses—an environment of education, of training, of industry and profession, of clients and budgets, and so on. All of that stuff matters, and unless you are consciously and explicitly willing to take these into account, then it is as if you are walking in the dark—you can still get somewhere, but you're not really in control of where you're going!

What are the positive and negative effects of the scale and duration of your program?
Well, they are connected. I think it is important to have people who are here for a sustained amount of time so they can dive deeply into things and give themselves the opportunity to experiment. Many people come here with the skills to do high quality research, but they might not have a set of research interests. But being exposed to the things that we do—like the exhibitions and so on—that awakens in people a lot of interests that they did not know they would have before they came. I do not expect anyone to give me suggestions for what they would work on before they arrive. I would say it is helpful to have ideas, but, hold your horses, when you come here we will expose you to a lot of things, and that will change the way that you think.

There is a benefit to the one-year duration (as opposed to the United States where there are a lot of two-year masters) The volume of work that goes in to our one year is equivalent; people work everyday, flat-out. But the benefit of one year is that you can get mature people. You can get a 30-something to take a year off from work, or someone can take a sabbatical from work and actually come for a year, whereas two years is an extremely difficult time for someone to interrupt their professional work.

I think a lot of students, in the end, would want to have more time. I would like to have six months for people to just build typography skills. A lot of people come from courses where they've learned how to do graphic design, but they might not know enough about the design

of texts and the history of typography. Increasingly, this is something that is being left out of graphic design courses. There is pressure for time, and pressure on the skills that people [must have] to get hired. The easiest things to cut are the history classes, and that is something I would like to have more time for. As it happens, we just include it through the use of pure force in the other sessions.

Did you read the comments by Cyrus Highsmith in the latest issue of Print magazine where he mentioned his vision for the future of typographic education?

No I didn't.

His hypothesis was exactly as you said, that more and more typography classes are being cut from the graphic design curriculum, and Highsmith sees typeface design as a way to replace that contact with letterforms and their history—perhaps not at the foundational level of undergraduate education, but maybe at the advanced levels?

That is absolutely correct. As it is very easy for young people to pretend to enter the profession, something that we forget is that the older designers, who are our reference points, went through a fairly gradual process of building their typographic skills. They would work with typesetting professionals, typographers, and book designers, and often in response to their briefs. So, designers like Matthew Carter or Gerard Unger, they understood print typography, book typography, and print design really well before they started designing a typeface. They can understand the conditions of use much better than someone who comes straight out of a graphic design course today; this is often forgotten.

It also has a lot to do with the tools. Pre-digital environments show typefaces as an integral part of a typesetting environment. You could not conceive of typefaces separate from the typesetting machines, whereas now, we see typefaces as products in and of themselves. Somebody could make a living making typefaces without ever going near someone who typesets magazines or newspapers or e-books. That is a big change. Which is fine, in terms of how the profession changes, but it places the burden of learning about those things on the typeface designer.

Certainly. Well, that sort of dovetails nicely into what I want to talk about next. Could you please outline some of the key components of the pedagogical approach here at Reading? How does it influence the curriculum?

Yes, there are two aspects to it. One is having in your mind what it is that you want people to address. So you might have a very clear set of skills that you want people to develop, but how do you get people to do this? Because you don't want to just enumerate a series of tasks that you want them to address.

I'll give you an example: the relative optical sizes of two different scripts. Now this is a design problem that someone needs to address, but you don't want to give somebody at the postgraduate level the ready option that this is something you need to solve. You'd first want them to observe the objects that are using the typeface—either through proof sheets or the kinds of documents that they would need to have in mind—and say, "What are the issues that arise from this?" So if you have someone designing a typeface for Arabic newspapers, there are many cases where the Arabic will have English words embedded. You might get something like the word, "Obama." This may be spelled out, because it's a loan word, or it might not because it's a familiar enough word and has transliterated. But some secondary official's name, who is not part of the vernacular, might be typeset with the original Latin script. That is very common; sports teams, and names of movies, and so on. So if you look at an Arabic newspaper or magazine that has this kind of text, you would expect the student to try and observe, "What are the typographic problems in the document?" So you can start very open-endedly, asking, "What are the issues that arise from this?"

Now, you'd expect them to try to find the right kind of examples for the typeface they are designing, and build a library of potential typographic questions. In those cases, you can nudge. You can suggest things to look at. When they arrive at the idea that, "Oh, I actually need to coordinate my Latin characters with my Arabic characters," then you might start to ask questions about how to build a strategy for making the decisions about optical sizes. Keep in mind the point is not to just fix the typeface you're working on now, but to develop

a method for optically aligning any set of scripts after graduation. For this you may need to go back and look at research to find comfortable reading sizes for a specific audience, and for a specific kind of text. Again, that has to do with research, and having access to resources. Being a successful typeface designer doesn't necessarily make you a good teacher. You need to have the right kind of questions in your arsenal, and also the right kind of material to support enquiry. You might then ask the student to try to generalize from the specific. The idea is to help people to become good typeface designers, not just to design one successful typeface. Building a way of thinking has to do with identifying design problems and building methodologies for answering those.

I've heard you say in an interview that the most important skill a student can bring with them is the ability to ask questions. Would you say the same is true for a professor?

Absolutely. That's absolutely correct. You need to be able to ask the right kind of questions that will nudge the student, at an appropriate level, towards the right line of inquiry, without giving too much away. Otherwise, you've done the job, and that student hasn't actually faced the question that they need to address.

Right, so even if it benefits them in the short term, it doesn't build a lasting ability to solve problems in the future.

I will say, students don't always like this. Sometimes a student may be like, "Just give me the answer. I just want a ready solution please. I'm fed up, or I'm tired." But in the long run I think people find that the necessity to find answers yourself is part of becoming a professional. The role of a teacher is not to give you answers, it's to help you ask the right questions, and to reinforce how you build methodologies for answering them.

Have the students' attitudes changed much since 1998 when you started here? Nowadays, do they seem to just want the answers more often?

I think there are age and regional attitudes. More experienced people have been through the baptism of fire that is professional life; they know that design problems are incomplete—that the environment you work in won't give you the answer. So they must figure out a lot themselves.

I think different educational backgrounds also change this. For example, the American liberal arts background actually works pretty well. It produces graduates that have the confidence to ask questions and they're not afraid to fail. They've realized that getting the wrong answer is actually part of the process. They'll try again, and this will move them in the right direction. There are other environments where people might only ask [a question] if they're confident that they already know the answer. This may be a fear of rejection. There are also some environments where the idea of the professor as the authority is very strong. Where you might say, "I earned the right to be heard, but I'm not claiming any special privilege to give you the answer, you have to take what I'm saying into consideration and figure things out yourself." This, for a lot of people, may be challenging.

So there's a cultural influence that shapes those attitudes?

There is to a degree. As the [MATD] course gets more embedded in the consciousness of the potential audience, people self-select. I think we are pretty good at getting people here who want this type of challenge: people who want to be challenged intellectually; who want to face this rather large task of learning something new every day about the discipline; people who read a lot, or at least trying to skim-read as much as they can. Again, this is part of the methodology. We mention more texts than you could ever possibly read. But the implied skill is that you have to prioritize—learning how to skim-read a lot of things and then picking the ones that are most relevant to your interests.

Tell me about your relationship to type when you were going through school.

Oh, but I am a product of very different decades, and of a background where young men did not go to study design. You would become a doctor or an engineer, or something "serious." I've had a practical awareness of design since my youth, but it was never considered a viable career for me. My first degree was in business administration. It made me not have a lot of respect for business studies. But I immediately started working in typographic production. I was interested in typography and language primarily, and through that, typefaces.

Typographic design, proofreading, editing, type production—all took me into type design. Also, in the mid-1980s, new digital tools were seen as competitors to typesetting. So the early DTP model was really one that undermines established typesetting outfits. Typefaces were often something that was just bundled in the system. People would buy computers and the typefaces would just come with them. They were seen as something peripheral to the main business. The big change was in the "production with type" department, not in the typefaces themselves, which is quite a different approach to today!

What particularly attracts me to typeface design is that it actually has depth. It has a depth of research, of scholarship—there's a lot of inquiry. That is rewarding. People can be active in the field for forty, fifty, or sixty years! We have people in their eighties and they are still learning new things.

It also means that it's a very good lens into different societies. The fact that the United States has been slower in developing multi-script typeface design is simply because the market is big enough. In typographic terms, the United States in fairly inward-looking because there are enough people buying things inside the country. They are relatively isolated from the outside. But if you look in the European market, which is much more of a crossroads, it's connected to countries with different scripts—Russia, the Balkans, Greece, Israel is around the corner, the Middle East with Arabic—so the consciousness of multi-scripts is much stronger and the local markets are smaller. So if you know this, then it is not a mystery why you would see European foundries really trying to push multi-script typefaces first. From the United States you would get them from the big providers—Adobe, Microsoft—who had a global outlook in the early days. If you know what questions to ask, then the explanations become quite easy to see.

I'm curious; if you were to enroll in school today, with the selection of type programs that are out there, would you enroll at Reading, or is there something else you'd be looking for?

[laughter] I can extrapolate because when I came here I'd worked for a number of years in Greece (this was pre-internet), and I was frustrated at the small size of the market and the lack of opportunities. Then, I had an opportunity to come and study for a year. I read about the postgraduate course that was running at that time under Michael Twyman, who is the founder of the department, and it was all about practice in the context of history and theory. That is exactly what drove me to come here. I did not apply anywhere else. I just looked at it and said, "That's it for me. These people are doing design, but they are thinking a lot about it." So yes, I think I would gravitate towards this.

Give me another twenty years and I think there will be many places to choose from, because the trend is to build a research consciousness and activity in a lot of design institutions. I see this a lot in both American and European institutions since I do tenure promotion reviews. Eight years ago people would include lists of exhibitions and things like that in their portfolios. Now people are expected to have something that counts as research. So if you want to get your tenure, if you want to get your promotion, you have to produce knowledge in addition to practice. This shifts design a little bit away from just artistic expression.

It certainly does. I'm very interested to learn how the higher education system in the UK affects the participants of Reading's MATD program.

Because we are very international we are a little bit isolated from this. The main issue we have is the level of fees. But fees have always been high for international students. I'd say they're still lower than they are for potential competitors in the United States because of our one-year structure, and the crazy levels of fees in the States. So our competition on the financial front is really from other national bodies that actually fund postgraduate study better. There is no subsidy for postgraduate students. There are loans that you might get, and only a few scholarships. So we are generally affected by the inability to offer enough scholarships to very promising students from overseas. That is an issue. There are good postgraduate loan schemes in Canada and the United States, but there aren't any in Russia. There is not much funding

support in southeast Asian countries either, even though there is a lot of interest in studying typeface design here. This is something that affects us.

More specifically in the UK, education has been going through a process, for the last fifteen years, of excessive "managerialization". (I think the Americans are following suit.) That is, this idea of turning education into a spreadsheet that breaks everything down to specific hours of contact and study by staff and students, and essentially de-personalizes the process—with an excuse of transparency. I think the idea of precise control of education in this way is just a dead end. The problem is that not all students are the same. You need to be able to adjust your practice for students. You need to be able to be flexible with how you respond to market changes and how individual circumstances change. Coupled with this is the fact that universities are places where you tend to have a large concentration of smart people who can potentially be innovators. Clearly, if you have that environment, you want to give people the freedom to be innovative, and the space to try out things in practice. The university is essentially a laboratory for innovation with controlled risk. So, because I haven't invested my salary in a startup, I might not get crazy rewards, but I also won't have to feed my children out of tin cans everyday because the company didn't succeed. That's what the university is buying for my time: slow-yield innovation with controlled risk. And that is not actually being allowed now.

There is huge control over research as well. In the UK, the language of "impact" dominates research. I don't know if this has reached the States yet. (I hope it doesn't.) The idea is that the research you do matters because it has impact in the wider environment in a measurable way that can be compared quantitatively. For many fields this is somewhere between really difficult and bonkers. Impact may be indirect or practically impossible to measure reliably, or it might not actually happen within the period of measurement. In the Arts and Humanities this makes things even more complex, because of the modes of scholarship: many more lone experts who years to produce a key text, rather than lab teams with rapid outputs of smaller papers.

Since I am studying more than one European institution, can you tell me how the Bologna Process has affected the things that you are talking about?

It has affected every institution in Europe. They will have to have documentation that expresses their courses in a credit-based system. That allows for ensuring parity for courses across institutions and across countries and so on. There's also the assumption that this will enable mobility. [They envision a] swarm of European students swimming around Europe, changing course—which of course doesn't happen. It's much more controlled than that.

On one level you can see the motivation for this, and a lot of things that happen with education begin with good intentions. The idea that a master's degree here means something similar to a master's degree from somewhere else makes sense. On the other hand, the way that you go about doing this, if it is outcome-oriented—like tic boxes: "Patrick did this project and it took him five hours to do it, therefore we give it that much [credit]"— it gives you something you can measure, but it doesn't tell you anything about the challenges that the student faced, and how difficult it was, and how this might build skills that have to do with wider issues like the methodology, asking questions, the research strategy, and so on. I think education has moved towards systems that are breaking a lot of the process down into smaller and smaller chunks, and also focusing on things that can be described and quantified. Conversely, our strength is in things that are qualitative and actually relative to the persons that are in the studio. So we are doing the opposite.

I have to say, I try my best to ignore that. I try to respond to qualitative criteria, and think about the process the students go through, and try to be flexible to the students' circumstances. I think if you don't do this then there's no point in justifying your own position in education. You can end up having some sort of almost automated system for delivering the same thing to all the students. A few years back we saw virtual learning environments being celebrated, whereas the effect was to make content more shallow, less personal, and less discursive.

There are still issues. You might say that for a master's program that you need to spend so many hours developing research skills, or critical skills, or writing skills—but in reality, the variation is huge. Not just across Europe, but even just across the United Kingdom. You might look at what passes for a dissertation for a master's student, a thesis, and the range is astonishingly wide. In terms of language skills, in terms of precision of expression, in terms of the actual research that is being conducted. So graduates having a clear understanding of the difference between facts, analysis, reporting, opinion—that stuff!

It's very difficult.

It is quite difficult. And I think we've got the wrong focus. I'm not sure what happens in Texas, but if you also look at the last ten years of how universities have hired people: what are the proportions of increase in the teaching staff in relation to the administration staff? You tend to see central administrations growing disproportionately to the teaching staff. The implied assumption is that you cannot trust the teaching staff to make decisions. You need managers for education. That is of course a very big issue, and you might say that in many ways, academics have often demonstrated that they are not good at managing themselves. It's a similar discussion to whether or not doctors should be hospital managers. And you can find arguments for both sides. But I think we're going too far in not trusting teachers and researchers. This is a sign of the times; we do live in a time where expertise is devalued, and I'm not sure I can see the light at the end of the tunnel. But it's a result of everybody being entitled to air their opinion, which has made questioning expertise trivial. And the rise of bureaucracy in institutions amplifies this devaluing of expertise. I'll give you an example: let's say we meet at a conference, we start talking about our respective courses, we are intimately familiar with our schools and institutions, and we decide it might be good for us to try and collaborate. In most institutions now, we would have to make very detailed cases explaining why this is so. Which means that the institution will not trust its own experts, and devolves approval to some administrator who is not a specialist in the field, and may not have any student-facing role.

So you are saying that this devaluation is happening more between the administration and the faculty, not necessarily within faculty circles?

I think yes, but we need to be careful, because for American English "faculty" refers to persons, whereas in British English "faculty" refers to an administrative body. So you might have a department, a school, and a faculty, and the faculty might cover several schools. It has to do with relationship of the people who actually deliver the teaching and do research, and the administration of the institution.

OK, thank you for making that clear. To return for a second back to pedagogical approaches, what teaching methods have you witnessed that were successful for getting students to understand type and typeface design?

I place a huge amount of trust in working with objects. We have very few lectures— essentially no lectures. Everything is on a seminar basis. We try to use discussion that uses objects: books, magazines, things on screens, it doesn't matter what it is. But something that relates to typographic practice as a starting point. This ensures that there is a connection to [external] practice. It's also easier for the student to see because they've experienced something similar. And it's also an easier process to go from the specific to the general. For a lot of people who might not be used to this, or trained in this, it might be quite difficult to start with a general principle and see how it applies to the specific.

Right—"bottom-up" versus "top-down." I got to see a great example of that today with the examples you shared in your lecture.

Yes, a lot of the stuff I was talking about was fairly high-level in terms of transitions in the status of text, or changes in what books might mean, and so on. But because there were objects there that people could see with their eyes, that makes it easier for them to see the differences. You saw some examples that were big and luxurious and well printed, and some that were small and messy and worn. They can see the difference in the status of these things, and they don't have to rely on their words and imagination as much.

Not all of the professors I'll be talking to this week have distinctly higher education backgrounds in type design—

Well neither do I! [laughter]

Well please speak about that, because obviously self-education plays a role here, even though I'm focusing primarily on post-baccalaureate and graduate-level education. My question is this: with both amateurs and professionals having access to the same tools to create typefaces, why is it beneficial to pursue a degree or certificate in type design?

Well the detriment might be that you have to invest a lot of time and money, and spend a year putting up with people like me. [smirking] The benefits are really objective and subjective. The objective benefit is that it actually accelerates your learning. People can learn quite a lot on their own, but if you're in a structure that has been thought through as a learning experience, and will build the foundations in the right order, then you can progress faster—at a pace that has some thought behind it. So in ten to twelve months you'll have someone building skills that it would take them five years to do on their own. I don't think it's realistic to expect that any person on their own would work with the intensity that my students are working, with us giving them targets, and also with the frequency of feedback.

The other objective has to do with that feedback. You may try things yourself, but figuring out how to identify good solutions, describe bad solutions, to make judgments about different comparisons—that is really difficult to do by yourself. Some talented people might be able to do it, but the value of feedback is that it helps you see things better. It can help guide your reviews and help you build a language, both in terms of words and formally, to interrogate your work. It can also help you build reflection about your way of working. The easiest example is the speed at which people make decisions about the scale. If you're working on your own you don't really have any sense of measure for how fast you should be making decisions or changes, or whether you're working at the wrong scale. You can zoom in and out a lot; you can nudge the points here and there—but is this what matters? Should you be working on this at the moment? So this idea of zooming out and looking at the whole course of design is something the teacher can do much better through feedback than the student can do on their own.

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The last thing is that there are areas that are really difficult, or impossible, for someone to pick up on their own. Building typeface design skills for global scripts—unreadable scripts—requires the kind of research that individual study makes almost impossible. There are many examples of exceptional designers whose non-Latins designs are not good at all. That's not their fault, but they needed to be exposed to the right kind of resources and [receive] the right kind of explanations for a script that they had no understanding of. Once you give this framework people can build very high quality scripts they cannot read, and produce pretty good work. But, you need a certain methodology, and that is difficult to come by from scratch.

The relative arguments have to do with what other people are doing. If you want to be a type designer in your career, your competitors are now people who have gone to a course, and on a job interview they will have demonstrated that they can actually work with others. This intensely collaborative working environment puts you through that process. It demonstrates that you have communication skills; you can explain what you are doing. It confirms that you have been through the process of building a research methodology for areas that you don't know [a lot] about. So if you're gong to be designing a new typeface for a very small device, for example, you might know which questions to ask. Other people applying for the same job will have been through all of these processes by attending a course like this.

It is also a combination of hubris and naivety to assume that something with the depth of history and complexity that typeface design has can be covered in a few weekends of study. The proof of this is in the status of commercial typefaces [compared] to free typefaces. The fact that you can go on Google Fonts and download free fonts hasn't threatened the livelihood of professional typeface designers. It just shows that the marginal cost of a bad typeface is zero. Anybody can [create] a font, but doing a good typeface is something very different. What has changed [from] previous technology is that the entry level was very high. You couldn't really make your own matrix for a Monotype caster just because you felt like it. Now you can make a font in a weekend, or by reading Typophile.com, just because you feel like it.

The bar for entry is very low, but the criteria for excellence are still just as high, and it takes x number of years to reach the level of skill that Jonathan Hoefler or Tobias Frere-Jones have, and to bring all of the depth that they can to a typeface.

Have you ever seen a successfully designed feedback system developed specifically for the realm of self-education?

I'm not sure if I would know of it. I think that a very talented person who is quite reflective by nature and intellectually curious might very well develop a process that helps them learn in a solid way. [pause] Again, I'm not sure I would know about it. But that is part of the reason that I try to put out as much material as possible. Not as much as I would want. Ideally, all of the material we use here would be online. First of all to show how we structure things—these are the references we think are relevant to this aspect of practice—and also to make it easier for people in other places to have access to these resources.

I don't think that there's anything that should be, you know, private. What people are buying here is the presence of the staff, rather than just [our] book lists. It also shows the real value in having a residential course that takes twelve months to complete. You're actually spending face-time with people rather than just doing something from afar. I think it's important to make as much information as possible available to people who cannot get access to this kind of education, or are trying to do things by themselves, but at the same time, to make it clear what having access to the experts is worth.

One of the nicest things that has happened in recent years, and I will claim some primacy from Reading for this, is the spread of short courses. There have been occasional courses in type design, but seven years ago (2007) we started doing a two-week summer course (TDi), and that showed that there is a market. The TDi is positioned as a "Rolls Royce." This is as much as we can fit from the MATD into two weeks in the summer—it's not meant for someone who is entirely a beginner. It has people who are experienced designers, from the business of type, academics come and do it, so it's the higher end of what you could have.

But it shows there is a demand for short courses. And we've seen a rapid increase; there was the Cooper Union summer program […] and now there is a five-week course coming out in Paris, that is essentially the Cooper program. There are other short courses in Europe: Basel, there are two courses in Slovenia— there is a lot of desire by people to put themselves in this more structured environment of learning, even if it is the opportunity to have feedback [from their] peers.

It goes without saying that the more time you have to spend in a course, the deeper you can get into your research and practice. Would you say the success of the short course(s) is actually due more to the fact that professionals can only give up so much time from their normal schedule to participate?

To some degree, but it's also the fact that someone who comes into contact with the world of typeface design, but will not make their living from it, might feel the need to understand the discipline better without investing a whole year. For example, if you get an academic who is doing research that touches on typeface design—they realize there's an aspect of inquiry there, but that they could support better if they knew more about the discipline—that may be enough for them. They'll never design a typeface themselves probably, but it will help them to understand the discipline better. We've had people who are editorial or publication designers who need to understand typefaces better so they can specify typefaces for their publications, and also interact with typeface design foundries better. We've had people from the business of type who need to commission typefaces, or value them, and they need to understand more clearly what it is that typeface designers do.

You have obviously amassed a very deep range of materials that your students have access to—

Yes, that's why I'll die poor!

[laughs] Yes, but you mentioned earlier that in ten to twenty years you see other programs following [in the path of Reading]; do you feel that it is possible for other courses to amass a collection of this magnitude?

To some degree. It needs a program. This department has been lucky because its founder,

Michael Twyman, had a very clear idea that you need to build material resources. So from day one he was collecting things before the days of online secondhand booksellers. So in one sense, Reading has had a head start. I started collecting my things back in 1994–95. It takes a bit of perseverance and focus. But I think it is possible. Plus, a lot of the things that can support students at either the undergraduate level or the postgraduate level are not necessarily very exclusive. I don't think you need to have your own collection of ancient Greek documents to help people learn Greek, because anybody else in the country [UK] could organize a trip to come here and see them. And for a lot of things there will be digitized resources. There will also be material that is available otherwise. So—I won't use the C-word, which is a terrible word—but the curation of the resources that matters. What is good enough? There is more stuff out there than you could ever buy. So what should be the right combination of things?

I've got the full run of Émigré there, right? Do you need a full run to explain to students the tensions of early digital tools, Zuzana Licko's innovative ideas about typefaces, how Émigré's publication changed layout design ideas, how fan zines found their way into the mainstream, all that stuff? Well, you could buy the 70th edition volume, which is a retrospective, or you could buy three copies, and use them as a starting point for the discussion.

Absolutely, but I'm wondering more about the ancient texts and things that are harder to procure though.

But many universities have special collections in their libraries, and they will organize sessions for students. Plus, I have to say something about the place that I work: if you're at a place like Reading, you're pretty pampered by the fact that I can simply reach over here and pick up something that is five-hundred years old, and then we can talk about it. Perhaps that is a bit too relaxed? Yet, for a lot of your inquiry, perhaps at first a picture will do. You might need an image of a certain quality. But some of the questions might not need the original thing to be answered. And then it becomes a little bit more special when we say we'll get the original thing out.

Right, and I'm sure that all of the trips that take place throughout the year help out with that experience as well, getting to see the original objects.

I say that, but we are actually pretty bad because we take things out all the time. We will work with the original material all the time simply because this is part of how we like doing things, we think it's best, and it's part of the unique things that the department has. That some things get a bit more worn than would be ideal is a tradeoff, and I think you have to take your views on this.

Right.

I've been in institutions before where I've been handed cotton gloves to pick up something that was designed in the nineteenth century, and I'm thinking, "That's silly." On the other hand, student might need some priming to understand that something that was printed four-hundred years ago needs a certain respect and care.

One of the projects I am working on now is a publication, which will be online for free, that has all of the core seminar book lists for the master's students. We have a total of fifteen or sixteen seminar topics that they deal with every year, each with a core set of texts that are really important to the topic, and then a secondary level of texts that go deeper. We're working on these now so that they're in a form that can be posted online. Some of the stuff can be bought from the publisher and some things can't be. But we're trying to make available everything that we can. I've been looking at copyright issues of older publications. Ideally I would make something for an iPad that will have digital captures of all the core resources, so then I can distribute this to students. Then, when I bring out the original object, the materiality is the special experience. But they've already covered the first inquiry through the digital image and text.

Can you talk about the difference in type design education before the mid-1980s and now?
There wasn't any, really, beyond units in design courses, and a one-off at Stanford. It was just Gerrit Noordzij doing his thing at the KABK. That produced a series of notes and lectures,

a small group of stellar graduates, and the basis for a curriculum. But that is a very specific take on typeface design connected to writing. That's actually one of the real big differences compared to here [Reading], where typeface design is seen as part of the typographic environment. So the documents that you typeset are integral to how you see typefaces. You cannot see typefaces separately from the production, editorial content, the business environment—the idea that, just as a book designer needs to have at least read some of the book they're typesetting, the typeface designer should need to read some of the texts that they strive to have their typeface [used for].

But otherwise, before the mid-1980s, most of the education was through apprenticeship. A lot of people would be contracted to work in typesetting manufacturing companies. So Monotype, for example, although for us is linked with typefaces, was essentially a typesetting equipment manufacturer for whom the typefaces were the marketing tool.

Sort of a "lost-leader," if you will.

I'm sure a lot of them were. Apart from the very big hits, most of them would not make the company money. Money was made through the sale of machines and the service contracts.

In a way, when people talk about the detriment of bundling during the software boom of the 1980s and 90s, this giving away of the typefaces for free—this wasn't a new thing. It was still done, in some form, during the days of metal type.

Yes, the big change didn't really happen with typefaces, it had to do with the shift in typesetting work from heavy, industrial machinery to these very dispersed resources that DTP allowed. Up until hot metal type was replaced by phototypesetting, you were looking at Victorian technologies. Hot metal is Victorian, in the sense that the machine has no intrinsic intelligence. The design of the machine has intelligence, but the machine itself is an elaborate piece of Lego. So the operator can take it apart and figure out how it works just by looking at it. Therefore, you can hack it, modify it, copy it and so on. The third and fourth generation of phototypesetters and early proprietary digital typesetters built some intelligence in. […]

So the customer might be buying different technology, but the model is still the same. It's a big manufacturer who ships big chunks of stuff to a printing operation—a typesetting operation, right?—it needs to occupy businesses, and buildings, and work with unions (that have their own rules of engagement, and so on.) That is what DTP up-ended. That's why we had this clash over printing unions, because the production model changed. Typefaces are just a footnote in this. But suddenly you have newspapers that are composed by people wearing shirts and ties, sitting in offices, looking at computer screens, instead of proprietary machines that need to melt metal!

Would you say that typeface design has flourished more in the age of the independent type designer, rather than under the control of the large typefounding companies?

I think above a certain point an institution needs a certain turnover just to survive. Large companies have a huge salary bill every month, large overhead— there's only certain kinds of projects that bring in a certain kind of money, and those might be very conservative types of projects, or large branding projects—things that will never be innovative: an airline, or a bank. They'll never be innovative because the range of use of the brand will be so wide—from the side of an airplane to napkins—the technical conditions are not so easy.

On the other hand, because of the way marketing and sales work in these environments, the visibility you get with something innovative might not be relevant. So winning a type competition might be interesting for, say, a large company, but their clients are not necessarily paying attention to competitions. Whereas a mid-level foundry or a small three or four-person foundry might be working much more with graphic designers as clients, or people at agencies that might be paying attention to competitions and what's in PRINT magazine and so on.

Let's say you want to build a big, new airport in Houston. The typefaces for the signs, if it's a new project and not something off-the-shelf, will come through the construction company, the project management company, the brand developers for the airport as a whole, and the network they will have. Somebody who handles the overall identity of the airport will assign

the sign project somewhere, and somewhere in that company is a sub-contractor who will know someone at a type company who will get the typeface job. It won't go through people who are interested in competition winners and what is talked about in type design blogs; they are very different audiences.

But a smaller foundry needs to build its library in a way that is clear to their potential customers what kind of work they do. I mentioned earlier Tobias [Frere-Jones] and Jonathan [Hoefler], both independently now and when they worked together, their work is typographically exceptional. So you know you can get a typeface from them, and it will just work. It will do the right job for the text. You can look at TypeTogether; if you want to do dense editorial design, their typefaces work just fine. They have built a library that has a specific market in mind, and again, the audience self-selects to a degree.

What is the United Kingdom's national or cultural relationship to type?

I think the public is very aware of type and fonts. I was at a career fair a couple of months ago, and I had a sign in front of me, with my title "Associate Professor in Typography". And two young boys walk by, and one of them said, "What is this 'typography' thing?" And the other one says, "Oh, fonts and stuff." I found that very interesting because I thought, clearly the typography term is alien to them, but 'fonts' was a common enough explanation for them to be able to share a definition. You'll see articles in newspapers for the general public, and radio reports about fonts, and also commentary. So when you read a book review, there might be some reference to the typography or the fonts that were used. Type is part of the public awareness much more than it used to be.

In what ways specifically?

I think people are becoming increasingly aware of the fact that they have a choice. That is, type with accessibility and also different user groups. I think that we've approaching the stage where a book designer determining the style and size of the type in a book is seen as

an excessive imposition of somebody else's taste, especially if that other person might be in a different age group as you. As you have a demographic that changes and wants larger type, your Kindle and your iPad can show you larger type. It can adapt to your personal preferences. The moment you give people a choice, they begin to wonder about the effects of that choice. When they play with it perhaps they realize that they do have personal preferences, and that makes them more aware of that stuff.

Would you say that nationality or cultural history bears any effect on the act of teaching typeface design?

Well, okay, this is very thin ice that I am on. I think it is helpful to be an expatriate. There are many benefits to not being native to the culture that you operate in. It makes you reflective about your own culture, and also helps you to see more clearly and ask more questions about your host culture. You tend to not buy in to the mythology of each environment. It also helps you to be more responsive to people who themselves are from other backgrounds. I'd like to think that as an international teacher here, teaching students who are also mostly not British, is helpful. It also makes you take all of the national stereotypes and local histories less seriously. That's a good thing, because you realize people are culturally very partial and also selective. People's memories are often very short in terms of what they might consider their own traditions. It makes you ask more questions.

But when you take that into the context of designing a writing system, how does not taking cultural roots so seriously play into creating, say, a non-Latin script for example? How do you respect the cultural history throughout that process?

The standpoint of being outside the country is good because you have to figure out what that culture is. So it does help you to ask more questions. You think, "How is a culture defined, in general terms, but also in terms of its visual communication? How do people communicate through long and short documents? Through ephemera? Through sign making?" That helps you see things more clearly, in exactly the same way as you went through this process with your host country. This readiness to ask questions about any environment you are in […] is quite important.

Everything leads back to asking questions.

It does lead back to asking questions. It reminds me of some time back, probably 2007, Paul Hunt, who is now working at Adobe, was a student here for a year, and I remember being next to him looking at some printouts of his on the wall, and he turned to me and said, "So this Master's is not really about typeface design, is it?" I said, "What do you mean?" He replied, "This is really a Master's in looking. Learning how to look at things." And he was absolutely right. It's about learning to question the things you see in front of you. That's a good way to see it.

You already mentioned that in ten to twenty years you envision more and more programs like the one here at Reading coming into existence. Is that situation something you would welcome and hope for?

Yes, it will be a complete failure if what happens at Reading stays at Reading. Then the idea of this model for education will have failed. But if we reach a stage where I don't need to do this job anymore because there are places in most countries where typeface design is being taught, where this kind of approach to typographic education is present locally, then this model will have been transformative. Why would a Thai designer need to come to Reading to do research on typeface design? There are great universities in Thailand. Perhaps in ten years they could have a very similar course there? That, I think, is the desired result.

You want institutions to have respect for and the desire to conduct research, and to then produce researcher-designers, and for this to happen everywhere. I think it's beginning to happen. A lot of courses are changing and developing in this direction. It takes time. As you know, in a university setting, we do things a year at a time. So ten big changes take ten years.

But I do think we will see a change in how people view typographic design. This may mean a distancing between graphic design and typographic design, primarily because of the emphasis on text, and the increasing emphasis on illustration and animation in graphic design. The more we move towards having things that are screen-based rather than paper,

the more animation or some sort of moving image will take root in graphic design, and the more distance it will gain from typographic design, which will have to be very responsive and flexible and adaptable. So there is a question mark as to how well the web design community will engage with type designers and typographers, which is so-so.

That's been a question for a while hasn't it?

It has! Ten years ago I tried some approaches, but it was too early, there was no interest. Last year I talked at a couple of web conferences: *Ampersand* three years ago; *Smashing Conference* last year. Web designers are interested in type. They respect it and realize that there is depth there.

Do you think that the wave of responsive design had to come through first? It seems like the renewed interest in web type coincided with responsive web design.

It's web fonts. Web designers didn't need to worry about type because they had Georgia and Verdana and Arial and Times, and that's it! Web fonts give you a choice now, and your document, your brand, your identity all rely on typefaces surviving regardless of the viewport or orientation. So that matters quite a lot.

You've mentioned a "50-30-20 rule" before at ATypI, where 50% of type design is utility/ functionality, 30% is identity/originality, and 20% is joy/surprise. At the end you said, "Fun cannot be taught. This is what you, the designer, actually bring to the table." I'm curious, do you feel that the explosion of experimentation that occurred in the 1980s and 90s, and novel things like Letraset, have affected the manner in which fun can be injected into the process of type design today?

I think that lots of things have changed since then. At that time, it [mattered] that typefaces were no longer agents to typesetting systems, but they were now independent products in themselves. There was a relatively low bar for entry. You got a Mac—which might not have been the cheapest thing—and Fontographer or Font Studio, and suddenly you could make typefaces. That allowed people to experiment in ways that were not possible before.

First of all, there was this coiled spring of people who might have been making sketches or had ideas about things and then suddenly were allowed to produce them. The second thing

is that the new technology allowed people a vocabulary of expression that was completely unconnected to the previous [typographic] environment. Take Zuzana Licko's typefaces for example, or what Max Kisman did—a lot of the discussion surround Émigré and such at the time—they showed that a change of tools allowed people a different way of thinking about typefaces. They moved from things that had very strong historical roots, where the discussion was mostly about revivalism, into things that could be very conscious and intentional about their own rules and their own relationship to the form. So there was a real [shifting] of things that were postmodern.

Now, Letraset did produce a huge amount of interesting display material, but because they were oriented towards titling work, they were quite isolated from what people were considering for text. Whereas the big change for digital technology was that innovation and experimentation was now possible in text typefaces, and the combination of typefaces in use. If we look at hot metal and phototypesetting, typography is extremely uniform and monotonous because it took a lot of effort to change typefaces in the middle of a line. Phototypesetting allowed layering and orientation, but it was labor-intensive. Digital typography allowed a freedom from the rectilinear canvas. It was possible to overlay and mix things in ways that were not only possible, but also much easier than any previous typesetting environments. Those are the interesting changes there.

So in that case, you have external circumstances that release the desire in people to experiment. What we have today is a situation where the tools allow you almost infinite potential to, say, place points on a canvas, quite easily too. And we have more material than people can actually spend time looking at. So how do you develop a personal identity, or style? I think part of it has to do with first of all, identifying what is out there already. What could be seen as individual, or novel, has to be defined by being something that is not being done already. So you develop an awareness, taking us back, of course, to history. Even if it is a history of the last five years of what it is that your audience might consider novel, interesting, or exciting.

You need to start from that point of view. So a student needs to looks at what competitions single out; what is talked about by the general audience—the fact that Gotham was getting so much attention by a general audience for identifying a whole political phase in the United States—that meant that a certain style of san serif got a lot of eyeballs. Therefore, something that was different from this would have to be offered to capture a similar amount of attention. You couldn't do it with something that was too close to this. So perhaps you might see these very high-profile events moving towards, say, slab serifs, or something that will be different.

So an awareness of context is essential. But also, an awareness of what it is that creates uniformity. If I can be risky here, and say something that I repeat a lot to students, "Resist the urge to use straight lines." You can never make straight lines with a pencil, that's impossible. There is always a gentle radius or some *waisting* of the stroke and so on. Your tools make it very easy to draw straight lines, but that doesn't make them the best [solution for your problem]. Back when people were doing things with sketches first and then scanning them in or photographing them, they may have been able to preserve some more of the unpredictability or variety within the shape. If you are doing more and more things [immediately] on the computer, then I think there is an allure to using straight lines that you need to resist. That is one area where I think really innovative, interesting design shows a lot of promise, but students need to be aware of where that potential is. You can make people see things, but you have to figure out how to introduce this thing into your work.

To go back to your answer about there being no typeface design education before the late twentieth century, do you think that the more autobiographical texts by people like Goudy, Gill, Morrison, etc. were educational tools for those who were interested?

I have to be careful because I haven't done any research to see if people who wrote about their practice referenced earlier texts, or whether they were just testaments of somebody's approach. So we have someone like Walter Tracy writing about his method for spacing, but we don't have a lot of evidence of typeface designers actually reading that book and using his method of spacing for the kind of typeface he is talking about—though we do it here,

we take it into account because we bring it out and discuss [the book]. But I don't know how many people [in the outside world] would do this. I think there is a shift in people writing to document their practice, like Goudy for example, partly because they're well motivated, and they see that there is value is documenting what it is that they do that is special, but also as an exchange between peers. The stuff that W. A. Dwiggins writes, which is wonderful, but he's writing to Rudolf Ruzicka, who is also an accomplished type designer, so it's like an insider's joke. It is not really written for the student of type design, let alone that we can't talk about type design students at that time.

But I wonder why texts that claim to teach something about creating typefaces and writing systems actually never seem to do that. The Karen Cheng book, *Designing Type,* for example, has a large discrepancy between its title and its content. So what are your thoughts on the role of texts within a program like this one?

The heart of the answer is that we would never use just one textbook. We would put these things alongside each other and consider the authors' perspectives. What are their points of departure? And what is the educational system for, say, how Goudy writes, or Dwiggins, or Tracy, or Cheng? They are all essentially a generation apart from each other. And how does what they write reflect what people think of typeface design at the time? What can you really take from these texts? And what is more useful as an entry point into that period or that perspective, rather than something that's really useful for you [at this time]?

For me, the most interesting thing about Dwiggins is that he talks a lot about repeated shapes, and how to build uniformity in to a typeface very quickly, you could also say this is a use of copy-paste. But he also talks a lot about the scale at which you draw things and the scale at which you see them. Now, you know he's talking about paper drawings, but his paper drawing look pretty similar to what you see when you zoom in on a drawing in Glyphs [App] or in FontLab, so it's almost the same thing. He's talking about the problem of scale, even though he's talking about paper.

So there are threads you can see through whatever age of technology you're looking at?

I think that you can.

I suppose the notion of a single text that would encompass everything you need to know to design a typeface is a Holy Grail of sorts.

Yeah, I think it's the wrong requirement. Think of it this way: is there only one textbook that you should ever need for physics or architecture? Even for physics you may be able to get away with one or a very small number of books to cover the very basic equations and stuff, but the discipline changes. The thing about architecture is, you might need one thing to teach about the classical orders, but a very different kind of text to teach about the tensions in modernism and postmodernism. You might have a very different book that explains the urban functionality of architecture, or how people respond to architecture as a statement, function, or service.

It's an interesting thought, that perhaps what is important from these key historical texts is not specifically how to draw letterforms, but how letterforms were viewed culturally at the time they were written.

I think that is quite important. The idea is that they're a specific perspective into typographic practice and communication.

Is it possible that the criticism of more recent books, written after 1984— that they're not "doing their job" in teaching us how to draw a typeface—could relate back to our generational argument of youth just wanting the answer now?

HA! Yes, uh, fair enough.

Gerry, thank you so much for speaking with me.

It was a pleasure.

[END OF INTERVIEW]

[Patrick Gosnell]: As a quick way to begin, if you could each briefly introduce yourself and describe your position at the school.

[Erik van Blokland]: Oh dear! My name is Erik van Blokland, and together with Paul and Peter, we teach at the type and media course, and since this year we also run it.

[Paul van der Laan]: I am Paul van der Laan, and since 2003 I am officially connected to the Type]Media course. I teach and now run it as well with Peter and Erik.

[Peter Verheul]: Yes, Peter Verheul. I have also taught at Type]Media since the beginning, actually. I believe like Erik?

[EVB]: No, you were there earlier. I started in 2001.

[PV]: Oh yes! I started to teach in 1991 in the graphic design department bachelor course. I still do that for half a day. The other half I teach at Type]Media.

My first question is, could you please describe how the program was founded and how has it evolved over the last 10 years or so?

[PV]: Well it started as a postgraduate year for the graphic design course, back in the 1990s. We started with about two students at the most in 1994. Because there were so few students I think we mainly worked for nothing; you could say it was kind of a hobby thing. It started out as a side project. Also, then Petr van Blokland and Peter Matthais Noordzij were also teaching, so there have been quite a lot of changes in the teachers pool since the early 2000s.

[PVDL]: Yeah, at the end of the 1990s it was already a bit more established, in the sense that there were also more people coming from outside of the school. Initially, it was really for the people who graduated here from the graphic design department. But by the late 1990s I saw that there were some people coming from other places.

[EVB]: Of course, type design was part of the regular graphic design course, which was what is now known as a "bachelor." At that time those names did not exist. It was just "Graphic Design at the Royal Academy." Political changes made the school have to respond and have to go from five years to four years. The school then said, "If you still want to do this type thing then maybe we can experiment with some sort of a postgraduate thing." At that time it was not clear exactly what form it should take. But the Ministry of Education said, "Maybe you could think about these things?" and this is one of the things that the Academy did. However, the ideas and the way that type design is taught at the school started much earlier with the career of Gerrit Noordzij, who started here in the early 1960s – not necessarily as type design.

[PV]: He taught typography, yes. And I think he did not immediately start off with his theory, uh—I think he found it in the 1970s.

[EVB]: He started responding to student questions, saying, "Well, why is this? Why is that?" And rather than teach a historical model—*first we had Bodoni, and then we had this, and then we had that*—he went and looked for the reason why these things were this way. Why does it have this shape? Why does it have this contrast? He went back to the tools; went back to the drawing, and started building a set of ideas around what later became a rather comprehensive approach to type design. But, it was not—I don't think it was intended that way.

[PV]: No.

[EVB]: I think he just kept on working on it. He just had these ideas: "Well, what else can you do with it?" And it's nice to see, if you look at his work, I mean, you know of the isometric projection of the cube—

The "cube," yes!

[EVB]: When it had not yet become a cube. It sort of evolved as his ideas evolved. I think why they became so good and useful is that he tested his ideas on his students. Every year

he had a new batch of graphic design students, and every year he would show them the new version of his theories—

[PV]: They would asked questions and he was willing to find the right answer to them.

[EVB]: And he was involved with ATypI on the various educational committees. At that time, it was a very active and very interesting group.

[PVDL]: There are also some publications about Gerrit's work. One that was published roughly two years ago is about his early works, or his early methods. Maybe you've seen it?

Is that the *LetterLetter* book?

[PVDL]: No, it's not *LetterLetter,* it's called *Gerrit's Early Models*. It contains actual examples of the assignments and the explanations that he made for his students back in the 1970s. These were just found a few years ago in the printing office here, and they were reproduced again. You can see some of those early theories of Gerrit's already shaping in a way. Then there is *LetterLetter,* as you already mentioned. I think it is a good follow-up to see what he was writing about, especially for the ATypI conferences. It also spans a great number of years, so it's a nice way to see how he was looking at the historical part of type design, or of type in general.

Is there an English translation for *Gerrit's Early Models,* or is it only in Dutch?

[PVDL]: I think it is already in English by default.

[PV]: Only, the word for a broad-nib brush, is "pencil" I think. It is the only—

[PVDL]: Oh, is it?

[laughter]

[PV]: —eh, *dubious* translation in the text.

[PVDL]: And then his most well-known work is *The Stroke,* which has already been translated to a number of other languages. But it started as a smaller booklet, somewhere in the 1980s—

[PV]: In 1982. Yeah, at the three-hundred-year anniversary of this academy.

Okay, so that laid the foundation, and all of you participated in the program as students under Noordzij's instruction, correct?

[PVDL]: I did not.

[EVB]: Peter and I did.

[PV]: Yes.

[EVB]: But as part of the regular graphic design course, or, what was then the regular graphic design course. I think I might have been in his last year that he taught here before retiring.

Okay.

[EVB]: It's interesting, if you [look at] his students—and there are several who went on to become type designers—how they relate to his ideas and his methods. It takes a while to get used to them, or to give them a place. […] His approach is a really good way to teach how these things work, but it's not necessarily to the only way to make type. You can think of your own ways; you can do the opposite; you can do anything; but it's an objective center for thinking about where type comes from? It *does* come from broad-nib writing. It *does* come from particular periods. It *does* come from particular tools. You either ignore those tools or you don't. If you ignore them then you just looking at other people's interpretations of these tools, and if you don't, then you get a first-hand experience of what this flexible nib can do.

[PV]: For us, it's the most freedom. You have the most freedom in that way. If you look at existing type design, or type, or artifacts—it's all an interpretation of broad-nib in a way. Or flexible pen—

[EVB]: Even when it's not. Now—even when you get to models where you can no longer see what kind of a contrast it has, or it's no longer necessary—it still gives you a vocabulary with which to talk about these things.

[PVDL]: Yes.

[EVB]: Which is something that echoes back in our little TypeCooker [tool], it's just an exercise in talking about type: "What kind of contrast? How much? How wide? Weight? Proportion?" It allows us to talk about design in terms that don't reference particular designs.

[PV]: Yes.

[EVB]: You could say, "It's a little bit like Meta, but maybe also a bit like Helvetica, but—," which becomes difficult. But when you say, "Expand your contrast because it's really contrasty; it doesn't have any serifs; it's relatively wide—," then you can start building a picture of what it is.

[PV]: You can call someone and refer to the contrast; the kind of contrast; the amount of contrast; the width; the slant! And then somebody can draw it and you can see, it will be pretty close.

Do you use that vocabulary when you're teaching a class in type design?
[PV]: Mostly in the first semester. Our students get used to this vocabulary by doing all sorts of exercises.

[EVB]: [They've] got different kinds of drawing.

[PV]: And writing!

[EVB]: They [try] different kinds of writing with calligraphic tools. Although, it's not necessarily what is understood to be contemporary calligraphy. It [lacks] the scratches and the splatters and the emotion. We just [want them to] figure out how the brush work and

what happens when you rotate it? What happens when you make it smaller or bigger? So they examine the graphic results of those tools. They don't need to be calligraphers, but I think it is important that everybody knows how to draw. Because drawing also trains your eye and it allows you to judge shapes better. I'm sure there are good type designers who do not draw— who only look at the screen or at prints, but I think it's useful. It's certainly something we should not deny our students. They can decide to go completely digital and never draw again, but at least they've done it. They've made a *conscious* decision about whether they are going to draw or not.

And they can always reference that.

EVB: Yeah.

Do you expand or build on this initial vocabulary? And if so, how?

[EVB]: Well, the basic ideas are clear: broad-nib contrast, flexible-nib contrast, stuff in-between, increasing the contrast, reducing the contrast, increasing weight, reducing weight, eh, width, proportion—

[PV]: Yeah, and that's what I mainly teach in the first semester: drawing and making singular words in three types of contrast: low, high, and regular. And what is helpful in this assignment, or what's really necessary, is to re-do a lot. So it's actually like practice. So students make it, and then show it the next week. Then we start a new assignment, but they work on it for maybe two months in total.

[EVB]: A lot of the exercises are about *learning to see.* We all know how to read. But you need to take a step back and become aware of what the shapes do, and how the black interacts with the white, and what the rhythm does. Weird things happen in our eyes at a particular size, and it takes a while. As a designer myself, I notice that I keep on learning stuff that I couldn't see before; at some point you just become aware of it.

[PVDL]: I also think what Erik and Peter are teaching in the first semester—the drawing and the calligraphy—build upon this vocabulary well. On the other hand, in my class they look at historical typefaces in order to make a revival. They need to choose a typeface that is at least, let's say, seventy years old. In most cases they will see that what they've learned in the other classes and what they see in historical typefaces can become completely puzzling, because all of these old printing types did their own thing and they might not completely adhere the model that we teach here. But that is also the great thing about it, you know, to really make them aware that there is a way to talk about it, but there's definitely much more out there that also worked as type! Exactly *why* it worked, or *how,* is still for them to find out. During their student years it may still be very hard to see, but eventually it will take, and hopefully they'll look back at it at a later point and say, "That is very interesting what I did there, even though I didn't really know what I was doing."

When they do the revival, is it hand-drawn, or do they work on a computer?

[PVDL]: I don't really force them into any methods, but I do give them some examples. Or, I'll show them some strategies of what can work well. I think what is most important for students to learn is how they can work efficiently. I want them to learn what they need to learn without spending too much time on parts that are not as important now. So I usually try to shy them away from making big decisions about details when they're still working on the general design—the general part of the typeface. Detailing is just a phase later, but many students often have the urge to start polishing everything—especially when they go digital— and make everything straight that is maybe not completely straight at first.

[PV]: What I learned from teaching students working in a digital environment, is that when they are designing a typeface and they're focused on details, they tend to repeat elements, which takes a lot away from the liveliness of a typeface. And that is why drawing is so important, especially when you start. It's really good to just draw all the letters! Then they'll see that when they start to draw a serif at the beginning of a set, by the end they'll look totally

different! I tell them to keep it like that, because they can learn from that. That's a step, I think, at many schools, courses, or whatever, that nobody looks at. That is really valuable for the creation of a design.

So starting with a loose version of the whole, and then continually refining down to the final design?

[PV]: Yes.

[EVB]: But the computer has a direction of it's own. It has implied efficiencies that make you want to copy things; you want to make things straight; thing have to connect. And it's just assumed that this is what you do. But it doesn't have to be that way; they don't have to be the same; it does not have to be straight! But you need to have an opinion about it. You need to know if it can be like this, or it can be like that. And, it does not have to be that thing that we always do. But if you start with the computer, then you (or the material on the computer) are like fiberglass: very springy; very thin; very sharp; very exact; it's going to be here and not there; they're all numbers. Whereas when you draw, it doesn't really matter that much. You figure out how it's going to be this wide, it's going be roughly this weight—that's when you make big decisions in the design. It's going be thick here; it's going to be thin there; it's going to have a serif. But then, the exact shape of the contour is not that important. In the end, you *do* need one, and you need to express it in points, but the numbers themselves are not that important. And I think if you draw, you have formed an opinion about what the shape could be. And then with that opinion, it is easier to start dealing with a computer.

[PV]: Yeah, it's easier to take risks while drawing, and that's really important. If not, then things will lose a dimension, per se.

Do you find yourselves having to teach your students to look at the computer beyond an exact, rigid methodology? Is that something that they enter struggling with—that they want to make everything exact—and you have to explain how to think about the tool differently?

[PV]: Yeah. Sometimes, yeah.

[PVDL]: I think it's important to at least make them aware of it. And some people will still want to make everything as exact as possible, but then it's their choice.

[EVB]: It needs to be a design decision, and not some result of the [technology]: "Oh, well this is how the *computer* does it." We have to deal with digital tools; we have to deal with the peculiarities of the bezier algorithm; that's all a given. Placing those points and [learning] how those curves work—it's all very specific. First you make a shape, then you get this thing on screen and you start pulling the points—then you've already limited yourself. Everything you're looking at is a combination of these points and placements. It becomes very hard to decide, "Oh, well what happens if I put an extra point in there?" Because then you start over. Whereas if you draw, the curves looked flatter, or a little bit pointy, or sharp, or whatever it is—and you're making shapes that are nice to draw, and nice to look at, and not necessarily shapes that are easy to express in bezier curves. It should be easy to make things that are difficult to express in bezier curves that can still be good type.

[PV]: Yes, it's also about articulation in a way. Yesterday I was talking to one of our students and they were really stuck. Their drawings were not that precise, and [now] the work in RoboFont is bland and really rough—not well defined. […] So I want to bring them back to drawing, because sometimes people get used to working on [the screen].

[EVB]: To clarify, when we say *drawing,* it's not only broad-nib or pointed-nib; it's not the writing. The writing is in beginning—a foundation to understand where the contrast comes from. The drawing is really just normal pens, markers, paper, and drawing any kind of shape—it's not just a modification of calligraphic shapes, really, you can draw anything.

So just the act of using the hand to create, rather than—
[ALL]: Yeah!

[PV]: You will see when we are visiting with the students. They can show you some of their drawings as well.

Is there always a fluidity regarding the methods students can use to create their type, or are there points where particular tools and processes are mandated for everyone?

[PVDL]: Stone carving.

[EVB]: Broad-nib. Pointed-nib. Yeah!

[laughter]

[PV]: That's how we start.

[PVDL]: Exactly. The first semester is filled with many assignments. Certain ones are about some very specific things, like stone carving, or broad-nib calligraphy. In the second semester they have fewer tutors, fewer people to talk to, and it's just their own graduation project.

Okay. What role does your program play in the network of dedicated typeface design programs?

[noticeable pause]

[PVDL]: Wow.

[all laugh]

[PV]: I haven't thought about that actually.

[EVB]: We don't think about how we position ourselves or what our relationship is. We really focus on the students, and their ideas and what they need. And we try to run a good course. The thing is, your research has shown that there are not that many type design courses. A lot of this knowledge was locked away in companies—in the Monotype drawing room, and the Linotype drawing room, etc. Of course, in the [1990s] it was loosed on to the world, and this school had the advantage in that Gerrit had been thinking about this already, so he knew what to do.

[PV]: Without him, this would all never exist. He's really vital to this course.

[EVB]: And now, not even his particular models, but just the idea that, "This is something you can think about. This is something you can draw. You can take those computers and you can write code for them."

[PV]: Yeah, I have to maybe give a slightly different perspective. Gerrit taught in the graphic design department. He not only taught type designers, or students who became type designers, but he also spoke to students who became graphic designers. […] So when Erik and I were studying, Gerrit was one teacher, but also Alfons van Heusden taught illustration and he also had an impact on our bringing up, or *learning* at this school. He was not only teaching illustration, but he was a typographer as well. So at that time—speaking for myself—I learned a lot about graphic design abilities by looking at illustration, because you work with shapes and counter-shapes. So it was really vital—not only Gerrit's lessons, but many other lessons.

[EVB]: I think, to some extent, it was the atmosphere at this school that you can do all these things: make the illustration; make the type; make the typography; make the assembly on the page. And not just, "Now you're a graphic designer and you consume these things. You consume photography, and you consume illustration, and you get a font from somewhere." I think in some places graphic design is taught as *the spider in the web:* the art director who literally directs all these processes outside of him. And once you start doing that, you lose skills, you lose—because the photographer can talk to the font guy. They don't really need you! And just to decide that, "I will be in control of this!" And then *digital* happened— [suddenly] you're making the page but you're also making the font and you're also making the illustration. You don't have to but *you can!* And I think that was very, very good. And I think a lot of graphic designers who studied here, who are maybe not necessarily type designers, did pick up a big sensitivity about how they can use type. You can judge it; you can look at somebody else's typeface and say, "Well, y'know, I'm not sure about that contrast. It's maybe a little bit thin. Or maybe this is a really nice one," rather than just accept type as a product.

[PVDL]: But looking back at your question: *how has this course evolved?* You can say *organically,* in the sense that it was part of the graphic design course, and it has slowly become something independent. And then, in 2003, an official master's course. On the other hand, I think it's also good to comment that we do look very carefully, and we evaluate very carefully every year what exactly are we teaching? And we ask how can we still expand, or how can we still improve on things? But, it's not like we really have a specific master plan like, "This is the kind of course we want to be," because we already know who we are.

Thank you. Since 2003, there's been an average of, uh, approximately ten or twelve students per year?

[ALL]: Yes.

Has that number always been consistent or has it grown over time?

[PV]: No.

[EVB]: It has not grown just because, well, life happens. Sometimes classes are a little bit smaller. We always try to accept twelve. But then, when two don't show up, or two don't finish because they get sick, or they do something else, then you're down to eight. So that's a big fluctuation even though they're small numbers. We don't want to grow necessarily, I don't think. This is a good sized group. It fits in the classroom; it's a practical thing. But it's also a good group so that every morning–every week you can talk to all of them and give them enough time. I think especially in the second semester it is important to see everybody every week to see how things are progressing.

Are there positive and/or negative effects related to the duration of your program?

[PV]: Yeah, we've thought about it several times, and it still comes up when we're reviewing the course. In 2013 we had this [accreditation] visit, and I think we got questions about that also, about "one or two years?" And I think keeping it at one year is very good; I think two years would make the course completely different.

How would it make it different?

[PV]: Now it is very focused and very dense. Changing it to two years would make it much more expensive for students as well.

[EVB]: I think that changed; it used to sort of be longer—

[PV]: Well you could choose for the first few years (I don't know until when), but at first students could choose whether they wanted to it in one or two years.

[PVDL]: I completely forgot about that!

[all laugh]

[EVB]: But the situation was different; there were only two or three students. And they were, almost without any exception, all Dutch. Or at least they were all local. Now the interest has grown and we have almost all applications are from outside of Holland. So these are people who would have to stop their lives to come here and live off of savings. That's a big deal. So, one year is not ideal; it's stressful; there's a lot of stuff to get through; it's a lot of work. But two years would also be stressful. And three years would also be stressful. And it's not just one year or two years, the year goes from September to July. So if you make it two years you'd get the whole summer. So you'd add two months that are just there.

[PVDL]: Well also the students that we had that did it in two years, in the long run, didn't really work harder than the students that did just one year. The amount of work that they actually did was almost comparable. It was meant as a way to give them some more opportunities for self-study. But yeah, the results were not satisfactory, for us at least.

[PV]: No.

[EVB]: It's also nice to have the exam and the exhibition line up with the finals for the rest of the school. In July there's a big exhibition and all of the departments have their graduation

show. And so if we were to go to three semesters, then you'd have a graduation show in January, and that's not that much fun! Currently it's in the summer, and their parents come over. That's not, of course, a reason to keep it to one year, but it's a nice perk.

[PV]: Actually, the main reason is that it proved possible to do it in one year, and that's why we think it still works like that.

[PVDL]: But it's very, very, *very* intense! Some students still try to do some paid work [on the side] just to be able to afford living. But in practice this is really hard to pull off. We warn them when they apply: "If you're going to study here, just make sure you have the amount of money needed to be able to afford living here."

[PV]: I think what is really important for the students is the atmosphere of the group. If you have to focus on earning money in order to afford [coming here], it will have an influence on your results, definitely. The group is really, eh, well you'll see people. They stay until the academy closes, so they're here from 9:00am to 10:00pm, and then they go home. This is their home actually. It's really important we realize.

[EVB]: They're really motivated. And that's also why it is so much fun to teach here.

[PV]: Yeah! Actually, entering the "living room" of the students is what I feel like sometimes.

[PVDL]: Sometimes they make it *too much* of a living room! [laughs]

[PV]: Sometimes a bit more like a—

[EVB]: Dining room! Kitchen!

[PVDL]: Yeah!

Could each of you please describe some of the things you find most important about the way you teach typeface design?

[EVB]: I think during the first semester, any kind of drawing or sketching is important. It's important to have the visual feedback from what you make with your hands, and what you're learning, and what you learn about that shape. That's the first thing. The second thing is in the second semester when they start programming and scripting stuff, is to have control over their own tools. Type design tools aren't that good and there aren't that many. There's no big company making this stuff. […] So we teach them programming; Just [van Rossum] teaches a Python course in the first semester, and this evolves into Robofont, Robofab—all these scripting things. [pause] It's not just doing technical things, but some of the type design work involves production and it involves a large amount of data and numbers to be able to define what it is that you want. They write the code to do this. *You're* in charge; *you* can make this. You can think, "I hate doing this a hundred times!" And therefore, you make something. I think that's also one of the things I picked up from Gerrit—it's okay to look at other disciplines, and to look at how they make and use their tools, and *own* it! Take control of it.

With both the traditional and technological skills, what methods do you use to communicate this? Do you find that there's a large learning curve? How do you handle problems that come up with students learning type design skills?

[EVB]: It's a very practical course. So, they do things, we talk about it, then they do it again, we talk about it some more, and they do it *again!* [smirks] If we notice that something is difficult then we'll say, "Discuss things amongst yourselves," and we try to figure out what it is; we see if there's another assignment, or if there's another way of looking at the problem. I think everybody, in the end, will have their own methods and preferences as a student: somebody will go into lettering and calligraphy, and somebody will just develop tools. But I think the course should not already differentiate; I think the course should offer everything. That means that we have to accept that some people are going to be better at lettering because they are more motivated to do this, and some people are better at writing code. There will be an infinite number of mixes and an infinite number of differences.

Certainly.

[EVB]: There aren't—are there many problems? [addressing the others]

[PV]: [clearing throat] Mm.

[EVB]: I think there are small problems if somebody is dealing with a specific design issue.

[PV]: It's just something we have to deal with. And they can handle it.

[PVDL]: I think it also matters what you want to achieve with your students. You want them to become aware of things that you find important when making or looking at type. Many of the exercises that we do in the first semester are there to just open their eyes, and give them a way to talk about it at the same time. We also encourage presentations.

[PV]: Yeah.

[PVDL]: Especially during the second semester, they have regular presentations.

[PV]: Four in total.

What are they presenting on, specifically?

[PVDL]: The development of their projects. Every four weeks they need to do a status update before an audience, which is mostly us as teachers and some guests. I think it's very important to give them the experience of talking about their work before a bigger, or at least a semi-official audience. Then stepping to something bigger can happen later. I think it makes them aware of things, makes them look at things when they're able to talk about it. That's definitely one of the most important things we want them to achieve.

At the same time, when you talk about type, a lot of it is about making sure that you build relations between things that you make. Many people like to draw an 'A' when they're doodling, but one of the first things that you want to [teach] them is, of course, that you cannot look at only one letter when you're going to talk about type. You always have to look

at more letters when you're going to talk about the relationship between them. Then you talk about connections, and then you say, "Okay, what happens if you make an italic? How does it need to connect, or, in what sense does it connect?" Or,"What about another wight?" And slowly, little by little, you build this into a big system that, for their final project, should be a family of at least three members with a specific coherency between all the members.

That makes sense, but when you say you want to "open their eyes," _how_ are you opening their eyes? Is it through demonstrations or lectures or other methods?

[PVDL]: Yeah, exercises are still the most important part of that. Of course we take them to different places like archives and museums, like the Plantin-Moretus Museum in Antwerp. Luckily, there's a lot of stuff quite close to where we are. You can go to Amsterdam to see some great collections of type specimens and type books that are in the university library, (who we have a very good relationship with). And the Museum of the Book that's very close by has a big collection of historical books—

[PV]: And handwriting as well!

[PVDL]: Yeah! So those you can say are the more, I wouldn't say _theoretical_ part, but the more historical things that you can show them.

[PV]: References.

[PVDL]: References, exactly. But the work is what you discuss with [the students] mainly.

[PV]: And I also want to give them the idea that there's so much room to make new things—and to be creative. And also, to create with the positive motivation of having a happy dissatisfaction to what you're making. That's really difficult to theorize, in a way. But it's something that I try to give them individually, this motivation. Because I know from my own experience, when you draw—when you're working in your sketchbook, it can be really exciting! And you have to try to connect to what you're doing. The excitement is in _doing_ it,

in *making* it. If you look at type from a distance, the design aspect could be very much on the surface. So I actually think it is really important is to motivate them to create. That's where the fun is. It's also in scripting and making tools, but my part is mainly about the look of the typeface; it should be special.

[PVDL]: Yeah, and we want to give them the skills to execute the ideas that they have, whether that involves visualizing or producing it by using some scripts to make things easier.

[EVB]: There's an exercise we do in the beginning with the TypeCooker where you give them this recipe, or brief. It's actually quite detailed in what they need to draw, and I give the same recipe to all students. They all draw what they think is the same thing, and then you put them all on the wall, and they're all completely different!

[PV]: It's the same as the contrast assignment. It's very strict and very rigid—but they all [come out] differently! And that's great!

[EVB]: It's also not that difficult to make something that is new.

[PV]: Yeah.

[EVB]: If designers in the outside world end up making things that are very similar to other things, you know there's more going on then just a happy coincidence: [in a sarcastic tone] "Oh, well, it just ended up like this." If you really want to make *that* thing, then you can, but you were not trying to address the general problem that typeface is addressing. Like all typefaces, you can specify a particular size, use, and technology—but you can take all of those criteria and draw something that fits all those criteria, and it will still be completely new, original, and different. Whereas, if you look at the solution and you draw the same thing, yeah, then, there's another one!

[laughter]

[EVB]: And that's a bit of a shame because it takes just as long, right?

Right.

[EVB]: It's a bit more uncomfortable because you don't know if it's going to work. There's a risk—you don't know if people are going to like it, and all that stuff. But that's always there, and it should be there.

[PV]: And when you fail, then you learn a lot in doing that failure.

You mentioned a lot of historical references and things that you introduce the students to. Does contemporary typeface design play a role in the curriculum?

[EVB]: We bring in contemporary designers—basically friends who are in town and we drag them to school. And we organize conferences [like Robothon].

[PVDL]: Or we take them to conferences like TYPO-Berlin.

[PV]: Yeah, and ATypI sometimes.

[EVB]: We all bring books we like, and we focus on [particular] designers. If we notice somebody has a particular interest in a particular designer we just go to our libraries and take stuff next time to show them. It happens in a natural kind of way.

[PVDL]: I think, especially if you're talking about contemporary type design, the students usually see a lot more already that is out there than we do! [laughs]

[PV]: Yeah—to be honest! [laughs]

[PVDL]: Yes, which is also what they should do. They should be very much aware of what is out there now.

[PV]: And some of those examples are actually our former students.

[PVDL]: True.

[PV]: And not a small amount, actually.

[laughter]

[PV]: We are quite proud of our former students who are doing very well.

[PVDL]: But at the same time, especially with the revival project, I deliberately set a rule that it should be a typeface from before 1940. Because that will mean they actually have to look for material that they're probably not going to find on the internet. I think all of them are practiced enough to find everything about contemporary type that's out there on the internet. But the moment they have to look further and need to go to look at old specimens and collections that we have close by, they then realize that there's so much more that they never really had to look at.

With the same tools being available to all designers now, whether they're in a master's-level program or just learning on their own, what difference does pursuing a degree in typeface design make? Are there benefits to entering a program like the one here?

[EVB]: I think that it's a year of focus.

[PV]: Yeah.

[EVB]: Everybody can do these things: you can go to all the websites; you can talk to all the people. But there will be distractions. Here you're surrounded by people who share that focus, and aren't looking at other things. I think that can be inspiring. It's clear what you're here to do, and you do it well.

[PVDL]: Yeah, I think it's also very much about having one-to-one personal contact. So as a student, having personal contact with your tutors, compared to say, posting your work on a forum and asking for a critique. There are great examples of websites where people do this, but I think it helps for a student to have direct contact and feedback, like we have here.

Are you saying that, as a professor, you lack the benefit of being able to work through the entire design process with them if you're just responding to a final specimen being posted in a forum?

[PV]: Yes.

[EVB]: Yes. You hardly ever see the comment, "Looks good, but why don't you just start over?"

[PV]: Yeah! Or, "Make it *very* fat!" It's always "a little bit more; a little bit less."

[EVB]: Yeah, there's an etiquette; a certain politeness. You don't really want to say very negative things.

[PV]: Yeah!

[EVB]: Like, "Why the hell are you doing this? It's been done twenty times already!" It just does not happen. And if you do, then it's, eh—

[laughter]

Then there's a written record.

[EVB]: And people don't like that. I think an underestimated, or undervalued, thing in design is just starting over.

[PV]: Yeah.

[EVB]: If you never start over, you put away everything, but your brain is already completely attuned to what it should be. However, if you start over then you are able to address decisions that you [made] very early on, and now you can finally fix them! There's something peculiar about the process of type design, in that some things go very fast and some things go very slow. So when you expand a character set, it gets bigger and bigger, and it gets slower and slower and slower to fix certain things. If you only have five characters then it's easy to change the width. But if you have five-hundred characters, it might still be just as necessary to change

the width. But you're not going to because it's *five-hundred characters!* I think some of what they figure out here is how to plan for this. Yes, we know you can make the full character set and make all the accents and all the features and all the ligatures and stuff. That's okay. But really, if you start with something crap, it's going to be a very large character set with something that's crap! You really want to know if it's good. Occasionally I prefer to see an incomplete design, but from somebody who spent an awful lot of time just looking at a couple of lowercase letters and got them perfect, then to just quickly go into producing full character sets and all those things—it's really not so impressive. The tools and the scripts are there. You can do it, although it's a chore. But the interesting stuff happens at the beginning!

So the old thing still holds true: quality over quantity?

[PV]: Yes.

[EVB]: Yes, and starting over. And knowing it's okay to start over.

[ALL]: Yeah.

[EVB]: There's a tendency upon finishing this or any other course to want to quickly publish this thing, so you can get some money back, maybe? But you see that they learned so much during the process, and you think if they would just start over, the next design is going to be a lot better. The next design will take advantage of all of their skills from the beginning, rather than start somewhere simple and then grow. But they're always in a rush to publish.

[PV]: Yeah.

[PVDL]: And that is also quite often their conclusion when they need to do their revival project in the first semester with me. They have to present it in the form of an essay where they tell about the whole historical part of the typeface, and then include their process of digitizing it and making it work as something they make on their own. Since most of them come in without a lot of experience in doing these kinds of things, the conclusion of these

essays usually reads, "Looking back at it, I did so many things wrong. If I could do it again then I would really know how to do it properly." And that is exactly what I would like them to realize at the end of the course. When you just do it once, only then can you fully realize the scope of problems that you're facing in doing such a project. And then next time, yeah, you're prepared.

[EVB]: The next typeface will always be better.

[PVDL]: Yes.

[laughter]

That really does make a lot of sense. Dutch culture obviously has a very healthy respect for good type design. Is there any cultural influence that has shaped the way this program has evolved? How does the fact that we are in Holland, as opposed to New York City or California or Australia, make a difference in learning typeface design?

[PVDL]: Well of course students have different backgrounds when they come in. And that's something that I value very much, because it brings a richness to the whole group. What we're trying to teach them is to, like we've already said, to execute the ideas that they have about type. To me, if I look at the results of students from previous years, I think that you can definitely say that their final works have a particular flavor to them, which is connected to where they come from. Again, that is very valuable! But of course, it is natural to look at things from our own perspectives.

[PV]: Also Jan Willem Stas has had much influence on the course. He leads excursions with the students to all sorts of museums and such. He's more in the cultural corner, as you can say. He was the coordinator of the course.

[PVDL]: Until last year.

Is he no longer working with the program, or has he simply changed roles?

[EVB]: As a civil servant at this school, when you're sixty-five you have to retire. So we took

over several of his functions. He's still involved as a teacher, and he organized the Karel Martens exhibition and the Karel Martens publication for the Gerrit Noordzij prize this year.

[PV]: He introduces the students to the cultural landscape of the Netherlands. He shows them work of artists and exhibitions. […] His influence on students is very important.

Do you agree that where a type designer is educated influences their practice?
[long pause]

[PVDL]: [quietly] I guess.

[PV]: Yeah.

[EVB]: Just as anything you pick up; where you learn your English has an influence on how you pronounce it.

[PV]: Yes, and that's why sometimes people stay here in the Netherlands, and other move to Mexico or New York to work there.

[EVB]: It's a small field, and if you know what you're doing, and you're a professional, then I think you can work anywhere.

[PV]: Yeah.

[EVB]: There are Germans working in San Jose, Mexicans working in New York, and Germans working in Holland, and Portuguese working in Holland—I mean, it's all over the place. But I think that's also a sign of how Europe makes things easier for people to travel around. It's so much easier now within Europe to go study somewhere else than it was. When I went to school it was difficult and expensive and unheard of, and now it's easy. And I think that the first time you leave, it's really important for everybody to see that, yes, everybody has their peculiarities, but everybody also shares a lot of things. That's the interesting thing about these groups every year—even though everybody's from all over the place, they very easily

find a way to work together. They very happily make fun of everybody's peculiarities, but with an understanding that, "You can make fun of him, but you also have your own weaknesses." And there's a lot of learning. I think that also helps with teaching, to see these people from the Far East, the Middle East, South America, North America, from all places in Europe—everybody has their own perspective, yet everybody shares an interest in type.

[PV]: And in design education in general I think you should always be aware to not discuss aesthetics with students. Because aesthetics is one of those things that is so personal, and you cannot really lay any finger on it. So it's pointless to start a discussion with a student just about aesthetics. So regardless of what their background is, and whether they are from another country, the work all has its different aesthetics, but what you want to focus on with them is: does it really work as a design in general—from concept to execution—is it well though of? Is it well motivated?

[EVB]: It just means that you can disassemble aesthetics and you can take out all of the things that are somehow related to taste. But then you think, "Well, how about this?"

[PV]: [in a mocking tone] You have a wrong taste.

[all laugh]

[EVB]: Yeah, but that's it. If you look at rhythm in types, there are some dark things and some bright things—that's something you can take out of the discussion because you can objectively look at them and think, "Well, you know, maybe we should try to have it more even of color." Then you can talk about this. I think it's possible to take all sorts of things out of this taste and aesthetics thing. And eventually, yes, there will be things that Peter will do different from me, and Paul will do them different than Peter, and we'll give them completely contrary advice.

[PV]: Yeah!

[PVDL]: Yes.

[EVB]: And I think that's awesome when that happens! The students get confused, and then they get grumpy, and then they do it themselves.

That's part of being a student is being able to discern how they truly feel, right? You might hear "black" from one person and "white" from another person—how do you find your shade of grey, right?

[PVDL]: Yeah.

[EVB]: Yes.

Since you mentioned the connectedness between European countries, based on your experience, have you found any significant differences between American and European typeface designers?

[PVDL]: I don't think so. I mean, it still has to do with whatever background they come from. There are plenty of places in American schools where typography is being taught with, well I wouldn't say with exactly the same attitude, but at least those students will learn how to look critically at typography. I don't think this is the same with all countries in the world. I think there are perhaps more opportunities in America than in some other countries, if you look at Russia, maybe. That's still very generally speaking. There is more design education in America than in many other countries, but that doesn't automatically mean that they will be better students, or worse students.

[EVB]: What you'll quite often see with American students is that they'll usually be more comfortable with presenting themselves.

[PV]: Yes.

[EVB]: I think that's something that is probably already being taught more, or is part of the culture, to, you know, always present yourself with as much hyperbole as possible. [laughs]

[PV]: Decent presentation, yeah.

[EVB]: Yeah.

Are you implying that the converse is true, that perhaps designers from Europe and elsewhere struggle with this kind of presentation? Or is it just overly pronounced in American students?

[PVDL]: I think, uh—

[EVB]: I don't know.

[PV addressing EVB]: Well *you* know the most American designers!

[PVDL]: In American culture it's not considered impolite to speak positively about yourself, or to brag. Whereas, if you take Dutch culture, being modest is actually a way of being polite.

[EVB]: [coyly] So it's brag versus *humble*-brag.

[PVDL]: Yeah, sort of.

[EVB]: Look at *me* being utterly modest about my own work!

[Paul laughs]

Where would you like to see the Type]Media program be in five to ten years?
[looking silently at each other]

[PV]: Ooh, that's a difficult question.

[EVB]: At this school, I'd imagine.

[PVDL]: Yeah, and like we discussed before, we didn't really set a particular profile for this course because it already began very organically. I think the first thing we're all concerned about is maintaining the quality of what we do here.

[PV]: Yeah.

[PVDL]: During the accreditation two years ago, we got a very positive accreditation—the best!

[EVB]: You're being very *un*-Dutch now.

[PV]: Ouch.

[PVDL]: Yes, the best accreditation that we could possibly get. [laughs] But I think that it is important to maintain what we think is quality in typeface design, and teaching typeface design.

[EVB]: I've been surprised with the way that interest has grown for type design in general, and also for this course. The number of applications we get is scary! I have no idea if that will continue—whether people will still think it is an interesting thing to do. I think the current culture and the current economy still provide a need for new designs. There's always a context to make something new. There are publications, media, and all sorts of things that require type designers to make new things. And I imagine that this will continue. In more general terms, I wonder how the profession of an independent type designer will develop over the next ten years. Especially with big finance speculating on type.

The things that happened with Monotype I think are slightly worrying—the amount of money that goes in there, and the kinds of things that happen there. Companies like that don't really need new designs because they have a massive portfolio that they would like to sell over and over again. And I could imagine that people who make new things are kind of annoying because you've *invested* in this library, and then somebody comes along and makes something new! […] I'm not sure how it will work out, but we're such a small discipline, and we're such a small course that I imagine we'll be alright.

Would you like to see more courses that offer degrees in typeface design around the world?

[EVB]: I think there is probably more need than we can provide. We accept twelve people every year, and we have over a hundred applications. It would be a waste if everybody gets disappointed and then never looks at type again. I think it is a good idea, but this is already happening within the different scripts; within the different writing systems—they start developing their own approaches. In Russia there are now several places where you can learn about type design—specifically for Cyrillic. This is really interesting because all of the typefaces that were available in the Soviet Union were Westernized typefaces that were quickly "Cyrillified," and then made for the Russian market. That not only influences what is available, but also how people think about those shapes. Now you have people who read and write and breathe in the script and the language, and they start making their own things. And maybe, if they like it, they will also make a matching Latin. It can go the other way!

[PV]: Yeah.

[EVB]: There's really interesting stuff going on. And I think similar things can happen in the Middle East, for Arabic and Farsi. Similar things can happen in Korea, or Japan, or in China.

[PV]: And India!

[EVB]: Exactly. There's a more local—I don't want to say *local*. Local doesn't apply. But we don't teach non-Latin, a rather difficult term, scripts to people who do not read and write them. I know that this is a big difference with Reading.

Yes, it is.

[EVB]: We just focus on Latin because that's what we're really good at. There are courses that introduce Greek and Cyrillic, and they, of course, do things in Arabic, and they look at these shapes and discuss them and understand their problems. But I think you have to be able to read and write in order to make these typefaces work.

We've had students from the Middle East—from Lebanon—who come here with experience in Latin and also in Arabic. They do all the Latin exercises, and in the end they will still produce an Arabic typeface. You can see that somehow, bits of the approach, of how you look at contrast, how you look at weights, can be translated into other scripts.

But it requires a lot work and a lot of study by the student. Some of them are up for this, and *then* it works. Not everybody does it. [pause] And that means you can look at these shapes and still acknowledge history, and the great calligraphers, and the texts, but still form a personal opinion about how you want this typeface to look. I think that will translate into any script, and into any language. It doesn't need us.

[PV]: At the same time, we are a master's course, and I think there's especially a lot more room for courses like Cooper Union. Many of the portfolios that we get are already from courses like Cooper Union. It's sort of like a course that people can do first in order to get introduced to type design, then they can come here. And I see within the students that apply and that we talk to, that there's definitely a lot of interest in learning the basics of type design. Since we are a master's [course], this is not our primary goal. Type]Media is about developing yourself further. I think there's certainly a lot of interest in those kinds of courses, and I definitely think there should be more of them.

[EVB]: I think anyone who learns about type will be a better typographer, and will be a better graphic designer.

[PV]: Yes. That's actually why—to come back to the origin of Type]Media—that's why type design became part of the graphic design bachelor's curriculum, and still is. I'm still teaching at the bachelor course and teaching type design. It's still valuable. While some other courses became more or less obsolete by the changing design markets or the design field. But it's one the fundamentals of teaching design.

In speaking about short courses, do you think that type design can realistically be taught in a short course format? How can short courses and master's programs work together?

[PVDL]: Well, like Peter already said, he teaching in the bachelor's course. We both actually teach in the bachelor's course. There, you just need to teach students something about the fundamentals of type design within a much shorter time frame. I wouldn't say the cliche that it "takes a lifetime" to learn everything—but I definitely think you can give them an introduction. And then they can find how they want to develop it further. Whether they just stick with what they've learned so far, and use it as a graphic designer, or maybe use it in another discipline. Or, if they really want to go all the way then a course like this would be a good choice then.

[PV]: We all have these [workshop] experiences, so we know that students can learn quite a lot in one week. But it's not enough. A week's time is probably enough to learn the basics.

[EVB]: Yeah, but it's also enough to figure out whether you find something interesting or not.

[PV]: Yeah, sure.

[EVB]: But I think the results of the Type@Cooper course are really interesting, you know, if you already have a job, and *especially* if you have a job in New York City, there's not that much time. If you want to learn about something, such a context is really good. Maybe they will set up their own master's, who knows? But it's not a profession that requires a diploma. You can make a font and then sell it. It's not the medical profession. It's not architecture. Buildings don't fall down; there's no registry—it's all very safe. The only thing a course like this provides is a year-long opportunity to look at *only* this, and to do *only* this. And if you have the opportunity to do this, then I think this is something where we can help you out. But it's not the only way. People have been making type for centuries without master's courses or diplomas.

So, in your opinion, what does earning a master's degree in typeface design give you?

[long pause]

[PV]: Nothing.

[heavy laughter]

[PVDL]: Well, a lot of in-depth knowledge. Knowledge that will be very hard to obtain somewhere else, or especially from so many different people at the same time. It's really about the level of detail that we talk about this—

[EVB]: Yeah but also, like any course where you study abroad with people that have the same interests, it becomes a network. These people will be talking to each other for the rest of their lives. We see this from all of the years before. And this is nothing special to this course; this happens in any course. They become friends and colleagues, and they work together, and they start companies together. Regardless of where you study, the mere fact that you go to a place and hang out with people who share an interest in type design, that will always be important. If you go to a school and you're the only one interested in type, and they say, "Well, we can give you a diploma, but really there's no one here who can help you," that's rather sad.

We do have all of the official academic requirements; we have all of the European rules; it's all accredited; it's all neatly packaged. This makes it easier for people to get scholarships, and to make those kinds of decisions to come here. But in the end, no one will ask you for this diploma.

[PV]: No.

[PVDL]: Well, only if you want to teach, maybe.

[PV]: Yeah, maybe.

[EVB]: True, but it doesn't make a difference in what you learn, or what you can do with it.

Part of my thesis is comparing the different educational systems in England, the Netherlands, and the United States. Are there any fundamental differences, when you use that language—"bachelor's", "master's"—between the educational system here compared to the United States?

[PVDL]: Well first of all, the design education here is part of art education. I don't think that's the case everywhere. So, this is not a university. Um, so also the level that you—the diploma that you get with your bachelor's degree, I wondering how it really compares to—

[EVB]: No, but it does. That's what the bachelor/master system is. In Holland we had a peculiar thing in that there were two levels. There was the university level and there was a polytechnic school level which was more professional directed. And then the research—the scientific part—would have been the universities. And those have been separate for a really long time. This difference does not exist in the United States or in England, or in Germany, or in other places. And, there's always been animosity. So the academy—even though it's been around before any other school in Holland, or at least for higher education—had been shoved into this polytechnic level because, clearly, it was *not* scientific. So that's sort of the decision that was made. This last ten years, this whole bachelor/master thing comes out of the European Union—

The Bologna Process?

[ALL]: Yeah, yeah.

[EVB]: And I think that's great for Dutch education because now these things are the same. And it's not that these hbo [schools] would like to be universities; I think everyone's happy the way that it is. It's the universities that emphasize the fact that, "Oh, that's all different." So there are differences in the bachelor's and the master's just because of the contents of the courses and the way things are structured, but I think the diplomas are identical. The value of your degree is the same.

[PV]: Absolutely. A bachelor's here takes four years. That's similar to other higher education and universities. Then you can do a master's, which for us, is one year. That's a little bit different from any other master's courses, but in comparison to England it should be interchangeable at least.

So before students in the Netherlands reach the point where they would enter a bachelor program, regardless of typeface design, at what age are they, and what is the system to get to that point?

[EVB]: Primary school goes up to age eleven. High school is from twelve to seventeen or eighteen. We have different levels of high school, and there's no American idea of middle school. High school is also structured a little bit differently. It's graded by ability, so there's more practical things and then there are more theoretical things, and pretty scientific things. Then there are universities and various kinds of professional courses after that.

[PV]: In order to qualify for university you have to finish your high school at the highest level. And for higher professional education it's either that level or the one lower.

[EVB]: And there's some countries that just say art and design education is on a university level. I think it's okay to have regional differences. But age-wise, even though it's possible to finish the Bachelor of Graphic Design here at age twenty-two, I think most applicants we get for Type]Media are older. They've done other things. Some have already done another master's, and some have worked. I think it's not bad to have done something other than just a graphic design course.

[PVDL]: It's even preferred for students to first do something else when they finish a bachelor's, in my opinion. Get some experience, maybe work, then apply again for another course. The danger can be that if they just continue from one school to the other school, it's sort of, well clearly, they're much more motivated if they've come from some other experience. They have a clearer idea of what they want to do.

Well I know we're closing in on that two o'clock time, and I want to be respectful of your time. Would it be alright to email you for clarification once I go through and transcribe everything if there's any bits of confusion?

[PV]: Please do.

[EVB]: Of course.

[PVDL]: Sure.

I would greatly appreciate that. Thank you.

[PV]: And I'm going to the classroom, so if you want to join me?

Absolutely! I would love to do that. Thank you so much, gentlemen. I greatly appreciate you taking the time with me today.

[EVB]: Thank you.

[PVDL]: Our pleasure.

[END OF INTERVIEW]

Jesse Ragan
March 20, 2015
The Cooper Union
New York City, United States

[Patrick Gosnell]: Could you start by introducing yourself and speaking about your role within the Cooper Union program?

[Jesse Ragan]: Sure. So, I'm Jesse Ragan, and my primary work is designing typefaces and custom lettering. In fact, for the past year and a half or so, all of my client work has been custom lettering. […] And I have done a good bit of custom typeface design in the past, but for some reason people aren't asking for that as much lately. I am also developing typefaces for retail sale, like Cortado Script, which I released in December with Ben Kiel, and I have a few more things in the pipeline to release this year. And then, what else? I'm the current secretary for AIGA New York, and I cofounded Type@Cooper in 2010. Well, stepping back from that, I started teaching undergraduate classes at Pratt Institute in 2006. I taught a typeface design elective there, one semester of Type 1—but I hated that experience! [laughs]

Really? Why?

It's a hard thing to teach.

What made it so hard?

Well, for one thing, they have a very open-ended curriculum there, [with few] guidelines for what you are supposed to do. They just kind of throw you in there to do whatever you want, and for me, I felt a lot of pressure [to do well] because I felt like I was responsible for the foundation on which their entire graphic design education is built! Because typography is the center [of everything], *right?*

Right! Absolutely. [laughs]

So it was just a lot to be given free reign to do whatever that meant, with whatever balance of history, theory, and practicality was [needed]—all rolled into one semester! Anyway,

I'm much more comfortable teaching typeface design, because that's what I do, and that's what I know. I'm not a typographer, so teaching typography is not really a thing for me, if you use the words the same way I do.

Yes, I'm with you.

So I only taught [Type 1] for one semester, and I taught typeface design on and off for four years [at Pratt], whenever they got enough students enrolled. And then I co-founded the Type@Cooper program in 2010, and [subsequently] taught there for four years. In the midst of all that, I also taught some two-day graduate workshops in typeface design at Pratt.

Could you tell me the origin story of the Type@Cooper program? What was the initial idea or conversation, and how did it become the program that it is?

Are you speaking to Cara Di Edwardo?

I spoke to her at TypeCon last year, and a bit through email, but not on this trip.

Okay. Well, she's been involved with Type@Cooper since [the beginning]. She's the one who invited me in, so she knows more about the pre-history than I do. [laughs] But my understanding is that, back in like 2003 or something, Hannes Famira was teaching typeface design at Cooper—in the continuing education department, and [his class] had been fairly well received. Cara, I think, was the one who brought him in there. I met Cara around that time while taking John Downer's sign painting workshop [at Cooper]. And I knew Hannes in passing as well. At some point, Hannes and Cara were talking about starting a certificate program in typeface design. But, it never quite got off the ground, and then Hannes moved to Berlin for a while. Later, the architecture department at Cooper started a "green architecture" program, which was the first certificate program at Cooper. It did very well, and I think it got them a lot of attention since it was a unique offering in New York City. So, that was a point that Cara could use to sell this [typeface design] certificate program to the Continuing Education department.

Then [Cara] approached me with the possibility of teaching there, and helping to determine what the program would be like. Essentially, going in to it, all she knew was that there are a certain number of contact hours that you have to include to be a certificate [program] in New York state, or New York City. Beyond that it was just whatever we thought needed to be done. Being under continuing education, we wanted it to be something for working professionals, so we designed the whole thing as evenings and weekends so it would be accessible to people who have a full-time job.

That's good.

Cara also enlisted Sasha [Tochilovsky] who has been teaching history and design [at Cooper] for a while, and who is very knowledgeable about history and theory. So the three of us sat down together and just brainstormed for the entire summer of 2010. We conceptualized about what it should be, and what we'd want people to learn. It was one of those processes where I don't really remember who had which idea—it was just a lot of discussion between the three of us.

They wanted me to be the primary design teacher. My attitude towards this was basically, "I know what my strengths are as a teacher, and what my weaknesses are." And we kind of build the entire—or at least my approach was to build the entire thing around "what are my weaknesses?" [laughs] I would curate a selection of people and classes that would fill in the gaps, and give [the students] a well-rounded education.

I could also say—about my experience of learning typeface design—I never had a graduate education or anything like that. But when I was at [Rhode Island School of Design] as an undergraduate, I had two typeface design classes. I had a class with a graduate student, Charles Gibbons, during my sophomore year. (He was just a student there at that time, but he had been doing typeface design for a while.) And then the summer before my senior year, Cyrus Highsmith taught a two-week class in type design. That was actually the first time he had taught; now he teaches undergraduates there part-time.

Yes, okay.

So I learned about [typeface design] there, and then Cyrus brought me on for an internship at FontBureau the following spring. He also did an independent study with me through the second term of my senior year. Then I continued on to work at Hoefler&Frere-Jones. Between all of those experiences, I feel like there are a lot of people who have been influential in giving me a certain kind of perspective on typeface design. They also gave me conflicting viewpoints, which helped me develop my own voice and my own ideas.

Basically, my attitude with Type@Cooper was to try to recreate that environment by putting as many brilliant people in front of them as possible. I actually saw my class as kind of a quiet, behind-the-scenes [pause] really, the stage onto which all of these other personalities would enter. I [would take] the boring stuff, or the foundation, so that others could tell them more about the big ideas. That's how we had it framed.

There are two tracks for Type@Cooper, but which came first, the extended or the condensed program?

The extended program was already running, and I guess we were halfway through the first term or something, and Cara had a lot of people contacting her from abroad saying they wanted to take the program, but "I don't think I can get a visa for a year," or whatever. "Is there some way I can come take part of it? Or just take the workshops?" And that gave her the idea to create a program that was more contained, primarily so that people could come from abroad to do it. But also, others who were not able to take that much time off of work, or have so many weekends and evenings taken over by this. It would be easier for some people to clear out a month and focus on this program.

Sure. Why did the program begin as a certificate program? Was it because of limitations with the school? Was there ever any talk of developing into a full-fledged MA?

You should ask Cara. We've talked about the possibility of growing it into a full graduate program. I don't really know why it was a certificate program to begin with.

Do you feel that the subject of typeface design requires someone to be at the graduate level to fully understand, or can undergraduates, at their creative and development level, truly grasp what they need to successfully design type, as opposed to just being introduced to it?

Right. I guess the real question underneath that to me is: what is someone trying to get out of taking a typeface design class or program? Most of the people who have come through Type@Cooper have told me that they're not interested in switching to full-time typeface design, but they just want to understand type better. And they felt like this was the best way to really get deep inside typefaces. Most of them continue to do book design, or illustration, or whatever it is that they were doing before. So in that sense, if the goal is just to gain a deeper understanding, then yeah, that's accessible to anyone.

I don't think that Type@Cooper, with the limited amount of time that they can spend, gives students a full—I guess if they're coming from zero, coming in to the program with no typeface design experience, they don't really walk away with the ability to make professional-quality typefaces, because there's just a lot that goes into that, and we don't cover everything.

Is the focus more on conceptualization and form-building, or what percentage of the program is devoted to learning the technology and programming that goes into finalizing a font?

I try to pay attention to the different kinds of things I'm teaching, because there are a lot of different things that need to be taught in typeface design. I try to make sure that I'm giving the right balance, because the main things that I want to focus on teaching are technique and aesthetics. Maybe aesthetics is not the right word, but things like proportion and balance—the fundamentals of how letters are formed. I want to teach that, and I want to teach a certain working procedure. Both of those things are independent of technology, although they intertwine of course. So that is my focus, but obviously a lot of time has to be devoted to technology as well: how to use the software, the specific limitations of OpenType fonts, the specific limitations of PostScript vector drafting. [pause] So, you're question was what—how is it covered? I guess the stronger emphasis is on technique and aesthetics. But we have to

spend a bit of time on software; I try to shift a lot of the tech support stuff to the [Teacher's Assistants]. (I should be saying all this stuff in the past tense since I'm not teaching there anymore, you know?)

Right.

Then, to show them how to master fonts, Andy Clymer teaches a class in the last term of the program. Ben Kiel teaches a Python programming class in the second term. So like I was saying, I built the program around where my strengths are; I'm not a great tech person. So we brought in people who are really good at that. Both of those classes are optional. Some of the students are just not that interested in learning the tech stuff, especially people who are not planning on becoming professional typeface designers. Maybe they're more interested in the aesthetic aspects.

It seems like there's much interest on the level of, "I don't want to do this full-time, but I do want to understand letterforms more." I've heard similar feedback from the people at Reading and KABK earlier this week. They definitely see the benefit of a short course as being able to introduce lots of people to this topic very quickly, but that perhaps a more intensive education would be needed to do this full-time. Would you agree?

Yeah, I do. When people have talked to me about applying to the extended program or the condensed program, I usually encourage them to take a workshop or something smaller before they jump in to see if it's even something they want to pursue. I think I could [honestly] say that I don't think I've ever had a student who stayed through the whole three terms at Type@Cooper who regretted it—at least who *told* me that they regretted it. [laughs] I ask people directly, "Was it worth all this?" And people say, "Yeah, yeah. I'm never gonna do anything with it now, but—" or "I'm never gonna design a typeface again." I think a lot of them learn through that experience that it's not something that they want to do, but it's a way of [figuring that out].

What is the role of the Type@Cooper program in the vast spectrum of dedicated typeface design programs around the world?

I guess it's the middle ground between taking a class and going to graduate school. A number of people have done Type@Cooper and then gone on to Reading or KABK; it gave them an entry point. Particularly the condensed program—more people have continued on from Type@Cooper condensed to graduate school than have gone from the extended [program]. (Probably because the extended program just wears them out, doing it for a whole year!)

But, if I over-generalize when comparing it to Reading and KABK, my impression—not having been to either of those programs or having been intimately involved with them—my impression is that Reading is very much the academic kind of graduate school, where you're designing a typeface to an academic end. [Along with] writing mostly theoretical things about it and you don't get much direct practical instruction in designing typefaces. KABK is maybe more about being exposed to a lot of things, like stone carving and—I'm not even sure what all—you probably know more than I do about what their curriculum is. It's a very hands-on way of absorbing typeface design, and I think Type@Cooper is much more pragmatic. It's almost like trade school in a way. And I feel like that's not really available anywhere else.

Does that come more from the market as it currently stands in the US, or does it even come from the tradition of Cooper Union as an institution?

For me, it comes from my values and what I'm interested in teaching. I don't know. [pause] I'm a pragmatic person, so that's where it comes from for me, I don't know how much of Cara and Sasha's attitude towards that stuff was influenced by the institution or what the demand was. I feel like I'm not really in touch with what the demand is at all. So, for my part, I wanted to build it the way I wanted to build it.

Do you think in five or ten years that we will see more and more programs like Type@Cooper and like the summer intensive at SVA pop up around the United States?

I do, yeah.

Is that something you want to see?

I feel like already we're a little oversaturated with type design programs and aspiring typeface designers.

When you say "we," do you mean the United States?

We, *humanity.* [laughs]

Do you think there's too many programs already?

No, I wouldn't say it that way I just [think] the industry is so overcrowded already, and we keep telling more people that they should be type designers. [laughs] It seems a little problematic and unsustainable.

That's interesting. I've heard more people refer to the industry as pretty small and tight-knit. I know people would say that the graphic design industry is very saturated, but for something as specialized as typeface design—you feel that it's also oversaturated?

I mean, I started working in 2001, and I would say that there are twice as many full-time typeface designers than there where then. And there are probably fifty times as many people who have designed a typeface than there were back then. That's a lot. The market is still growing, but the supply is growing a lot faster than the demand. At the same time, retail prices [for fonts] have been driven down […] in the same way that digital music prices have. In shifting to the subscription model for Adobe Creative Suite—there's an attitude that people want things to be at more of an accessible price point up front. And now there are subscription models for fonts as well, and that is putting us in a difficult place where it's not as sustainable to sell fonts as a primary source of income. (Not that I have much direct experience selling fonts, to say that though.) That's just my impression. So it worries me, since I'm trying to sell more of my fonts directly. I don't know if it's going to be worth the investment, you know?

Obviously a big contributor to that growth is the fact that everybody has access to the same technology and tools to create fonts. But if you were counseling someone who was really interested in pursuing a degree, or maybe even just asking, "Should I spend the time and money to actually get a degree in type design?" What would you tell them the real advantage was for a typeface designer to engage in the realm of higher education?

Well, at this point there are so many people with typeface design degrees, that if you're applying for that rare job at a type foundry, there are going to be a lot of people applying as well who have degrees, so it would hopefully give you a [competitive] advantage.

And I would say—aside from the piece of paper—the training that you would get there can get you to a good place a lot faster. If you're just trying to create fonts independently and sell them through MyFonts, or whatever, it can [be slow]. Traditionally, most digital typeface designers have been self-taught. But now actual training is so much more accessible that it seems worthwhile if it's something you actually want to invest time in doing professionally.

So you would say the advantages are both formal and economical? In terms of applying for jobs, the degree would help in that sense?

I think of student projects as an opportunity to fail and learn, to make some bad stuff so that you can learn how to make good stuff. (Not that my students have made bad things at all!) [laughs] But yeah, the best way to learn is by doing things wrong and trying again.

Sure.

If you [immediately] jump out into the market and make some bad fonts and release them, that positions you very differently than if you hone your skills in the closed environment of a classroom, and then make better stuff and start selling that. [pause] And a lot of people— dabblers in typeface design—jump in and release the first thing that they make, which is often pretty [sic] stuff! Or it's falling into the same tropes that graphic designers who get excited about typeface design want to make: something overly modular, something that has too much weird stuff going on to be practical in vector, something with lots of swashes— whatever the pitfalls are that they fall into.

It's only swashes! It's one big ligature! [laughs] I heard Erik van Blokland say, "What I really want is for my students to learn is how to start over." Students spend a whole year focusing on this one typeface, and they want to release it. Whereas if they looked at all of the mistakes that they learned from through that process, their second design would probably be a lot better.

Yep! I agree.

I want to talk specifically about your pedagogical approach. When you start a type design course, you probably have several things that are really important to communicate. Tell me a little bit about what those are, and some of the methods you use to deliver the content to your students.

The most important thing for me to communicate early on is a certain procedure for typeface design. This goes back to being very pragmatic. There's a way of starting, which you've probably heard about, where you start with a few key characters, like, the straight side of the capital 'H,' the round/round of the capital 'O,' and the straight/round of the capital 'P.' Then you move to a slightly larger character set where, you don't have a full alphabet, but you can create words. You refine and refine until that's perfect, and then move on. So I teach them this procedure, and the way to analyze things at each of those stages: looking at the spacing of the letterforms, the consistency of the shapes, and all that kind of stuff. So I force them in to a very procedural way of doing it, which a lot of them resist.

But usually they come around by the end and see the value of it. That tends to be a good starting point. [pause] And there are certain principles of typeface design that I come back to again and again, which I find myself repeating to students. […] I do a lecture where I talk about my projects, but use each project to illustrate a principle of typeface design. It is the kind of stuff which keeps coming up with my students. So I give them that same lecture in class to highlight all of the things that at some point in my years of teaching I had a moment when I was like, "Oh yeah! That's one of the keys—it all boils down to *this!*"

Can you give an example?

Sure. If you're going to make two things different, make them *very* different. Or if you're going to make two things the same, make them *exactly* the same—possibly with optical compensation. I try to just lay all of these things out for them early on, and then refer back to them, like, remember when I said, "Blah blah blah"? I give them the route, or the index, to all these things before I go into detail about them, and apply them to specific things.

Some of the things you mentioned about the process and spacing seemed a lot like the Walter Tracy book, or things similar to that. Is there a key text that you like to refer to?

Yeah, Walter Tracy—I require they read three chapters of that. There are parts of it that are really irrelevant now. But no, there's really not another great text [for typeface design].

Why do you think that is? We're in 2015, and this was invented a while ago! Why do we not have such a book?

[laughs] Well up until ten years ago people were still very secretive about their methodology. [But] that's become much more democratized now with these programs teaching the same procedure, it becomes—it's much more open now. Um, I don't know a good answer to that. It's just a lot to encapsulate into a manual. [pause] It'll happen; it'll come out eventually.

People criticized Karen Cheng's book for having a very narrow focus even though it's called *Designing Typefaces*. I sympathize with her though; I sympathize with anybody who's given it a shot because, I mean, how big of a volume are we talking here? Do you think it's just too expansive a subject to be a one-volume kind of thing?

Right, right. Well, well my main issue with that book is that, she frames everything in a wrong-headed way. It's like, "Here's how you draw a 'P'. Here's how you draw an 'R'. Here's how you draw a 'V.'"

It's like the *feed a man to fish versus teaching him to fish* [parable]. I'd rather explain to you the underlying principles for proportion and balance so that you have it internalized in a way that's agnostic to which letter you're thinking about. Then you refer back to those principles and to decide how to draw an 'R' and a 'V.' It's not, "This is how you draw a 'B.'"

I'm curious about the methods that you use in class. Can you tell me about any successful techniques or examples that really get students to understand the process of type design?

Well, we haven't talked about the structure of the program much, but the process of designing a revival typeface, I think, is a very good introductory technique for students. […] I had them design a revival typeface in the first term, but Sumner [Stone] is doing things differently now. But my approach was to have them do that in the first term in a very regimented way, where they were immediately trying to do as literal a revival as possible. (Which still has a lot of room for decision making.)

Right.

How are you going to translate this thing from it's analog to digital form? How much are you regularizing the weight of the stems and the shapes of the serifs? We cover things like that.

Do you put any historic limits on the assignment?

So the rule is that the typeface they're going to be reviving has to have been created before 1923. Which, like I was saying, is somewhat arbitrary because typefaces aren't protected by copyright anyway—typeface *designs.* But it's just a way of keeping it ethical and creating something that no one else will have a personal claim to, from an intellectual property standpoint. And, it also means that they're working on something that was a letterpress-printed font, rather than Phototype, or anything later. And I've had students who really wanted to do something [more recent], so I require that they go ask for permission from whomever owns the intellectual property rights at this point.

The process of having them do this very regimented, direct revival forces them to focus on the procedure and the drafting and certain kinds of decision making, but not have to worry about, "How heavy is this? What's the x-height?" Those kinds of things have already been determined for them. So, it make their challenges a lot more simple. And then they can add to those problems in the second term when they're doing their original design.

However, I have had some students who have really pushed back on that and wanted to do something that is inspired by these inscriptional ancient Roman capitals paired with this Renaissance lowercase, but made into a crispy, contemporary seriffed face. And then, they're just dealing with so much! To try to do that in one term, with someone who has never done it before, is really too ambitious.

It seems like a very complex TypeCooker formula or something.

Yeah, right. [laughs] So I do try to keep it simple by taking away some variables and keeping them within certain parameters. I ask them bring in three different candidates for the revival, and the two important criteria are: it needs to be a well designed typeface to begin with, because you don't want to be constantly faced with the decision about what to fix, and also it needs to be something that the student is very excited about so that they will have the stamina to continue all the way through.

But always—every project—the students encounter that situation where they want to fix things. There have been some where, it seemed like a pretty decent typeface to begin with, but halfway through the term they realize that the spacing is really terrible on this typeface, and there's no way to make it work.

Once they go through that process—and let's say that there's some resistance in the beginning—what is the feedback that you hear from students in the end? How does the revival inform what they do for their original design?

Often the students are reacting to something very specific about the first typeface that they worked on. Like, "Everything had rounded corners, and it was just so *wonky!* I just want to do something really clean and simple now." So a lot of times there's a kind of shift away.

I ask because every teacher has a story about students rebelling against the prompt or the lesson, but I never want the conversation to stop at that point. I want to know, as a teacher, did you have to essentially force buy-in, or was there an a-ha! moment that helped them to break through?"

Yeah, I guess it's a mix of the two. There are definitely some who always resent me forcing them to do it, or they just completely rebel and do the thing that I asked them not to do. But, I still think that it's a valuable experience for them to have to argue their point and form a really strong viewpoint in the [process]. I very much appreciate the students who debate the things that I say and disagree about things. I mean that's part of the reason why I brought those strong personalities into some of the other classes, to give [the students] conflicting viewpoints. They would come in and say, "Well Ken Barber said this!" That's great! I don't agree, but you have to decide what you want to do at that point.

At the end of the Type@Cooper program, what would you say is the most important skill that you want the students to have developed?

Well, I go back to the very pragmatic [side], and I think that's what is unique about Type@ Cooper. (Well, when I was teaching it.) I think really solid vector drafting might be one of the biggest things. And that's the one that's most universally applicable. Pretty much everyone who goes through the program, even if they never touch RobotFont again, they'll still be drafting things in [Adobe] Illustrator. I've actually had a number of students come to me after and say, "The greatest benefit I got out of it was better drafting." That extends to the point of thinking about form and counterform in a more strategic way.

How does culture, either local or national, influence type design?

In a general sense, I feel like we live in such an internet culture now—at least, most people who design typefaces live in an internet culture—and they see so many other things out there that the geographic location doesn't have that much impact. *Communication Arts* did a profile on me and three other designers, and they were calling it "Young, American Typeface Designers," which—there are so many people younger than me already that seemed a little funny—but, it was about great typeface designers who were in their twenties. I said to the author, "I think that 'American' is kind of irrelevant to—;" it's like she was trying to get to the heart of what the American aesthetic is, or something.

I think that there are definitely localized characteristics for letterforms. There are certain ways of drawing quotation marks and—I don't know if that's a good example—but things like that. And in Dutch there's a different expectation about the way that the 'j' is drawn so that it works well next to the 'i', and that sort of thing.

And there are cultural influences in places where the history of typeface design has a really strong flavor, like the Czech Republic. That does influence some people there, I think. But I feel like in the US, that it's all very diluted and multicultural, and most people working in the industry are just kind of working at their computer and engaging with online culture.

Describe for me the differences in type design education before the mid-1980s and after.
Right, well, as I understand it, from the mid-1400s through the 1980s, typeface design education was through apprenticeship, right? I mean there's not an opportunity to learn it in a classroom setting. Then in the mid-90s there were certainly a lot of people [becoming] self-educated about type design, but there still were not formal programs. And then, here we are.

Do you see it as a positive progression—this liberation and sharing of knowledge?
On an optimistic day, yes. On a pessimistic day I'm like, "These kids on my lawn!" [laughs] Or, more likely, "These kids taking my jobs! Taking my—;" I mean, I've lost client projects to former students before, so it's definitely a very real thing. Which is fine—I mean it's great. I'm happy to share the love, but it does seem a little puzzling to me, like, where are we going to be if in ten years there are three more programs in the US (which I think is a conservative estimate), then where are all these typeface designers going to go? What are they going to do with themselves?

That's a good question!
Do you want me to talk some more about the structure of the program, because I didn't really explain that much—

Yes.

—I don't know, it's not actually that clear on the website.

That would be very helpful; please do.

Yeah, okay. Well this is what it was for the first four years, and now it's changing. So I don't know really what it is now, or what it's going to become. But for the first four years, the structure was: in my class during the first term they do the revival, as I was describing. The second term is when they design an original typeface, and during the third term they expand one of those two projects into a family with two additional weights and an italic. Generally they have a regular weight that they've drawn; they draw a bold, interpolate a middle weight, and draw an italic for the regular.

A couple of students have done an expansion of their revival typeface, but most of them take the second-term original typeface and work on that for the third term. My class met for three hours, one night per week. Sasha's class was two hours long, spread out over six sessions throughout the ten weeks that my class ran. In those six sessions he would teach something that was related to that term's theme. The first term is called *Tools and Technology,* and it's about how the tools and technology affected typeface design, and the transformation that typeface design went through historically. The second term is much more about theory of typeface design. And then the third term is kind of a mix of—I can't remember what the name of that one is—but it's a mix of some history and theory and then they're also working on creating a type specimen. I guess they spend a good deal of time looking at type specimens.

Those were all made to coordinate with what I was teaching. And the same thing happened with the workshops. There is one required workshop in each term, as well as a couple of elective workshops. In the first term they would have a calligraphy workshop before my first class. I'm not a calligraphy person at all, but I wanted them to have some experience with that by the end. [Calligraphy is] so instructive about where you put the weights on things and how you build the proportions up. So that's the required workshop in the first term.

The second term was when Hannes Famira would teach a class called *Understanding the Design Space,* which is basically TypeCooker 101. He made them think about all those different variables and how to bring them together. He also taught that oscillating sketching method, if you know, like, where you take the pencil and do this [making sideways sketching motion with hand] to draw the weight of the letter.

Yes, I do.

So, that's a way of drawing that I don't use but Hannes does. So he would teach them that and then a lot of the students kept working that way. (I don't know if he ran that again this year, or if they changed it up.) Then in the third term, the required [workshop] is a letterpress printing class where they make their own type specimens.

They also have a class with John Downer about proportions, a class with Ken Barber about hand-lettering, and the Python class with Ben [Kiel], and the typeface tech with Andy [Clymer]. I'm probably forgetting one more.

Finally, coordinated with all of that was the lecture series. They have a lot of different stuff going on. Alternating with Sasha's class we have the Lubalin lecture series, which again, is sort of thematically linked. Generally, the fall term would include lectures about history. The spring term would have lectures about more theoretical things. And in the summer term they would often be working typeface designers talking about their projects.

Right. It sounds like a good progression.

Yeah. It worked for four years.

And you're currently not involved with any changes that are being made in the department? Is Cara pretty much in charge of—

Cara and Sumner. Yeah.

Cool. Well, I just spoke to Sumner earlier this morning and he gave me some of his insights, but I'll try to follow up with Cara as well.

She's the one who knows what everyone is doing in the program. She's the puppet master!

[laughter]

She pulls the strings!

The "Program Coordinator," I think that's more like it.

Sure, sure. Well, thank you very much, Jesse.

My pleasure.

[END OF INTERVIEW]

[Patrick Gosnell]: Since you have a hand in founding one of these typeface design programs, would you start by giving me the origin story of how the Typography as Language program came about?

[Angela Riechers]: Well, I feel like most things in design these days, it was Steve Heller who said, "You know, we should do a typography program." And he approached me with the idea, which was originally proposed as a one-year MBS where you would have a distance-learning aspect to it and a real-life aspect to it where there would be a summer intensive where the students would come in and work in the studio, and then they would go back to wherever they came from and finish up their degree work from home. So we had it all ready to go as this one-year program. In fact, I had a huge stack of papers ready to go off to New York State for certification, and at the last minute SVA said, "Well, we've launched a lot of new graduate programs lately. Some have done really well, and some have not done as well as we'd have hoped. Let's try it as a summer intensive."

So when I started lining up instructors and guest lecturers and things, I was already three months behind schedule. I didn't start until about [March of 2014] and registration is technically due April 1st. So it was a real huge push, but fortunately for me I had done a lot of the thinking behind what the structure would be like, I just had to figure out how to compress it into a four-week module.

What year did the initial conversation with Steven Heller take place?

Last year. Well wait. Last year was 2014, so it might have been 2013 because we did work on it for a really long time. There was a lot of casting a wide net and narrowing it down, and looking to see what else was out there. I mean, in the United States it's only Cooper [Union]. And they've got a great program; they've just set it up really beautifully. It was hard to think of a way for [Typography as Language] to be a parallel thing that wasn't identical.

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Tell me a little bit about that conversation. How did you purposefully ensure that it would be a different program?

Well Cooper has two options: they have the extended and the condensed [programs], which is awfully cute, and they focus on typeface design. We just decided that what would make this different is that not only would the students have to design a typeface, but they would have to come in showing us how they would use it from day one. In other words, they're designing a typeface for a very, very specific application. […] So their three-minute elevator pitch that they have to do on the first day of class not only says what they like and what their inspirations are, but what they are specifically going to do with that typeface. That's why we called it Typography as Language because we're trying to show how the type would tell your specific narrative for the project.

What role do you see the program at SVA playing in the broader spectrum of similar programs around the world?

You know, what I think was particularly successful about this program is that it was full-immersion—five days a weeks, ten to six o'clock, with some of the best type designers in the world. While it's extremely intense and short in duration, they took away so much from it. I'm hoping it will be the kind of program that, if it expands into a one-year certificate program, that it's a really good option for working professionals who really can't take an entire year off to go to school full-time, but they could maybe take a summer, or a month during the summer, where they could fit it in to the rest of their professional life.

Is that one of your goals, to expand the program to one year?

For me personally, yes. You know, I have no idea what SVA is thinking, but I think it could easily be a longer program.

What are the positive and negative effects of the duration of the program?

I think the positives are that, because you're focusing solely on this one thing, you never lose your momentum or speed. You progress in a different way than when you have many tasks

to juggle, many chores to think of, many projects to apply your creative intellect to. This is just all type, all the time! It's almost like type boot camp. That's definitely a positive.

I would say a negative, for a lot of the students, is that we literally had students come from all over the world—we had a student from Shanghai, from Singapore, two people from Russia, people from Denmark—you know here they are in the middle of the best city ever, and they don't really have that much time to go out and play because they have to be designing their type. That's more of a social consideration I guess. But four weeks is not— I thought it wasn't really enough to design a typeface—but I was so impressed by what they pulled off last year. They just did such a phenomenal job. And some of them have continued to refine what they worked on. They'd taken it to a really great place, but they knew they weren't really finished. So I think that four weeks is enough to get 85% of the way there.

Really? Even with the programming side or just the initial conceptualization?
They have to sort of do everything at once. Because it's such a short program, we make sure that they understand that they have to come in with an idea. You know: I want to design a text typeface that looks like a modern, but that also reminds me of, you know, Howdy Doody—*TA DA!* [laughs] And with that in mind, they've already done a lot of the conceptualizing, and the instructors help them to refine that and to show them other influences that they may not have known about, or may not have considered or did not see that connection. Their first week is spent with James Montalbano, who basically is like the type boot camp instructor. They just have to learn that software in that one week.

How many students were in the first year?
Fifteen.

And do see that as the maximum class size?
I think it was the optimal number. Truthfully, any more than fifteen and [there's an] inability to really address things in-depth with someone who is struggling. You have to hit and move on.

Do you feel that for a subject as intensive as typeface design that even fifteen would be too many?

No. I did ask the instructors what they thought, and they felt like fifteen should be the absolute max. Our enrollment is capped at eighteen only because people come in, and then they can't get a visa, or whatever their situation is, we have to make sure that we have a good enough pool. But I think fifteen is a good number.

Can you outline the key pedagogical components to the course?

Formally, the program is broken up into four components. I really wish I had them in front of me now because I can't remember. The first week is called "Drawing Letters, Making Alphabets" where you're basically learning the skills that you need. Basically it was broken down into, like, how to do it, how do you draw the letters? What are your historical precedents and what can you bring from that into your particular design? How is your type telling the story? And then, what narrative qualities are you bringing to this particular typeface? I can say it much better when I have it in front of me.

Is that based on the instructors that are associated with each of the weeks?

More or less. Dan Rhatigan is really the type historian. He's like a walking library for type. He's just amazing.

Literally! [pointing to forearms, referencing Rhatigan's tattoos of various letterforms]

Literally! Visually, he is a walking library of type. So he does the historical reference stuff. And then Tobias [Frere-Jones] just knows basically everything in the entire world! He is able to look at somebody's first draft and say, "These finials are not quite right because these don't match up with those." He's able to drill down to those really, really fine points of how the design of each letter is working as a family—as a unit—which is important. And then we had Jessica Hische last year as our final instructor. The last instructor is meant to sort of help them really polish it up to a high shine. You know, really, really refine it. Every single aspect of it you can look at—how is it going to be made even better? It's sort of like the great to the small

approach; cast a wide net, just start drawing things and playing with them, refine, refine, refine, refine, and then, *DING!,* you're done!

DING!

Yeah, *DING!,* then the timer goes off—

What methodologies have you witnessed that were really successful in teaching students how to design type?

Is patience a methodology? [laughs] The way they work at *Type as Language* is, everybody has a laptop [computer] loaded up, and they just come in to class and they usually—well, there's a couple of guest lectures a week, just to expose students to a wide variety of people working in type. Like Jeff Rogers does a guest lecture, and he does really beautiful hand-drawn letters and type; it's really amazing. And then we have Ben Schott, who does like one thing and one thing only, and he does it perfectly. We have Gail Anderson who has her wonderful collections of bottle caps and wood type that she's found from God-knows-where. So there's that wish to show people that there's many, many ways that you can do it.

Basically, the best way to do it is to do it—and to have people walking around while looking over your shoulder and offering their guidance and help. Matthew Carter did a guest critique last summer, and he was very impressed. He said some really complimentary things, and I just looked down at the students and they were all just grinning like little kids—it was such a great moment. So I really think the best way to do it is to just sit down and do it. And have someone show you slides of things that they like—someone like Dan Rhatigan who has the whole Monotype library memorized—and show you things to get you excited and inspired.

One of the tenets of my thesis research is to look at the way the different types of educational systems in the Netherlands, the uk, and in the United States bear influence on the way these type design programs shape up. With the makeup of your program being so international, would you say that the educational system in America has any effect on the way the [Typography as Language] program works?

Hmm, that's really interesting. I don't know that I'm qualified to answer that just because I

don't really know how it works in other countries. For instance, my oldest child goes to school in London, and the way they structure higher education there is completely different. I really don't understand it. I feel like it's very structure-less compared to what we have here. […] I personally believe in an education of structure, and I believe that if you let everyone do what they want, they spend a lot of time circling, chasing their own tails, and sleeping too late. I think that for most students, even in a master's program, they need something to respond to.

Really? Is that so?

I believe that, yes. Here's a problem, how are you going to solve it? And I believe in making the problem very, very open-ended. When I was teaching I had one assignment that was called, "Astonish Me." I received a shipment of magazine holders, and they came packed with these cool little cardboard spacers. When you opened them up they had this cool, strange shape. And I had exactly the same number as I had students in my class. So I gave each one of them one of these cardboard things and I said, "You have to do something to this that will astonish me. You can burn it, boil it, make it in to food. You can do whatever you want to it, but I have to be really astonished." And someone did it. So I think it works if you give someone a super open-ended problem. Basically our problem for Type as Language is: design a typeface and tell us how you're going to use it. That's pretty vague, but it's still something.

I am curious, when all of the same tools are available to anyone, what do you feel is the greatest benefit to someone who pursues a degree or certificate in typeface design?

I think it's like anything else. Anyone can call themselves a graphic designer, you know? Anyone can make flyers and posters and things like that. And some people are really amazing at it without any education, and some people really need to have some guidance. So, I feel like, especially with type, which to me is almost a very arcane thing to learn—it's really very hard. You need a tremendous amount of patience, and this ability to focus on seemingly unimportant details, which are so important. I personally couldn't do it. I don't have the right temperament. I could never have the patience to design a typeface. [laughs] So, I got a little

bit away from your original question, but—I do think that, for such a narrow subject, there's such a wealth of things you should know. If you know these things on your own then great! But most people need someone like Tobias [Frere-Jones] to say, "Well, this reminds me of Palatino over here, but this is looking more like Futura." You almost need somebody who has been doing it to show you that. You need a guide; you need a spirit guide for the wilderness basically.

What do you feel are the differences in typeface design education before the mid-1980s and after?

So you're talking about the desktop computer and the desktop publishing revolution.

Well, yes, as the moment that liberated the ability to design typefaces for a lot of people that didn't have access to it beforehand—

For me—I started working in magazine when they all went desktop. I didn't really have much of an experience with type before that, because I didn't do it in school. I know that my friends that were doing graphic design were painting letters by hand with gouache and Plaka. They were doing that very repetitive kind of thing, and they had to have a very steady hand. There is definitely a speed and an ease to using a computer which allows you to knock out a lot of stuff quickly. Whether that's good or bad, I think it depends a lot on the person who is doing it.

I don't have the patience to sit around and do gouache renderings. But, maybe that would have taught me something that I need. So I think a big thing is speed and accessibility for sure. Even if you don't have a font program you can open a typeface in [Adobe] Illustrator, convert it to outlines, and start messing with it. I see a lot of that in publications now. You [see things] that are clearly not a typeface anymore; but what is it? [shrugs] We're headed towards it, but I don't know what it is. It's more democratic I suppose.

Absolutely. This sort of relates to the earlier question about educational systems, but I'm curious how local cultures affect the type that gets produced in those cultures. Do you think that culture influences typeface designers, and do you think that where someone is educated affects their professional practice?

Yes, and yes. I absolutely think that culture influences typeface design, as it informs all of the visual arts. And it's specific to cultures and subcultures and geography, sociology—all these things feed in to it.

But I do think that schools have different approaches. At RISD, their graphic design department, at the time (because I graduated in 1984), was very Swiss! Very gridded, and Helvetica, etc. And if that was the kind of design you wanted to do, you would go there. You wouldn't go somewhere like Cranbrook which would teach you crazy stuff! Crazy all-over-the-place stuff! David Carson—whoa! There's always been this kind of split in graphic design about following the rules [versus] not having any rules. So I would guess that it would apply to typeface design equally.

But even to bring it down to a more specific level: focusing strictly on the act of designing typefaces. Do you think that, with the programs that you're aware of, and the spectrum that exists [within those], do you think that the culture of that institution in any way limits or funnels the actual designs?

I feel like I don't know enough about the culture of those other institutions to answer accurately—certainly not the European ones.

Well, speak just about the programs here in New York City.

I think that Cooper and SVA are just known for general excellence. You're not going to go there and turn out something crummy. You're just not. You know, first of all, you're not going to get in, and second of all, it wouldn't be allowed.

What ways have you found to get students to the point where they "get it" as it relates to typeface design? Is it exposure to history, or just getting your hands dirty?

I think that varies an awful lot with individuals, because there are some people that came in already having designed typefaces. They were just really eager to kind of refine them, and show off a little bit, and get advice from really famous type designers—which is a totally valid reason to be there! [pause] I think it just varies so much. You can stand in front of a room and present information to people who are either listening or not, and some of them will

immediately get it and go off and start working, and some of them just won't get it. You have to always take the temperature of the room. If you have everybody's eyes, you know they're listening. If you don't, either you're being boring, or there's something about the subject that's not compelling. It varies a lot. It depends on motivation too.

Do you think this is a subject that one must enter into a degree program with some momentum going already, or could someone pass a flyer in the hall one day and go, "Oh, 'typeface design,' I should try that out!" and be successful at it?

I don't think so because, to me, it really is like one of the arcane, dark arts. [laughter] You know, it's not easy. There's an awful lot you have to know, and a lot of it is wonky stuff. A lot of it is kerning pairs, and math, and x-heights, and ascenders, and the shape of the bowl of the 'g'—not everybody cares about that stuff! You have to care about it! I think that's why type fans often refer to themselves as "type nerds" because it's almost like speaking Klingon. It [reaches] that level. You know, and I'm not at that level. When I see people that are really getting in to it, I'm like, "Wow, I'm impressed guys!" I just can't do it.

Do you think there will be more programs like the one at SVA popping up in the US in the next five years?

I hate to sound cynical, but I think it depends on if the interest and the money is there. When I started researching to put this program together, Steve Heller said to me, "Find out what other programs are out there. Find out what they do. Find out how we can do our own thing." And I'm researching and researching and researching, and all I find is Cooper and Reading, and I'm like, "Wait a minute! How is that possible?!" I don't understand, because I feel like the love of type has become more popularized, in the way that people understand about Gotham and Obama.

That was crazy that anybody cared about that! There was a whole movie about Helvetica, so I think that it's really trickling in a bit—probably because of computers—your mom has a desktop computer, and she likes Palatino to write her letters because it looks "classy." So mom knows about type now, a little bit, more than she used to.

I would agree with you in that I don't think type or typography has ever been as impressive or popular with people, or as desirable as it is to people.

Yeah, and I don't know if it's ever going to be profitable enough for schools to spin it off as its own discipline separate from graphic design. It's traditionally taught as part of graphic design, and if you really want to go down that route, you do it with other type nerds or professors that are in that club. But you don't necessarily pursue it to the degree that you would in a type program, for sure.

So are you saying that unless the economic factors were there to support it, that there probably won't be more of these types of programs offered?

I think so. Education is a big business, and that's just a reality unfortunately.

Is it an advantage for these courses to be short courses as opposed to the yearlong courses at Reading and KABK?

If it were me, I would want a longer program; I would. I'm not everybody though.

Can shorter programs work in tandem with longer programs? Suiting different people's needs and desires?

Sure. As an example I could see somebody doing a short program, getting something to a certain point, and then wanting to refine it out into different weights, italics, inlines, you know, whatever they wanted to do with it. Maybe they can't do that on their own. Maybe they need further guidance. Or maybe they take that to the next program and they decide that they just want to start over. I feel like you can certainly take something and stretch it out for however long it interests you. Once it stops being interesting to you, that's when it becomes a problem.

Angela, thank you for meeting with me, and thanks for starting the program!.

Oh, I'm flattered to have been asked.

[END OF INTERVIEW]

[Patrick Gosnell]: Thanks for meeting with me. Can you briefly introduce yourself and say what your role is in terms of teaching both at Yale and SVA?

[Tobias Frere-Jones]: Okay, well at Yale I teach the graduate typeface design course. It's sometimes referred to as the "letterform design course," but that's the name that the course had when Inga Druckery taught it years ago. I was asked to take over for her in 1996, and was explicitly asked to recast the [course] as I saw fit. The point of changing the name of the course is actually a pretty good summary of what I wanted to do with it. Because, we don't just focus on the letterforms as individual, beautifully created, perfectly balanced forms. I wanted to focus on the broader problem of making a set of parts that are infinitely interchangeable. So that's why it's typeface design not letterforms, but anyway—

For the most part, it's first-year students in a two-year program. There's also a preliminary year, so some people are there for three years. The class is always taught in the fall. And since sometime in the late 1980s, Matthew [Carter] has been doing workshops at Yale—just as standalone things for a week at a time—and he still does them. They're now in the spring. His course is not really officially connected to mine. Most of the students use it as an opportunity to take what they began in the fall and then continue it in the spring with Matthew. But that's a more informal relationship.

Then, at SVA I suppose my role is still evolving a bit, you know, since it's only gone through it's first year. But, Angela [Riechers] was consulting with me a lot about how to structure this course—in particular, the sequence of people who are brought in and what level of expectation we can set. We have students that have variable degrees of skill or prior experience. So what kind of target can we set for them [to accomplish] in a month? And then I'm instructor number three out of four. James [Montalbano] is the first. And well,

last year it was James, then Dan Rhatigan from Monotype lettering, then me, and then Jessica Hische. That sequence worked out terrifically. Unfortunately Jessica is not available this year so the rest will be the same with James, Dan, me, and then, sorry, it's a name I was not familiar with. I don't know—it's on the website.

As the program continues do you envision that they would continue to change out some of the teaching slots, or do you want to find a set group to carry it forward?

As long as it's working and as long as the people involved want to keep doing this, then I don't see any reason to mess around with it. Also, at least once per week, ideally twice, guest lecturers come in, and that list will certainly change from year to year. Last year I had Ben Schott and Matthew Carter. This year we will have Nick Sherman. But that part at least will continually change.

How purposeful did you try to be in differentiating the Typography as Language course from the program at Cooper Union? And what role do you see the program at sva playing within the broader international spectrum of typeface design programs?

Well I actually never saw the need to compare it or differentiate it from Cooper or Reading, or even Yale, simply because it's already different because it's only one month long. And that [forgoes] any other kind of comparison. You know, the course at Yale takes its particular shape because it's an elective within a more general graphic design curriculum. So I think the comparisons that *could* be made are between kabk and Reading and Cooper. Though I think just the extended program at Cooper, not so much the Condensed, again just because of the length of it.

Sure. But the sva program does offer a certificate, correct?

Yes, there is a certificate at the end of it. But because it's coming at the end of a month of study, it's trajectory just has to be different. I mean, there's all kinds of stuff I could do with the students at Yale if I had them for an entire year!

Sure!

And every once in a while I imagine what kind of great things I could do if I had twice as much time! With a break in the middle for them to pause and catch their breath. Then I could bring them back and do all kinds of other great stuff. But no, it's just the fall. So, I think that's the first and the most influential aspect of any of these programs.

It's interesting to see, since the early 2000s, the rise of these actual programs dedicated to the field of type design. Would you say that due to the brevity of the SVA program, that it acts as more of a primer course? Are people perhaps testing the waters, so to speak, before committing to a year of study abroad?

I think some people were using it like that last year. A way to test the waters, as you said, or to get a preview of this kind of activity, and deciding if they really want to do a whole year. At the end a couple of students would say, "This is great; I love this," or, "I'm going downtown to Cooper to sign up for their extended program," or, "I'm gonna go check out the program at Reading." But still, a couple others said, "I've got what I need," or, "I'm going take what I've learned here and go back to whatever more general practice I've been doing." Thankfully I don't think anyone was saying, "I wish I had done something else with my summer!" [laughs] Or, if they did, they weren't saying it to me.

That's good!

One of my hopes is that it would play that kind of role, as a kind of gateway, as it were, to more of the same.

Are there any aspirations to expand the program to a full year?

I think I remember having some really brief talk—and by talk I mean two or three sentences long—about that with Angela, and perhaps Steve [Heller] as well. But I think we just left it as, you know, let's see how this first outing goes. We'll see if it's a success—see if it stays that way, and then see what we want to do.

Do you foresee more programs like this popping up in the US and around the world?

I'd be surprised if there weren't more things like this. I'm not even sure at what point—at what length of time you stop calling it a *workshop* and start calling it a *course,* but there's something that Jean François Porchez is running in Paris this summer that—

Right, the Type@Paris course, yes.

Right, and I think the emails he was sending me described it as a workshop, and that feels like an awfully long workshop! But yeah, I'd be surprised if there weren't more things like that. There's certainly enough design activity going on in Europe to support more of these short-term courses.

Do you feel that would benefit the typeface design industry?

Yeah! Absolutely! A lot of students want to do this, but [they] are also very intimidated by it. I dunno, it's like how someone might approach skydiving or something like that—it looks like real fun, and you see people doing it and they look like they're having a blast, and you really want to do it too, but, *oh geez!*—that involves jumping out of an airplane! I'm not so sure about that part!

Have *you* been skydiving?

No.

I have, and it is pretty fun.

Well, I imagine it is, and I'd like to do that. [pause] But, there will be the point where I'd actually have to jump out of the plane, and my survival instinct would be telling me to not do that!

Sure! [laughs]

So I think that if [type design] can be made easier to get into, I think that would be a good thing. What I've seen happen at Yale a number of times is students who don't have a lot of

experience in this and they're not sure if they're really cut out for this kind of work—the head of the program might have encouraged them to come take my course, and they discover that they are actually kind of good at it, this does actually line up with the way that their brain works. It does call for a particular kind of abstracted, systematic thinking that's kind of hard to describe before you get there.

I would guess as much.

But I've seen students who never really got anywhere near [type design] before, and once they find their feet after a month or so, they are just *flying!* And it wouldn't surprise me if there were more people like that, who don't realize that they would actually be good at this, just because they haven't had a relatively easy way to give it a try.

What do you think is more difficult to learn, the conceptual part of typeface design, or the technical aspects like the actual programming, spacing, hinting, kerning, and so on? The programming seems to intimidate a lot of the people I talk to.

Yeah, it can involve lots of actual code. At the Hague that's certainly the way it happens. I'm trying to remember how things went at sva last year. I think I pulled out some stuff about OpenType feature coding right at the end, and only when it seemed like it would serve an explicit benefit. But otherwise I'd be perfectly happy just to leave that stuff out because this is complicated enough already.

And, [sighs] I think some people have more of a problem, or find more of a challenge in the visual system of the groups of like-minded shapes, and systems of side-bearings. But they have a really easy time drawing the individual shapes, and balancing inside and outside shapes, and curve transitions, and all of that. And then for someone else it would be the other way around. So they'd absolutely nail the spacing, but they really struggle with the details in the drawing. So I find a lot of variation in that. Part of my job is to figure out, as early as possible, which of these aspects is going to be the most challenging for this student versus that one. So I can recalibrate myself for each student. Which is also another of the aspects that I suggested

picking up from Yale, is to do all of the instruction through one-on-one meetings. Because I don't think any of this can be taught at any kind of distance.

Okay, so when you meet for class, you're only scheduling individual meeting sessions?

That's right.

There are no group lectures?

Nope.

No group presentations?

[Tobias shakes his head "no"]

That's very different than the other methods that I've heard about.

Well, James and Dan, I think, might do a little bit of group stuff. (You should ask James when you talk to him tomorrow.) But yeah, I find it really difficult to talk about any of this unless there's an example of the problem right here, right in front of us.

Does this method even apply to the initial instruction—just on the basics?

Yes.

Okay. Um—

I've done group lectures and stuff about my own work, you know, to the [whole] class. But, as for something that they're meant to incorporate directly into their own activity, I find it doesn't translate very well. It's too individualized, or it's too abstract. […] It's very concrete and direct when you've got these problems in your hands right at that moment.

Did you come up with this process over time? Or did you start teaching by disseminating information to a group and then eventually whittling down to this?

Yes; my first two or three years at Yale were done very differently. They were done more like the design courses that I had been in not so long before that. They were more of a group

discussion, and then we'd have individual meetings as more of a secondary part of the time. And I realized that no one was really getting anything out of the [group] sessions. Maybe it was just the way I was doing it, I don't know. But no one was getting much of anything out of the group time. All of the results, all of the progress, seemed to be coming out of the individual meetings. So I just inverted that distribution of time and then eventually just got rid of the mass instruction.

That is an interesting reversal of what's traditionally done.

It means that the classes can be really exhausting. Some of the courses I did at Yale amounted to something like a seven-hour continuous lecture! [laughs] After meeting one student after another after another, I had to re-organize that a little bit.

How long do you typically meet?

Well now it's about twenty minutes or so. I try to make it as dense as possible, so that they'll have something to work through, apply, and propagate while I'm talking to the next [student], and the one after that.

Right. Do you supplement those individual meetings with any reading assignments, or other sources for them to look at? What else do you bring in to the instruction?

I don't have any set reading list. I think in some cases I do if there's something related to a specific project that one particular student has that would be useful. If you're doing something, I don't know, if Caslon's Egyptian really caught your eye, you really ought to go read this thing that James Mosley wrote about. Or the origin of the sans serif in nineteenth century Britain, or whatever. But I don't really have a reading list that I put in front of them.

I should say that the course is taught at a macro level as much as possible. The course at SVA is modeled after what I do at Yale. And in both cases the conversation always starts with: what is this typeface destined for? What problem is it trying to solve? Sometimes it's really difficult to come up with a precise answer for that. At the very least it's [important] to have a size in

mind, because that will influence a lot of decisions that come afterwards. The students will often wonder why I keep harping on this: "Are you doing text? Are you doing display? Tell me which one; either one's fine." They just have to pick one and stick with it. It will affect how things are spaced, the drawing of it, the proportions, and so on. But any kind of target will provide criteria to tell us if we're on the right track or if we're missing the mark. If a student showed me a single letter and asks, "How's this?" I could say really localized things about how the timing of this curve is worked out, or balance or weight from one side of the letter to the other. But, I wouldn't be able to go very far with that. I would need the larger context of all the other letters at the target size, or whatever.

The typeface itself needs that as well: "Hey, here's a typeface all by itself." Well okay, I might say a few things about it. But I also need to know—is this a piece of clothing to wear to a job interview, or is this a piece of clothing that you're going to wear to the beach? And depending on what your answer is, I'd say, "You have to rethink this," or, "You're right on the money."

So it's all about context—
Sure.

—to design properly, and not just to experiment.
Right, and experimentation is fine just so long as you're clear about that being the activity. I think it's difficult to, I don't know, design a newspaper text face and stage an experiment at the same time. What I've done is, do an experimental thing and then draw a more conventional thing that is informed by the results of the experiment.

A common thing that comes up with students—with a lot of young designers—is they want to pour every idea they've ever had into their first design. And with some students, my process [involves] identifying that there are perhaps two or three different ideas in what they're trying to do, and then figuring out the most successful way to divide them from each other so they can take their separate routes. That way, they can be developed successfully.

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At the start, that conflict may not be so clear. There is something really thrilling about seeing these letters that you've made, and they're coming out of the printer, and setting words at tiny sizes, and whole paragraphs of stuff—but it's easy to miss the conflict that's brewing in there. What I do is I ask them to imagine being three or four years old, and sleeping in the same room with their sibling. At that age it's probably fine. By the time you get to thirteen, fourteen, fifteen, it's not going to work. And there will be a point where, you know, you and your sister and your brother all have to go get their separate rooms—that's what is happening in your typeface. You need to do the same thing. Otherwise, you're [going to] have fights around the clock.

That's a great illustration! Are there any other parts of your pedagogical process that you could share? Perhaps some ways that you've found help break down the information or certain delivery techniques?

I try to, wherever possible, talk about the implication of one decision on another, which will have its own implications on something else. There's this chain of cause and effect. If you were to say, make everything narrower, that's going to make everything look like it's a bit heavier, so you'll need to peel a bit of weight out of things. That probably means that you'll reduce the lengths of the serifs a bit, which probably means that you'll need to change the spacing a bit, which might mean that you've changed the appearance of the color again! (And so on!)

Right! The domino effect.

Right, which may just go in a circle. But I also try to get them to think more conceptually, or emotionally, about how doing this to the bracket of a serif, or the weight of a serif, will affect its overall personality and movement. I want to get them to see the micro and macro perspectives at the same time.

I usually don't introduce this idea until much later in the course because it just wouldn't make any sense right at the start. But if someone is coming up to this point, I tell them, "If you can crack this problem of seeing the micro and the macro at the same time, with your face

buried in this, and seeing it from across the room, at exactly the same time, you've cracked it. Everything else is easy from here on out." That is the real challenge. It's also, incidentally, the lesson that applies most easily to other branches of design. That if you can [develop] this kind of perspective in designing a website, or a book, or an identity system, or whatever, then you're going to be much more powerful as a design thinker.

Sure. [pause] Have you seen the movie *Whiplash?*

No I don't think I have.

Oh okay, it's about a drummer. But what you're saying makes me think about a moment where the main character has been trying the whole time to play a double-time swing, which is a really fast drum technique in jazz.

Mm-hmm.

There's a moment where the movie slows way down, and you can see it in the main character's eyes—something shifts in his playing and he's finally able to lock it in. His demeanor shifts and his energy shifts, and there's just this moment of clarity! And I see that as relating to what you're talking about, being able to look through a pair of glasses that has a micro and a macro lens at the same time. To sort of "slow down to speed up."

Yeah! Right. I think that's a huge part of designing typefaces. It may actually be part of why [so many] type designers are also interested in music, because that perspective, as you were saying, is the same frame of mind, and it carries over very [easily].

Yeah, well, they're both things that have to exist as a system. You can't just say, "Well, what do you think of that *one* note?"

Exactly, yeah! Right, so each part implies the whole, and the other way around. If I can get students to that kind of thinking, then I'll be very pleased. But I can't really start with that, because it would not make any sense at all. So that's why, I recommended that the sva students are just thrown into their project as soon as possible. It might mean that they're thrashing a bit for the first couple of days, but in the end it will be better to get them started and have a concrete reference point for all the problems they'll be facing.

I know in reading your bio, when you were at RISD you had—

Sorry, I realized I should go before too much longer.

Oh, okay. If that's the case, let me just focus on two more key questions.

Sure.

What are your thoughts on the concept of typeface design education before the 1980s and 90s, and then since that time period? Say, before and after the introduction of PostScript.

Well I think that before it was just technically really difficult to do anything that was typeface design. You could do letterform design, but designing a typeface was an industrial—I mean literally—an industrial undertaking. A typeface was, a machine part. So you couldn't design a typeface speculatively anymore than you could build a suspension bridge speculatively! [laughs] *So, yeah, let's just see what happens! Let's try it out!*

So I think that limited what could be done. And then when digital typography [became] available, and the tools became available and more friendly—the first round of them weren't so much—but then it was actually possible to draw a typeface over a lunch hour, or over a year, or however much time you decide to give to it. This was a possibility that technically wasn't there before.

So I think it took some schools a while to appreciate the implication of that. And because so many designers had grown up understanding typefaces as this really serious, industrial project, it was understandably a bit difficult to think of it in some other way.

Do you think for the success and longevity of typeface designers as a group that it's a good thing that this knowledge has been liberated from the large corporations and turned in to something that anybody can kind of get into, and that people are sharing their knowledge about it?

Sure. Yeah. The terrain of making a business out of this is, you know, *shifting* a lot. But, as far as the education goes, with easier access to tools and communities, that makes a huge

difference. I think a common theme in a lot of type designers' careers is some number of years working alone—just being alone in the forest! I spent my time there, as did pretty much everyone else I know. And if I could have drawn some stuff and put it up for critique on Typophile or something, then things would have been much different. I think that's the other component of how this picture has changed: It's not just the tools, but it's the community also.

Tobias, thank you so much for taking the time to meet with me.

Okay, yes. My pleasure!

[END OF INTERVIEW]

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