Facilitating Diversity:
The Designer's Role in Supporting Cultural Representations Through Multi-Script Type Design and Research

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Abstract

Though there has been increased discourse on non-Latin type design practice within the type design community in recent years, there still exists a need for many more high-quality digital typefaces in most of the world's written languages—societies, who, without these resources, are less able to contribute to global discussions. As a result, this thesis uses a number of different methods to analyze the pathways in multi-script type design research, examine the expansive relationship between typography and culture, and investigate the relationship between anthropological methods and the type design process. The questions posed include: how does one become prepared to design an effective and well-researched typeface in a new script? How does one research a new script? Does the use of anthropological research methodologies increase a type designer's understanding of a script's cultural context, and therefore increase the success of their design practice? If so, to what extent, and in particular, which aspects of the contextual typographic culture should the designer investigate? How does an understanding of the relationship between type and design affect this research process? As a catalyst for further practice and discussion of these topics, a comprehensive research framework outlines best practices when pursuing type design research in a non-native script. By utilizing anthropological and human-centered design research methods in the process of creating multilingual type systems, as well as examining culture, a non-speaking designer can begin to gain a wider, more global sense of typography, as well as better understanding for the needs of the global community for whom they are designing.

Keywords: *Typography, type design, anthropology, cultural studies, research framework, cultural identity, design research, writing systems, world scripts, graphic design, human-centered graphic design, culture, design anthropology*

Chapter 1: Introduction

A Eurocentric bias influences today's typographic landscape. Many type foundries and members of the typographic community often refer to multilingual scripts as “non-Latin” or “Orientales.” As stated by Peter Biľak (2008):

> “these terms certainly have rather colonial overtones, suggesting the idea of ‘the other,’ describing foreign scripts in negative terms as ‘non-European.’ In other disciplines, language and terminology have adjusted to the wider environment of the global village, reflecting the progress that the society has made in the last couple of decades, and we no longer find a boxed set of paints with the name ‘flesh’ given to a light beige color. Only typography continues to display a shameless bias towards Western civilization”.

In the context of type design output, Latin is by far the most prevalent. About 2.6 billion people use the Latin alphabet (World Standards, n.d.). While this system has been widely adopted throughout the world, China’s literacy rate is 94%, resulting in at least 1.3 billion Chinese readers; Arabic is the official language of 22 countries and is the liturgical language and script of over 1 billion Muslims; and Devanagari has over 600 million readers (UNICEF, 2013; BBC, n.d.; Linotype, *Indian fonts*, n.d.). And yet, these scripts, or written forms of language, have significantly fewer digital typographic representations. As a result, readers and users of these and various other scripts have less opportunity to express themselves typographically and to contribute to new global conversations. Increasingly, these concerns are being addressed through open discussion, research on non-Latin scripts and design, and practice of non-Latin design by the type community. Type designers in Western areas are beginning to recognize past omissions or mistakes in regard to the design of world scripts.

When considering these circumstances, one may feel motivated to learn to design in a new script—to contribute to this progress and to expand their knowledge of design, language, and cultural understanding. The questions asked by this thesis include: how does one become prepared to design an effective and well-researched typeface in a new script? How does one research a new script? Does the use of anthropological research methodologies increase a type designer's understanding of a script's cultural context, and therefore increase the success of their design practice? If so, to what extent, and in particular, which aspects of the contextual typographic culture should the designer investigate? How does an understanding of the relationship between type and design affect this research process? The answers to these questions are complex and vary according to the script and cultural context of use. However, it becomes clear that a theoretical understanding of the relationship between type and culture is pivotal to this pursuit. The effects, prevalence, and influence of typography on culture are far-reaching and expand into every area of a community. It can affect the more obvious market-driven areas like the dynamics of production and consumption, but also the subtle psychological feelings and subjective shifting associations that individuals have about an object, movement, or domain of cultural organization.

This thesis seeks to shed light on these topics, answering the questions of how typography influences cultural identities and cultural structures, how research is approached when designing in a non-native script, and how anthropological methodologies may play a role in creating multi-script type design, all for the benefit of the typographic and design communities. It proposes a methodology for how we inform our decisions when engaging with these new scripts as designers, including how we may find relevant material and evaluate it. The proposed answers to

these questions and the content of this proposed methodology were obtained through a cross-section of literature review and multiple primary research methods.

Methodology

This thesis combines a range of primary, secondary, and tertiary sources using a variety of discrete research methods. These were staged as a pathway, with each informing and feeding into the next. First, a literature review explores the cultural and social boundaries that are imposed on typography. Turning then to primary research, a hands-on experience in the form of a critical making study is pursued which qualitatively highlights some obstacles to pathways of information gathering. This experience is then synthesized into the design of a series of interviews conducted with practicing type designers. Subsequently, surveys were developed based on results from the interviews and critical making. All of this information and data was then cross-referenced, culminating in the design of a research framework which aims to both describe and scaffold a designer's process.

The literature review in this study explores various interactions between typography and culture—how each is influenced and affected by the other. This includes insights into cultural identity, cultural systems of production and consumption, and structures of visual culture. These topics provide a backdrop to explore *why* research is such an important pursuit when working with typography. This then led to implementing several primary research methodologies.

First, a critical making study was undertaken in which two scripts were designed. Critical making, which is the "combination of critical thinking with hands-on making—a kind of pedagogical practice that uses material engagements", allowed for a personal reflection of methodologies for type design research (Hertz, n.d.). The process of research and making was

carefully documented along with obstacles, observations, successes, and failures. This not only provided the researcher with additional insights but also a familiarity with the context of the ensuing discussions (and therefore the ability to ask relevant questions). Two scripts were chosen to investigate: Devanagari and Inuktitut. These two scripts vary not only in their systems and forms but also differ in the available resources and research data, allowing for an observation of methods used in differing circumstances. This created an opportunity to reflect on a range of scenarios and brought up different questions, concerns, and obstacles on where to source references, how to analyze references, and what areas of culture to investigate. This first method gave preliminary context and background information from which to form questions, lead discussions, and form the final research framework.

Secondly, the interview portion of this primary research was intended to serve qualitative research goals—providing specialist input which would articulate tacit knowledge and practice and allow a dialogue that would inform the shape and questions of the accompanying survey. Interviews also allowed the opportunity to have in-depth discussions about very complex topics. In light of these considerations, the interview participants were chosen carefully to represent variations in cultural backgrounds, range of script knowledge, professional and educational experience in both creating and explaining the creation of typefaces, as well as aiming to be demographically balanced in terms of geographical location, education, length of career, and gender. These discussions also provided one facet from which to pull data for the final research framework.

Finally, interview data was examined further through surveys, whose content aimed to address aspects of the data gleaned from interviews, looking for elaborations or refutations on the themes which arose in that interview process. The surveys were also sent to a different group

of participants, intending to capture a wider set of responses, albeit still within the typographic community. This survey was seeded through a range of community fora and community media hubs made up of independent type design professionals and students, type design lecturers, type design schools and educational institutions, type design foundries, and online type design organizations. Survey questions focused on designers' research processes when working in a non-native writing system, built out from previous data and accumulated questions from interviews, critical making, and literature review. This final research method marks the culmination of methodologies which led to the production of a research framework.

This triangulation of research allowed for a thorough investigation of current practices and opinions, as well as the process of research and making for unfamiliar scripts. The context of this research naturally takes the vantage point of Latin-based designers, as the author, the author's educational context, and majority of interview and survey participants are of Western origin. However, it should be noted that this is a consequential outcome and the researcher recognizes that the details in this work may—and should—be applicable to all perspectives.

Chapter 2: Typography and Its Relationship with Cultural Structures

"Typography is always a responsive environment."
Gerry Leonidas, type designer, typographic researcher
and educator (University of Reading)

Typographic meaning is culturally mutable—shifting according to different societal or personal contexts. It has the power to reinforce and influence social, national, and cultural identities through a community's rituals of visual meaning making. Sherry Blankenship (2003) notes that "typography is more than legibility, and more than aesthetics. It is the search for

greater power in the written word. It is the embodiment of a culture's identity. It is the celebration of humanity" (p. 60). Cultural identity is defined as an individual's sense of belonging in a culture (Cultural Identity, n.d.). This belonging can be fulfilled by the shared set of companionship, principles, and visual traditions. Both culture and typography feed one another. Culture establishes and is responsible for the evolution of writing systems and styles, while written language supports, nurtures, and is a vehicle of expression for culture. All design fields rely on this interaction and flourish because of it. Type designers and typographers must be intimately familiar with the outputs, implications, and nuances of these interactions.

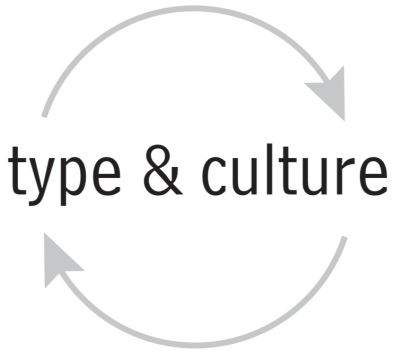

Figure 1: Both typography and culture feed one another: typography responds to cultural conditions and culture feeds typographic form and output.

When viewing, designing, or researching typography and type design, success is dependent on both a solid understanding of the culture's relevant minutiae and a fluency in visual culture. This knowledge ensures that the designer can recognize trends or purposes and refine their work in an informed way. A type designer's main responsibility is to ensure that their work becomes seamlessly adopted by proponents of visual culture and works well for their respective audiences. When designing in your native script, the process of cultural learning is tacit knowledge. The barriers to this knowledge only become apparent when you move into

another culture. One may be so familiar with the forms of their native script that a learned eye is able to experiment freely and expertly. They are able to view the limits of typographic form with ease. When one is fluent in the visual traditions, trends, and norms of a culture or group, they are able to easily parse typography for underlying meaning.

Typography and Cultural Identity

In *Modernity and Its Future*, Stuart Hall et. al. (1992) establishes that there are three "concepts of identity," explaining how we as individuals mold ourselves in relation to cultural structures. These concepts are referred to as the enlightenment subject, the sociological subject, and the postmodern subject.

First, the enlightenment subject was believed to have an inner core, or identity, which remained unchanged throughout their life. This theory gave no regard to cultural interactions; it was very static and individualistic. The sociological subject, which developed because of an increased awareness of the power of society on its members, supposes that identity is created in the interaction between society and self. In other words, this theory states that the subject still has an inner core, as with the enlightenment subject. However, this "essence" of a person fluctuates in a never ending exchange with the cultural environments and the identities which they present (Hall, 1992). Finally, Hall asserts that we have pushed past these two archetypes into the postmodern subject, whose:

> "identity becomes a 'moveable feast': formed and transformed continuously in relation to the ways we are represented or addressed in the cultural systems that surround us...As the systems of meaning and cultural representation multiply, we are confronted by a

bewildering, fleeting multiplicity of possible identities, any one of which we could identify with—at least temporarily" (Hall, 1992, p.277).

In this scenario, modern individuals have no permanent identity. It shifts as we age, with whom we associate, our interests, our settings, and with the infinite amount of cultural interactions we encounter throughout our lives. In relation to design and visual culture, stylistic trends and forms may be utilized by a group as an indicator of their collective cultural identity. Typography comes to reflect these various forces that determine our cultural identities; and as a result, the associated meaning of type is forever in flux because as a cultural product, design both responds and shapes.

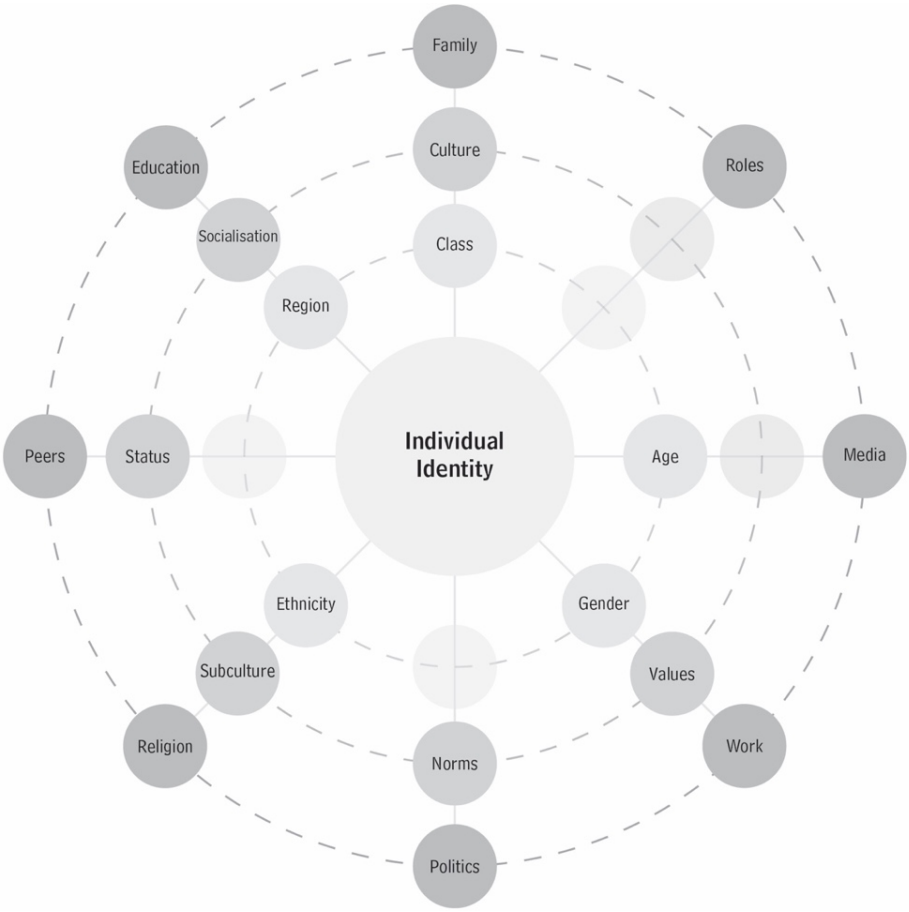

Figure 2: Chris Livesey's *Web of Identity* positions individual identity as being affected by numerous aspects of larger cultural systems and sociological groups (Livesey, n.d.).

Livesey's theory on identity states that our individual natures are affected by criteria within a web of cultural constructs; an intersection between identity and society (Livesey, n.d.). Each of these aspects and our personal interaction with them affect who we are. Individuals are surrounded by these large social forces; examination of the details on the *Web of Identity* results in the realization that identity is a fluid concept. Postmodern recognition of the instability of self, as mentioned by Hall, reduces identity to a flux. The conclusion is that we are free to shape our own identity based on an infinite set of criteria. Therefore, individual identity is as much social construction as a construction by the individual.

Typography touches on and is touched by all of these aspects. Therefore, we use typography as an extension of our identities; we use it as a visual indicator of our values, beliefs, interests, and lives. These dynamics between culture and identity shape the behavior and appearance of typographic design across the globe. Group dynamics and social events, as well as subcultural shifts, are constantly redefining the definitions assigned to aspects of visual culture.

An example of this is work by Harry Leeson, who applies French sociologist Pierre Bourdieu's work on class dynamics to the diverse design of typographic signage throughout London's boroughs. Bourdieu put forward the theory that a measure of one's social status lies in taste (Leeson, p. 19). In *Distinction: A Social Critique of the Judgment of Taste*, Bourdieu's seminal work on these theories, he states that, "[taste] functions as a sort of social orientation, a 'sense of one's place', guiding the occupants of a given place in social space towards the social positions adjusted to their properties, and towards the practices or goods which befit the occupants of that position" (Bourdieu, 1996, p. 466). He asserts that the distinctions in taste create divisions between classes—in the same way that the 'good' and 'bad' signage in London acts as a social and cultural signifier for the different boroughs of London. This led him to believe

that working class groups enjoyed more basic interests, and as each social class increases, their taste became more refined.

In essence, we feel comfortable in designed environments that reflect our level in the class system; these designed elements also subconsciously support the goods and services appropriate to our class background. In a typographic context, this may translate not only into the styles of typefaces and lettering utilized, but also in the surrounding graphic design system. Leeson connects these ideas to the stark difference of typographic styles in areas like North and South East London, for example. Within their context, and viewed by inhabitants of that respective community, each may be considered as "in good taste".

Figure 3: Typography used in signage is reflective of the social group and their respective tastes; *Left*: Storefront signage in Camberwell high street, London, 2015; *Right*: Storefront signage in Notting Hill, London (LDNfashion).

The shop signage of Camberwell high street is proportionate to the class system in that community. A mismatched amalgamation of typography adorns a discount suit shop: different

sizes, colors, weights, and bastardizations may suggest to audiences that this signage was not created by an experienced designer. The colors themselves are primary, bright and eye-catching. The hand painted lettering above the shop's signs may be akin to folk art, where a piece of work is created by an untrained, often anonymous, artisan. The practice of folk art encompasses varying degrees of skill and is marked by attributes such as utilitarian or decorative use, handmade elements, strong forms, and immediacy of meaning (What is Folk Art?, n.d.). Southwark Borough Council estimates that as of May 2015, their population is comprised of "non-UK born…365.2 per 1,000 resident population, compared to 357.9 in London & 135.9 in England" (Southwark Council, 2015). This area is also the 41st most [economically] deprived local authority in England (Southwark Council, 2015). In an area with these circumstances, value may be placed on practical skills and priority may be given to affordability, utilitarian goods and services: this is reflected in their typography. The cultural makeup of this community also tells us what kinds of visual traditions may appeal to them. This signage contributes to the visual culture off of which members form their identities and tastes. Notting Hill offers a stark difference to South East London. In contrast, sparseness exists: clean typography, clean colors, clean lines. The pastel coloring that is integral to Notting Hill's visual identity is at the forefront, while quiet typography and neutral colors are used by shops. This visual cleanliness strives to reflect ideas of sophistication in Western aesthetics. Store facades and signage are crisp and similarly designed. The typography is sparse: no advertising, posters, or displays; only brand labels and all above shop awnings.

These distinctly different places are a clear demonstration of how type and style in design is culturally—and, in this instance, sociologically—dependent. It sheds light on how we may form our cultural identities, in part, around typography and design. The aesthetic meaning and

connotations of typography extend deep into aspects of human nature, class dynamics, and constructed social systems. We assign abstract concepts, beliefs, and rationales to these fundamental visual elements of our society.

Typography as Cultural Artifact: Circuits of Production and Consumption

A reading experience (i.e., any encounter with typographic content) cannot be separated from the contextual cycle of production and consumption of cultural artifacts. Type is a product which, like any other product of man, is imbued with not just the biases, needs, and desires of the producer, but also the needs of the consumer market, both physical and perceived. Not only is it possible to see typographic evolution through the viewing of cultural artifacts, but also the system of production in which they evolved. In this context, theorists reference the theory of commodity production outlined in Karl Marx's work. In *Grundrisse*, Marx wrote:

> "Production…is also immediately consumption, and consumption is also immediately production. Each is immediately its opposite. But at the same time a mediating movement takes place between the two." (Marx, 1857-61/1973, p. 24).

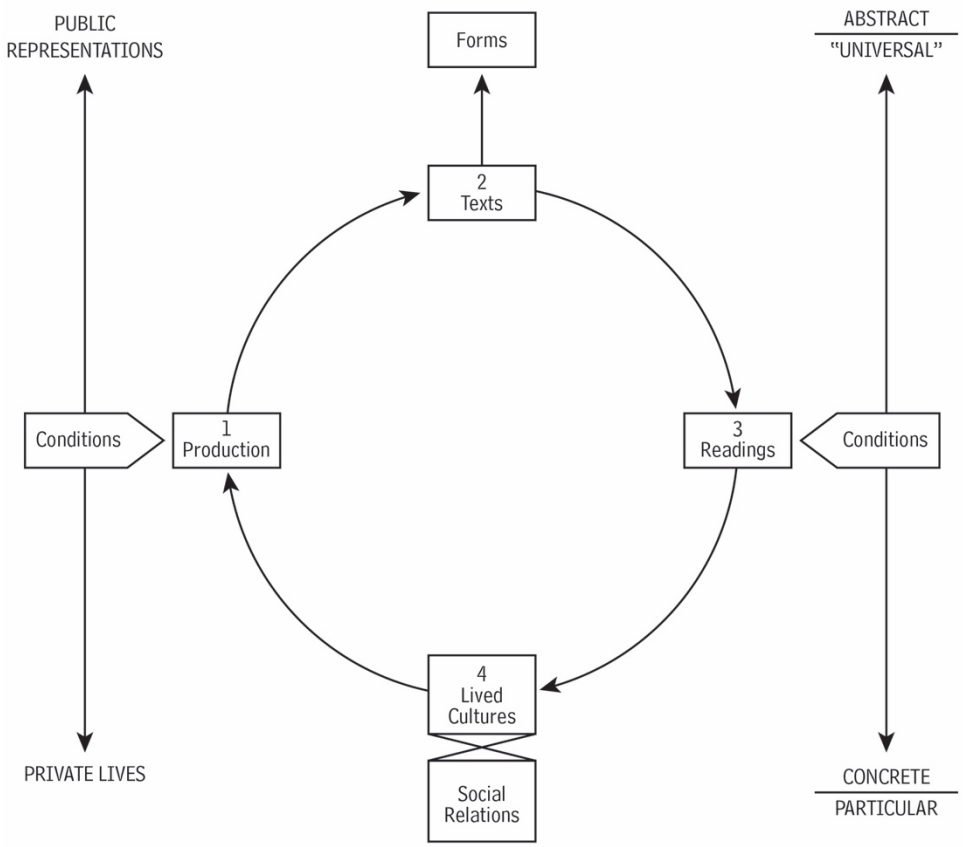

Figure 4: Richard Johnson's circuits of production and consumption proposes that consumption and cultural interactions affect the production of documents. This production feeds into this consumption, creating a never ending cycle (Johnson, 1986).

Richard Johnson's circuits of production and consumption recognizes the personal and public "conditions" of consumption, as well as the ideological or pragmatic factors that may exist around this system (Johnson, 1986). Johnson notes the importance and need for all social interactions and practices, in any setting or context, to be regarded as cultural. His focus is on everyday social life, where the distribution of products is affected privately by individuals and in public arenas. Most importantly, Johnson represents the way in which production and consumption feed one another. Where production begins, it is fed into consumption by audiences which then directly affects "lived cultures" and "social relations." In turn, those

changed relationships dictate a new form of production, endlessly. Each element is a moment in the cycle, each aspect is interdependent on the others and they are all essential to the whole.

Johnson's work revolves around the idea that culture is best defined symbolically. In other words, culture encompasses the artifacts, texts, or practices that carry and construct meaning. This means that culture is responsible for both creating and affecting typographic expression. Culture *is itself* typographic expression; typography *is* culture. As an artifact that passes through this system, typography carries with it the constructed meanings of a culture. The act of production, regardless of context, should be considered as "cultural" in the same way as consumption. Culture and cultural meaning are therefore the outcome of processes whose various steps may be described as a circuit, comprising production, circulation, and consumption.

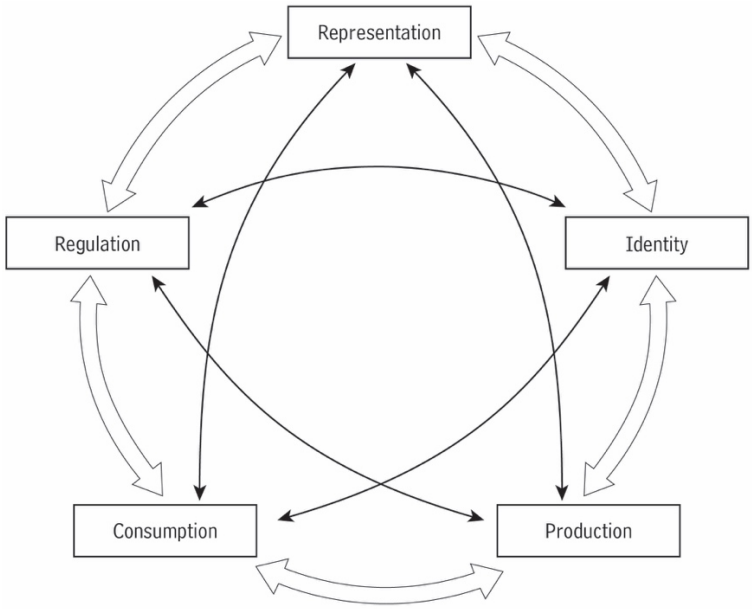

Figure 5: Paul Du Gay (et al.) creates an evaluation of production and consumption which is decentralized and which recognizes the affect of production and consumption on cultural identities (Du Gay, et. al. 1997).

The analysis of this process undertaken by Paul Du Gay (et al.) (1997) edits it to a decentralized visualization in which all areas affect each other equally. Production, consumption, and regulation inform social identities and representation. Du Gay's model also more explicitly states that the system of production and consumption directly affects these identities and representations. The cultural meaning of any product (typefaces and typographic material included) is subject to constant transformation and rewriting by both designers and consumers. As lived experiences change, as production and economic demand change, so does typography.

The analysis of this process becomes necessary because, as Gerry Leonidas explains it, "typography can serve as a lens through which to detect social change" (G. Leonidas, unpublished interview, October 14, 2017). The cycle of production and consumption of typographic products in any culture consists of people who commission documents, people who design documents, people who sell them, and people who consume them. Typographic products within this system are manifestations of how consumption differs geographically or through time. Therefore, the use of typefaces or specific typographic approaches indicates and reflects the contextual, cultural demand for different *kinds* of documents, and as well as indexing the needs and proclivities of different groups within a given culture.

In particular, Leonidas notes the specific phenomenon of lifestyle magazines in changing cultural landscapes: when a developing country begins building stronger markets and economies, more lifestyle magazines appear, thus, the typographic landscape can reflect a shift in the cultural context of a script. He references new markets in areas like Vietnam or Thailand, where economic growth and prosperity have led to opportunities for new forms of typographic expression. In these places where rapid urban growth may exist alongside slower rural regions, there can be a large disparity in typographic representations between the two areas. In rural

areas, document production will be similar to that of 10 or more years ago. However, in the urban areas of these Asian countries, as Leonidas notes, there is a much more internationally aware audience expecting to see up-to-date trends which may be filtered through to print media in the form of localized editions of lifestyle magazines. Not only that, but when economic growth occurs, typographic output in general increases because there is more demand for consumer products, documents, and various artifacts that require typographic expression. All of these aspects perpetuate and feed cycles of production and consumption.

Typography and Fluency in Cultural Understanding

Type design practice exists within the previously discussed dynamic context of design making and cultural studies. Guy Julier (2006), a professor and lecturer at Aalto University who has written extensively about design theory and design culture, notes that, "design...is more than just a creation of visual artefacts to be used or 'read'. It is also about the structuring of systems of encounter within the visual and material world" (p. 67). Design is not constructed on a whim, but responds to and builds the visual culture of a social group. Herein lies the importance of understanding the culture in which one is designing. This task may become much more complex in type design than in graphic design because written communication and the related tools are so fundamental to a society. One must understand the forms and their history, how they will be used (with what technology and for what purpose), who will use it, and how it will seamlessly fit into the visual and spatial narrative of that culture. All of this information then must be synthesized into the precise process of type design.

Julier suggests that some cultural research practices are flawed when applied directly to design practice. With a new method he refers to as Design Culture, he states that this:

> "enquiry traces a cartography that exposes and analyses the linkages of artifacts that constitute information flows and the spaces between them…it may be mobilized not merely as analysis, but as a generative mode that produces new sensibilities, attitudes, approaches, and intellectual processes in design practice" (Julier, 2006, p. 76).

He also highlights the importance of understanding the context of design: analyzing the documents and system of document-making within a culture in order to better understand it. Not only that, but the importance is stressed of actively and critically questioning how one may better understand the culture. Integrating a critical dialogue about typographic and visual design culture into the type design process is essential for success.

The ever-changing relationship between type and culture makes it vitally important that cross-cultural type designers also become trans-disciplinary researchers, learning about and looking at cultures with the eye of an anthropologist, sociologist, and cultural studies expert. The aesthetic mores of a culture and the related values and motivations of consumers must be engaged with and understood in order to fully, and respectfully, respond to the needs of that audience. Type does not exist within a vacuum, it is predicated on cultural change and motivated by underlying social structures that may not be readily apparent to an observer looking in.

Chapter 3: Research Methods Utilized in Cultural Disciplines

Areas of study such as cultural studies, visual culture, and material culture all share methodologies that stem from the practices of cultural anthropology: they use similar research frameworks to make sense of the ways cultures visualize the human condition. Through the examination of the research practices in cultural anthropology and material culture, we can better understand how these techniques work, the benefits of these procedures, why the structure

of these methods is approached in that way, and reflect on how these methods may be utilized in design practice.

Cultural Anthropology

Cultural anthropology, one of four areas within the broader field of anthropology, focuses on the study of culture and a people's beliefs, practices, and the cognitive and social organization of human groups. Cultural anthropologists study how people who share a common cultural system organize and shape the physical and social world around them, and how they are in turn affected by those elements (National Parks Service, U.S. Department of the Interior, 2016). This area of study aims to understand the dynamics of a certain culture through direct contact and interaction with people. For cultural anthropologists, these connections are discovered mainly through long-term ethnographic study, which is a "scientific description of the culture of a society by someone who has lived in it" (Ethnography, n.d.). Learning to be a good ethnographer requires learning how to observe, learning how to ask necessary and appropriate anthropological questions, and learning how to recognize patterns in complex human behavior. A variety of anthropological fieldwork methods are used in connection with ethnographic fieldwork including "[participant] field observations; visits with local individuals in their respective spaces; spontaneous conversations; in-depth interviews with key figures or experts from the community; examination of artistic creations; reading and listening to people's stories; conducting games for the exploration of local knowledge; and using diagrams and maps to expose the locals' environmental, social, and cultural conceptions" (Berman, 2017, p. 15). Participant observation is a technique characterized by the "effort of an investigator to gain entrance into and social acceptance by a foreign culture or alien group so as better to attain a comprehensive

understanding of the internal structure of the society" (Participant Observation, n.d.). The researcher can then choose which of these tools are the most appropriate for their investigation and question, while also taking into consideration the types of information and local knowledge they want to reveal or expose.

When used by a designer, ethnographic practices may allow one to connect more intimately and delve deeper into a project's context, helping to better understand the user and the problem. This method has been translated into the design process through multiple names: human-centered design, design research, design thinking, design anthropology. All of these sub-disciplines utilize some variation of ethnographic research in order to understand the user perspective more intimately. While the purpose of traditional anthropological ethnography is to understand a cultural system and to become holistically immersed, the main purpose of design ethnography is to gain any insights that help to better understand the problem and to discover opportunities for design intervention.

Within type design practice, ethnography may be useful for a couple of reasons. As with its use in graphic design, it may be used to discover the needs of clients or audiences and these discoveries may drive solutions. However, within the context of designing for new or unfamiliar scripts, ethnography can play the more important role of informing a designer on how a script is used by a community, the visual trends of typographic style, and the construction of letterforms. It allows the designer to better understand the environment surrounding typographic expression. Ethnography is a prime example of how design and anthropological practices overlap. Designers have adapted and edited the processes and methods of anthropology to fit the needs of their practice and of the scope of their individual projects.

Material Culture

One area that relates to anthropology is the study of material culture, which is focused around "objects, their properties, the materials that they are made of, and the ways in which these materials are central to an understanding of a society" (Woodward, 2015). Within this area, culture and society are viewed as being created and reproduced by the ways people make, design, and interact with physical objects. Because the study of material culture focuses more explicitly on man-made products, the methodologies in this discipline may offer insight into how design and typographic research may be conducted and the questions it may ask.

The University College London's Master's program in Material Culture has built their program according to the framework in Figure 6. Building on a foundation of research skills and best practices, the facets of this framework directly affect the competencies of the researcher, and therefore the researcher's overall practice and outcomes.

Specifically, the program forms its structure around methodologies such as ethnography, object-focused research, and participatory design approaches—suggesting a strong focus on direct interactions with people and groups in order to understand them. Within a design process, the benefits to these are similar to the pursuits of ethnographic research. However, participatory design approaches may add another layer of context to a design project, allowing for a reduction of the risk of failure or ineffectiveness and allowing the designer to foster stronger bonds with the culture and context. There is also a highlighted interest in contextual research including "familiarity with contexts where materials and design research is conducted" and "the cultural critique of audiences and 'client' organizations". When looking at these concerns through the lens of type design practice, this could include how an audience uses a script and how that may

be improved, therefore "critiquing" and critically analyzing where they may be of benefit to the society.

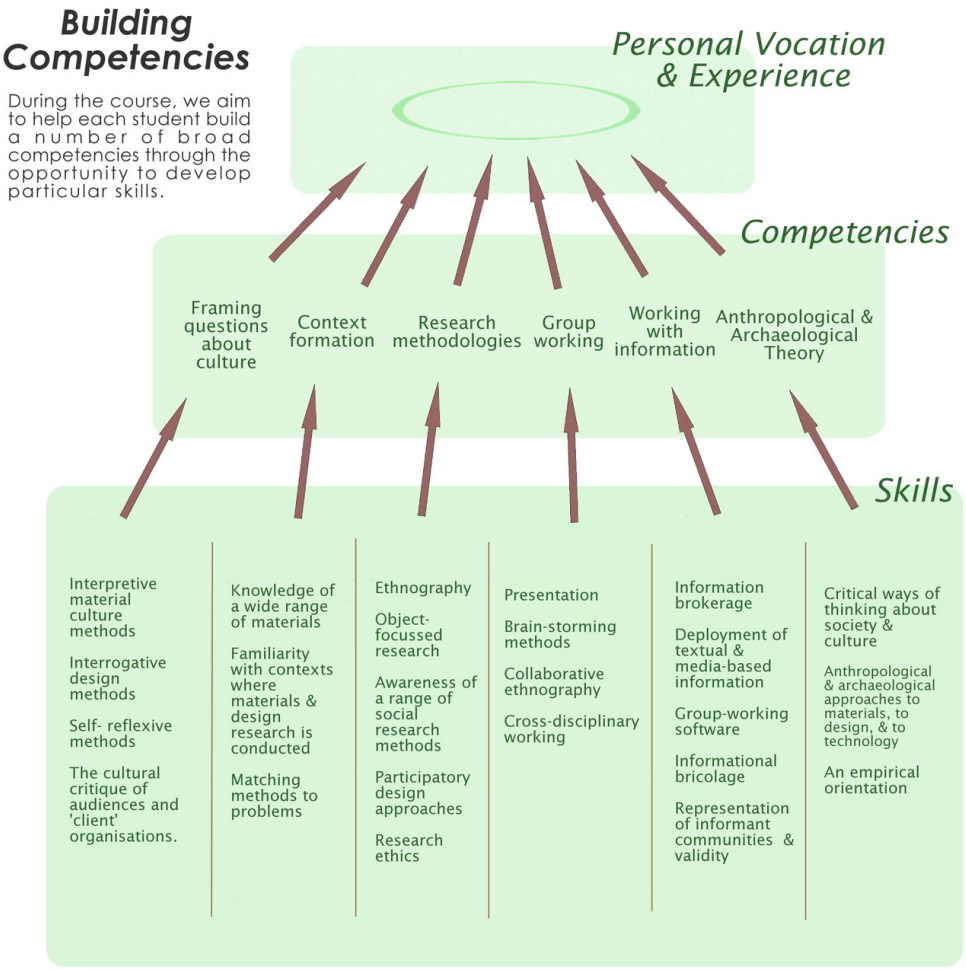

Figure 6: Overarching competencies and skills introduced in the MA Material Culture course at the University College London (UCL Material Culture, n.d.).

The overall structure of this framework is also important—going from base skills and concerns that inform a researcher's practice and therefore the overall outcome and success of artifacts. This structure builds on contextual research, theory, anthropologically derived research methods, and information-gathering skills to contextualize the conditions they study.

The study of material culture and the practices of cultural anthropology use similar methods to theorize about social groups. Whether scrutinizing material objects or larger organizations of cultures, these methods seek to make sense of our social structures and to critically analyze and question our visual cultures. Type designers must also have this ability to frame questions about cultures and writing systems, form inferences based off of contextual information, and implement those inferences and findings into design practice.

Chapter 4: Design Anthropology in the Type Design Research Process

When designing type, it is particularly important to understand the nuances of their motivations, tendencies, environment, and habits of use. This process becomes even more important when a type designer is creating a typographic product (i.e. a typeface) for a context in which they were not raised or assimilated. In this situation, it is crucial for the designer to analyze the new context very closely, for they are unable to draw on their own experiences and knowledge for reference. This is where the practice of design anthropology may be integrated into the research process of type design. Design anthropology is defined by Wendy Gunn (2013) as, "contain[ing] characteristics from both respective disciplines" (p. 1-5). Fi Piovarcsy (2013) expands on this, saying that, "by combining aspects of traditional design research and anthropological inquiry, theories and practices, new integrated approaches uniquely adapted to design anthropology emerge" (p. 5). By utilizing anthropological theory and research methods, along with critical practices of design research, the ways in which the type designer acquires knowledge may be transformed.

Where design anthropology may intervene in the design process is in the way a type designer informs themselves about the new culture or new context for which they are designing.

Gunn (2013) notes the "transformative potential of classical anthropological studies for understanding relations between people and technology anew" (p. 8). Design anthropology can affect not only this interaction, but how people interact with type at all levels of culture and social stratification. By analyzing multi-script type design through a design anthropological lens, we may look at how designers already utilize some design anthropology practices, as well as how the process may be improved through the more mindful and purposeful integration of these design anthropology theories and methods.

Inquiry in Type Design

Inquiry in academic and professional practices is often associated with or defined by finding a hypothesized set of circumstances or occurrences. For example, the scientific method allows scientists to prove or disprove specific inferences and theories, therefore looking at conditions from a predetermined stance and perspective. In *Logic: Theory of Inquiry*, John Dewey (1938) defines inquiry as, "the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a united whole" (p. 108). For Dewey, inquiry revolves around the idea of reducing uncertainty and unformulated investigational practices.

Joachim Halse and Laura Boffi refute this, supposing that inquiry in design practice is distinctly different from other academic pursuits. They state that, "design interventions are used to describe an engaged research method, not to test a prefigured solution to a defined problem as in prototyping, but to enable new forms of experience, dialogue and awareness about the problematic to emerge" (Halse and Boffi, 2016, p. 89-90). Similarly, Thompson notes in *The Interventionists: Users' Manual for the Creative Disruption of Everyday Life* that artistic

intervention may have a similar goal: enabling new forms of experiences, awareness, and dialogue (Thompson, 2004). Inquiry in creative practices becomes a facilitator for discovery that may later drive possible solutions and futures, rather than a format in which to test a fixed set of theories. This is because, in design, when we conduct research, it is often as an exploratory research method—to discover facts or details about the human condition that we did not realize previously. There is not a rigidly defined final product in mind; rather, we have a loose set of conditions that may inform the outcome later on.

This idea about design inquiry may also be true for type design research pursuits, which also allow for loose discovery and unknown outcomes. However, it deviates slightly. Type design research must, by necessity, dig deeper into the various aspects of interaction between a culture and its script. The type designer must understand how a people think about and interact with type on various levels and platforms, how technology and living conditions of a culture affect font output, how the history or the script and the society affect its current state, and more. Type designers often explore the expanses of culture, looking for any point that may influence their future outcome. Because this process can be seen as a form of social inquiry, design anthropology has a unique opportunity to integrate itself into the type design process. Design anthropology can offer further points of contact with a culture, as well as more theories with which to critically analyze a culture.

Design Anthropology: An Expanded Definition

As stated previously, design anthropology can be broadly defined as an interdisciplinary practice in which a designer utilizes anthropological practices to inform their creative output. However, there are complexities and numerous amounts of theories and methods that come with

this work, making it a somewhat nebulous practice, with the boundaries of design anthropology shifting with each application of it. As a relatively new form of investigation, design anthropology combines the proactive making and interventionist change associated with design and the culturally focused methods and thought processes of anthropology to create a unique perspective on culture and the human condition.

Design anthropology works to fill the gaps in design research and methods that may not be filled by traditional or less intensive research methods. It looks to anthropological theories to better understand the complex environments designers want to improve or change. Wendy Gunn (2013) notes that, "what emerges from these interdisciplinary approaches…is that culture and design are not separate analytical domains of extensions of each other. Rather they are deeply entangled, complex, and often messy formations and transformations of meanings, spaces, and interactions between people, objects, and histories" (p. 13). It is the goal of design anthropology to make sense of these interactions with the express purpose of integrating design interventions as an end result. Anthropology may have a strong impact on design, making it a more broadly humane practice. As noted in *Design Anthropology: Theory and Practice* (2013), this will be achieved through the practice of "critical use of theory and contextualization; the extension of the time horizon to include the past and long-term future to ensure sustainability; and sensitivity to and not least incorporation of the values and perspectives of the people whose worlds are affected by design" (Gunn, p. 11). Furthermore, it is an iterative process which moves back and forth from field site to design studio.

Design anthropology can lend itself to the practices and research methods of type design, specifically when new designers are creating a script they are unfamiliar with, or creating a typeface for a context they have not encountered before. While design anthropology may not

have to fill gaps in what is already a robust amount of resources for many scripts, it may offer further opportunities for deeper social investigation. In an increasingly diverse and new media world, designers are finding themselves having to adapt and learn in multiple contexts and cultures, many of which they have not been accustomed to.

Cultural Studies and Social Inquiry in the Type Design Research Process

Through its natural process, type designers may be employing design anthropological methods in their research processes without realizing it. Because type and culture are so deeply integrated with one another, type designers begin by informing themselves about how a writing system is used, its history, its integration into daily culture, and more. All of these points overlap with anthropological investigations naturally. This process further showcases the connection between type and culture.

Noto Sans: A Case Study

Noto Sans is an open-source type family that was commissioned by Google and designed by Monotype which aims to support 100 written scripts and cover more than 800 languages; to "provide digital representation to all the scripts in the Unicode standard" (Monotype). Currently, over 30 world scripts have been officially released through the Google Fonts website, with more being reviewed (Google Fonts). Monotype notes the process for Noto Sans. In this case study, many of the various research methods and processes used to design in these multiple scripts are reviewed.

Steve Matteson, the Creative Type Director in charge of Noto Sans, states that, "early on, we established a way of making a proposal to Google and what the typeface would look like

[with] screens grabs and pictures of typefaces in use. Especially in these minority scripts where very few people have ever made typefaces, we relied [on] signage and engravings on buildings and that sort of thing as reference material to show Google what these new scripts might look like" (Monotype). Kamal Mansour, a Linguistic Typographer at Monotype expanded on the research and informational process of the project: "In each of these cases, we're making it possible for that language community to create a digital patrimony or heritage with their literature or traditions. When we start with a new script, if I'm not already familiar with it, I collect as much information on it as possible. Then, [in] the secondary stage, we look at style. We basically dive in and immerse ourselves as much as possible in that culture and try to produce something that is acceptable and pleasing. If we don't, we risk alienating that group" (Monotype).

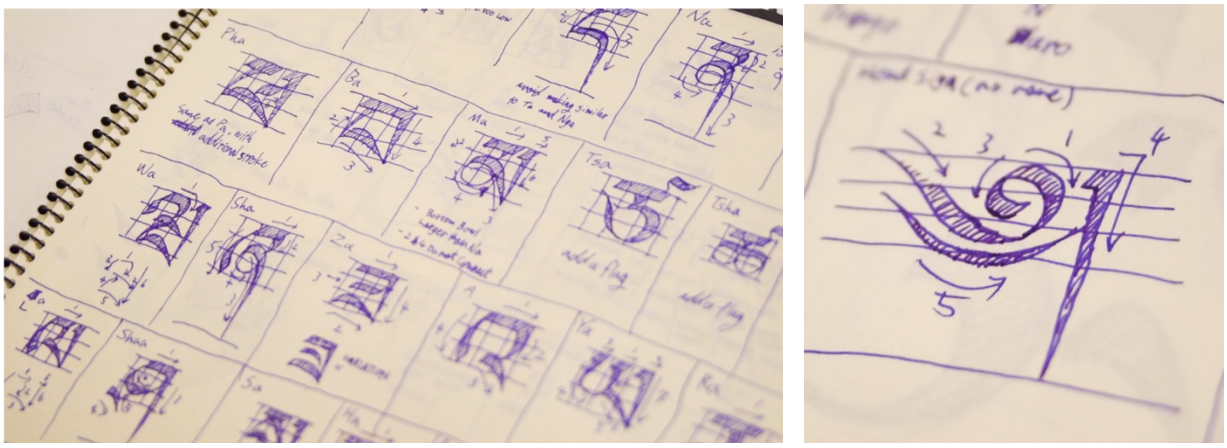

Figure 7: Process sketches for the Tibetan extension of Noto Sans, Omagari notes the pen direction in every iteration. (Monotype)

In the case of the Tibetan extension of Noto Sans, Mansour refers to the importance of studying the calligraphic traditions; Tibetan has virtually no typographic tradition, and what little has been done in the past two decades is based on replicating calligraphic style. Because of this,

there was a close collaboration with a Tibetan monastery, which gave access to monks for their review of Noto. Tibetan monks have a close relationship with an old tradition of practicing calligraphy. This provided an informed review of the progress by native people who were able to assess the quality and overall harmony of the forms. It was also stated that for each script extension of Noto Sans, it was either reviewed by in-house workers of Google who were fluent in the script or friends and members of that community. The success rate or amount of useful information gained from calligraphic or typographically knowledgeable natives versus a layperson was not stated.

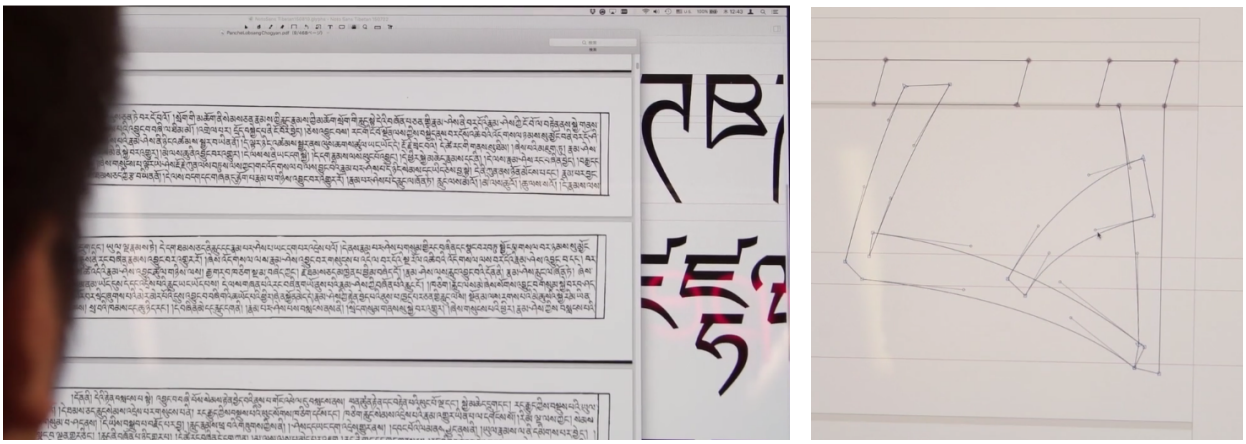

Figure 8: Repeated reference of calligraphic materials ensures that digitized forms are accurate and successful (Monotype).

Toshi Omagari, a designer for Monotype in London, was responsible for contributing to the Tibetan, Mongolian, Lepcha, and Phags-Pa extensions of this font, and details the research process in a presentation at the Granshan Conference 2015. In this presentation, he states the use of historical and archival resources, the study of traditional calligraphic styles, consultation by native readers and writers, intensive study of the system structure and history, and research into

the reader base, as well as noting technical problems associated with designing these scripts in a Western-optimized program. All of these things, combined with a background in designing for Asian scripts, seemingly provided enough resource material to successfully design in these scripts. Omagari's deep investigation into various Tibetan calligraphic styles was also noted by the Monotype case study. Because calligraphy is the basis for Tibetan typographic traditions and trends, it became the most important aspect on which to focus, understanding those traditions behind the various styles and being able to establish a desired look successfully with the correct precision necessary in type design.

Though it is not expressly stated, the Monotype team, including Omagari, used some form of design anthropology methods to inform themselves about the scripts for which they designed, including ethnographic practices and cultural studies. They consulted with native speakers, researched many cultural traditions and techniques, researched type history, and more. They also utilized participatory design practices through the close consultation with Tibetan monks. An important aspect to note about this process is that Omagari had previous experience working with Asian scripts, particularly Mongolian, as he stated in his address to the Granshan Conference. So, the question becomes, do anthropological methods hold as much weight when you are designing for a script of which you have previous knowledge? Do these methods offer more value when you are approaching a script of which you have virtually no knowledge? These questions cannot be answered without a cross-examination of both scenarios and a thorough qualitative evaluation about each case.

Noto Sans represents a changing dialog and future in type design. Not only is Noto Sans focused towards web-optimized conditions and an increasingly digital world, but its main purpose is to bring digital typography and fonts to many world nations that did not have access

previously. The 14th Dalai Lama said this when addressing Lee Collins, one founder of the Unicode Standard: "I do not use those machines myself, but what you have been doing is truly profound. As a people without a nation, we cannot thank you enough" (Day, 2015). Multi-script digital type design has far-reaching effects. Not only does it allow minority nations to contribute to the modern global society, but provides something much more profound—the idea that those nations and their cultures are of value, that their digital voices matter, and that they may find pride in their cultures through their writing systems. The way this process can be improved and brought further into an inclusive global society is by teaching type designers to further inform themselves about those cultures they are working to improve.

Phoreus Cherokee: A Case Study

Mark Jamra approached the Cherokee syllabary in 2011 with little to no previous knowledge on the script. He notes his research and iterative process in an address to Type@Cooper, stating that, "[Cherokee's] most important role is in possessing an iconicity that manifests the Cherokee cultural identity" (Jamra, 2015). This process illustrates the profound impact type can have on a nation and culture. In this address, he cites the intensive study of various Cherokee references including historical documents and manuscripts; handwritten documents from current members of the Cherokee nation; archives from the Smithsonian Institution; the limited amount of quality fonts available in Cherokee; academic books and texts regarding the Cherokee writing system and linguistics; history of the writing system and its invention; and research into surrounding information about other Native Americans tribes and the historical context of Cherokee's use. He also notes the close communication he had with the

Language Technology office of the Cherokee nation, often sending them proofs and progress for them to assess.

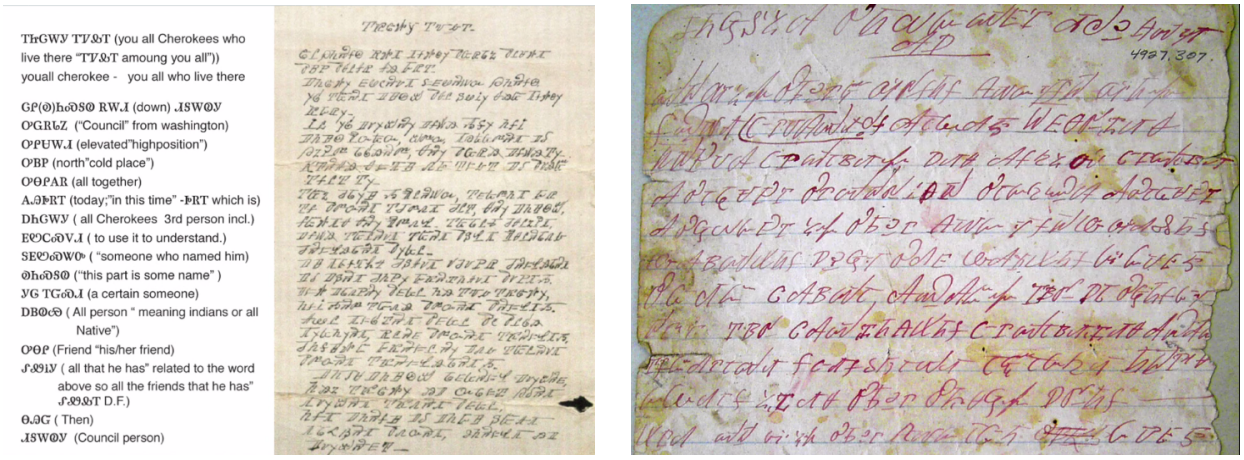

Figure 9: Jamra sourced various writing samples from historical documents and members of the Cherokee nation (Jamra, 2015).

Jamra notes that, "this watershed moment was happening, the historical context, the descriptions of how the syllabary functions, and also the political context in which it was created was making it more familiar to me and began to open up the field of possibilities that was available to me in designing it" (Jamra, 2015). He remarks on the important impact the cultural investigations had in his process. They not only provided technical information on how to design the script, but slowly transformed the way he thought about the forms—the information provided a context in which to place the forms, giving them more meaning and importance.

Similar to Noto Sans, the consultation of Cherokee officials and natives, as well as the deep investigation into history and form can be viewed as a form of ethnographic and cultural studies research. Both of these examples utilized some form of participatory research in their process. Consultation with either native readers or experts seems an imperative step in designing

for a new script. It provides a learned eye on your progress and process, offering insight into harmony, shape rhythm, and more. Both fonts represent shifting values and priorities in the type design field. This typeface focuses on empowering and enriching the Cherokee nation through typographic support.

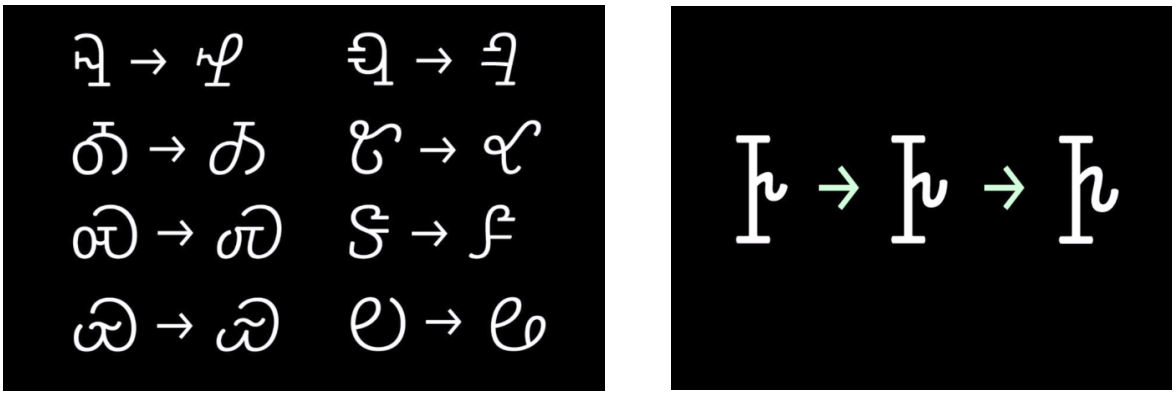

Figure 10: *Left*: Jamra noted the significance of understanding the handwriting system in the process of creating a true italic, which, in Cherokee, often includes unique variations on the standard forms; *Right*: He also noted the changing comfort levels that come with the process of designing a new script. Where you once may have been hesitant and conservative in your forms, you later are able to experiment and be more confident in your understanding of the architecture and how the form works (Jamra, 2015).

In both examples, high quality typefaces were the result of intensive and long-term investigation of culture and scripted form. Through these case studies, it is clear that design anthropology methods are already underway in the type design process. Methods and theories like ethnographic research, focused cultural studies, and participatory practices offer more intensive and deeper information that may afford a type designer a better understanding of context and culture.

Though this process may be costly or time consuming, ethnographic fieldwork may offer invaluable insight into a foreign script for the type designer. Whether one travels to a country

and observe the script in its environment, or communicates with the community through digital platforms (as was the case with Phoreus Cherokee), one is able to gain deeper insight into how a community utilizes a script in daily life. It allows one to see the script in use and in context, instead of removed, through a computer screen. It allows the type designer to immerse themselves in the daily context of the type, seeing small details that may have escaped online resources. Typography is a living artifact. The ways in which people interact with and use type are ever-changing. The only way to truly engage with that process is to view it and experience it in context through ethnographic research.

If type designers are already using forms of design anthropology methods, the question becomes how can these processes be analyzed and critically assessed in order to make them more effective?

Chapter 5: Critical Making Experiments

In order to test the validity of the thesis question, "what are some common problems experienced in tackling the design of a typeface in an unfamiliar script, and can a research framework help by giving structure to a pathway for a novice multi-script type designer to follow?", the author conducted a critical making project with the purpose of analyzing the process one may go through to design in a writing system for which they are unfamiliar and uncover avenues for research to critically inform the design of such a framework. This study was pursued with little background knowledge on this process of designing in an unfamiliar script for the first time, and as such followed an organic discovery trajectory of useful research tools, methods of making, and more. Two scripts were chosen for this study, Devanagari and Inuktitut, because of their varied constructions, architecture, and forms, as well as the apparent amounts of

research material available. Where Devanagari has a strong number of resources, readership, research base, and experts to source from, Inuktitut has much less of those things. Inuktitut has a far smaller readership than Devanagari, only a handful of typefaces exist in this writing system, there is little typographic research to draw on, and there are less practicing type designers who are familiar with the script. These circumstances resulted in differing research processes. Contextual culture research was conducted on each of the scripts, as well as research into the structure and architecture of the forms. During this process, a critical reflection took place at every point in order to properly assess the methodology behind designing in a new script.

Throughout this research process, the questions raised included: how much knowledge of a culture is necessary? What is the process of analyzing and developing shape language, shape progression, and spacing in an unfamiliar script? What new problems arise when dealing with an unfamiliar script and system? What kinds of source materials are the most useful? This work provides insight into these questions and more.

Script Study 1: Devanagari

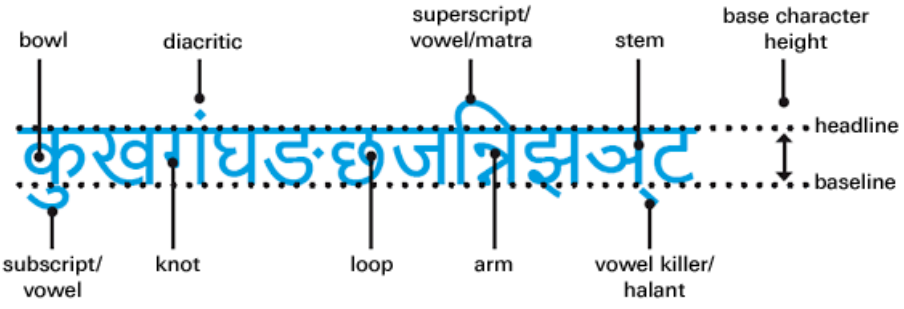

Figure 11: Devanagari is a writing system comprised of consonant–vowel sequences written as a unit: each unit is based on a consonant letter, and vowel notation is secondary (Linotype, *Devanagari*, n.d.).

Devanagari is one of many scripts used in India and has over 600 million users, making it the most widely used writing system in the country (Linotype, *Indian fonts*, n.d.). This script is an abugida writing system in which "consonant letters carry an inherent vowel which can be altered or muted by means of diacritics…Vowels can be written as independent letters, or by using a variety of diacritical marks which are written above, below, before or after the consonant they belong to" (Omniglot). This makes Devanagari vastly different from the Latin alphabetical structure. Additionally, this system is traditionally written with a diagonal contrast axis, meaning that the forms are the opposite to the Latin pen stress.

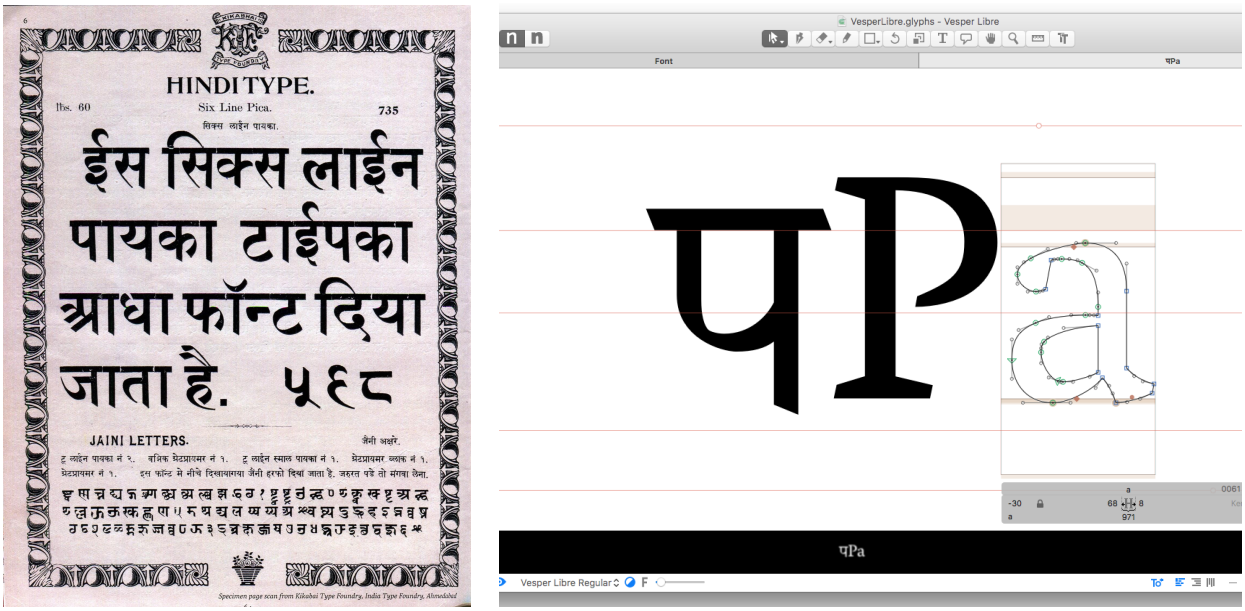

Figure 12: *Left*: Initial research on Devanagari structure and history, Specimen page from scan of Kikabai Type Foundry, India Type Foundry, Ahmedabad (Mota Italic, 2014); *Right*: Studying of open-source font files in Glyphs occurred during the research process, Vesper Libre, designed by Mota Italic for Google Fonts (Mota Italic, 2015).

Devanagari Research Process

First, secondary research was conducted in order to learn about Devanagari origins and evolution, the effects of colonialism on the script, and the writing system's structure and shape relationship. The bulk of references were sourced online. This included exploring archival materials from cultural and educational institutions like SOAS University College London, the British Museum, and various publications on Devanagari grammar and history. These resources offered historical context and valuable information about the evolution, origins, and traditional construction of the script. These resources were valuable to the ensuing design process because they offer a base point and context for the forms, an explanation of why the forms appear the way that they do. Materials specific to type design practice were also studied and sourced from foundry sites, type design forums and websites, and open-source font files. This included discussions from places such as Typophile, Google Fonts, TypeDrawers, FontForge, Glyphs, graduate-level dissertations, and more. These resources offered specialist insight into the type design details and process for Devanagari. Studying open-source font files was especially helpful, allowing for an understanding of not only the letterforms but also the digital construction of the script within a font program. The discussions and methods collected by type designers offered very useful insight into the minutiae of design. Best practices for spacing, shape progression, OpenType features, testing, and more were outlined. These points form the essential basis of the type design process; without a familiarity of details like these, a designer cannot approach that process of making.

These topics were then further explored through several additional methods: pieces from the Indian and South East Asian Collection at the Cleveland Museum of Art were studied in person; the researcher practiced writing the script using children's copy books and various

writing tools including calligraphy instruments, monolinear instruments, and chiseled markers; and an expert in Devanagari type design, Erin McLaughlin, was enlisted in order to give recommendations for further research and give feedback to the design. Exploring these methods allowed for a more physical and immediate interaction with the writing system.

The Cleveland Museum of Art (CMA) houses a large collection of Indian and South East Asian artwork. Specific to Devanagari, the CMA has in its possession items such as handwritten manuscripts and book illustrations, devotional paintings, engravings, and carvings. These pieces provided a context with which to evaluate the effects of different mediums on the characters of Devanagari. How did different tools alter the appearance of the script, regarding aspects such as weight distribution, fluidity of form, and counter forms? Conducting writing exercises in the script allowed for the physical experience of experimenting with the forms and construction of Devanagari, focusing on aspects such as proportion, construction of letterforms, syllables, and words, and the effects of different writing instruments. These experiments allowed for a concrete understanding of how a set of characters may be constructed according to different design criteria. This exercise also allows one to experiment with the limitations of form. Within the confines of using a certain writing instrument, one is able to experiment with certain proportions, constructions, and more. Erin McLaughlin—an expert in designing for Indic scripts—was enlisted in order to ask any questions about the research process and, more importantly, solicit feedback on the progress of design. Her feedback included recommendations of research resources and corrections to form and system. By offering her own critique of the design progress, McLaughlin provided an additional facet of research with which to triangulate information. This method provided the strongest sense of closure: solid constructive critique on the implementation of research into design by a trusted source.

Devanagari Design Process

Early iterations of the Devanagari design process used Latin pen stress, which took focused, conscious willpower to overcome. While some Devanagari typefaces may include this Latin ductus purposely, the goal of this study was to explore the origins of the script and its traditional architecture. Because ways of writing and thinking about letterform construction become so ingrained in our habits, it is very useful—even necessary—to refer back to calligraphic and rudimentary Devanagari learning materials (these are often made for school children or calligraphers). This reference continued throughout the entire design process in order to delineate the conventions and limitations of the script.

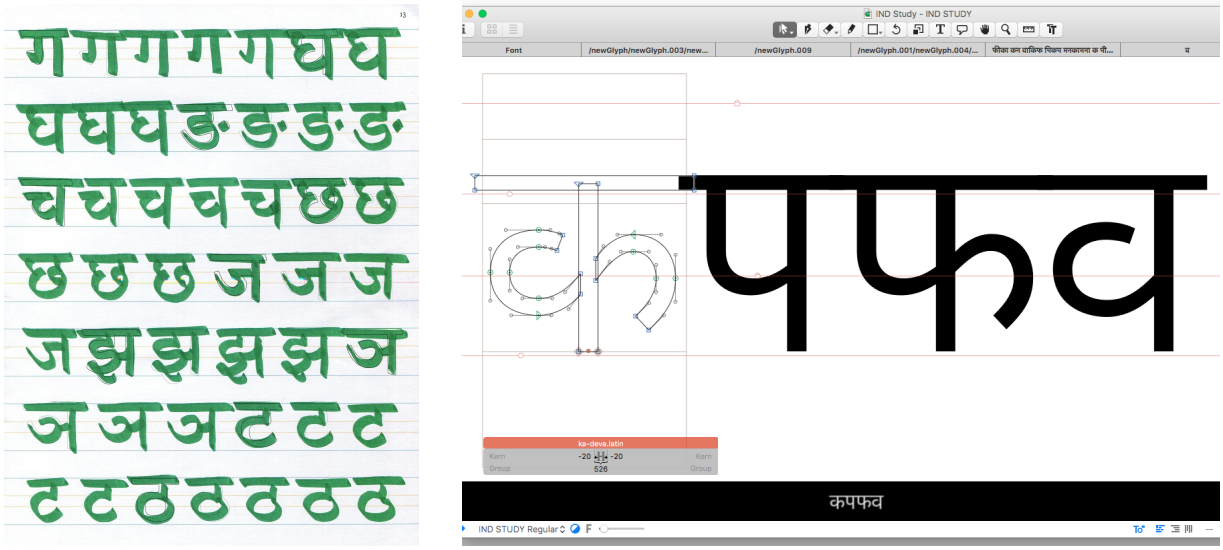

Figure 13: *Left*: Writing studies using the traditional pen stress of the Devanagari script. *Right*: Initial digital iterations were designed in Glyphs using traditional Latin pen stress (out of habit).

The final forms of Devanagari are based off of contemporary influences, with the goal of being suitable for uses across different digital and print environments. There is subtle contrast

between forms, using a diagonal contrast axis. The more technical aspects and details of a script come into view once one begins drawing them digitally. It is easy to think theoretically about a script's structure during research. However, once one enters into a font program, they must put into practice all the accumulated knowledge of shape construction, metrics, and more at once. In studying Devanagari history, it is easy to see the positive effect new design technology has had and may have in the future. This first investigation allowed for a strong deviation from the Latin script, whether in the exploration of research and history or the physical aspects of the script.

Figure 14: A limited set of characters was chosen to design based off of secondary research and recommendations from McLaughlin.

Script Study 2: Inuktitut

Inuktitut is a syllabary writing system used by the native Inuit people throughout Canada and neighboring territories. A syllabary is a system in which each character represents a syllable sound (Syllabary, n.d.). Inuktitut and the Inuktut language is used by about 39,000 people and has only a small amount of digital typefaces and practiced type designers in the script (Murray, 2017). Because of these circumstances, Inuktitut has a distinctly different research process than Devanagari. Unlike Devanagari, much of this research process focused on developing a method for how to approach this script.

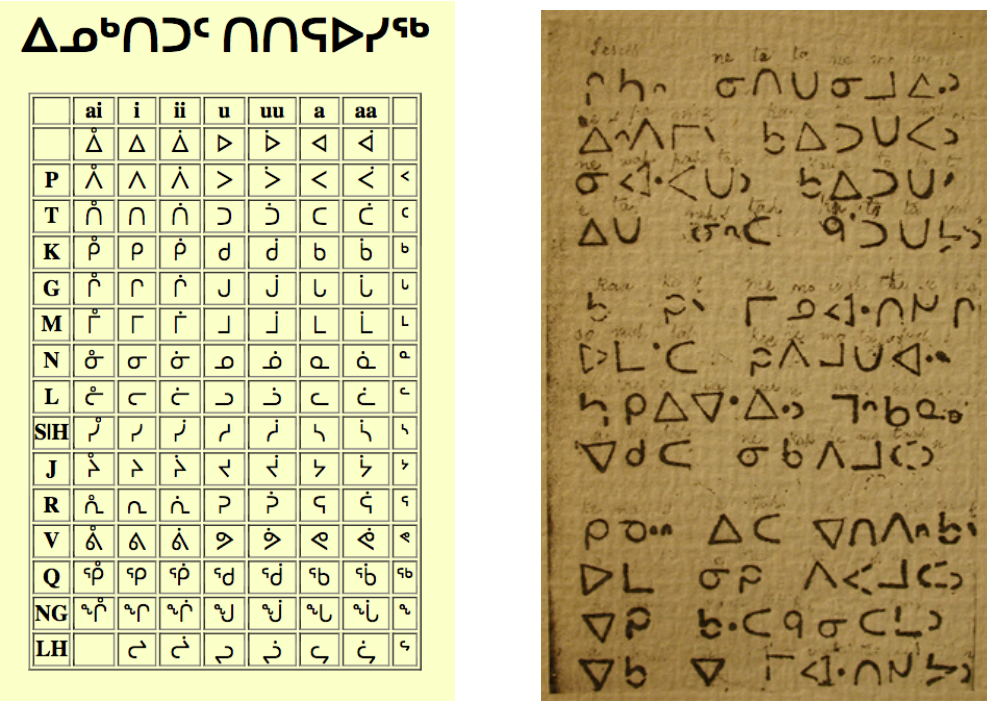

Figure 15: *Left*: Inuktitut is a syllabary in which the rotation of forms represents syllable combinations (Tiro Typeworks, *Inuktitut*, n.d.); Right: the 7th publication from the Rossville Mission Press, 1841, translation: *Jesus my hope; Who has gone on high; I see He went; Where I too shall go. Those who were good; In this life; The way of life; There I will walk. Long where it is dark; Here I have walked; Suffering; For I was not good* (Tiro Typeworks, *Rossville Mission Press*, n.d.).

Inuktitut Research Process

Secondary research on the Inuktitut script pivoted significantly around the lack of expert typographic research on the system. This informed where source materials would be obtained from and what kind of information would need to be derived from them. References collected online consisted of handwriting samples, historical documents, governmental documents, cultural ephemera like magazines, folk arts and crafts, and children's books from various sources such as native archives, cultural and governmental centers, Flickr, Google Images, and type foundries.

Because Inuktitut is a minority script with only a few choices of digital typefaces, type families designed by reputable type foundries (such as Tiro Typeworks and Typotheque) and unpracticed designers were compared side-by-side in order to draw conclusions about any mistakes in design that may be made—this can include aspects such as spacing, balance of form, relationship between multiple characters, and consistency across micro and macro levels of the type systems. Inuit magazines and other dense documents were useful resources to study how the Inuktitut system interacts with written translations in English, Canadian-French, and the roman orthography of the Inuit language (i.e. the transliteration of Inuktitut into Latin), what kinds of spacing and grammar conventions are used, the patterning of the Inuktitut script, and the balance of different typefaces across large amounts of type. Handwriting samples were useful because it is clear to see how the characters are constructed. This influences the final shape and construction of the digital typeface, including weight distribution, fluidity of form, the architecture of individual forms, and the architecture of repeated shape languages across multiple forms.

The act of analyzing these Inuktitut artifacts shares a similar purpose with the secondary research conducted for Devanagari. These types of resources not only allow a designer to study the details of form, but also allow them to analyze the context of use for that script. However, in the case of Devanagari, there was a plethora of previous typographic research and outlines for best practices. In the case of studying Inuktitut, one is left to establish these conventions on their own.

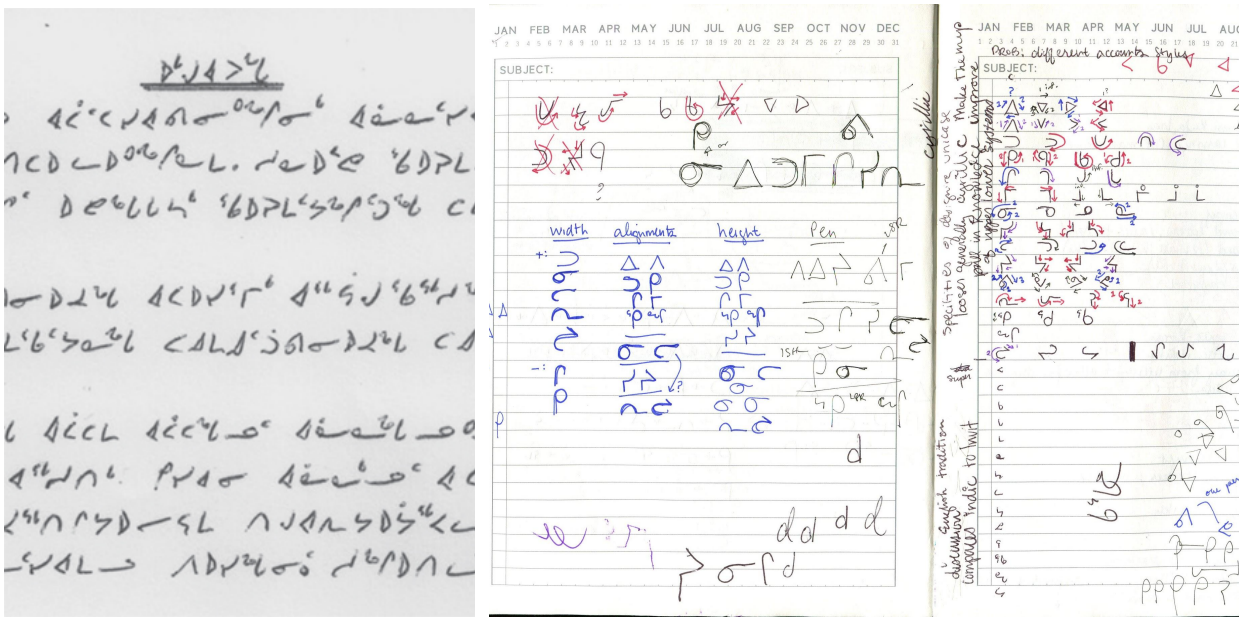

Figure 16: Handwriting samples were studied to determine the ductus and construction of letterforms. *Left*: handwriting samples were obtained online through various sources including Flickr, Google Images, Inuit culture archives, and more (Inuktitut Handwriting, n.d.); *Right*: Notes taken on the letter progression of the design process and the ductus and formation of characters.

The information gathered from secondary research then had to be extrapolated to form inferences about conventions for font metrics, height differentials, spacing, shape relationships, and more. An instance of this process is establishing a shape progression and system. What

shapes would be designed first and how are these a reflection or distillation of the basic shapes seen throughout the writing system? How are all of these shapes connected? What features of the forms connect them? An ideal scenario in investigating these topics is to work with groups of native Inuktitut users or type experts who have knowledge of the writing system, which was not accessible within the timeframe of this project.

This kind of feedback pulls directly on peoples' experiences with the writing system and the conventions they are aware of and peoples' knowledge of perceptions of how typographic elements effect cultural identity. The absence of this resource was highlighted by the previous benefits of soliciting feedback from McLaughlin in the Devanagari design process, an aspect of the process which appears to be vital. The lack of this kind of feedback results in a sense of uncertainty throughout the entire process, with only educated inferences on which to rely.

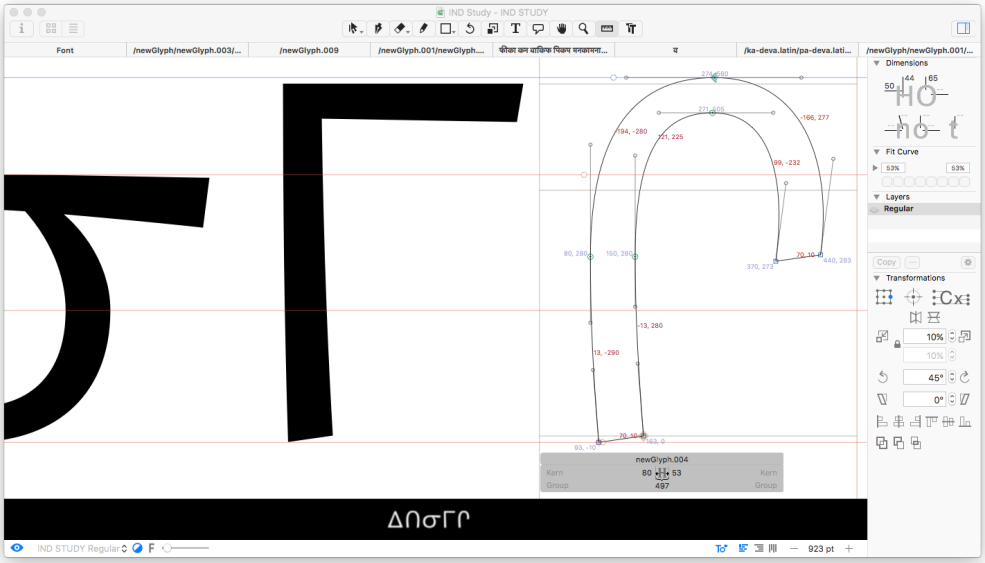

Figure 17: The process of Inuktitut digitized in Glyphs. Another layer of difficulty within this process is the fact that Glyphs does not yet have an Inuktitut extension.

Inuktitut Design Process

The research into and development of best practices for Inuktitut structure continued while designing the characters. One hindrance to this design process was the fact that Glyphs does not yet have an Inuktitut extension within the program. This then required frequent reference to the Unified Canadian Aboriginal Syllabics Unicode chart in order to create new characters and ensure that there was a correct coding of forms. Additionally, the design and digitization processes of Inuit forms were more streamlined than the Devanagari process. Was this because the forms have a much simpler construction? Alternatively, could it be because of the lack of expert feedback, and therefore an acceptance that these forms needed less editing? Again, this highlights the value and necessity of consulting with native readers or designers.

The context of traditional Inuktitut forms is monolinear and, based on the study of handwriting samples, appears to use a similar ductus to Latin. These aspects are reflected in the final forms, where there are subtle weight changes that hint towards handwritten movements. The spacing of Inuktitut is distinct from Latin. The script's forms, with their large voids, excessive use of superscript characters, and distinct and sometimes awkward interactions with one another made approaching the spacing with little knowledge on the standard difficult. Because of this, characters were designed with larger bowls and counter forms to fill out these spaces more evenly.

At the end of this Inuktitut process, it is clear to see that there are many unanswered questions, both in the design process and final artifacts, which occurred simply because there were not as many research methods available to triangulate information.

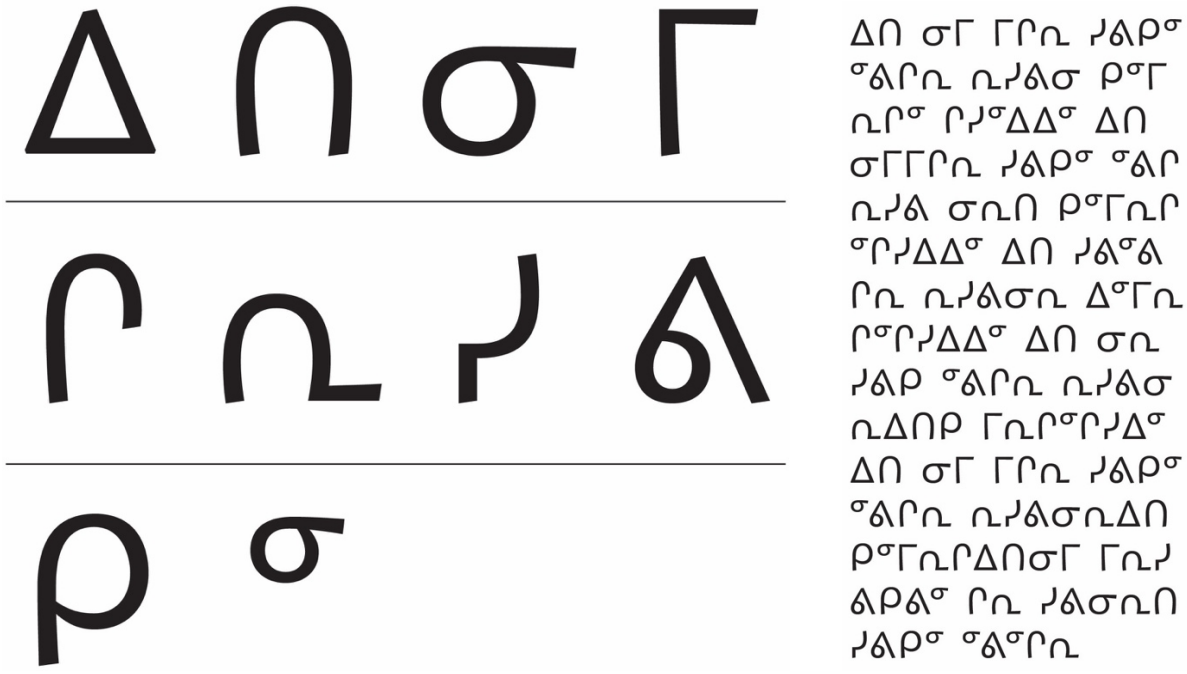

Figure 18: A limited set of Inuktitut characters was chosen to design based off of secondary research and the researcher's own inferences.

Critical Making: Research Findings

Through the many different research processes explored during this critical making, we can see the effort and time that should be devoted to the research process for non-native type design. Considerations to typographic form, cultural context, and typographic use must be considered in order to design well in the script. The discoveries made in this process directly influenced the structure and goals of the following research methods and research framework. Regarding the following research methods of this study (the interviews and the surveys), this process opens up questions about what type of resources expert type designers use in their research process, the methods they use in their research, and the progression of their research and design process. This process suggests the importance of some methodologies over others (for

example, the importance of expert consultation); it sheds light on the order of research to design that should be followed; and it illustrates some of the typographic references that can be utilized in the process of research. These experiments were then followed by interviews and surveys with expert multi-script type designers, which led to support or contradiction of these discoveries.

Chapter 6: Interviews

Interviews with 8 type design professionals—Neelakash Kshetrimayum, Gerry Leonidas, Erin McLaughlin, Toshi Omagari, Fiona Ross, Ksenya Samarskaya, Zachary Scheuren, and Liron Lavi Turkenich—were undertaken with the goal of understanding how type designers research and become informed about new writing systems, as well as how the cultural structures surrounding typography may influence the processes and motivations of type designers. This group of individuals combines extensive knowledge and experience with designing in two or more scripts, experience with teaching and designing in a new writing system, or their expertise in the cultural dynamics of type. Participants were also carefully chosen to include a wide range of backgrounds in order to present a rounded, unbiased range of opinions.

Kshetrimayum is a type designer working primarily with Northern Indic scripts and has worked with Adobe, Google, Tiro Typeworks, and Dalton Maag on several Indic script projects. He is the recipient of the 2010 Monotype Studentship during his time at the University of Reading's MA Typeface Design program and presents and teaches frequently on his work. Leonidas, with over 30 years experience in multi-script design practice and theory, is the Program Director of at one of the first masters-level programs in the world focused on digital typeface design as a discrete subject, MA Typeface Design at the University of Reading. McLaughlin, who works primarily with Latin and a range of Indic scripts, has been a type

designer and consultant for companies such as Adobe, Facebook, IBM, Google Fonts, Frere-Jones Type, and more. She is a board member of the Society of Typographic Aficionados (SOTA), as well as the recipient of the 2011 Catalyst Award from the organization. Omagari is a type designer working at Monotype on a range of scripts, with research focus and expertise in the Mongolian script. He specializes in other multilingual scripts including Latin, Greek, and Cyrillic and has designed in the Tibetan script for the Google Noto typeface, a Google-initiated project to create a typeface covering all the scripts of the world. Ross, also a professor at the University of Reading, has over 30 years of experience studying and designing in a range of Indian, South Asian, and Middle Eastern scripts, and is the recipient of the SOTA award and the Type Director's Club (TDC) Medal for contributions to type and typography. She has written extensively and, in her illustrious career, has worked with Linotype and as a consultant for Adobe, Apple, Dalton Maag, and more, particularly for the Kolkata newspaper group, Ananda Bazar Patrika. Samarskaya, a native Russian speaker, works with Latin, Cyrillic, and Greek scripts. She has sat on the board of AIGANY and has worked as a type designer at Hoefler & Frere-Jones (now Hoefler & Co.). Scheuren has a research focus in the Khmer writing system and currently works at Monotype as a Script Specialist, designing and engineering typefaces for various world scripts. He is also part of their team working on Noto Sans, designing for various writing systems. Lastly, Turkenich, working predominantly with Hebrew and Amharic scripts, frequently writes, presents, and teaches about her multi-script type design practice. She is also a senior-level events coordinator at ATypI, an international non-profit organization dedicated to typography and type design.

Together, interview participants have experience researching and designing in over 22 world scripts including Latin, Greek, Cyrillic, Indic scripts including Devanagari, Gurmukhi,

Kannada, Tamil, Telugu, Gujarati, Malayalam, Bengali, and Meetei Mayek, Arabic, Thai, Khmer, Chakma, Bhaiksuki, Mongolian, Tibetan, Phags-Pa, Hebrew, Amharic, and more. These participants also represent many demographics within the field—a large number of women were interviewed, as were people from across the world including India, Israel, Japan, Greece, Russia, the UK, and the US. From this group, interesting and invaluable perspectives, advice, and opinions were shared.

The interview structure is divided into 4 sections of questions concerning: 1) Culture, 2) Type Design Culture, 3) Type Design Research, and 4) Process, thus allowing for in-depth discussions on complex and sometimes sensitive topics, interactions, and feelings within the type design field (Appendix A). The areas of inquiry within these interviews were designed to collect a rounded picture of participants' research, habits, and viewpoints on multiple aspects of the type design process. In each session, discussions explored the feelings and motivations of type designers around topics such as the roles and responsibilities of foreign type designers within a non-native culture, the processes and research one may undertake when learning a new script, and changing dynamics within the type community.

Interviews: Discussions on Cultural Structures Surrounding Typography

First, the cultural dynamics of typography were discussed: how typography and typeface design relate to the underpinning social, political, and economic cultural structures that may influence a designer's success in serving that script's context. It is clear that type is reflective of the culture's history and norms, as well as dependent on them: "[typography] touches on every single aspect of life and [every piece of] information being processed" (McLaughlin).

Many participants spoke of this integral and inseparable nature of the relationship between type and culture, with some focusing on the idea that type does not have any meaning without cultural context. Leonidas elaborates on this concept, noting that "typographic arrangements [and]...patterns of use like the color scheme, hierarchies, and so on...can be associated with cultural ideas." Otherwise meaningless systems are imbued with subjective connotations and abstract feelings. It becomes the role of a multi-script designer to parse these meanings and become attuned to their nuances. This is in correspondence with the idea that type is simultaneously forming cultural identities and reliant on them, such that typography is forever shifting in accordance with cultural changes.

So, while all participants agreed on this symbiotic relationship between typography and culture, these interviews revealed a range of difficulties and pitfalls for a designer tackling an unfamiliar script. These comprised a range of limitations, from the pragmatic (lack of access to or difficulty in acquiring reference materials) to the linguistic (background knowledge of the language for which the script is used) and from the psychological (preconceptions and unconscious biases) to the methodological. Ross mentions the danger of treating the type design process as a graphic design process that may occur in as studio, where design choices are limited to tweaking existing designs according to the studio's sensibilities or perceptions rather than a complete solution tailored to the readers' needs and cultural norms. Participants also noted that lack of time as a significant limitation to the process, especially when working within the perimeters and deadlines of client-driven work. One may be faced with the task of learning vast amounts of information within a short span of time.

This discussion highlights one of the most difficult impediments in multi-script type design practice—adjusting the designer's engrained perspective on written language to design

well in another script. This not only tells us about the nature of the type design process but also the importance of the research process. One must put aside their own biased perspectives on what they believe written language to be and focus on the needs of readers, which is a complex and endless pursuit.

The nature of the multi-script type process is highly recursive, with the designers always needing to keep abreast and to learn more about the ongoing advances in technological support, new needs of the readership base, and new trends in typographic design. This is important because one can so easily slip out of a culture they are not connected to, becoming again too removed from the environment to design in their script.

Interviewees detailed some of the cultural artifacts and areas of a culture they investigate when researching a script. These artifacts pertain to the wider cultural conditions, the communities of makers and consumers, how the market operates, but also the unique, almost mundane details, of how the people read. These items are largely focused on typographic expressions, such as studying calligraphy, printed ephemera like magazines or advertisements, dense documents like books or newspapers, or historical examples of the writing system. Samarskaya and McLaughlin also look at surrounding cultural expressions for inspiration such as contemporary trends in fashion, music, art, and more. McLaughlin notes that she investigates objects such as Bollywood film posters and book covers when working with Indic scripts. Where Samarskaya, who is a Russian speaker and type designer working in the Cyrillic script, utilizes these artifacts mainly as visual inspiration, McLaughlin scrutinizes cultural artifacts such as these not solely for inspiration but also to get a better sense of the typographic and visual culture norms, culturally accepted typographic 'rules', and culturally acceptable ways to break said 'rules'. For McLaughlin, these artifacts connect her more deeply to a culture she does not have an

innate connection with. For Samarskaya, these artifacts keep her up-to-date on a culture she no longer lives in, but designs for and has personal history with.

The goal when looking at any of these resources is to parse their roles within the cultural system, scrutinize the use of typography, and understand the evolution of form. All of these investigations tell the designer more about the culture and the people, but additional questions must also be asked in tandem when researching the system of typographic production and consumption in a culture: how centralized is document production, how independent is document production, what is the role of the market in initiating document types, what type of is readership there, what documents do people read, what are the communities of readers and makers of documents like, and more. Apart from giving the designer more information about the context for which they are designing, the answers to these questions allow a designer to understand how their work may fit into the larger cultural system.

Interviews: Discussions on Type Design Culture

This section was designed to provoke discussion and reflection on the attitudes and concerns of the type design community itself (as distinct from the visual communication design community more generally) and how these might be bearing out or changing type design educational norms. Questions were posed that deal with the attitudes and themes within the type design community: how Western appreciation, discussion, and teaching of world scripts has grown; how type design education, commerce, or politics may influence the dominance of scripts; how the persistent use of terms like “non-Latin” affect the community and work. An overall feeling of progress is persistent in the participants’ responses to these questions.

While many of the longest-running type design programs are located in areas which use the Latin script (for example, those at the University of Reading and the Royal Academy of Arts, The Hague, or institutions in South America such as Universidad de Buenos Aires), all respondents noted a large amount of burgeoning high-quality type design programs and workshops being started across the world. Newer programs like Arabic Type Design Beirut have been established by younger generations of type designers who have gone through these Western-based programs, and are now bringing their knowledge of type design processes and methods back to their home communities and applying them to their own scripts. This is indicative of the new flourishing and evolving international design community spoken of—one that is encompassing many different scripts, nationalities, and designers.

Variously, interviewees described the colonial underpinnings of the phrase "non-Latin." It is clear that, in the context of discussions regarding the translation of languages into visual form, terminology takes on a significant weight of responsibility. Issues and debates about this term are well-documented. As outlined by participants, many feel the term highlights the "otherness" and puts emphasis on the outdated colonialist ideology which elevates Western systems and language above all else. The only deviation from these objections is the argument that the term is used as a point of reference for Latin's ubiquity and influence across the world. In this sense, the abundance and quality of Latin output are one to strive towards.

Though the large majority of respondents do not agree with the term or feel uncomfortable using it, many could not think of an accurate replacement, which may indicate why "non-Latin" is still commonly used throughout the design community. Is this an indication that the community would prefer to make the scripts and equip more local designers with tools, providing access and allowing this new generation to label their work as they see fit? There are

many difficulties and complications that arise when attempting to label huge, diverse swathes of varied practices, as well as concern and reluctance to further stigmatize. In any case, the term "non-Latin" and its debate become a powder keg for many surrounding concerns about the state, history, and practice of multi-script design. The most important thing to do, it seems, is to acknowledge the dearth and problematic nature of terminology, and what that says about previous type design and typographic practices. Thus, one must aim to incorporate this sensibility and awareness with a careful sensitivity when describing and creating types in scripts that are unfamiliar.

Interviews: Discussions on Type Design Research Methods and Processes

The goals within this section were to detail the steps of interviewees' research and design processes, as well as consider how anthropological and cultural studies methods may have been adopted for type design practice. When approaching these discussions, thematic overarching thoughts were considered: do these research methods vary across scripts; do certain kinds of scripts (different classifications of writing systems, character set variations, availability of typographic examples for a given script) affect these processes?

Within all participants' processes is an underlying methodical structure: going from open discovery using secondary and primary research to a critical analysis of form, use, and context, and onto designing. This allows for a thorough evaluation and synthesis of complex writing systems. Scheuren emphasizes that, in this process of creating typefaces in a non-native script, time is spent "90% researching and 10% designing". One constantly refers back to and continues with research throughout all of the design phases.

When asked what their research process consists of, many participants noted the vital importance of learning how to write in the script you are studying and to practice with traditional tools. This allows the type designer to literally feel and experience the new system of writing and all of its features such as ductus and shape relationships. This later influences their knowledge on the boundaries of the form, as well as bolsters the ability to confidently create accurate characters. This primary research act, which can even be considered a removed practice of participant fieldwork, allows the designer to become attuned to the proper constructions of the forms.

Throughout their studies and careers, all participants have conducted some form of audience research, where they maintain correspondence, test their work, or work collaboratively with native speakers, representatives, clients, or designers. Additionally, all interviewees have either conducted or wish to conduct fieldwork—practical work coordinated by a researcher in the natural environment, rather than in a laboratory or office—within the research process. Whereas fieldwork in anthropology may be a drawn-out investigation, perhaps over months or years, which involves non-stop intensive investigation into the minutiae of the culture over that time as well as having a rigorous research structure, fieldwork in type design practice is often open to shorter bursts of intensive discovery. The overarching goal is to discover as much as one can about how the culture uses the script, what feelings or associations the members of the culture have with the typographic forms, and how they construct forms. This is then investigated through open, somewhat unstructured inquiry where the designer may talk to native writers, experts, or clients, observe how type is utilized in different environments, view historical documentation of the script, or gather typographic samples and ephemera. The insights into these two methods tell us explicitly how closely related the natures of anthropology and design

are to one another. The similarities already exist, it is how we may exploit them in typographic research structures in order to extract the best information and results.

Furthermore, we must analyze how these traditionally anthropological methods are carried out in type practice. Is there a methodological structure or does it rely on spontaneity? How, specifically, is fieldwork utilized and for what kind of information? Are there more reliable or valuable groups of people to consult when conducting audience research? Do these methods or benefits of them shift with each cultural context, according to availability or what is best?

The main purpose of type design fieldwork is to, "look at typographic documents and look at how the documents are being used by the communities of readers" (Leonidas). Although fieldwork in type design does not necessitate that you verbally converse with people, it is clear from the research undertaken in this thesis that in order to fully understand the scope of a new script, it is highly beneficial for the designer to be on the ground and collect documents, see how the documents are used, and solicit feedback from native users of the script to further understand how the documents are read.

There are three options when conducting audience research or when choosing from whom you may seek feedback: approach native type experts, native typographers, or simply native speakers. While a large majority of participants prefer speaking with expert type designers because they can offer a level of insight and attention to detail that others cannot, these may not always be available. In that case, it is the role of the type designer to ask very strategic, specific questions and prompts in order to extract usable critique (which was the main concern when approaching laymen).

The ways these types of research are conducted by type designers is often subjective to the individual, the script, the project goals, and the circumstances. For example, in her time working

with Linotype, Ross had spent about one month per year visiting South or South East Asia and spending her time “talking with users and researching in libraries, researching archives, understanding how the forms evolved to their current state, finding out from the users if they are satisfied because they don’t have to live with the legacy of past practices that were constraining”. This allows for a complete understanding of client needs and circumstances, cultural context, and readership base and needs. Ross notes that it is especially “important to understand the community, particularly if it is a minority script, where information is not as readily available”. Scheuren used a fieldwork method when he was visiting Cambodia in which he asked natives to handwrite messages. This allowed for an easy and accessible method of engaging with native speakers and writers, as well as allowing for a better understanding of the handwritten deviations from traditional letterform construction. These methods and actions coalesce into one of the most efficient and useful forms of research when approaching an unfamiliar script: interacting directly with the end user and the culture, therefore learning details about how your project may be improved and how it can seamlessly fit into the context.

The underlying commonality of all participants’ responses in these interviews is the notion of respect: ensuring that the designer is sensitively responding to the nuances of a given script’s cultural context and providing a typographic product that is accurate to the forms, history, and use of that script.

Chapter 7: Surveys

Finally, a survey was conducted which asked specific questions about the secondary and primary research that subjects typically carry out during the type design process. This was geared specifically to practicing type designers, type design lecturers, and design students of typography

and typeface design from around the world. As a result, the 57 participants have varied perspectives and expertise in a range of scripts including the family of Indic scripts, Latin and its extensions, Arabic, Cyrillic, and Greek, among others. Collectively, respondents have designed in 24 scripts. The structure of this survey was designed to include a range of different kinds of questions—quantitative, including multiple choice and Likert scales, and qualitative, allowing for open-ended responses (Appendix B). As such, they provided an opportunity to investigate further and corroborate aspects of the interviewee's responses, which, when considered in isolation, may have appeared anecdotal or difficult to substantiate. Through this survey, concrete, quantifiable data that supports many of the discussions and opinions expressed in previous methods was made available. Many of these survey results also offered a glimpse into several discussions within the community including the use of the term "non-Latin", the *necessity* of designing in more than one script, and the importance of research in type design practice.

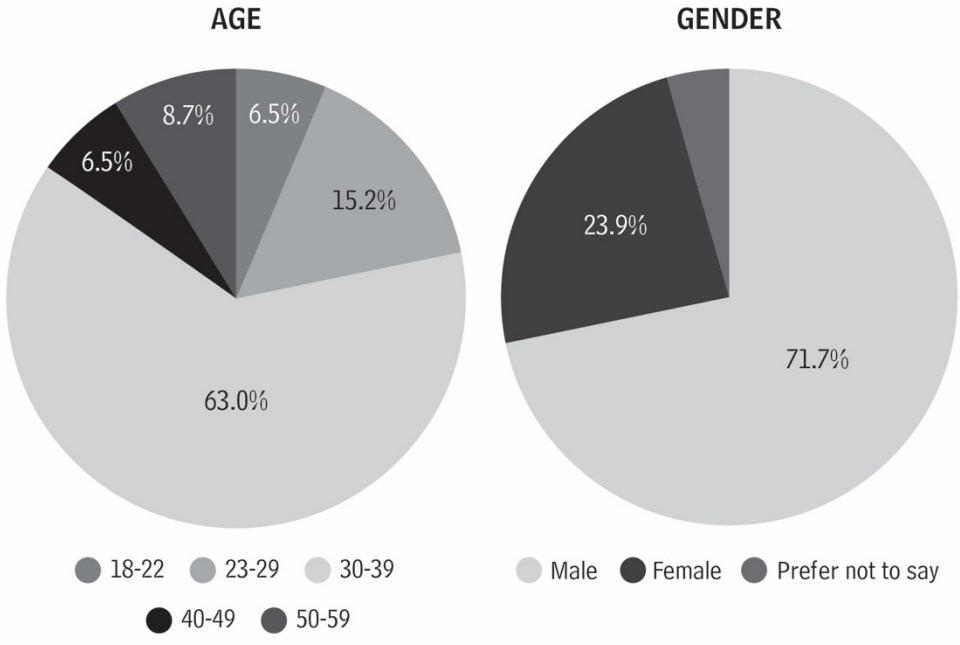

Figure 19: Demographically, the majority of survey respondents are 30-39, male, and Caucasian.

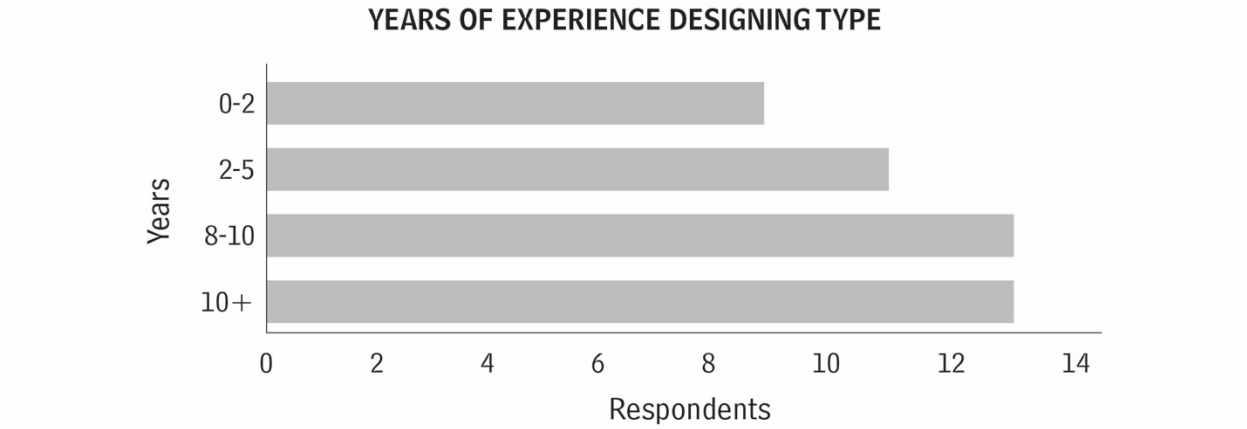

Figure 20: This graph illustrates how many years survey respondents have spent designing type, showing a rounded result compared to the larger disparities in other demographic data.

While this survey indicates that the largest group of respondents was 30-39 years old, male, and Caucasian, there is a very rounded set of data regarding how long participants have been designing type. This suggests that designers enter the field at vastly differing points in their respective careers. On top of that, type designers may then make a foray into designing for more than one script at different times in their career. This suggests that the type design field is very open and accessible to any designer making those transitions.

The Practice of Multi-Script Type Design

Following the theme of interview responses to the term "non-Latin", many survey participants do not agree with the use of the phrase. To many, it recalls an overtly colonialist time. For example, anthropology in the 19th century was largely relegated to the viewing of the "other", where stereotypically white men encroached onto native lands and cultures with the goal of "civilizing" them. The theory of unilineal evolution, also referred to as classical social evolution, was predominant: the concept that Western society is the pinnacle of social evolution.

It was believed that all cultures go through the same evolutionary stages of development, and all cultures besides European cultures were at lower stages in that evolution (Unilineal Cultural Evolution, n.d.). "Non-Latin" is the derivation of these beliefs and practices and carries the implications of this history. This is how a large number of survey respondents feel about the term, resulting in negative feelings and associations. One of the questions raised in this discussion is, "what term should replace 'non-Latin'"? Survey respondents noted using alternatives such as global scripts or world scripts, while others prefer to be region—or script—specific. Many responded to this discussion with a verbatim description of the word, "non-Latin means anything not based on the Latin script". Is this an approval of the use of the term? Could this theme suggest that a large amount of the type community is uncertain on which side of the debate they fall? There seems to be some grey area with this particular debate, where varying opinions result in a wide use of different phrases.

The majority of survey participants stated that learning to design in a second writing system is not a necessity, varying in their intensity from "moderately important" to "not important at all". In contrast, about half of respondents stated that they believe this task is "important", "very important", or "imperative". Reasons in favor of designing in more than one script varied, with respondents noting that this practice benefits the designer in several ways: it can be an inspiring and mind-opening pursuit, pushing one's comfort zone and the limits of one's typographic understanding, as well as helping a designer to understand challenges facing different cultures and users in some of the simplest computing and design tasks. For some, it may allow one to move away from the confines of Latin-based design and the inherent technological and informative limitations that come with knowing only one script. These limitations come about because Latin is a much simpler writing system than many others. With only 26 letters that

do not require connections, conjuncts, the implementation of OpenType features, and are bound within a simple box, Latin requires little technical knowledge in order to begin designing for it. This affects one's perception of typographic systems and perceptions about the complexities of written language: these perceptions create confines in a designer's range of skills, abilities, and understanding. When designing in two scripts, there may emerge an informative back and forth between the two practices, with each set of knowledge pushing the other into new boundaries. This practice can also present an opportunity to help an underserved group.

Participants who do not agree that learning to design in a new script is a necessary pursuit emphasize the large amount of time and energy that must be devoted to learning it properly. It takes extreme effort, and should not be entered into lightly. A recurring theme in the responses is a hesitation to impose an incomplete understanding of other communities on their respective members, which could have unforeseen effects. However, it could be argued that, although these respondents do not think learning to design in an unfamiliar script is necessary, their recognition of the implications of this incomplete understanding is an implicit acknowledgement of the importance to equip designers with such research skills. Others believe that scripts are better left to be designed by their own members; that it is not necessary for others to impose themselves in a possibly misguided or ill-informed effort. However, this argument that only designers who have grown up in a script should design for it, is, in itself, a nationalistic vision of design practice. This is in direct contradiction to typography's role in serving the languages it represents and its role in evolving with user needs. If user needs involve a multi-script harmony, it is not possible or practical for design approaches to remain the domain of a particular ethnocentric grouping.

There is a large grey area between these differing opinions. Many believe that this type of endeavor is mildly important, where it may be pursued as a private exercise for the benefit of the

type designer. In regards to the final research framework, this points to the many different purposes and applications research may be used for. Whether for client work, personal work, or a private exercise, each individual may need to approach the research process in differing ways.

	Interview Participant 1	Interview Participant 2	Interview Participant 3	Interview Participant 4	Interview Participant 5	Interview Participant 6	Interview Participant 7	Interview Participant 8	Survey Participants
Archival collections of manuscript forms	●	●	●	●	●	●	●	●	24 (42.1%)
Foundry specimen books & materials	●	●		●		●		●	29 (50.9%)
Books and printed matter	●	●	●	●		●	●	●	33 (58.0%)
Newspapers & periodicals	●	●	●			●	●	●	26 (45.6%)
Web fonts in use		●		●					20 (35.1%)
Digital font files (i.e. otf, wof, eot)			●	●					23 (40.4%)
Engraving		●	●						12 (21.2%)
Stone carving		●	●					●	15 (26.3%)
Metal type		●	●	●					14 (24.6%)
Wood type		●							11 (19.3%)
Vernacular lettering (in the environment)	●	●	●	●	●	●	●	●	30 (52.6%)
Lettering or logotype design (in graphic design contexts)			●		●		●	●	15 (26.3%)
Examples of calligraphy	●	●	●	●	●	●	●	●	31 (54.4%)
Practice with local calligraphic tools	●	●	●		●	●	●		24 (42.1%)

Figure 21: The details listed in this chart show the resources and references that interview participants mentioned in their discussions, combined with data collected from survey responses. The combination of these two aspects allows us to get a holistic sense of which resources may be most useful and the habits of type design research.

Research Practices of Multi-Script Type Design

Unsurprisingly, participants stated that they look at resource materials significantly more when designing in a script that is not native to them, telling us that contextual anthropological, social, historical and visual culture research is much more important to investigate when designing for a non-native script. This results in a very different kind of research pathway which diverges from a mainstream type design workflow, requiring more attention and deliberate, focused energy. It also highlights the need for a cohesive framework that takes into account the various research methodologies and areas of culture that should be pursued.

The reference materials that are used when studying a non-native script are mainly obtained online, with 30% of people stating that they utilize this resource. Additionally, 24% of participants use type archives and libraries and only 12% of them use museum collections. Some participants also noted that they go to more experienced colleagues or experts for resources. The largest amount of respondents noted that they prefer to source examples of books and printed matter, foundry specimen books, vernacular lettering, and examples of calligraphy, rather than items like stone carving, metal type, or more cumbersome artifacts. What does this tell us about the type design research process? What does this tell us about human nature within that research process? Convenience and availability seem to be important factors when gathering research materials. New online sources and modern communication are invaluable tools when pursuing this type of research, which allows users across the world to design and research new scripts and receive feedback on their own work. However, a designer should not commit to a total reliance on online sources. Many survey participants noted some of the downfalls of online sources: the over-proliferation of poorly designed typefaces and incorrect material and the risk of becoming misinformed based on this data. As one respondent commented, “[the] internet does help

learning to a certain extent, but most [representations] exist outside it. In the end you need to get out and go visit libraries, museums, or countries by yourself".

All of this information tells us not only about the concerns and factors affecting the research process, but also may denote the usefulness, reliability, or trustworthiness of different resources over others. As mentioned previously, dense documents offer important insight into typographic rules of the society, while printed ephemera may give information about the daily use of typographic forms. In sum, all of these resources offer their own details about the history, structures, use, and application of the script. They may individually be pursued to discover specific details or all pursued to discover as much as one can about a script.

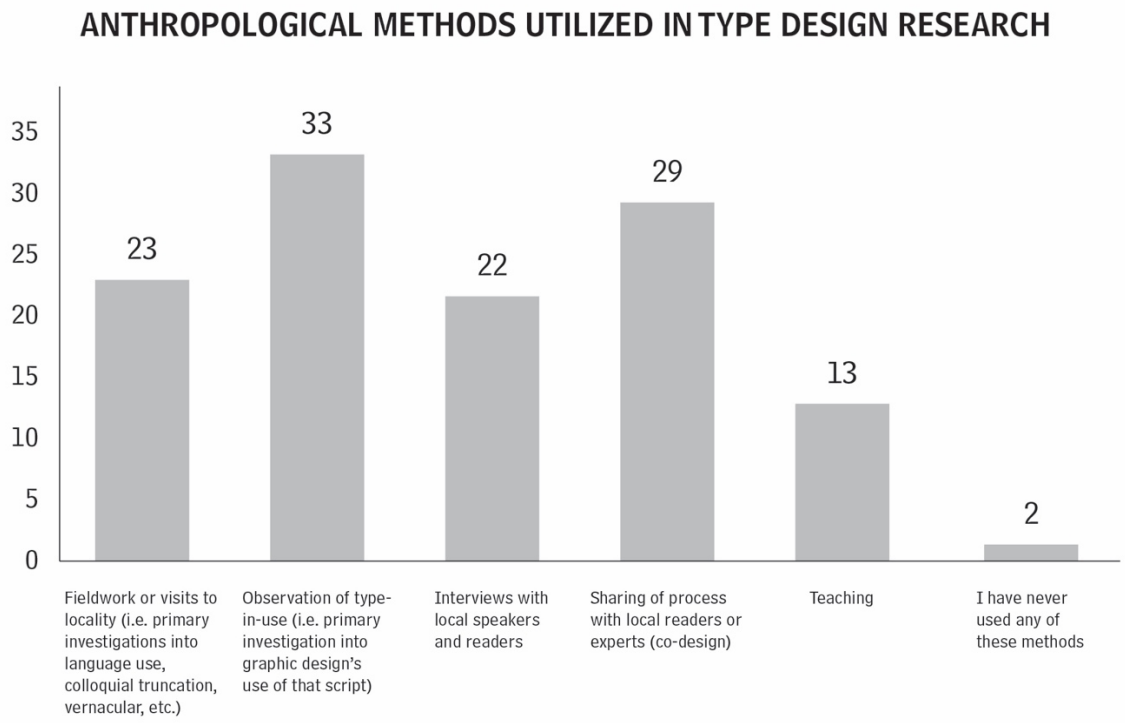

Figure 22: When questioned on which anthropologically-based research methods they use in type design research, the majority of respondents stated that they utilize the practice of "Observation of type-in-use" and "Sharing of process with local readers or experts".

When researching a script, the majority of people use observation of type-in-use to better understand the forms and how they are used. A large number of participants also enlist native readers or script experts for feedback on their work. Through all of these avenues of research, designers feel most comfortable designing in a script when they are familiar with the script's structure, able to recognize meaningful details in shapes, have the ability to define shape group behaviors, and have a familiarity with local idiosyncrasies. This information points to the priorities within the research and design of a non-native script. While focus must be placed on becoming familiar with a script's structure, learning about how it will be applied is equally important.

Surveys: Research Findings

In this survey data, combined with interviews and critical making investigations, we can see that the priorities and goals of type design research are to be able to recognize the details, construction, architecture, and nuances of a script, as well as become familiar with the different applications of use and their effects on a script's forms. It is the goal of a multi-script type designer to become familiar with how a script is adapted across different purposes and artifacts, how these artifacts and their typographic representations are connected to that culture's identity and history. When investigating a script, a designer should first be expansive with their amounts of research, looking at many expressions of the writing system, discovering details about its history, evolution, style, use, meaning, and context. This is examined through multiple different methods and artifacts including printed matter, digital environments, vernacular typography, historical examples of typographic use, and more. This amount of research narrows to a focus as designers work on specific projects or with clients, but the research and the related research goals

continue throughout the entirety of the design process. All of these points may be combined in a unique combination to fit the specific design and scenario. What does this mean for the thesis goal of producing a research framework that these elements may vary? It means that the framework for this work must be highly flexible and adaptable; it must be easily understandable across many different cultures and for many different designers. These notes tell us that the final framework model must be decentralized to reflect the many different aspects of research equally, with the ability to enter the process at any point.

Chapter 8: Research Framework

This research framework is a culmination of the primary and secondary methods collected during this thesis which included interviews, surveys, independent study, and literature review. Through multiple iterations and testing against designers, this framework outlines the research path of designing in an unfamiliar script. The purpose of this work is to suggest a groundwork structure for designers who may be looking for a way to navigate the process of learning to design in a new script (which can be very nebulous or the amount of avenues to research can feel overwhelming). Feedback was acquired from practicing type designers and graphic designers. Initially, graphic designers, fellow M.F.A. and M.A. students at Kent State University, were enlisted in order to get feedback on the overall structure: if it is easily understandable and how the language may be perceived. Type designers from previous interviews were then asked to give feedback on the detailed content and process.

The *Type Design Research Framework* is an attempt to propose best practices for designing in an unfamiliar script. It aims to describe the process outlined through the various other forms of research, as well as to distill this through the lens of a practitioner delving into a

new script (i.e., the critical making study). It is broken down into accessible, simplified sections and can be applied to research for any script. Additionally, the methods, prompts, and resources introduced in this framework can be used in any combination, or with any method taking the forefront, depending on the individual project circumstances. This main framework is then supported by three accompanying diagrams which expound on each section of research undertaken: *Script Research*, *Context Research*, and *Client Research*. Because these areas of research can encompass so many questions or pathways, it is important to elaborate on those concerns.

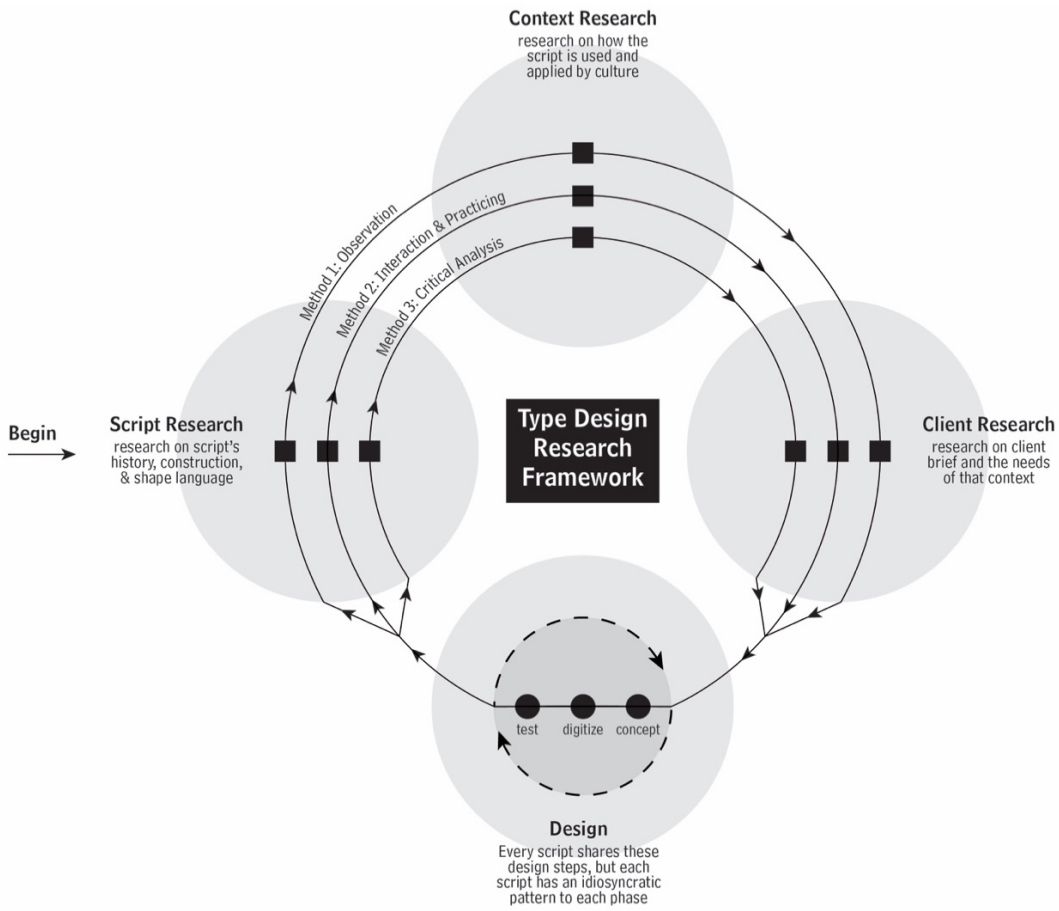

Figure 23: This main framework takes an open cyclical structure, which allows the researcher to enter at any point according to their level of expertise or knowledge of the project circumstances. However, for a new researcher without any knowledge, this framework begins at *Script Research*, moving clockwise and ending with *Design*.

Type Design Research Framework

As emphasized by interview and survey participants, the research process for type design, especially research in a script you are unfamiliar with, is never-ending. Additionally, the amount of time and dedication devoted to researching is far greater and requires much more time than the designing of the typeface and digitization of the font itself, as articulated in these interview discussions. These points greatly influenced the overall structure of this framework. An endless cyclical process was created that can be entered at any point. The four large grey circles represent the four main areas of the type design process: *Script Research*, *Context Research*, *Client Research*, and *Design*. First, *Script Research* illustrates the ways a designer learns about the forms of a writing system: letterform construction, shape relationships, nuances of form, and more. These aspects may be researched with a detachment from any kind of cultural context, focusing purely on the architecture and details of the script.

Next, *Context Research* is introduced—research into how a script is utilized and applied by the culture, the readership, and the user. How are the previously investigated shapes perceived and what is the subjective cultural meaning associated with the writing system? What are the habits of written communication of the culture and how does this affect the outputted typeface? How does the culture consume type and how does typography fit into the culture's system of production and consumption? In this research phase, subjective meaning, user habits, and cultural context are investigated, giving meaning and substance to the meaningless shapes investigated previously.

The last area to be investigated is *Client Research*, which is any research that is undertaken to understand the particular project more thoroughly, as well as the needs outlined in the project brief. When working with a non-native script, this includes additional investigations

like defining the language coverage of the readership or any peculiarities or details to the ways in which the users interact with the client's product.

The process of *Design* is highly informed by these previous research topics, which are pivotal to the success of the final design. Within this framework, visual emphasis is put onto the research rather than the design process of a non-native typeface. The designing of each script may share the overlapping process of *concepting*, *digitization*, and *testing* of the typeface and font, but each script has vastly differing idiosyncratic patterns to this design phase, all of which could not all be covered within the scope of this research. These idiosyncrasies can include considerations such as the order in which you design the characters, the technical aspects of digitization, and any features of the font that make it more usable in different environments.

The three areas of research (*Script Research*, *Context Research*, and *Client Research*) are investigated through several different methods including *Observation*, *Interaction & Practicing*, and *Critical Analysis* (See Figure 23). *Observation* can include any form of research in which the designer is studying the use of the script, acting as a removed observer. This can include acts such as collecting images from online resources, taking photographs during fieldwork, and the study of typographic archives. These practices do not require any kind of interaction with users, but still inform the designer about the structure of the writing system, how people use the system, and what kinds of typographic styles are used for what mediums.

Interaction & Practicing encompasses any kind of act where the researcher becomes an active participant or interacts directly with the culture or the native people. This can include research such as learning to write the script with traditional tools, interacting with users by asking them questions or soliciting feedback, interacting with expert type designers or historians, interacting with clients, spending time conducting participant fieldwork, and any act where the

researcher is physically engaging with the script or culture. These methods allow the opportunity to experiment and experience the script, testing the boundaries of typographic understanding or readability and receiving information from trusted sources.

Finally, *Critical Analysis*, the questioning of form and the questioning of cultural situations is imperative. Asking critical questions that inform the researcher about how the audiences use a writing system, how their reading experience can or needs to be improved, and about the structure or construction of a script is pivotal to the entire process of research. Fiona Ross states that the most important thing to do in this research process is to "question, to critically evaluate what [my type design students] are reading, including what I'm saying, what I write, they should critically evaluate that as well"—to question *everything* (F. Ross, unpublished interview, January 19, 2018).

Since these research areas are so vast and encompass so many possibilities, supporting diagrams were created to facilitate the understanding of this process even further. One diagram was created for each section of research in order to expound on the role of the type designer, the questions they should be asking, or the areas they should be focusing on.

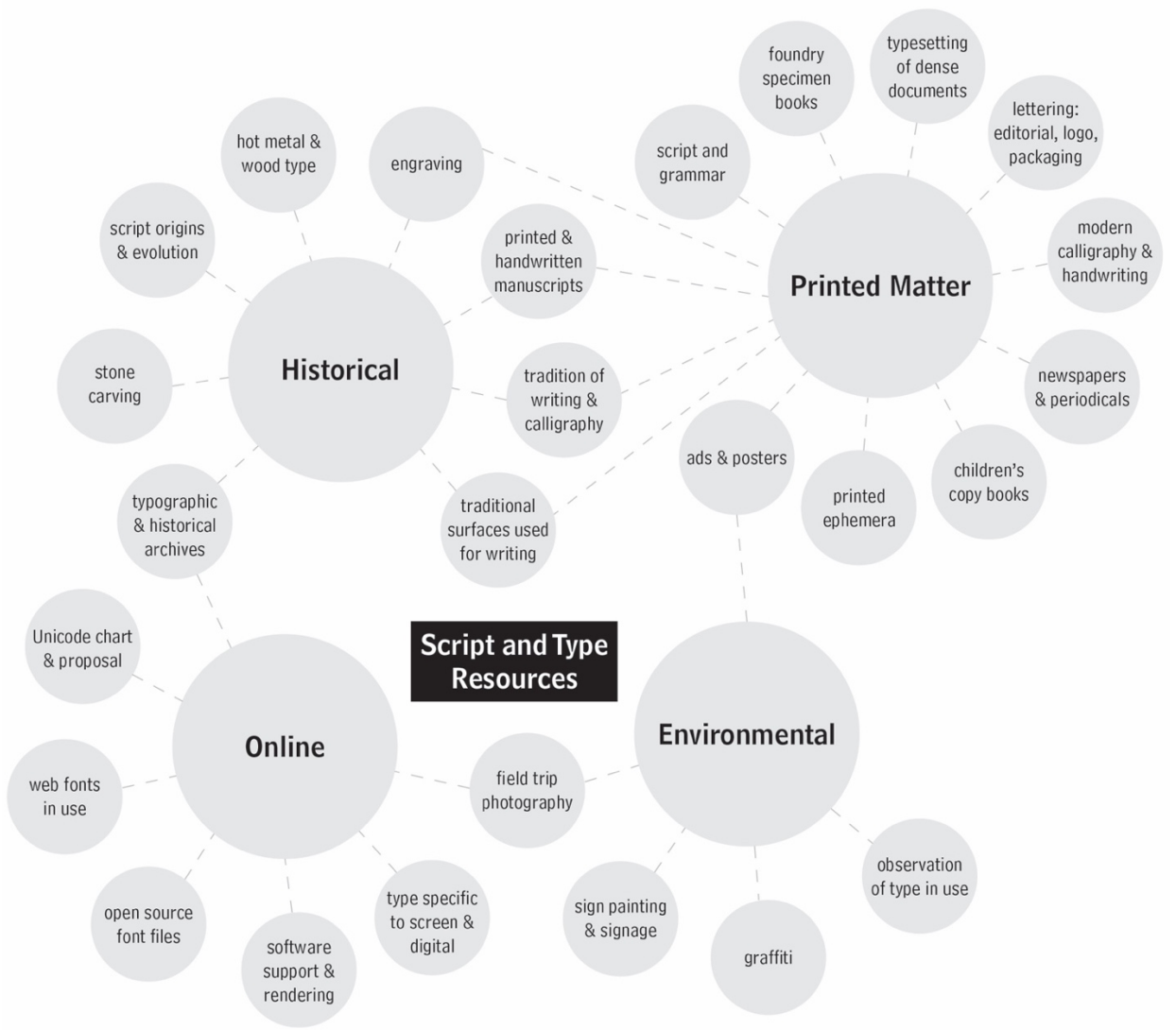

Figure 24: Accompanying the *Script Research* portion of the *Type Design Research Process* is *Script and Type Resources*, which elaborates on some of the most common artifacts type designers investigate when conducting research.

Script Research: Script and Type Resources

Script Research is any research that is conducted on writing systems in order to understand the construction, shape relationship, or forms of the system, as well as to understand how a script's forms are effected by different media. The purpose of this supporting diagram is to highlight the main resources type designers may utilize when learning about a new script. These

resources are then scrutinized by the designer in order to understand how the type system works on a macro and micro level, how the typographic forms have evolved over the years and what has caused those evolutions, the limitations of the form, and how forms are affected by their use in different media. Because type crosses at so many different points and across so many different mediums, it can be studied across many different sources. These types sources are broken up into four main sections: *Historical*, *Printed Matter*, *Environmental*, and *Online*, with some of the resources crossing over into multiple areas.

***Script and Type Resources*: Historical Resources**

First, it is extremely important to understand the historical trajectory and evolution of the script you are designing in. This information gives a reason *why* the forms have their appearance and construction. This information can tell you the rules that stem from the use of traditional tools (and therefore their limitations and how to break their conventions).

A designer may choose to study this through such materials as historical manuscripts, hot metal type, or carvings, to name a few. These items can usually be found in places like libraries, museums, universities, or other cultural institutions that house typographic and historical archives. Increasingly, these archives are being digitized and becoming available online, opening up the accessibility of multi-script type design practice. In interviews and surveys, some of the institutions mentioned for their robust collections are Berkley Library and the Library of Congress. Additionally, survey participants noted that they source materials from libraries and typographic archives far more than from museums. This could be for a range of reasons, including accessibility or given information.

***Script and Type Resources*: Printed Matter Resources**

In all collected documents, the researcher is looking for information about the typographic rules of the society. The conditions of reading, the paper quality used, and the circumstances of reading all affect the final design choices for a large amount of type design projects. Studying printed matter tells the designer information like the general expectation of the fidelity of rendering of shapes, the effects of different media on type, the limitations of different mediums, or the typography rules in the culture (such as grammar).

Ephemeral print references were some of the most mentioned sources in both interviews and surveys. This can include artifacts like newspapers, magazines, periodicals, advertisements, packaging, posters, and more. These are important to study because they are objects that "no one really cares about designing, [so] they just design it as a default. That's a really good opportunity to see the default of design, the ground zero of the culture there" (L. Lavi Turkenich, unpublished interview, August 8, 2018). These typographic forms and styles can tell you about the current trends of typography and the everyday use and expectations of typographic form. Studying the typesetting of large documents is also imperative. These documents are an easy way to learn about the important details of the typographic system and the typographic rules of the culture. One can learn, for example, how many levels of hierarchy there are, the typographic conditions of using texts in that script like column widths, hyphenation or how line endings are used, and how readers expect to see spacing all around letters. This area of resources provides some of the most accessible sources that provide large amounts of important details about the culture's use and creation of type.

Script and Type Resources: Online Resources

Studying online sources is increasingly important and is also invaluable for a designer working remotely, detached from the culture they are studying. They may be used to understand the script in general. Online resources provide access to archival collections and photography taken of the places, and more. Online collections of typographic archives, of historical collections that include typographic examples, are increasing. Various cultural institutions like museums, libraries, and universities are beginning to allow access to these things. Typographic examples can also be found on sites like Flickr, Google Images, and any number of databases like these. When designing a typeface for digital environments, these resources can be studied to understand how the typeface and script may be used in that space by studying fonts in use.

Studying open-source font files allows one to learn about the building of the font, not only the ways in which a practiced designer may have built the letterforms, but also the setup of the font file and any technical aspects to building the font. It is also important to understand how software support and rendering affects one's typeface. This includes things like browser rendering of OpenType features, kerning, ligatures, and, importantly, conjuncts and the display of complex scripts.

Script and Type Resources: Environmental Resources

Finally, environmental and vernacular type may be studied to better understand the different sociological conditions and uses of the script. This can be studied through online sources—through others' travel photos and documents, and also by travelling there oneself. These provide examples of the more expressive lettering within a culture, pointing to some

creative expressions of typographic form. Studying all of these areas is imperative to understanding how the forms of a writing system are created.

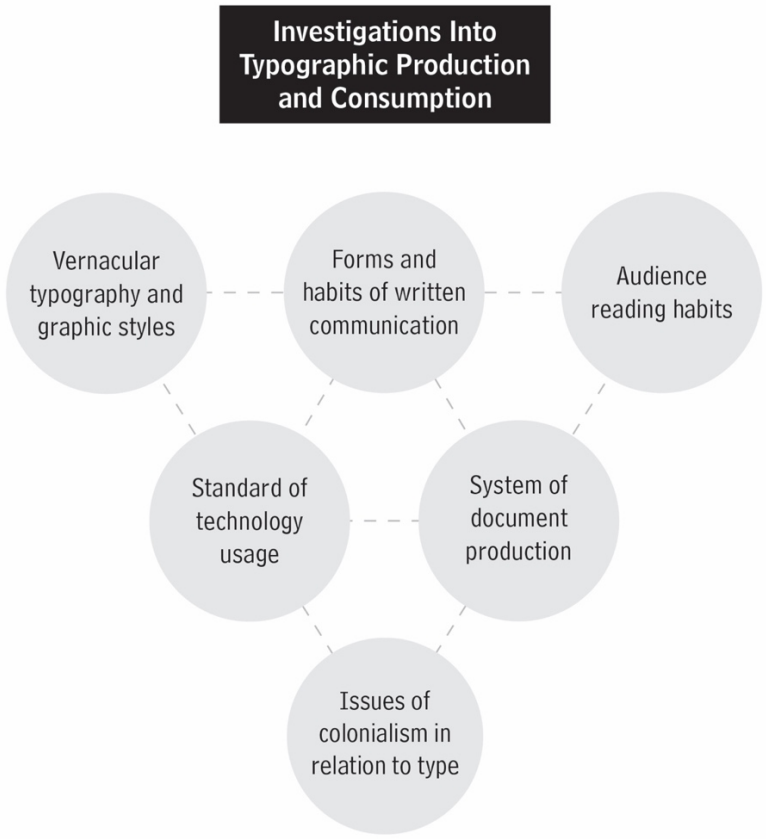

Figure 25: Accompanying *Context Research* is this diagram that outlines areas of culture to investigate when looking at the cultural context of a script.

Context Research: Investigations into Typographic Production and Consumption

The area of *Context Research* is highly subjective and can vary greatly when looking at different cultures or subgroups of readers. How people consume and perceive typographic form differs not only in terms of how they read, but also all of the individual associations a culture has with a script, a typographic form, or a typesetting style. It is the job of the type designer to

understand these feelings and to consider them when making decisions about typographic style or technical features of the font. One should try to understand the habits of written communication within the greater cultural context, the audience reading habits, typographic and graphic styles of the culture, and the whole system of document production and consumption. Importantly, this includes investigating the standards of technology usage within the community. These circumstances change with each culture and can affect the technological structure of the font to a great extent: how large the file needs to be, what type of font features are required in order to facilitate accessibility and readability of the font.

Finally, type designers must investigate the issues of colonialism in relation to type and the writing system history: how the script has been affected or altered due to colonial rule, how this has affected the current reading environment of contemporary users, and how this has affected the feelings of the community as a whole. It is imperative to understand these things and put oneself in the shoes of the native reader.

The absolute importance of this research cannot be emphasized enough. These investigations not only tell the designer about the needs and circumstances of the readers, but the subjective meanings applied to the writing system by the culture. Without this understanding, the type designer is unable to create any appropriate or truly effective design.

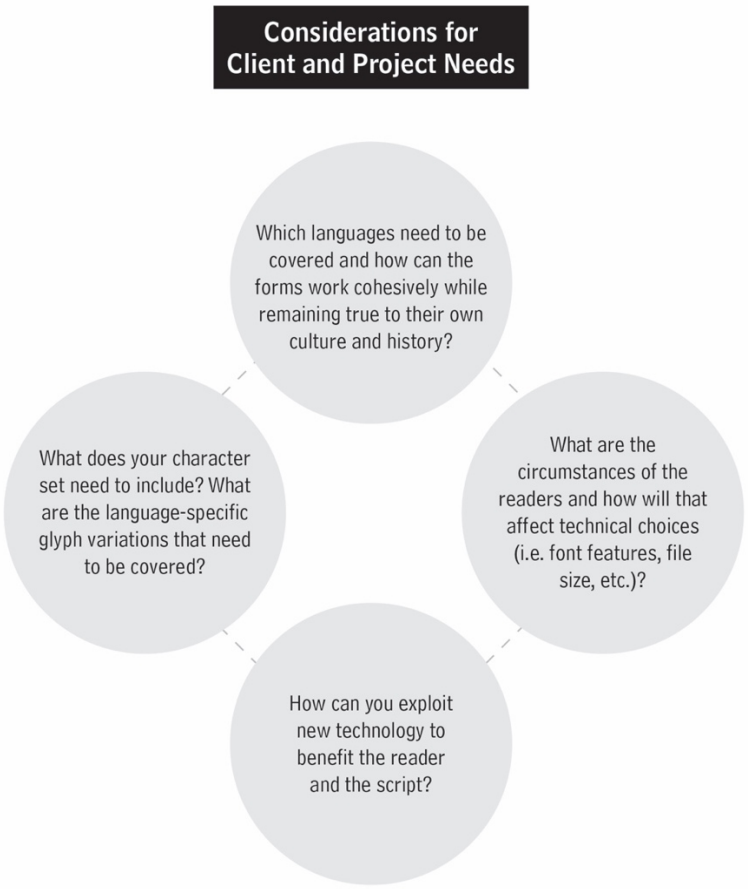

Figure 26: Accompanying the research area of *Client Research*, this final diagram outlines the additional questions that must be asked about the client or audience when designing in a non-native script.

Client Research: Considerations for Client and Project Needs

Finally, once a designer is cognizant of the script and the culture, it becomes necessary to inform oneself about the specific project readership and their needs. When designing in a non-native script, additional considerations must be answered in this area. The information investigated in this section concerns the readership of the client: who they are, how they read, and what languages or regional dialects they use.

The designer must understand where the design will be used and what kinds of regional dialects will be covered. This then informs what character set will need to be covered and what language-specific glyph variations will need to be designed. Importantly, if one is working with multiple scripts within one typeface, their shape relationships must be considered. How can one create a cohesive design while remaining true to the individual scripts' histories and structures? This may become a complex consideration when dealing with vastly differing writing systems.

Finally, once all information is collected, the designer can begin to question and explore how new technology may benefit the reader or the script. Digital advances like OpenType and variable fonts may introduce expansive possibilities for different scripts. Once this information is collected, a designer may begin making the typeface. However, this information and these research are constantly referred back to throughout the entire process.

This framework allows for a clear outline of the research process for non-native type design. It outlines a way for designers to better understand and become better prepared to design in a new script. The outlining of this process is the first step to thwarting misinformed design practice. By educating each other on the process and the importance of type design research, type designers can make well-informed, effective work.

Chapter 9: Research Implications

Throughout this thesis, the relationships between typography and culture have been investigated through secondary research and primary research in the form of interviews, surveys, and independent investigation which all culminated into the final research framework. This thesis argues that looking at anthropological methodologies and approaching the multi-script type design research process through the eyes of an anthropologist can indeed benefit design in

non-native scripts by providing an approach which extends the understanding of cultural context, cultural use of written language, and cultural associations connected to typographic expression. Additionally, multi-script type design requires a synthesis of multiple methods and sources, and cannot happen using only one or two of these methods. Rather, a designer, by necessity, needs to engage a new script script in multiple ways.

Several implications can be drawn from this investigation. Firstly, the successful application of research to the type design process can have effects for individual type designers. It may extend the limits of one's typographic understanding, pushing the boundaries of how a designer thinks about typography. Furthermore, using these methods to study a new script may extend a designer's perception of language, culture, and human interactions and connections with design. Might this methodology also have ripple effects throughout one's entire practice—affecting how one appreciates the importance of design research? Secondly, this research may have implications for the type design community at large, sparking further conversation about the importance of this research, leading to higher quality of output as a whole because there is an explicit declaration and outline for the process. It may also shed light on the cross-disciplinary interaction between anthropology and typographic communities. Because this process has been clearly outlines, this may also lead to more designers coming into non-Latin practice.

Further Research

How can these processes be taken further, and do they even need to be? This will be the question addressed in further research. In the cross-evaluation of design anthropology with type design, one can see the correlations between the two disciplines: how they currently and may in future further affect one another. In the protean world of design, the only constant is its

interaction with human audiences. The type designer must have intimate knowledge of how their audiences interact with written language in a certain context or in multiple contexts that affect their design brief.

This framework should still be refined more thoroughly, as this thesis seeks only to be a starting point in this discussion. Further research can be done to understand users' reactions to the research process, rather than professional responses to the framework structure itself. It should also be ascertained how effective this framework is in different circumstances. If used in professional practice, how might this framework be scaled to fit various timeframes, budgets, or project scopes? As the type community continues to grow and spread throughout different locations, how can this framework be further refined to accommodate those different environments? Are there additional anthropological theories, case studies, or practices that can continue to push typographic research processes?

Conclusion

"Typeface design is a knowledge profession. Increasingly, being able to make a typeface doesn't distinguish anyone. Anyone can learn how to use Glyphs or Robofont and learn how to publish a typeface on MyFonts. So, posting some digital data somewhere is not something you can build a career on. The understanding of how to make a typeface that represents the needs of a community and captures a trend, that is what you build a career on."

Gerry Leonidas (unpublished interview, October 14, 2017)

Type design practice—both when designing for a native and non-native script—has grown to a practice that internalizes investigations and critical reflection on form, theory, and

research. Leonidas alludes to the type designer's role in society to reflect the needs and feelings of the user and to focus on the ways these designed artifacts may facilitate cultural expression.

The relationship between type and culture is complex and infinitely variable. It changes with different communities, individuals, points in time, and many other subjective factors. Through these points, we bestow in typography the power to influence our cultural identities, shape our perceptions of our own individual identities, reflect our social status, and influence cultures' systems of production and consumption. While this can be said of many areas of design or visual making, typography is ingrained in and emotionally connected to our cultures' languages, histories, and identities. The recognition of this is imperative when approaching any kind of typographic design; this is especially important when working with a new script in which one is not native. It becomes the jumping-off point from which to start research on a culture and a writing system.

The effort put towards these areas of research affects everything one does within the non-native type design process: how one thinks, the design choices one makes, and the resultant design. These are all predicated on the designer's understanding of the culture and therefore reliant on the amount of time, effort, and dedication one puts into the research. In this discussion of a type designer's research process, several points have come to light: it is very beneficial to consult with script experts or native users, an understanding of cultural context and context of use is imperative, one must be able to explore and determine the limitations of typographic form, and this research continues throughout the entire process of designing. The main areas that need to be considered when approaching this research are the script's construction and system, the cultural context of the script, and the specific needs of the client or project. These are then

explored through different avenues of research methods: observation, practice writing, direct interaction with the culture, secondary research, and critical analysis.

In all of the explored avenues of discussion and research, we can see that anthropological methodologies are already used across many areas of typographic research. Without pursuing this type of research, there are large gaps in the designer's understanding of native use, application, readership, and cultural context. It is in the recognition and pointed application of these acts where the work begins to flourish; it is in the respect and empathy for a culture where that work may become successful, lasting, useful, or innovative.

Appendices

Appendix A

Interview Questionnaire

I.) Introduction

Thank you for your willingness to participate in this research project. I have a few things to go over with you before we begin.

1) Introduction
   a) My name is Natalie Snodgrass and I am conducting this interview as part of MFA thesis research for Kent State University. This interview will take about 45 minutes to 1 hour total.
2) Tapes and Transcripts
   a) Before we get started, I want to remind you that, as you have agreed to earlier, I am audio taping our interview today. The tapes will be destroyed upon completion of the transcript and any personally identifying information will be removed from the transcriptions.
3) Purpose and Reason for Interview
   a) The purpose for this interview is to gain insight into how type designers research and become informed about world scripts, as well as how culture may influence the processes and motivations of type designers.

II.) Culture

First, we will be discussing questions concerning culture and the interaction of typography with culture.

1) What do you think are some of the most significant cultural effects of typography?
2) Based on your experience, how do you think the design of a typeface may be used to represent an aspect or multiple aspects of a specific culture (i.e. beliefs, practices, values, ideas, technologies, economies or other domains of social organization)?
3) How valuable do you think an understanding of a certain culture is when approaching a non-Latin type design project?
   a) What do you think are some limitations to learning about culture within a type design process?
   b) In what ways do you learn about a culture for a type design project? What areas of that culture do you typically investigate?
4) What do you think are the responsibilities of type designers in the context of culture and language?

III.) Type Design Culture

Next, I would like to ask you some questions concerning the type design community and attitudes within the community.

1) Many of the established type programs are located in the West. How do you think this affects the type design output of Latin vs non-Latin typefaces today, and the community in general?
2) Tell me your thoughts on the term "non-Latin." How do you think this term affects the type design community's outlook?
   a) What do you think a better term could be?

3) You have been a practicing type designer for [insert # from intro survey], how have you noticed the type community change over the years in regards to how it values/recognizes the cultural implications of type?
    a) Are there any habits that you have noticed in the type design community historically or today, maybe in your own practice, that show a tendency towards Western-focused ideas (i.e. use of the term non-Latin)?
4) How have you seen the attitudes toward non-Latin type evolve?
    a) Do you see any need for promoting a more culturally diverse type design community (i.e in community, demographics, creative output, etc.)? And if so, what kinds of actions do you think would be most effective? If no, why not?
5) What do you think will be the most important thing type designers will have to learn in order to maintain a competitive edge in professional practice?

IV.) Type Design Research

Now I am going to ask you some questions about your research process for type design. In this instance, research can be defined as any act the type designer uses to inform themselves in preparing for a new typeface.

1) What is your research process for a typical non-Latin type design project?
    a) How has your research process evolved over the years?
    b) How does your research process differ between scripts you are familiar with vs. non-familiar scripts?
    c) Do you have a framework you stick to for each research stage?
    d) What are some of the most beneficial steps in your research process?
2) Do you ever perform audience research for your non-Latin type design projects? If so, what methods do you employ and why?
3) What process do you recommend for a person looking to gather sufficient knowledge to design in an unfamiliar script?
    a) What is your process for helping your students tackle a non-Latin type design? [if professor or tutor]
4) Anthropologists use fieldwork and first-hand interactions with communities to understand and contextualize a culture or social group. Do you have any experience in conducting fieldwork for a type project? What do you think the potential for this kind of research may be for the type design process?

V.) Process

Finally, I would like to ask you some questions about your type design making process.

1) How do your type design briefs vary from Latin to non-Latin?
2) What are your steps for creating [insert script expertise] type? How does this process differ from Latin?
3) How much familiarity with a language do you think is necessary in order to design in [insert script]? (i.e. knowledge of grammar, vocabulary, "conversational" knowledge of language)

a) In your experience, does this importance of a basic understanding of the language fluctuate with different scripts?

4) What are some common obstacles encountered in [insert script expertise] type design?

VI.) Conclusion

Is there anything you would like to add concerning the topics discussed?

Appendix B

Survey Questionnaire

1) What is your age?
    a) 18-22
    b) 23-29
    c) 30-39
    d) 40-49
    e) 50-59
    f) 60+
2) What gender do you identify as?
    a) Male
    b) Female
    c) Non-binary
    d) Prefer to self-describe: _____
    e) Prefer not to say
3) Please specify your ethnicity:
    a) Caucasian
    b) Hispanic, Latino, or Spanish
    c) Black or African American
    d) Native American
    e) Asian
    f) Middle Eastern or North African
    g) Native Hawaiian or other Pacific Islander
    h) Other race, ethnicity, or origin: _____
4) Where are you located?
    a) _____
5) What is your occupation? (Select all that apply)
    a) Type designer
    b) Graphic designer
    c) Professor or lecturer
    d) Student
    e) Artist
    f) Other: _____
6) What design school did you attend or are attending currently?
    a) _____
7) Please indicate the highest level of design education you have completed.
    a) Some college, no degree
    b) Bachelor's degree
    c) Some Master's credit, no degree
    d) Master's degree
    e) Doctorate degree
    f) Other: _____
8) How many years of experience do you have designing type?
    a) 0-2
    b) 2-5
    c) 6-10
    d) 10+

9) How many world scripts, excluding Latin, have you designed in?
    a) 0
    b) 1
    c) 2
    d) 3
    e) 4
    f) 5+
    g) If so, what scripts: ___.

Processes in Type Design

10) What are all the ways in which you interpret the term "non-Latin"?
    a) _____
11) How important do you think it is for a type designer to design in a script that is not native to them?
    a) Imperative
    b) Very Important
    c) Important
    d) Moderately Important
    e) Slightly Important
    f) Not at all important
    g) Why do you feel this way?: _____
12) How often do you use reference material to influence your designs for a type project?
    a) When designing in a script that is native to you:
        i) Every time I design a new script
        ii) Occasionally (dependent on project or brief)
        iii) Rarely
        iv) Never
        v) I have never designed in this context
    b) When designing in a script that is NOT native to you:
        i) Every time I design a new script
        ii) Occasionally (dependent on project or brief)
        iii) Rarely
        iv) Never
        v) I have never designed in this context
13) Where do you go to access reference material when researching a script? (Select all that apply)
    a) Online
    b) Typographic archives
    c) Libraries
    d) Museums
    e) Other: _____
    f) I do not use reference material
14) What kinds of material do you gather when researching a script? (Select all that apply)
    a) Archival collections of manuscript forms

b) Foundry Specimen books
c) Books and printed matter
d) Newspapers and periodicals
e) Web fonts in use
f) Digital font files (i.e. otf, wof, eot)
g) Engraving
h) Stone carving
i) Metal type
j) Wood type
k) Vernacular lettering (in the environment)
l) Lettering or logotype design (in graphic design contexts)
m) Examples of Calligraphy
n) Practice with local calligraphic tools
o) Other: _____
p) I do not use reference material

15) How do you think digital advances may help designers access resources to design for non-Latin scripts?
a) _____

Anthropological Methods in Design

16) Anthropology uses these primary research methods in order to gain insight into cultures and societies. Parallels can be found in the type design process. Please select methods that you have used in your process. (Select all that apply)
a) Fieldwork (visits to locality) (i.e. investigations into genres, language use, colloquial truncation, vernacular, etc.)
b) Observation of type-in-use (i.e. investigation into specific to graphic design's use of that script)
c) Interviews with local speakers and readers
d) Sharing of process with local readers or experts (co-design)
e) Teaching
f) Other: ___
g) I have never used any of these methods

17) I feel comfortable designing in a previously unfamiliar script when I have… (Select all that apply)
a) That ability to define shape group behaviors
b) The ability to recognize meaningful details in shapes
c) Familiarity with local idiosyncrasies
d) Familiarity with script's structure (i.e. word formation, how letterforms relate to one another, etc.)
e) Familiarity with language
f) Other: ____
g) I have never designed in an unfamiliar script

18) What areas of culture do you think are the most useful to investigate when designing a script that is not native to you?
a) ____

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