INTERRELATED HISTORIES, PRACTICES, AND FORMS OF COMMUNICATION: USING ARABIC CALLIGRAPHY TO LEARN ARABIC TYPOGRAPHY

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In this self-study inquiry, I studied my graphic design practice in a professional setting, focusing on my Arabic typographic skills and knowledge. My roles as researcher and design educator indivisibly intertwined throughout this research. I worked to understand the value of calligraphy in art and design education, highlighting its power as an art form while also emphasizing its pedagogical potentials. I utilized two theoretical approaches suited to investigating and understanding the Arabic letters as text and image, Ibn Arabi's science of letters, or *'ilm al-hurûf*, and semiotics. I applied my theoretical framework to three distinctive artworks to investigate their uses of the Arabic letters, contemplating their roles in modern and contemporary Arab art.

Essential to my research was learning Arabic calligraphy through two approaches: 1) I attended a calligraphy workshop, and 2) I conducted three self-study experimentations. I analyzed my experience through visual representations, commentary, and narrative inquiry to assess Arabic calligraphy's significance for graphic design education. As such, my experimentations confirmed Arabic calligraphy's aesthetic and educational value. I employed my findings to create a contemporary Arabic typography curriculum suitable for university-level students. This curriculum is built on learning theories such as visual culture analysis, semiotics, constructivist theory, play principles, and critical thinking, aiming to situate Arabic calligraphy as a modern learning model significant for typography education. Finally, I constructed a basic course for Arabic typography to support students' development of Arabic typography fluency.

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CHAPTER 1

INTRODUCTION

Prologue

Ever since humans began to pursue communication to express themselves, visual signs documented these efforts as marks of civilization and progress. With time, these figurative marks evolved into a series of graphical signs, with particular sequences and specific pronunciation sounds, to represent language, resulting in the alphabet. Henceforth, these graphic elements have constructed visual traces of spoken language (Carter, Day, & Meggs, 2007). However, the Arabic letters have much deeper meaning than simply sounds corresponding to graphical shapes. In the Islamic culture, writing is also considered an art form that has always held an exclusive status, utilizing the Arabic alphabet to reflect and realize the divine world. Therefore, Arabic calligraphy has expressed a passionate conviction that divine harmony must be achieved as beautifully as possible through the perfect geometrical proportions of the Arabic letterforms (AbiFarés, 2001; Schimmel, 1984). Consequently, the Arabic letters became the most precious treasure, considered a true symbol of Islamic achievements.

As time passes, cultural, social, and political powers shift, and thus, new nations emerge alongside the development of human industry from manual to technical, concomitant with the evolution of new methods of communication. Naturally, the Arabic alphabet also is affected by human progress and socio-cultural-political changes. The letterforms not only alter their shapes to fit industrial production systems—from handwritten (calligraphy) to print (typography)—but also their significance transforms to include new meanings—from sacred associations with Qur'anic text to secular connections with identity, culture, and nationality. Today, more than ever, through the wide scope of visual culture we can witness diverse utilization of the Arabic

alphabet, as both text and image. Accordingly, understanding issues related to the Arabic script—calligraphy and typography—are essential to art and design fields, particularly to graphic and typography design education and practice, in order to improve the employment of Arabic letterforms within our global, visual world.

Chapter Overview

In this chapter, I state the purpose of the study and introduce my research topic, the importance of using Arabic calligraphy to learn, teach, and improve Arabic typography. I address the justification and significance for pursuing this research, while defining my position in relation to self-study inquiry, especially around my various roles—graphic designer, researcher, and educator. Next, I present a brief overview of my research, and explicate the chosen theoretical framework for my study. Subsequently, I explain my self-study research methodology, especially valuable to carry out self-study exploration, learning projects, and narrative inquiry, all in relation to the Arabic alphabet. In addition, I describe topics related to the background of my research problem; outline Arabic calligraphy's value in art education, and begin illustrating some of the main connections between the practice of calligraphy and typography. I finalize my introductory chapter by providing an overview of the following sections, all of which are necessary to fulfill my research objective, examining Arabic calligraphy's educational dimensions in order to reinvigorate Arabic typography education and practice.

Introduction

Throughout this self-study inquiry, I aim to examine my graphic design practice in a professional setting (Pinnegar, 1998), noting that my roles as a researcher and design educator are strongly intertwined and indivisible (Tidwell, Heston, & Fitzgerald, 2009). I work to understand the Arabic alphabet's value in its calligraphic form in art education, its various roles in Arab and Islamic cultures, and its status as a feature of visual culture. In each avenue of analysis, I trace the Arabic writing system to understand the natural, inherent connection between calligraphy and typography, most specifically in Arab/Islamic contexts. My research is informed by examining the Arabic letterforms in light of Ibn Arabi's *'ilm al-hurûf*, or science of letters, along with the aid of semiotics as lenses to simplify the symbolic language of 'ilm al-hurûf, while offering an in-depth understanding of Arabic alphabets within our visual world. Furthermore, I employ Ibn Arabi's theory as well as semiotics to analyze and contrast three selected artworks by different Arab artists—modern or contemporary—who feature the letterform as main elements in their compositions, to illustrate some of the recent, diverse roles of Arabic letters, in order to consider their potentiality in enriching art and design education.

This dissertation is largely framed as a graphic design examination in art education, exploring approaches to teaching typography in light of both historical frameworks and contemporary pedagogical developments. As such, I examined the art of Arabic calligraphy composition through two divergent but complementary approaches: 1) learning Arabic calligraphy in a professional calligraphy workshop, and 2) self-study methods, both self-learning and self-exploration projects. In these two main approaches, I composed calligraphic and/or typographic experiments using traditional techniques and computer software to analyze my professional experiences as an artist, designer, and teacher. Specifically, I analyzed my data and

experiments using a variety of visual representations, commentary, and narrative inquiry. Then, I employed my experiments' findings about the alphabet to develop a timeline and map of the Arabic writing system's evolution, stressing the importance of understanding Arabic calligraphy to develop and enhance the performance of printed Arabic letterforms.

Concurrently, I used my research findings while drawing from my ongoing narrative commentary—which was central to my research—to establish a groundwork from which to devise approaches to Arabic typography curriculum and pedagogy suitable for contemporary university-level students. Finally, I built on such efforts to create a basic Arabic typography course for graphic design students, which includes five lessons and five projects based on my calligraphic and typographic experimentation. Ultimately, this work aims to educate artists and designers, whose efforts can improve the current practice of Arabic typography and communication.

Purpose of the Study

This self-study's research aim is to examine the artistic, educational, and cultural roles of calligraphy, particularly within Arab and Islamic cultures, in order to assess the status quo of Arabic calligraphy and to describe how art and design educators can utilize this form of art for comprehensive knowledge in order, to support the study of Arabic typography while enhancing visual and textual arrangements of letters within contemporary contexts. Moreover, as a central part of this research, I strive to revive Ibn Arabi's 'ilm al-hurûf, or science of letters, by investigating its holistic content and semiotics in relation to the Arabic alphabet's nature and symbolism. My aim is to derive a practical version of the science of letters that not only simplifies its symbolic language but also offers an in-depth understanding of Arabic alphabets

while examining their application in contemporary communication, thereby enriching and broadening the art and design education fields.

This self-study research provides a personal space for learning, exploring, and investigating the Arabic letters in their calligraphic forms to understand how to teach, improve, and strengthen the use of the Arabic alphabet's typographic forms by juxtaposing visual representations with narrative analysis. In this context, this method presents an open space that brings together narratives and visual representations in relation to the Arabic writing system, illustrating closely the letters' evolution from script to print. Accordingly, my self-study approach allows various audiences (art and design students, educators, or practitioners) to recognize, connect with, and use the Arabic letterforms. Altogether, the purpose of this research is to formulate a contemporary curriculum and define suitable pedagogical approaches for teaching Arabic typography at a university level. Furthermore, it aims to outline a basic Arabic typography course in light of the proposed curriculum. This research may be considered a starting point to enhance art and design education by providing a rightful position for Arabic calligraphy, while also improving the practice and teaching of Arabic typography.

Justification of the Study

Humans produced writing to communicate and therefore, based the practice on the utilitarian necessities that preserve valuable information and knowledge. Historically, in the Islamic region, writing was especially valued as the medium of the Qur'an (AbiFarés, 2001), more precisely, the Arabic letterforms in their calligraphic form. Calligraphy—signifying beautiful (hand) writing, from the Greek *kalli* (beauty) and *graph* (writing)—is especially significant in this context, seen in Eastern cultures as uniquely meaningful, allowing readers to

grasp the visual meaning of words even before reading them (AIF, 2011). In Arab/Islamic culture, calligraphy is specifically understood to have sacred connotations. The Arabic word for calligraphy, *khatt*, derives from words for "line," "design," and "construction," and in Islamic culture, the practice of khatt encompasses both the art of the pen and an expression of the sacred (Kaestle, 2008). Arabic calligraphy is, then, always inspired and shaped by religious contemplation and reverence. Many contemporary Arab artists and designers who use calligraphy and the Arabic alphabet in their works use the term *Arabic calligraphy*, stressing the significance of the form to Arab cultural and national identities (Al-Rajab, 2010; Shabout, 2007). Throughout my research, I use variously the term Arabic calligraphy in order to capture the diverse historical, cultural, and political meanings of the form, which are both Arabic and Islamic. While Arabic calligraphy is solely expressed in Arabic letters, its most prominent developers historically were non-Arab Muslims, especially from Turkey and Iran (AbiFarés, 2001). Indeed, the broad cultural and national diffusion of Arabic calligraphy continues today, and my research specifically addresses significant works by contemporary, non-Arab calligraphers.

Handwritten scripts developed throughout the years with the emergence of industrial printing techniques, transforming the manual to technological, and hence, typography was born (Ambrose & Harris, 2011). The art or process of setting and arranging type for printing or digital reproduction (Dictionary, 2008), typography is communication composed in letters that allow the representation of the rich rhythms and inflections of language (Heller, 2004; Pullman, 2005). The subtleties of language representation can emerge in the details of typeface, making the heart of typography the study of typefaces' expressive forms (Coles, 2013). More specifically, the effective use of typeface in graphic design is one of the essential elements in

clarity of communication, making possible economy of expression (Tschichold, 2009). As such, printed type is one of the most powerful communication vehicles to convey ideas, thoughts, and images. Typography is a basic mode of communication that is crucial for graphic designers to master and it is the central element in graphic design education. In this context, typography may be defined as

> The art of rightly disposing printed material in accordance with specific purposes; of so arranging the letters, distributing the space and controlling the type as to aid to the maximum the reader's comprehension of the text. Typography is the efficient means to an essentially utilitarian and only accidentally aesthetic end, for enjoyment of patterns is rarely the reader's chief aim. (Morison, 1967, p. 5)

In this view, typography resulted over centuries in pinnacles of development, crystallizing the alphabet characters' shapes into clear, recognized forms suitable for rapid, legible (capable of being differentiated readily), and readable (capable of being understood easily) communication. Therefore, the common printed letterforms we use to comprise the written word are very fundamental elements in our lives.

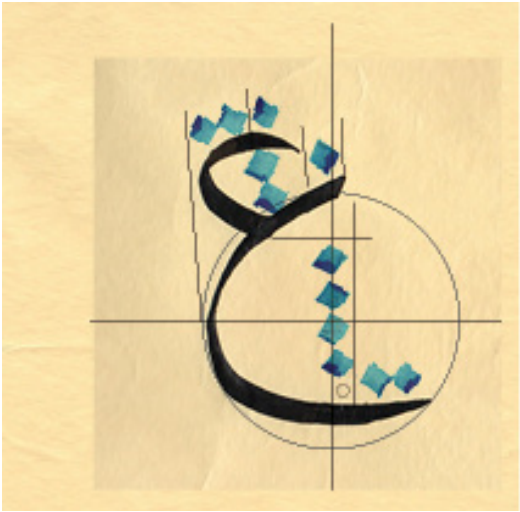

Figure 1. The Arabic letter *Ayn* in its calligraphic free from (Left).
Figure 2. The Arabic letter *Ayn* in its typographic free form (Right).

As a graphic designer who has pursued the study of Arabic calligraphy, calligraphy's geometric proportions and organic fluidity have always fascinated me, and this interest underpins my current research focus on Arabic calligraphy and typography. Notably, however, even though Arabic typography builds upon calligraphic writing styles, contemporary scholars and designers give more attention to Arabic typography than Arabic calligraphy. This is so because the widespread integration of computer technologies has brought text-based information into many facets of everyday life, causing an ever-growing interest in typography across many fields of visual communication (AbiFarés, 2001). In general, the practice of calligraphy has not been modified for use with contemporary information technologies and thus, remains primarily connected to manual techniques, relegating calligraphy to neglect by young designers who prefer digital media. This inattention to calligraphy is unfortunate because in languages that have cursive scripts, including Arabic, calligraphy is the basis for type design, and calligraphy has the potential to become a learning tool for typography, supporting the creation of well-developed curricula and pedagogy in graphic design education. However, today, calligraphy is considered nearly a form of fine art since its educational and economic purposes are separated (Warde, 1956/2009). Calligraphy was an important part of the education of the elites, nobles, royals, and scholars because the beautiful handwriting represented not only the attributes of a well-rounded person, but also the emblems of social class and knowledge. At that time, calligraphy was the only form of written interaction prior to mechanized printing methods. Subsequently, it lost its educational and economical value as a means of communication with the advent of the industrial era.

In this light, this self-study research project focuses on the foundational meanings of Arabic calligraphy. By revealing the interconnections between calligraphy and typography in contemporary contexts, I hope to broaden perspectives and visual vocabularies for both designers and readers. Calligraphy is a form of art, and thus, I chose to analyze a few selected works of art, and not design. These works are appropriate for my study because the artists I chose have developed deep, thoughtful, and creative means to integrate the Arabic letters or abstract their calligraphic forms as vivid components within their artworks. Although my goal is to improve graphic and typography design, I discuss works of art that are more complex and have no pragmatic objective, existing solely for aesthetic and cultural enjoyment. Accordingly, by simplifying and demonstrating how to read and understand these pieces, I empower and enlighten design educators and students, inspiring them to cross boundaries to deal with synthesizing and sophisticated artworks. Therefore, I explore contemporary applications of Arabic calligraphy, investigate teaching strategies derived from my personal learning and exploration, and apply the study of contemporary Arabic calligraphy to new teaching approaches to Arabic typography. As such, it is important to recognize that calligraphy is neither a solely contemplative art nor a strictly historical phenomenon accounted for by simple measurement and knowledge of alphabets (Kaestle, 2008). My self-study works to identify from the perspective of graphic design education how we might teach and learn typography through understanding calligraphy.

Significance of the Study

An essential foundation of my research approach is to highlight calligraphy as an art form, emphasizing its pedagogical potentials. In this light, I believe that calligraphy has an

essential place in art education, but historically, Western art history and art education canons have underestimated Eastern cultures and ignored or neglected Eastern calligraphy (DePillars, 1990). While Arabic calligraphy has, however, been valued in the Western canon, (Grabar, 1992), its mostly marginal treatment has negatively shaped Eastern art education, which follows Western models. Indeed, the adoption of Western/European ethnocentric methods of art education in non-Western cultures has led to the dismissal of pedagogy appropriate to those cultures, resulting in the presentation to students of an unbalanced view of their own values and identities (Yi & Kim, 2005). Moreover, graphic design educators in the Arab and Islamic worlds, somewhat problematically, build their pedagogy on Western approaches. Therefore, my research contributes a new perspective by re-aligning art historical knowledge with Arab and Islamic cultural needs, preparing designers for refashioning Arabic identities in the twenty-first century, nourishing the beloved heritage of Arabic calligraphy, and making calligraphy a form of art that can support students' learning journeys in diverse ways.

I frame this proposed new approach to Arabic calligraphy and typography as central subjects of art and design education by bringing together two principal optics. The first is a meditation on the interpretation of Arabic letter theory by Ibn Arabi, juxtaposed with semiotics theory, along with visual analysis to investigate the evolution of Arabic letterforms in relation to Arab nationalism and cultural identity. The second is a survey of the cultural and historical meanings of script—both ornamental, handwritten, and mechanically printed—in Arab/Islamic and Western contexts. Pursuing such themes affirms calligraphy as a form of art not only essential to art and design education in Arab and Islamic countries, but also one whose practice is shaped by political and cultural history.

Furthermore, this project helped me as a graphic designer to gain typographic sensitivity through understanding the mechanism of calligraphic composition, thus improving my design practice. Having the capacity to enrich our understanding of visual culture by facilitating communication between geographically and culturally diverse peoples, this study, in turn, also affords me the learning experiences to teach and motivate Arab graphic design students more effectively using Arabic calligraphy. Therefore, as a contribution to the field of art education, this self-study research project interweaves academic research and graphic design practice to develop new approaches to graphic design curriculum. At the same time, however, as a reformulation of the field of art education, my project expands the discipline's purview to encompass more diverse forms of written expression alongside a deeper understanding of the historical intersections among Eastern and Western visual cultures, print forms, and art traditions.

Researcher's Position in This Self-Study

My graphic design background fuels my passion for this self-study research project. I have been fascinated by the power of typography in communication since my work as an MFA student, particularly influenced by Serrell's (1996) argument that typographic design is essential to shaping the mood and intended message of any composition. I studied the possibilities of juxtaposing bilingual typography in my MFA thesis project, "How to Harmonize Arabic and Latin Typography," combining the two to guide designers composing typographic forms for communication in bilingual cultures (Alansari, 2009). As a graphic design educator from Kuwait, I am interested in Arabic calligraphic script's aesthetic value in Arab and Muslim cultures, where calligraphy is viewed not only as spiritually significant, but also as the most

prized visual art, a visual treat even for those who do not read or write the language, including Westerners. Nevertheless, calligraphy as an art and communication form has largely been neglected during the transition to the digital age, and this research project will address calligraphy as a learning tool to understand typography, intertwined with well-developed curriculum and pedagogical approaches in graphic design education. As a graphic designer and typographer, I strive to strengthen the influence of calligraphy in art and design education through self-study methodology. Tracing connections between calligraphy, printmaking, and graphic design will enlarge the conception of art in the two fields—art education and design education.

Brief Overview of the Study

I completed historical research, investigating first, the role of Arabic calligraphy in art and graphic design education and second, the connection between calligraphy and typography in general, most specifically, the meaning of calligraphy and Arabic lettering to Arab and Islamic cultures. Consequently, I explored teaching approaches related to graphic design—especially typography—both historically and in light of contemporary pedagogical trends. Therefore, this study a examines the art of Arabic calligraphy composition through divergent but complementary self-study approaches employed in:

1. Studying in a professional calligraphy workshop.
2. Self-learning and self-exploration projects.

My approach encompasses typographic and calligraphic experiments using both traditional techniques (such as reed pens and ink) and computer software (such as Adobe Illustrator and Photoshop) to record my experience as a designer, and researcher. Consequently,

I analyzed my data and experiments using diverse approaches stemming from my multiple roles as artist, designer, researcher, and teacher. The application of such concepts employs varied forms of research representation—including visual diagrams, commentaries, and narrative critique—leading to the formulation of new art works featuring calligraphy and typography in contemporary syntheses and juxtapositions. Such an approach makes possible the creation of Arabic typography curriculum for contemporary university students. This initiative then informs the creation of a basic Arabic typography course and defines suitable pedagogical approaches within design education. Throughout the process, I maintain a special focus on including art production in both data collection and analysis, which allows me to evaluate, assess, and refine my concurrent development of calligraphy and typography curriculum.

Theoretical Framework of the Study

This dissertation is devoted to studying the Arabic alphabet and its writing system, aiming to better understand the aesthetic, educational, and cultural values of Arabic calligraphy in order to enhance the practice and teaching of Arabic typography—in contemporary and practical modes of communication. For that reason, I selected Ibn Arabi's 'ilm al-hurûf/science of letters (1234 AD) as a theory to explicate the nature of Arabic letters and their performances. It is a symbolic science aligned with sacred text, in which the Arabic letters have physical, mental, and spiritual existence, with metaphysical dimensions and connotations exceeding particular times and places (Ibn Arabi, 2008a, 2008d; Obaid, 2006; Yousef, 2008). Ibn Arabi's manifestation of the Arabic letters not only allows calligraphers to contemplate their practice while elevating their spiritualities, but it also has inspired many generations of calligraphers—including contemporary ones—along with artists, designers, literati, thinkers, and philosophers.

It has been influential in this way because employing 'ilm al-hurûf within artistic or critical practice helps to invest the letterforms of the Arabic alphabet with a precise, lofty sensibility. Accordingly, Ibn Arabi's science may be considered an ideal philosophy to be applied to art and design education, specifically typography. Nonetheless, the science of letters was built on interpretations of sacred text while using complex symbolic language of Sufi origin. Therefore, in this research, I strove to translate Ibn Arabi's original writings, simplifying his semiotic language, and aiming to present a comprehensive, concise version of his theory. I believe that by understanding, adopting, and using Ibn Arabi's theory we can assist art and design students, educators, and practitioners to gain a more sophisticated sensibility of the Arabic alphabet. Indeed, Ibn Arabi's manifestations of letters' meanings aided my journey in this self-study inquiry, prompting me to perceive letterforms differently, not simply as shapes and form, thereby allowing me to understand more deeply the process of composing and designing with the Arabic letters.

In conjunction with Ibn Arabi's science of letters, I also use semiotics—the study of signs—to understand deeply the Arabic alphabet's visuality and its perception within our visual world. This is important to my study because today, more than ever, we live in a global communication era, witnessing ideology, productivity, and efficiency spread conspicuously visually (Petrilli & Ponzio, 2005). As we read our visual world, we encounter ideas, reactions, and feelings to understand ideologies, and knowing how to read visual and cultural texts contributes to the use of rhetoric within a successful practice of design. Hence, I employ semiotics and visual analysis to examine calligraphy's role in typography education globally, but with an exclusive focus on Arab and Islamic cultures, distinctively evaluating the potential roles of Arabic calligraphy in the education of graphic designers. Therefore, the application of

semiotics not only helps us to read our visual world, but also to live our lives informed and engaged, thereby designing or composing art critically, consciously, and effectively.

Examining works of calligraphers, artists, designers, and philosophers through the insights of Ibn Arabi's science of letters and semiotics, we may trace our visual world's depth, complexity, and social meanings in relation to viewers, image, and context. At the same time, recent works by artists such as Shakir Hassan Al Said, Madiha Umar, Dia Azzawi, and Monuir Fatmi confirm the value and significance of Ibn Arabi's theory, demonstrating that the works of scholars and artists reflect the tenets of the science of letters, even though it is quite complex and richly symbolic. Despite that, it is embraced because of its sentimental value. Therefore, I excavate, compile, simplify, and apply Ibn Arabi's science of letters as the main theory to examine the Arabic letters and their nature, while utilizing semiotics to afford a comprehensive understanding of Arabic alphabets within our visual world. Ultimately, I combine these theories to devise contemporary Arabic typography curriculum and a basic course in the subject.

Research Methodology

I decided to pursue self-study inquiry (Berry, 2004; Bullough & Pinnegar, 2004; LaBosky, 2004; Loughran, 2004; Russell, 2004) to make my art, design and writing creations—all obtained from my personal learning experiences—a focal point throughout this educational journey. As a graphic designer pursing a graduate study in art education, I felt overwhelmed by the research methodologies available. However, I wanted to take an approach that would empower me, as a designer, educator, and researcher, while also granting me a space for expressing my visual and written thoughts and views. I desired a method that would enable my intellectual and sensible sides to expand while reading, thinking, writing, drawing, and

illustrating. I sought a methodology that facilitated my learning, acknowledged my different roles, and allowed me to shift between my learning mode and expressive mode whenever possible. As a result, self-study inquiry complemented the demands of my various positions and suited my research subject and aims.

Self-study methodology is compelling for researchers (and for me personally) because numerous research methods are enfolded within it. At the same time, data collection methods are mainly drawn from traditional qualitative approaches (Tidwell et al., 2009). Self-study transfers selected methods—action research, arts-based inquiry, narrative inquiry, personal history, reflective portfolios, or memory work (LaBoskey, 2004; Samaras & Freese, 2006)—into innovative contexts in which the roles of researcher and teacher in such conversions are emphasized and inseparably intertwined. Educators, in self-study research, can inspect their professional practice, witnessing the meaning of their teaching in relation to actions, beliefs, and roles, and thus, there is no single approach to carrying out this methodology. Moreover, the methodology of self-study develops according to the subject chosen for examination. Consequently, as the study proceeds, it requires a critical, careful commitment to discussing and modifying the research methods and processes.

Consequently, pursuing self-study research allows me as an educator, designer, and student of calligraphy to explore many approaches to understand Arabic calligraphy's diverse roles, examining its philosophy and symbolism to create typography and graphic design teaching methods in higher education. To ensure finalizing my dissertation with practical, applicable knowledge, I created Arabic typography curriculum and a fundamental course in the subject, designing my research to be productive, interlacing my knowing derived from my experience to construct my knowledge as a graphic design educator. Such research supported by a generative

process supports my data collection and analysis in systematic ways that permit critical understanding of typographical education.

Therefore, I used various data collection instruments: attended a traditional calligraphy workshop, composed experimental calligraphic and art projects that constituted both self-exploration and self-learning, created a commentary for my experimental calligraphic projects, and interviewed a professional Arabic calligrapher teacher and graphic design and typography educators. At the same time, for my data analysis method, I opted for two approaches that are necessary to understand Arabic calligraphy's educational role and revitalize Arabic typography education. The first was visual representation that made the collected data accessible while also helping me reflect on the research process. Second, I employed narrative inquiry, which allowed me to comprehend the meaning and reflection of my experience while embracing experimental methods and contextualizing learning for myself and my future graphic design students. Last, I outlined my conceptual framework that helped to organize and facilitate supporting my data analysis with the chosen theories—the science of letters and semiotics—hence validating my inquiry and process. In the end, such structures assisted my effort to construct Arabic typography curriculum and a basic course in the subject, both providing novel means to interact with, understand, and arrange the Arabic alphabet effectively for contemporary applications.

Translating the Outcomes of Self-Study Research

One of the most important factors in self-study research is ensuring readers find it trustworthy and meaningful (Tidwell et al., 2009), and such credibility is supported by presenting data clearly, illustrating the approaches selected to transform data into findings, while connecting transparently the elements of data, analysis, and findings (LaBosky, 2004). Thus, in the analysis

of data, I displayed explicitly the processes I used—visual and metaphoric representations, experimental projects, visual and written commentary, and stories of encountering the Arabic alphabet. Clarifying the process of data construction and analysis, I thoroughly identified my objectives and expected outcomes for my primary research question, how Arabic calligraphy contributes to the learning of Arabic typography.

Furthermore, to make my research trustworthy, I created, as an original outcome, a typography curriculum for the Arabic writing system, describing its aims and goals, its scope and foundations, and its mode of learning and pedagogy methods, all of which enhance the teaching and practice of both contemporary Arabic typography and graphic design. Additionally, I also contrived a fundamental typography course concentrating on the Arabic alphabet for university-level students, which includes five typographic and calligraphic lessons and five projects aligned carefully with my proposed curriculum objective and my findings in self-study experimental projects. In this way, my self-study pursuit enhanced my design practice and my research, and in turn, established a wider purpose, the progression of knowledge in educational systems and teaching (Samaras & Freese, 2006). Therefore, I expect my Arabic typography curriculum and basic course to contribute to the work of graphic and typography design educators, allowing them to better understand their field while inspiring them to develop education that is more effective.

Background of the Study

Before moving to the next chapter, which discusses the selected methods I have used to understand the educational and aesthetic values of Arabic calligraphy and the nature of its alphabet for enhancing typography, it will be helpful to present an overview of the background

of the study. I start with highlighting the meaning of calligraphy in art education and its value in Arab/Islamic cultures. Then, I address the basic connections between calligraphy and typography in diverse historical and cultural settings, since I endeavor to clarify such relations and stress their importance throughout my research. Finally, I present a brief introduction to typography education, especially in the twenty-first century.

Arabic Calligraphy in Art Education

As an educator from a culture that values calligraphy as a high form of art, I premise that calligraphy must hold an essential position in art education. My research aims to affirm calligraphy as an art education resource, emphasizing its importance to Arab and/or Islamic cultures in both historical and contemporary contexts. Arabic calligraphy is considered by Muslims to be the highest form of the arts because the holy book of Islam, the Qur'an, was written in Arabic, and thus, this language and its letters became the distinctive, unifying visual symbol of Islam (Gibbons, Lilly, & MacFadyen, 1981). As a consequence, Arabic calligraphy evolved into the supreme art manifestation of Islam (Kader, 2007). In Islamic cultures, calligraphy developed into a form of communication that balanced clarity with beauty in an art form embodying disciplined freedom. Letters came to be seen as the word of God symbolized for humankind to perceive (AbiFarés, 2001). Consequently, in Islamic culture, there is no separation between the visual appearance of a text and the meaning of it, just as there is no separation of the body and soul.

Arabic calligraphy is used, however, for more than religious texts, and its use in mundane contexts such as the ornamentation of everyday objects and architecture testifies to its pervasive influence within Arab or Muslim nations. It is part of a holistic life philosophy in which artistic

expression plays a visual role (AbiFarés, 2010, p. 15). Nevertheless, although Arabic calligraphy commands great respect as a form of art in contemporary Arab and/or Islamic cultures, my personal experience in Kuwait public schools indicates that calligraphy certainly is not fully integrated into the art curriculum of K–12 education. In fact, only if a student enrolls in a higher education course in art or design does he or she begin to study calligraphy in a systematic way. Yet these courses are very limited, and thus, many individuals aspiring to learn this art either participate in calligraphy workshops or travel to Istanbul, Cairo, Damascus, Baghdad, or Iran to learn the art in basic, traditional settings.

My research focuses on Arabic script, and therefore, I seek to investigate the various ways that Arabic calligraphy has been valued historically and culturally. Such a perspective highlights this written art's aesthetic, educational, and cultural significance, emphasizing these reasons for defining it as an influential component of art and design education, especially in the Arab and Muslim countries. Such examination supports my efforts to develop Arabic typography curriculum applicable to graphic art education, while my model can be adopted to serve diverse languages and cultural contexts.

Connections between Calligraphy and Typography

This study confirms the natural, developmental connection between calligraphy and typography in order to make a space for calligraphy in art and design education, particularly, in typography teaching and practice. Within every avenue of my self-study research, I work to find links, explanations, and stories of how the Arabic writing system evolved from script to print, from calligraphy to typography. Thus, below I present a brief synopsis of letterforms' evolution and transformation.

Arabic is a cursive script, and Arabic type design is modeled on calligraphic practice. Therefore, Arabic calligraphic styles of the pre-mechanical era have been absorbed into typography. Indeed, both Arabic and Latin calligraphic styles are the bases for their typographic formulations. Nevertheless, while letterpress printing was first invented in Germany in 1440, due to cultural and political forces, mechanical printing was prohibited within the Ottoman Empire—even under penalty of death—limiting the expansion of Arabic typography (Baten & Van Zanden, 2008). This explains one cause of the uneven historical development of Arabic typography in comparison with the West, while also offering a glance at how diverse mechanical and technological factors affected the progress from calligraphy and typography.

My study examines the shifting meanings of Arabic alphabet and script amid the historical movement from print to visual culture. Diverse strands of scholarship on the status of printed writing at important turning points in Western communication serve as comparative reference points for my research. Among the most significant is the late eighteenth century creation of typographical forms carefully adapted from calligraphy in Europe's emergent print culture. Accordingly, as I surveyed the historical relationship between calligraphy and typography in the West, it was clear to me the influence of eighteenth century industrialization, which created demand for faster communication, revolutionized Western scripts. Historians of typography generally view this period with particular interest, as an era of genius in typography, when Pierre Didot (1689-1757 AD) and other typographers devoted attention to the *serifs*, or letter endings of their fonts (Raizman, 2004). At that time, printers' craved to reduce their letters' calligraphic appearance, moving away from any association with hand-written scripts and their inconsistencies. Moreover, the eighteenth century printing industry had been connected

mostly to book production, yet it was not until the early nineteenth century that printing technology developed speedily as a result of the increased demand to circulate newspapers.

These historical transformations of calligraphy and typography in Western cultures, particularly of the Latin script amid industrialization, serve as an enlightening point to identify, evaluate, and understand the later development of Arabic typography. Furthermore, my focus on Arabic calligraphy's progress throughout my self-study research illuminates not only the perfected measurements and standards of the alphabet, but it also reveals instructive insights into how to advance Arabic typography. Therefore, my experimental projects embrace diverse and significant aspects of calligraphy to explore their educational and aesthetical potentials for art and design education. Moreover, subsequently in the study, I synthesize my own efforts and my historical readings into a visually simplified form, a timeline and map of the evolution of the Arabic writing system, from script to print (see Figures 33-36, in chapter 6, pages 232-235 of this dissertation).

Typography Education

My research aims to highlight the value of calligraphy for art and design education, specifically the role of Arabic calligraphy in the learning and practice of Arabic typography. Here I address typography education that stems from graphic design, describing its nature, challenges, and complexity. Generally, graphic designers define themselves as visually expressive, conceptual problem solvers who address the needs of their clients and/or the market (Shapiro, 2004). Accordingly, graphic design programs often focus on teaching forms of self-expression through words and images, or preparing students for a client-centered practice. Despite the differences between the two approaches, both deal with rapid changes in the

profession shaped by broader societal views of design. Thus, graphic design educators are perennially challenged to grasp the profession's direction to prepare new generations of graphic designers, while the rapid expansion forms a gap between the educational needs of future practitioners and contemporary typographic education curriculum (Gruendler, 2010). Indeed, with the advent of the Internet, it is essential to teach graphic design students new digital technologies, which many graphic design teachers might not have studied in design school.

In the pedagogical approach to typography most design schools follow, teachers begin with the letter and then advance to the word, sentence, paragraph, and page in a sequence from simple to complex (Davis, 2008). However, in practice, contemporary typography is a complex, relational system that depends on the interplay of formal, technological, linguistic, and cultural factors, but design educators continue teaching a typography progression of scale, neglecting to integrate such variables. Today, typography is, "not just about type"; it is about many overlapping integrated design elements such as color, lighting, motion, texture, and three-dimensionality (Nobel, 2003). The performance of typography blurs the boundaries between image and text, constructing new visual identities with an innovative visual syntax for language. Therefore, design educators need to know the realities of the current field to deliver relevant teaching, prepare students for the market, and support students' creativity, not merely follow the same model of their own education. However, existing educational programs often lack time, resources, and qualified instructors to address such conditions sufficiently (Gruendler, 2010). Amid such challenges, design educators must create typography programs based on innovative pedagogies and curriculum. Furthermore, typography and graphic design in the Arab nations faces many complex issues related to the limited supply of Arabic typefaces, the inefficient design of Arabic printed letters, and the replication of Westernized graphic design curriculum

unsuited to comprehending the nature of Arabic writing system. Therefore, in this research I work to understand how to use the educational role of Arabic calligraphy to enhance the teaching of Arabic typography, and ultimately to create a curriculum that can reinforce the education and practice of the Arabic alphabet.

Carrying Out this Self-Study Research

Throughout this self-study journey, I constantly moved forward, looking inwards while inspecting Arabic calligraphy as an art from, an educational instrument, as well as a spiritual and contemplative practice. This dissertation, though, is not merely about Arabic calligraphy. It is a story of the alphabet's transformation, its communicative power visually and textually, and its users' identities. Within the following pages, I strive to understand and recognize the Arabic writing system in an effort to develop sensibilities around letterforms. I draw mainly from my personal, experimental, and educational experiences while sometimes building on the experiences of other calligraphers, artists, and educators. In this way, my dissertation provides a space to explore the nature of the Arabic alphabet, its writing system, and its power as both communication system and identity marker. I am using my own first-hand, personal knowledge with Arabic calligraphy to understand its significance for typography education and practice.

I carried out my self-study research in overlapping, synchronous periods of drawing, writing, endeavoring, exploring, and testing. I did not seek a linear mode while conducting my examinations. I strove to understand, learn, see, and feel the Arabic letterforms' sensibilities decisively to compose effective typography. From this foundation, I intend to convert my personal learning and investigation to develop innovative curriculum and pedagogical strategies for contemporary Arabic typography. I also created a basic Arabic typography course based on

my formulated curriculum and pedagogy. However, I am not offering a fixed solution, but instead, I am making suggestions and offering inspirations based on my lived experience with the Arabic alphabet, in both forms—calligraphy and typography.

In the course of my dissertation, I have come to develop a new sensibility regarding Arabic letters, understanding letterforms' shapes, meanings, and symbolism. My self-study research has nurtured my curiosity about the alphabet, steering my knowledge and stimulating new questions about how calligraphy might contribute to learning typography. Therefore, I choose to write a series of stories to help other scholars, educators, practitioners, and students understand how calligraphy can be utilized to enhance both the education and practice of printed Arabic letterforms. Accordingly, I must note that I did not include a chapter specific to reviewing literature related to examining calligraphy as a way of learning typography in the twenty-first century in relation to both art education and graphic design. Instead, my review of related literatures is a thread throughout this dissertation, intertwined within every chapter.

I start by organizing my research, experiences, findings, and outcomes into a sequence of chapters to facilitate accessible reading. In chapter 2, I delineate and explain my chosen research methodology: self-study inquiry that concentrates on my personal artistic and writing creations derived from my experiences. Here, I describe my data collection instruments, research participants, data analysis methods, and conceptual framework. In chapter 3, I outline my theoretical lens for examining the Arabic alphabet, wherein I define and simplify Ibn Arabi's 'ilm al-hurûf, or science of letters. Then, I describe approaches to semiotics helpful to translating Ibn Arabi's theories to read our visual world. Such a synthesis facilitates the implementation and application of 'ilm al-hurûf to contemporary art and design education and practice.

In chapter 4, I piece together a new, practical understanding of using the science of letters

alongside semiotics to read artworks, analyzing the works' use of Arabic letters and discussing their symbolism and forms of representation. I selected works of modern Arab artists Madiha Umar and Dia Azzawi, juxtaposed and contrasted with contemporary Arab artist Monuir Fatmi to explore how the Arabic letterform functions within their artworks. The resulting analysis indicates how these selected artists perceive the Arabic alphabet's characters and use them graphically, symbolically, revolutionarily, and politically to powerfully reflect their messages and identities. In chapter 5, I examine the art of Arabic calligraphy composition through two divergent, but complementary approaches: 1) learning calligraphy in a professional calligraphy workshop and 2) conducting self-study methods, through both self-learning and self-exploration projects. Here, I use visual representations, commentary, and narrative inquiry to analyze my experience with Arabic calligraphy, exploring its value for art and design education. My calligraphic or typographic experiments demonstrate, analyze, and confirm, using traditional instruments (reed pen and ink) and computer software (Adobe Illustrator and Photoshop), the aesthetic and scholastic roles of Arabic calligraphy.

Subsequently, I use my findings and analysis of my calligraphic experimentations in chapter 6 to develop university-level Arabic typography curriculum, defining suitable pedagogical approaches for contemporary graphic or communication design practices in the twenty-first century. My Arabic typography curriculum is supported by Ibn Arabi's science of letters and semiotics as theories to simplify the comprehension of the Arabic writing system. My proposed curriculum is built upon theories and principles of visual culture as a process, semiotics as a pedagogy, constructivist theory, play principles, and critical thinking as an assessment method. Building on such approaches to curriculum, I created a basic Arabic typography course that stresses typographic and calligraphic sensitivities about the Arabic alphabet, comprehending

its structure, proportions, mechanisms of connection, and aesthetics. The course aims to help students develop Arabic typography fluency in their design work, knowledge of Arabic letterforms, and the ability to deliver a message using letterforms as both text and image. Finally, in chapter 7, I conclude my dissertation by discussing any limitations I faced and end with recommendations for future research.

CHAPTER 2

RESEARCH METHODOLOGY

In the following pages, I state my research problem and questions, then outline my decision to pursue self-study inquiry, which focuses on my writing and artistic production, both of which derive from my learning experiences. I also explain how I used these research methods—self-study exploration, learning projects, visual representations, and narrative inquiry—essential to investigating the educational aspect of Arabic calligraphy and revitalizing Arabic typography education. Furthermore, I describe my research participants and discuss my data collection tools and analysis methods. Then, I finalize this chapter, delineating my self-study research conceptual framework, which enables validation of my analysis and data by grounding them in suitable theories.

Research Problem

Arab and Islamic cultures admire Arabic calligraphy as a celebrated art that echoes their cultural, national, religious and spiritual identities. However, calligraphy is not recognized or adopted within art or design education. Therefore, I utilize this self-study research to describe the status quo of Arabic calligraphy and its artistic, cultural, and educational roles. Hence, I aim to justify the significance of studying the art of Arabic calligraphy as an essential and comprehensive form of knowledge useful for art and design education.

Additionally, the current status of the printed Arabic alphabet displays its limited ability and lack of development, unlike calligraphy, which reached the most perfected proportions and aesthetics. Hence, through the space of my self-study research, I highlight the connection and relationship between these two modes of the Arabic writing system to understand critical aspects

of alphabet's evolution from script to print. Aspiring to enhance the performance of Arabic typography and education, therefore, I believe in utilizing calligraphy to apply the printed letters and textual arrangements in contemporary contexts. By this means, I aim to improve and expand the fields of art and design education.

Consequently, by learning, investigating, and understanding calligraphic forms of the Arabic alphabet, I can envision new methods of teaching, enhancing, and strengthening Arabic typographic letters. Such efforts can contribute to formulating contemporary curriculum, identifying useful pedagogical approaches, and devising a foundational course in Arabic typography at a university level.

Research Questions

- How might learning Arabic calligraphy contribute to Arabic typography education?
- How might my self-study methodology help me develop a curriculum and pedagogy for contemporary typography learning integrating Arabic calligraphy, Ibn Arabi's science of letters, visual culture, and contemporary art practice, while balancing traditional techniques with technological mediums?

Discussion of Methodology

I based my research on the methodology of self-study (Berry, 2004; Bullough & Pinnegar, 2004; LaBosky, 2004; Loughran, 2004; Russell, 2004), which is distinguished by its philosophical and political positions, as a methodology for examining practice in a professional setting, not a set of precise methods (Pinnegar, 1998). Self-study methodology embraces several research methods, while drawing mainly on traditional qualitative methods of data collection

(Tidwell et al., 2009). Commonly, self-study converts those methods to new contexts in untraditional ways. These transformations emphasize that the roles of researcher and teacher are indivisibly intertwined. Therefore, self-study has been described as "the study of one's self, one's action, one's idea, as well as the 'not self'..... Self-study also involves a thoughtful look at text read, experience had, people known, and ideas considered" (Hamilton & Pinnegar, 1998, p. 236). In this way, self-study can be autobiographical, cultural, historical, and political, while drawing thoughtful insights from text, experiences, people, and ideas. In self-study inquiry, educators examine the self within teaching environments, charting the meaning of practice in terms of actions, beliefs, and roles. As a methodology for examining professional practice, there is no single approach to conducting a self-study (Pinnegar, 1998). Self-study methodology grows out of the subject of exploration. Therefore, it requires a rigorous, critical perspective to discuss, adjust, and modify methods and processes of research, and as the study unfolds, the research questions can also adapted or modified (Tidwell et al., 2009). Although based on the researcher's experience, self-study reaches beyond the individual (Loughran, 2007) for findings applicable to the field in general. The intellectual roots of self-study are closely attached to the development of the qualitative research paradigm (Bullough & Pinnegar, 2004; Pinnegar & Daynes, 2006) in which meaning making and interpretation, rather than explanation, are central (Craig, 2009). In addition, self-study is strongly influenced by action research, making it an effective method for conducting systematic inquiry into practices of research and teaching (Feldman, Paugh, & Mills, 2004; Samaras & Freese, 2009). In both action research and self-study, the researcher examines problems found in practice, engages in research cycles, and systematically gathers and analyzes data. Yet, self-study may also encompass other methods such as narrative inquiry, reflective portfolios, memory work, personal history, or arts-based

inquiry (LaBoskey, 2004; Samaras & Freese, 2006).

Self-study methodology is founded upon the aspiration of teachers to align teaching objectives with actions (Loughran, 2007), while allowing us to also examine the messages we aim to communicate to students through critically inspecting the medium of those messages—the self (Palmer, 1998; Russell, 1997; Tidwell et al., 2009). In self-study, comfortable and familiar practices become suspect as researchers progressively recognize their collective and individual roles in the success or failure of research (Tidwell et al., 2009). Self-study is essential to professional practice because it impels practitioners to expose, critique, and highlight the less-noticeable, yet substantial, aspects of professional practice (Wilcox, Watson, & Paterson, 2004). At the same time, it facilitates self-transformation, encouraging a recursive process of "doing, thinking about what was done, making adjustments, and doing again" (Clarke, Erickson, Collins, & Phelan, 2005, p. 175). As such, self-study methodology can be a messy process, unfolding in unpredictable, idiosyncratic ways as data are reinterpreted, reframed, revisited, and restored. Here, the researcher must employ varied forms of representation to convey the meaning of his or her experiences (Eisner, 1993). Through such reflections, researchers may represent multiple possibilities for refining pedagogy (Brandenburg, 2009). In this way, the focus of self-study research moves from individual learning to public knowledge about teaching. Ultimately, self-study allows teachers to recognize the power to theorize, research, and understand teaching.

Accordingly, I pursued self-study research to explore various approaches to composing Arabic calligraphy in order to devise methods of teaching typography and graphic design in higher education. My research is designed to be generative, intertwined with knowledge derived from the experience constituting my knowing as a graphic design educator (Brandenburg, 2009). Coming to know is an incremental development process (Clarke & Erickson, 2004), fundamental

to my understanding and way of being (Dalmau, Hamilton, & Bodone, 2002). The process evolves, influenced by the investigation of experience and the significance of particular moments/interactions that spark new knowledge and learning (Brandenburg, 2009). The generative research process underpins my systematic collection and analysis of data for deeper understanding of typographical pedagogy.

As part of the research process, I undertook learning typography and/or calligraphy composition, facing experiences similar to those of my future students in order to develop my own curricula and pedagogy. Using both traditional techniques and computer software in an effort to analyze my experience, I realized that shifting between different tools and media has helped shape both my learning experiences and the results of my research project. Combining computer processes with traditional techniques in typographic courses might be the key to a more effective curriculum (McCoy, 2003). However, often, I felt overwhelmed while switching between manual and technological tools, or while shifting from making art to writing critically and narratively about my art. Undeniably, self-study methodology is a messy process in which re-interpreting, reframing, revisiting, and restoring data allows the journey to unfold in uncertain and distinctive ways, yet with fruitful outcomes.

Moreover, I used this self-study inquiry to demonstrate how artists and designers can understand Arabic letters within contemporary contents and contexts, specifically to recognize the power of the Arabic alphabet and its various roles in works of art and/or design. Thus, I interpreted three selected artworks by three artists using Ibn Arabi's science of letters together with semiotics analysis to translate and evaluate the artworks' use of Arabic letters, discussing symbolism and representation. Such an investigation not only examines the various connotations of the Arabic alphabet's shapes and significations, but it also reveals how to apply Ibn Arabi's

theory and semiotics analysis to extract the symbolic and other meanings of Arabic letterforms. Indeed, my examination ultimately demonstrates that Ibn Arabi's science of letters lives today, employed by many artists and designers, although not with his sacred perspective, but with a more mundane sensibility. I analyzed the chosen artworks, reading and describing their employment of the Arabic letters. Such an approach eases encountering works of art—discussing, reading and talking—especially for students, helping them to easily and knowledgeably describe, and reflect upon what they see, feel, and understand. As a result, my artistic analysis of Arabic letters in the three selected artworks will help artists and graphic designers to recognize how to read the nature and symbolism of the Arabic alphabet and its written system in current or modern works, supporting their own readings and examinations.

Research Participants

Due to the nature of this self-study inquiry, I am the main participant in this research, conducting about twelve months of self-learning and self-exploration experimentation projects. I experimented with Arabic letters in artistic calligraphic and/or typographic forms, constantly analyzing my work visually while writing narratives of my experience with the Arabic alphabet. Moreover, while I was learning calligraphy with Mi'raj, I conducted approximately twenty-four hours of data collection over four weeks, wherein I studied my calligraphy teacher as he delivered instruction in his studio. I did not involve any of his students in data collection. In addition, I conducted an interview with him that was approximately one hour. Furthermor, the other participant in this research, graphic designer and educator Zoghbi, was involved in an email interview that took about one hour.

Data Collection Instruments

Throughout this self-study research, I generated diverse, intertwining forms of data to convey the meanings of my experiences. Through such forms, I produced reflections that represent various potentials for refining my pedagogical methods (Brandenburg, 2009). As such, my self-study research focus shifts from my personal learning into public knowledge about teaching. Ultimately, by seeking self-study inquiry, I am empowered to recognize the ability to theorize, research, and understand teaching. Accordingly, the methodology selected for this self-study research is qualitative, and therefore, I have used various modes of data such as experimental calligraphic and/or typographic projects, commentary on my experimental projects, narrative inquiry, attendance at a traditional Arabic calligraphy workshop, and interviews with professional Arabic typography educators and practitioners, as well as with a calligrapher.

Calligraphy Workshop

An essential part of this self-study research was participating in a traditional Arabic calligraphy workshop at the Kuwait Islamic Arts Center (KIAC), a nonprofit educational institution interested in Islamic arts, particularly Arabic calligraphy, that works to introduce a broad audience to such arts through international exhibitions (2011). I was a student of a KIAC calligrapher for six hours per week, for four weeks, with approximately twenty-four hours of data collection. It was a private workshop, meaning that I was the only student learning under the supervision of the calligraphy teacher. Normally, in the traditional Arabic calligraphy workshop, student/s meet with their teachers once or twice a week, over a period expanding from two to three years, depending on the pace of learners (J. Mi'raj, personal communication, October 17, 2014). My aim in participating in a private calligraphy workshop was to have a

direct experience as a student learning the art of Arabic calligraphy, recognizing how much I could understand in a short period of time, and what the significance of such an experience would be for my students and pedagogy.

At this workshop, I worked with the calligrapher Jassim Mi'raj, following the same methods and techniques applied in the normal framework of a calligraphy workshop, but with specific customization to ensure learning the basics of Arabic calligraphy as far as possible in a condensed period. Following the same pedagogical methods of any traditional Arabic calligraphy workshop, I worked on writing my first lesson at my studio and then attended the first session, submitting my lesson to my calligraphy master. Mi'raj typically started by correcting and marking my writings, while explaining and demonstrating the mechanism of writing or various topics related to the lesson or the Arabic alphabet. Then, I went back to my studio and rewrote my lessons to grasp the letterforms' best proportions and measurements in order to work on delivering smooth writing with ink flowing on the paper's surface without any resistance or shaking. In total, I had three lessons divided among the eight workshop sessions.

Additionally, since the methodology chosen for this self-study research is qualitative in nature, this component of my research employed qualitative observations conducted with the calligraphy teacher, observing how my teacher delivered his instructions and guidelines, corrected and marked my writings, and rewrote some letters while describing them semiotically and geometrically. I documented my learning process by taking photographs, making notes in a journal after each class session, and collecting all writing materials used in the workshop.

Experimental Calligraphic and/or Typographic Art Projects

Visual data informs the learning process and illuminates practice in many ways

(Loughran, 2007). As such, self-study rooted in visual representation employs diverse visual forms to make sense of data and reflect upon the process of self-study. Insofar as art can become a way of knowing (Eisner, 1997, 2002), scholarship can engage in critical consideration through diverse forms of visual representation (Freire, 1998; McDermott, 2002). Studies in this vein can use drawing, pictures, collage, and video to document professional experience, then subsequently analyze such representations to explore their insights for practice (Tidwell et al., 2009). To generate such critical perspectives, I conducted my research partly through the creation of various experimental calligraphic and/or typographic practices as both forms of art and graphic design compositional pieces. Additionally, I interpreted these visual perspectives using metaphor, which can further explore the meaning of practice (Aubusson, 2004; Linzey, 1998; Miller, East, Fitzgerald, Heston, & Veenstra, 2002), especially through the generation of abstract thought processes (Lakoff & Núñez, 2000). The resulting synthesis strengthened my critical understanding of how experimental art and design can contribute new perspectives on teaching typography. The three experiments I undertook in this context examined aspects of the art of Arabic calligraphy not embraced in the first phase, the calligraphy workshop. Accordingly, every self-study experimentation is distinctive, yet connected. The first experiment focuses on letterforms' proportions, through juxtaposing essential concepts: the dot system, the circle method and the golden ratio of the Arabic alphabet. The second experiment addresses letters' relationships and their mechanism of connection, particularly in calligraphy, in relation to Ibn Arabi's concepts considered in light of visual culture. The third experiment analyzes a Qur'anic page, highlighting the calligraphic pages' elements, movement, and order of composition, which is quite similar to those of typographic pages.

Commentary on Experimental Calligraphic and/or Typographic Projects

In addition to creating self-study and self-exploration projects concentrating on Arabic letterforms in their calligraphic and/or typographic forms, I validate the results of my projects by visual and written commentary to reflect deeply on my experiences (Brandenburg, 2009). I started my commentary by writing or drawing in my notebook any thoughts, ideas, views, and feelings emerging immediately after every project or calligraphy session. Hence, these documentations especially examine how my understanding of calligraphy and/or typography changes and grows over time in response to experiments with the Arabic alphabet while reflecting on my practice. In accordance, my journal that recorded such insights became a valuable artifact, particularly during the data analysis of this self-study research, as I looked back into my experience translating patterns or concepts beneficial for developing deeper insights into my own practice (Kitchen, 2009). Therefore, my commentary includes both visual and written materials because I constantly worked to evaluate my understanding and learning journey. Any word or line I wrote or drew is part of a reflection process examining my experiences in expressive ways.

In this way, I collected various words that I documented during and after participating in the Arabic calligraphy workshop sessions and while developing my three calligraphic and/or typographic experimental projects. These words may have direct connections to each other or not, but they serve as a mode of documentation, and my analysis translates and reflects these words' meanings. I chose to display my words in a list format wherein the words may seem unclear or unconnected to the experimental projects, but my further analysis attempts to elucidate their significance, integrating these words within visual representation and supporting the creation of my narrative analysis. In conjunction with these words, I drew and sketched many

diagrams in my notebook as a visual documentation and reflection. These drawings support the ongoing process of my self-study experimentation projects, functioning in relation to each experiment or workshop session to illustrate how I could improve my calligraphic or typographic understanding and sensibilities. Likewise, these diagrams and sketches aided my visual and written analysis in a way similar to words; thus, I integrated most of my visual commentary into my visual representation and investigation.

Interviews

To enhance my qualitative inquiry, I employed qualitative interviews, one with my calligraphy teacher and the other with an Arab graphic designer. I interviewed my calligraphy teacher before starting the workshop to document the perspectives of the teacher and myself at the outset of the research process. I selected Jassim Mi'raj as a participant in my research project based on his exceptional experience and education in teaching Arabic calligraphy to diverse students. I communicated with him primarily through face-to-face meetings and emails. The purpose of my other interview was to explore how Arab design educators and practitioners have helped young designers understand composition with Arabic alphabets. Initially, I planned to interview three prominent graphic designers from the Middle East, who are equally active in the practice and education of Arabic typography. However, due to the busy schedules of these practitioners, I only interviewed one graphic designer and typographer, Pascal Zoghbi, who is experienced in both Arabic typography education and graphic design for Arab or bilingual audiences. His thoughtful responses, articulation of vision, and helpful opinions gave strong support to my self-study research journey. I contacted my participant designers by email, through which I scheduled time for the interviews. I emailed my questions and recorded my

phone calls through Skype, transcribing answers later. The enlightening responses from both interviews were integrated throughout my dissertation, supporting and reinforcing various parts, as both participants affirmed the importance of utilizing the art of Arabic calligraphy in the teaching of Arabic typography.

Data Analysis Methods

Throughout my self-study research, I used various visual modes as sources of data, principally visual representations emerging from my calligraphy workshop, experimental calligraphic and/or typographic projects, and related illustrated commentaries. Textual data were collected from the interviews, combined with observation of my calligraphy teacher and written commentary on both the calligraphy workshop and experimental projects. Both modes of data were contextually reviewed to support their inspection and initiate their analysis (Gray & Malins, 2004). Such an approach allows the sorting and categorizing of research information—both visual and textual—in order to review, restore, and use such data efficiently. At the same time, it provides an excellent method to monitor progress visually. Pursing this visual mode of data analysis, I was able to understand my experiences from my calligraphy workshop and each experimental project, finding connections and emerging themes, while raising new questions regarding Arabic calligraphy and typography. Appropriately, I analyzed my data visually by producing visual representation and textually through narrative inquiry to create outcomes that allowed me to devise contemporary Arabic typography curriculum and lessons for a basic Arabic typography university-level course.

Visual Representations

In this study, my learning outcomes unfold primarily by means of corresponding and complementary visual analysis and narrative inquiry. Self-study research supported by visual representations typically utilizes different visual forms to facilitate understanding data and reflecting upon the processes studied. Hence, visual sources of information not only support the learning process but also illuminate professional practice in many ways (Loughran, 2007). Insofar as these visual data are viewed as artworks, so they are accordingly perceived as a way of knowing (Eisner, 1997, 2002), enabling researchers to develop critical understandings of their studies, specifically by utilizing diverse forms of visual representation (Freire, 1998; McDermott, 2002). In this view, this study embraces various visual representations including diagrams, illustrations, images, sketches, a map and a timeline. Mostly, these visual representations are inspired by the calligraphic or typographic products that were produced during the calligraphy workshop and the experimental projects. Hence, any of my visual representations constructed at any stage are considered as both data and data analysis, enabling me as a graphic designer, educator, and researcher to evaluate, assess, and refine my learning experience.

Narrative Inquiry

Narrative inquiry as an educational philosophy based on the study of experience has been defined by numerous researchers including Dewey (1938), Schwab (1973), Connelly and Clandinin (1988), as well as Eisner (1993). These scholars delineate the fundamental connections among experience, life, education, and research, insisting that inquiries into human experience are at once empirically based, personal, social and interpretive. As experience is rooted in the past, developed in the present, and acted upon in the future, it is embedded in

temporality and context, remaining ever-changing, fluid, and dynamic (Chiu-Ching & Chan Yim-mei, 2009, p. 21). Along such lines, I ground my research in narrative inquiry, working to understand how my experience can prompt meaning and reflection while, at the same time, fostering contextualized and experiential learning both for myself and my graphic design students.

In this context, storytelling can become a form of narrative inquiry that allows educators to reflect on their practical personal knowledge, making meaning from experience (Connelly & Clandinin, 1988). A story can be an expression of practical knowledge, a methodology of research, or a form of representation, wherein compiling or telling stories is the opening of a multidimensional narrative cognizance (Craig, 2009; Kitchen, 2009). Therefore, I employ narrative inquiry as a methodology for understanding the personal dimensions of my experiences with teaching typography, sharing my narrative as a way of showing, rather than telling. My stories are written equally for the readers and me, as I recount my experiences throughout the calligraphy workshop session and experimental projects. My narratives allow readers to move into the space of my personal experience, to interact with and feel the performance of the Arabic alphabet and to experience the same sensations that I had, thus expanding their minds while enriching their knowledge. On the other hand, these stories are also written for me, challenging myself to crystallize my experiences with the Arabic letterforms, composing sentences of thoughts, feelings, and reasons. Like this, I am learning about myself as a graphic designer, teacher, and researcher, and hence, writing narratively is both at once self-exploration and self-examination. For these reasons, analyzing my work and experiences through critical narration is an extremely rewarding practice. As we write we are being reflective, outspoken, and truthful while viewing ourselves in the larger context of our field of practice and life.

Conceptual Framework

My self-study research has a conceptual framework supported by relations among concepts, beliefs, questions, theories, and helpful philosophies (Maxwell, 2005). In this way, it is a conceptual frame that enables processing data, informing my analysis by grounding my inquiry within an appropriate theoretical framework—the science of letters, visual culture analysis, and semiotics. This conceptual framework makes sense of my experience with the art of Arabic calligraphy while validating my learning, experiments, and stories of the letters, along with reinforcing my curriculum development. All of these research experiences are personal and practical, but at the same time, the work evolved to become increasingly theoretically oriented.

I did not establish this conceptual framework ahead of time, before conducting self-study research. Instead, I assembled it throughout the exploration process in relation to my qualitative approach and the nature of my study's evolving design. I had a few pre-determined paradigms (the science of letters and semiotics), and other structuring concepts emerged during the process of data collection. Therefore, my conceptual, analytical framework required a lively process of integration appropriate to the intricacy of my emerging research problems. As a result, I used concepts and theories—established both before and after conducting my calligraphic experimentations—to formulate a comprehensive examination of the Arabic writing system and enhance the teaching of the printed letters. Therefore, the success of my design solution—my Arabic typography curriculum and basic course—can be evaluated by its adaptability, usability, and applicability to the field of graphic design education.

Contexts of my Conceptual Framework

I created this conceptual framework to validate my self-study research data, interlacing related theoretical underpinnings in the following research contexts:

1. Theoretical models:
    - 'Ilm al-hurûf (the science of letters)
    - Semiotics
    - Visual culture analysis
    - Constructivism
    - Play principle
2. Research design methodology: Self-study inquiry
3. Related concepts:
    - Arabic alphabet symbolism
    - Arabic letter measurement theory
    - Letterforms' composing mechanisms
    - The connection between calligraphy and typography
4. Learning environment:
    - Traditional Arabic calligraphy workplace
    - Professional graphic design studio setting
5. Arabic letters experimentations:
    - Self-exploring
    - Self-learning projects
6. Research analytical methods:
    - Narrative inquiry

- Visual representations

The integration of these concepts has not only grounded my data analysis and learning experiences, but it has also contributed to creating well-formed, comprehensive Arabic typography curriculum suitable for contemporary challenges and aspirations.

Conclusion

In this chapter dedicated to research methodology, I outlined and justified my motivations for utilizing self-study inquiry, which focuses on the researcher's writing and artistic production drawn from personal, professional, empirical experiences. Therein, I described my research problem and questions, research participants, data collection instruments and analysis methods. I also explained how my conceptual framework functions. Each of these research methodology components has allowed me to arrange, elucidate, and use my learning experience to fully understand Arabic calligraphy and to realize how to improve Arabic typography education.

In the following chapter, I discuss my theoretical framework suitable to examining the Arabic letters. I start by identifying Ibn Arabi's science of letters, seeking to simplify it for implementation in graphic design teaching. Then, I mark out semiotics—the study of signs—as a source of approaches useful for simplifying the science of letters and understanding our visual world. Last, I describe how to utilize semiotics to analyze our visual world. Such an approach is helpful to explicate the complicated, symbolic language of Ibn Arabi in an accessible fashion, while reflecting on the Arabic alphabet's various forms of representation. These two theories support my self-study inquiry because they validate my learning experience, thus facilitating my design of contemporary Arabic typography curriculum and an associated course.

CHAPTER 3

THEORETICAL LENS FOR EXAMINING THE ARABIC ALPHABET

'Ilm Al-Hurûf

'Ilm al-hurûf, or science of letters, is a concept established by the Sufi philosopher Ibn Arabi (1165-1240 A.D.). It is a symbolic science applicable to sacred knowledge in which the Arabic letters have physical, mental, and spiritual existence, with metaphysical connotations and dimensions transcending particular places and times. This Sufi manifestation of the Arabic letters helped calligraphers to contemplate their practice and elevate their spiritualities. Many contemporary calligraphers still read and employ 'ilm al-hurûf within their practice because it helps them to perceive the letterforms with a particular high sensibility for the Arabic alphabet. From this point of view, 'ilm al-hurûf may be considered an ideal philosophy to be applied to art and design education, specifically typography. Letter sensibility is essential for artists and designers because it helps elevate their understanding and their composition mechanism for the Arabic letters. 'Ilm al-hurûf, the science of letters is a thread throughout this research, I will detail this science starting from the Sufi view of writing and the Arabic alphabet, examine Ibn Arabi's science of letters, describe all of the 28 letters, and conclude with the science of letters method of composing letters into words. In addition, I apply the lenses of semiotics to clarify the complicated, symbolic language of 'ilm al-hurûf. This synthesis will facilitate the implementation and application of 'ilm al-hurûf to contemporary art and design education and practice.

Arabic Writing in Islamic Culture

In the Islamic culture, the art of writing has always had a unique status, reflecting the belief that the divine world can be realized by the utilization of Arabic letters. Traditionally, Muslims have emphasized writing as a special characteristic of the human race (Schimmel, 1984), perceiving it as "the language of the hand, the idiom of the mind, the ambassador of intellect, and trustee of thought, the weapon of knowledge and the companion of brethren in the time of separation" (Qalqashandī, 1931, p. 35). The Qur'an consolidates traditional conceptions of writing, where God presents himself as "He who taught man by the pen" in *sura* 96 (sura is a chapter or verse in the Qur'an), and when God swears by the pen in sura 68, "Noon, and by the Pen" to illustrate the importance and high value of the pen, writing and knowledge. Hence, in Islamic cultures, the Arabic letters are a most precious treasure and have been considered a true sign of Islamic victories and achievements. When people with non-Semitic languages in the Islamic empire used the Arabic letters, they associated the letterforms with the *baraka* (blessing) because of their role as revelation vessels (Schimmel, 1984) in the Qur'an. Therefore, Arabic calligraphy has expressed an intense conviction that divine harmony must be achieved as beautifully as possible through the perfect geometrical proportions of the Arabic letterforms (AbiFarés, 2001; Schimmel, 1984). Consequently, calligraphers in the Islamic world, especially Sufis, view their profession as a sacred practice.

Sufism

Sufism is a form of Arabic philosophical awareness originating during the Islamic Middle Ages (Abu Johur, 2008) and is primarily a contemplation technique. Sufism was developed from asceticism, inspired by the fact that the Qur'an contains several verses summoning people to

austerity and asceticism. The essence of Sufism is pantheism, the idea that the world has one existence: *Allah* (God) is the world and the world is God. The various manifestations of all the things in the world are a manifestation of God, and God's existence is related to his existence in his creatures (Ibn Arabi, 2008c). Sufis believe in calligraphy as an expression of complete fusion with the creator, making the letter impression a reflection of transcendent reality. The Arabic alphabets in Sufi convention reflect a mode of knowing God that precedes their existence as ophthalmic phenomena. The Arabic letters are part of inner affairs, intrinsic features of the Unseen (Ibn Arabi, 2008d). In the Sufi view, there is an inner hidden image and meaning for every physical entity, and the visible image is a window for interpretation and understanding. In addition, Sufi philosophy affirms the pen as the first thing created by God, according to a prophetic tradition, and thus, the pen is perceived as the first symbol of intellect, even the first instance of intellect itself (Schimmel, 1984). In fact, sura 68 beginning with, "*Nūn* wa'l-qalam" (*Nūn*, and by the Pen), has inspired mystics and poets throughout the centuries. Thus, Sufi philosophy can be categorized as a symbolic science that has provided philosophers, mystics, and poets with nearly infinite possibilities for interpreting the Arabic letters and finding new meanings in them.

Sufi Understandings of the Arabic Letters

Arabic letters are the vessels to carry and preserve the Qu'ran, and thus, devout Muslims associate the Qur'anic letters with barka and seek to make the most use of these letters. In addition, since Islamic Middle Ages, the idea of letters expressing a divine order through the relation of the written word and their hidden meanings has fascinated Islamic literati and other thinkers, while in the Sufi experience, the Arabic letters have had a distinctive quality

(Schimmel, 1984). For those two reasons, in Sufi education, the understanding and perceptions of letters is highly significant. To explain Sufism's understandings of the Arabic letters, we must first examine Sufism's perception of these letterforms.

The Arabic alphabet has 28 letters, as the Qur'an represents all 28 different pronunciations. In Sufi thought, the 28 Arabic letters were created in relation to the number of moon phases, 28 (Hamdan, 2008). Since the moon phases have 14 visible locations above earth and 14 periods of obscurity under earth, the Arabic letters also have 14 visible lunar letters that are pronounced with the definite article *alif-lam*, pronounced 'al,' and there are also 14 hidden or solar letters. When the definite article follows these letters, it behaves differently: the lam's 'l' is not pronounced. Additionally, the Arabic letters are written from right to left, just as astronomy tracks motion from East to West. Right is East in astronomy, and such motion can be called spherical because it moves from the liver to the heart in the human body (Hamdan, 2008). Moreover, the Sufi thinkers developed the science of letters connecting it with spirituality, astronomy, and astrology because it was believed that the nature and secrets of letters found in names reveal reality about the universe. Moreover, it was said that Plato, Pythagoras, and Archimedes practiced this science, and some believed that Aristotle wrote a few books about the science of letters (Hamdan, 2008). In the Islamic culture, specifically in Sufism, the science of letters is based on letters' signifiers and indications, particularly in relation to letter interpretations from Qur'anic verses and their location within the verses.

There have been many classic books about this science, but the pioneer authors were Ibn Arabi and Ahmad al-Buni. The Sufi philosopher Ibn Arabi is the founder of Arabic letter knowledge, 'Ilm Al-Hurûf. 'Ilm of al-hurûf is "the science of symbolic links between the three areas—physical, mental and spiritual—through which man can approach the knowledge of God"

(Crescenti, 2011, p. 18). Such knowledge is both inductive and deductive, affording the understanding of letters as symbols, occasionally using specific logical processes, and the vehicles of this science are the correspondences of letters and their symbols. At the same time, one must distinguish 'ilm al-hurûf from *jafr science* and from *al-semiae.* The science of jafr investigates letters as independent objects for indications (Hamdan, 2008), whereas jafr has connotations specifically related to literature of apocalyptic divination in Shiite doctrine and is associated closely with metaphysical speculation, while 'ilm al-hurûf pull contemplation and interpretation principally from Qur'anic explanations. Al-semiae, as Ibn Khaldun (1377) in his *Muqaddimah* (*Introduction*) has conceptualized it, is a branch of magic and was developed by certain extreme mystics who used the science of letters to investigate the properties of single letters or letter groups, specifically letter combinations and their relationship with numerical associations (Crescenti, 2011; Hamdan, 2008). The alphabet has a powerful aspect in al-semiae, wherein, according to Ibn Khaldun's interpretation, there are two kinds of al-semiae, a commendable and a blameworthy with respect to religion (Crescenti, 2011). The first kind of al-semiae, the commendable, aims to liberate the soul from the senses, by writing and pronouncing God's beautiful names with a special technique, to extract a relative knowledge of God. This approach of al-semiae is mainly a technique of contemplation similar to the Sufi 'ilm al-hurûf. The other kind of al-semiae, the blameworthy, relates to talismanic magic (*sihr*), aiming to exert influence on the world. Accordingly, Ibn Arabi (2008b) states that al-semiae is derived from the Arabic noun *sema* (trait), which means the characteristic mark; it is a science of signs offering a collection of meanings and interpretations. Thus, in the Arabic language, the term al-semiae is very close to the word *semiotics*. In fact, one of Ibn Arabi's (2008b) definitions for 'ilm al-hurûf is the science of semiotics based on action through letters and names.

Ibn Arabi

A further examination of semiotics in 'ilm al-hurûf may be pursued by first introducing a more detailed analysis of Ibn Arabi's 'ilm al-hurûf. Ibn Arabi (1165-1240 A.D.) is considered one the greatest masters in Sufism. His writings are very complicated even for people who speak and read Arabic well because he builds his theories and ideas on mystery and symbolism. His real name was Mohammed Ali Mohammed Ahmed Abdullah Al-Ta'ai, and his famed title is Muhiy Aldin Ibn Arabi, but he is primarily known simply as Ibn Arabi (Al-Jarrah, 2003). *Muhiy Aldin* is literally translated as "religion restorer" and was given to him because of his creative renewal of Sufi conceptions of an immersive worship and love of God. Ibn Arabi was born in 1165 in Murci in Andalucia (now southern Spain) and died in 1240 in Damascus, Syria. He wrote almost four hundred books and is thus considered one of the foremost authors of the Islamic philosophers. There were many criticisms and accusations leveled toward Ibn Arabi's philosophy and theories, yet his work is still considered a cultural inheritance (Al-Jarrah, 2003). Typically, Ibn Arabi relies on the role of imagination (as a means of contemplation) for scientific discovery. His imagination contributes critically to discovering creative and innovative components essential for formulating his ideas and theories. Using such a rules of imagination to contemplate and interpret the meaning of the Qur'an, Ibn Arabi claims that he has found in the Qur'an what no one has discovered, *romuz kanyah*, or signifying symbols and *esharat shaneyah*, or interesting signals:

> I have found in the Qur'an what no one has found. Allah (God) made a fact for every meaning, listed meaning for everything covering their reality, with two kinds of livery: a livery for the eye, indicating a true single meaning; and a livery from outside its meaning and context, signifying other truth or meanings. (Abdulfatah, 2004, p. 121)

Therefore, the Arabic letters in Ibn Arabi's terms are the simple facts in the field of divine knowledge before their tincturing in the optic presence. Consequently, such manifestation and

interpretation of Arabic letters elevates their meaning from visual vehicles of communication to metaphysical icons.

'Ilm Al-Hurûf: Science of Letters

Ibn Arabi's 'ilm al-hurûf is a science based on the supposition of language sacredness, namely language that has a non-human origin and functions primarily as a revelation vehicle to convey the divine word, in the Arabic alphabet. It is a sacred language founded as a partial reflection of an original language and is an explicit expression of the absolute. Therein, the Arabic letters express the divine word in the Qur'an, which is composed not only with words, but also is a generative entity that unifies and interlinks all archetypal foundations, affirming that God is the origin of everything (Crescenti, 2011). In this view, such symbolism connected with sacred language is not only human assumptions on text, but it also holds a critical concept that ensured real signs to the scope of supposition of reality estimating the origin. Therefore, Ibn Arabi's 'ilm al-hurûf, or what he also calls the *'âlam al-anfâs* (world of Breaths) is a complex symbolic cosmological and analogical elaboration (Yousef, 2008). This concept refers to the letter's linguistic meaning derived from Qur'anic words through speculation. At the same time, it also considers *harf al-hija'a* (the letter of the alphabet). In this context, sound production is limited while the voice cuts through the breath and the mouth organs, and thus, *makhraj al-hurûf*, or the concept of sound emission placement, has great significance.

'Ilm al-hurûf is, then, a science applicable to sacred knowledge, in which investigated objects are sounds, "which are considered essential and basic seed words that have value and power not only for the meaning they convey, but also and especially for the depth of the symbols they evoke" (Crescenti, 2011, p. 7). According to Ibn Arabi, in 'ilm al-hurûf, the single letters

are the vehicles for infinite meanings equivalent to all of existence (Gril, 1988). In which, there is a close connection between the letters generation and the rotation of specific celestial spheres, demonstrating that the letters are the limit of our physical world. Also, associated with this celestial connection, the letters have *maratib*, or degrees, to arrange them in hierarchical distribution corresponding to different types of being. Additionally, 'ilm al-hurûf has a connection with an initiatory path—a spiritual realization from which the letters originate corresponding to their *manazil or* houses. Accordingly, 'ilm al-hurûf function as a universal language between metaphysics, cosmology and cosmogony, while corroborating the initiation of spiritual path. Wherein, 'ilm al-hurûf emerges through the sound production symbolism in its metaphysical and cosmological aspects, where *nafas al-Rahman* or breaths of God "expires the all-merciful as generator of all beings and sacred writings" (Crescenti, 2011, p. 8). Although the divine word's universal extension is a developing idea and not fully describe 'ilm al-hurûf, it is formed to introduce the science of letters by portraying the human universe. In this view, the appearance of letters is an indication of their metaphysical meaning, ultimately the manifestation of God. Believing that the human soul resides within the twenty-eight Arabic letters (Daghir, 2006), Ibn Arabi compared the alphabet to the human body (Laibi, 2006), in the phrase "*al-insân al-kamil*," or the complete human. Al-insân al-kamil is a concept aiming to approach divine speech through the Qur'anic words, to establish an inner understanding that allows universal knowledge and decryption (Crescenti, 2011). Ibn Arabi expressed such a perspective in this poem:

> We were lofty letters not yet pronounced,
> latent in the highest peaks of the hills.
> I was you in Him, and we were you and you were He
> and the whole is He in Him—ask those who have attained.
> (Schimmel, 1984, p. 89)

Ibn Arabi believes that the Arabic letters act not only as a vehicle for language but also have spirit and entity, moving from the sensual to the intellectual, and each has a distinct identity and metaphysical significance.

Nation of Letters

Certainly, Ibn Arabi believes that the Arabic letter is a living being, with spiritual and metaphysical significance, in addition to acting as a vehicle for language. Throughout Ibn Arabi's writing, he fully explores the nature and mysteries of Arabic letters. Specifically in his multi-volume book, *Makkiyya Conquests* (Al-futuhat al-makkiyya, 629 AH, 1234 AD), chapter one of his first volume, Ibn Arabi explains entirely the letter science, including its practice and the connotations it lends to God's names. However, because Sufi thought is deeply interpretive and symbolic, it is hard to understand some of his concepts, which are written in classic Arabic language with a very subjective point of view. Ibn Arabi writes that because Sufis believe that the letters are one of God's secrets, knowledge is among the most honored sciences, imbued with God, and therefore, primarily for people with pure heart (Ibn Arabi, 2008d), which is how he characterizes Sufi people. Despite such ambiguity, it is possible to go to the essence of 'ilm al-hurûf, Nation of Letters, seeking ways to understands Arabic alphabets for contemporary pedagogical purposes useful to Arabic calligraphy. In the original manuscript for Ibn Arabi's Nation of Letters, he states,

> Know, God help us and you, that the letters are nation of nations (al-hurûf umat men el-umam), they are declaimed and charged, among them messengers from their kind, and have names from where they are, it is not known, only to disclosure people of our way (Sufi's elite); and the world of letters has eloquent tongue, and clearer statements; they have sections as divisions of the known world…among them General (al-Amah), Special (al-khasah), Especially Private (khasahat al-khasah), and Especially Private Pureness Recap (Safa kholasat khasahat al-khasah)…the genus of the letters worlds are four, single genus as: *alif, kāf, lām, mīm, hā*, *noon*, and *wāw*, bi- genus as: *dāl* and *dhāl*, and tri-

> genus as: *jīm, ḥā*, and *khā*, and quadrant-genus as: *bā, tā, thā*, and the middle *yā*, and *nūn*, also it is considered a penta genus, but if not consider them only the *bā, tā,* and *thā* are tri- genus and there is no quadrant-genus. Through this, we have tell you our stories of the world of letters, once used yourself in the connected matters to lead you to uncover the world and its facts. (Ibn Arabi, 2008a, pp. 63-64)

In such a view, the Nation of Letters—an aggregation of members united with special bonds due to their interrelated natures, common descent, and inhabitation of the same territory— features groups of letters in worlds depending on their spiritual knowledge status, codifying what letters' selves can offer, either singly or combined with other letters. In Ibn Arabi's mind, letters connect, interact, and breed to cohere in a rhythmic, visual synthesis of content and appearance (Obaid, 2006). Each letter sustains a confluence with another, and the two cohere to form a new segment. Each of the letters transforms, eliminating part of itself to honor union and relation, connecting harmoniously. Despite giving up part of itself, each letter maintains its beauty and identifiable shape (its beginning, middle, end, or isolated). Each letter has its own community and relationships, making a sacrifice of itself to maintain new connections. As such relationships form word segments and words, relations among letters make meaning possible (Obaid, 2006, p. 115). Ibn Arabi stresses the importance of letter knowledge, which is preeminent to word knowledge, since the singular letter is the primary factor of the compound; he explains:

> We do not know the result of the compound until we know the meaning of the singular components that were joined. You must learn that the sole singular has its own particularity, and when singulars are combined, the new combined has a new particularity that its singular components does not have. Such assemblage particularity offers meaning for singulars, because all combining results are formed from singularity. (Ibn Arabi, 2008d, pp. 15-16)

Additionally, Ibn Arabi believes that every letter's connection is a separation, yet not every separation implies a connection, due to the fact that when a letter joins another letter in a relationship, both letters change theirforms to suit and honor this connection. Such a view

indicates that Arabic letters have special properties because of their beings as shapes. Hence, Ibn Arabi (2008a) Nation of Letters, he has described each letter, starting by introducing each letter with a poem. He then proceeds to define twenty diverse aspects of each letter:

1. Worlds of letters and their strata:
   - The first layer of Worlds consists of two worlds. The first one is the Unseen (*al-ghaib*) world, and this world letters convey mercy, kindness, compassion, tenderness, serenity, dignity, premeditation and meekness. The second world within the first layer is the Testimony and Oppression (*al-shahada wa al-gaher*) world, within this world are the worlds of:
     - The Property (*al-Molk*),
     - The Majesty (*al-sultan*),
     - The Oppression (*al-gaher*),
     - The Intensity (*al-shedah*),
     - The Jihad (*al-jihad*),
     - The Clashes (*al-mosadamah*),
     - The Knockers (*al-mogara'a*).
   - The second layer of worlds: The Special (*al-khasah*) world. They are because this world contains every first letter started in the suras of the Qur'an.
   - The third layer of worlds: The Recap (*al-kholasat*) world: letters that are located at the end of suras.
   - The fourth layer of worlds: The Pureness Recap (*Safa al-kholasa*): the letters of the *basmalah*: *bism allah alrahman alraheem* (the opening utterance: In The Name of God The Merciful The Compassionate).

- The fifth layer of worlds: The Pureness Recap Essence (*Ain Safa al-kholasa*): the letter *bā* is the essence because it is the first of *basmalah* (the opening utterance) in every sura of the Qur'an. The only sura that does not start with it begins with the letter *bā*.

2. Letters' sound-emission pronunciation positions. The Arabic human breath extends within the twenty-eight letters, so does the divine breath extends through the twenty-eight ranks of existence. Therefore, the tongue and mouth organs movements along with the breath are the movements of calligraphy (al-khatt). Such movement is essential in the world of letters, as it determines human speech. The breathing movements are three: lifting (*rafa'a*), lowering (*khafeth*), and nominating (*nassab*). By knowing the head of the letter—its sound, meaning, grasp, and perception—we'll understand the acts of lifting, straightness, exploitation, arrangement, and elaboration. Also, the letter's head is the origin, the head of meaning— it includes heads of letter, sound, conception, and perception. The image of these four heads includes images of the descriptor, description, and described (Abdulfatah, 2004, p. 130). I developed figure 3 according to my understanding of Ibn Arabi's descriptions of the letters' sound-emission positions in order to represent his ideas about these positions in visually accessible ways.

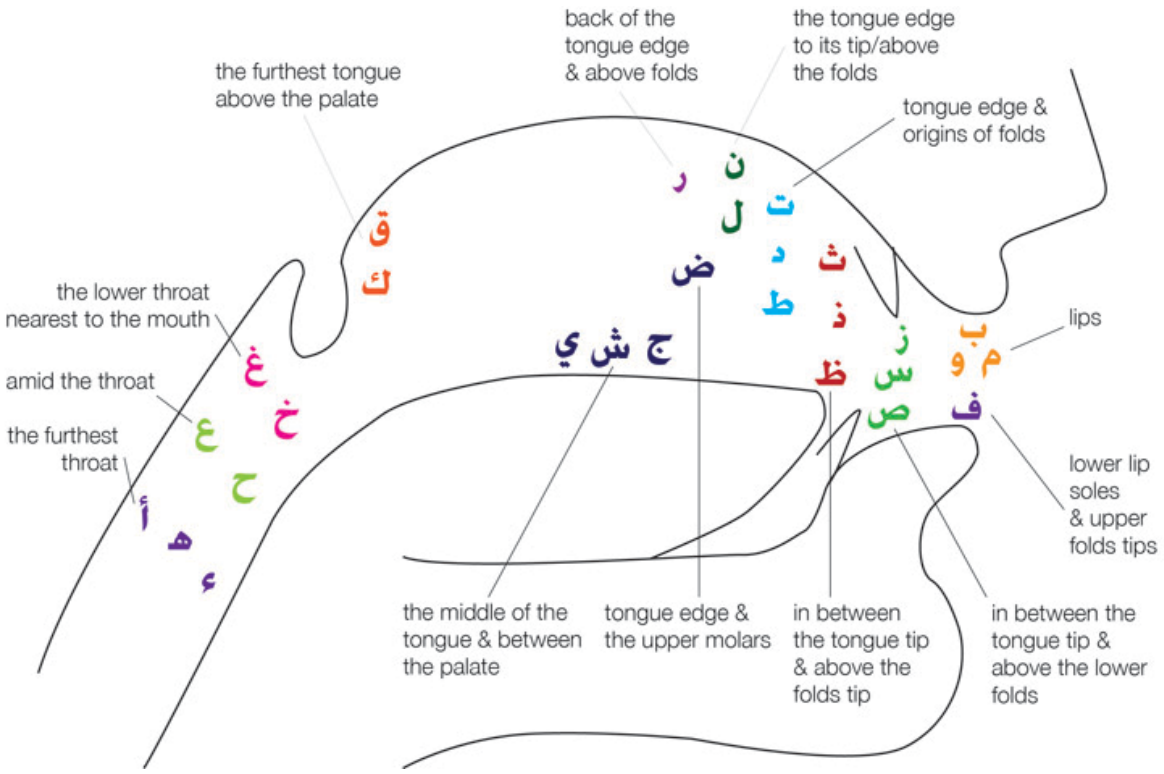

Figure 3. Arabic letters sound emission position of pronunciation associated with the breath movement.

3. Numerical value. Ibn Arabi adopted the process of associating letters and numeric values to help interpret the Qur'an as a method of contemplation, but he changed a few letters' values according to his vision and understandings.
4. Extensions (*basaet*). Letters' extension is the secret of their derivation (*al-Istmadad*) because the extension of a letter is only found when it connects to other letters. The extensions are meant to signify the pronunciations, while the shapes of the letters do not have extensions from letters, but letters have modes of shortage, wholeness, and increase.
5. Orbit, and time to complete one orbit.
6. Location on path:

- Beginning of the path: letters located at the first of the suwar (chapters) in the Qur'an.
- The path's end: letters located at the end of the suwar.
- The middle path: The rest of the letters generally follow the middle path because the Qur'an is the *straight path*, and all letters align within this path.

7. Rank: Letters are ranked. Some are connected, some are lumped, some are single, dual, or whole. Ranks are related to the letters' extensions (basaet) with the same numbers. Letters have four ranks:
    - Seven orbits, which are: *alif*, *zā*, and *lām,*
    - Eight orbits, which are: *nūn*, *sād*, and *dhād,*
    - Nine orbits, which are: *ayn, ghayn, sīn, shīn*,
    - Ten orbits, which are the rest of the alphabet.
8. Letter's power over: divine, human, demon/jinn, animals, plants, or objects.
9. Body condition: hot, cold, dry, wet, humid, and stiff.
10. Components: water, air, sand, or fire.
11. Movement:
    - Straight: letter movement that stirs our mettle to the right/truth side.
    - Recurrence: letter movement that direct our mettle to universe and its secrets.
    - Crooked: the horizontal letter movement that moves our mettle to the creator through the attachment of the world component.
    - Blended: letter movement that moves our mettle to two of those letter movements mentioned above.

12. Faces. Things are known by their faces and realities, and the letters *nuqat* (dots) are the faces they are known with. There are two types of nuqat (dots), above the letter and below the letter, and when there is no nuqat for a letter, it identifies itself by itself and through its opposite. Also, a letter may have multiple faces depending on its attitude and descent. Each face has its own particularity only for itself.
13. Belongings: The letters' belongings are associated with their faces, realties, and orbits. These belongings are grouped according to the orbit connected with:
    - The knowledge orbit offers the creation (*al-khalg*), conditions (*al-ahwal*), and dignities (*al-karamat*).
    - The actions orbit offers facts (*haqaeq*) and shrines (*maqamat*) and houses (manazel).
    - The viewing orbit offers innocence.
14. Nature of letter:
    - Pure (*khales*) letter is found from one element.
    - Blended (*momtazej*) letter is found from two or more elements.
    - Complete (*kamil*) letter is a letter found on its complete orbit cycle.
    - Incomplete letter is a letter found on some of its orbit cycle, and its orbit has been stopped by some trouble, so it has less than the complete cycle.
15. Sacredness: a letter is sacred by being attached to other letters, so it does not connect the writing with other letters, while other letters connect to it.
16. Act of lifting: A letter that raises any letter attached to it.

17. Sociability: The social letter has an orbit that feels comfortable with its sister orbits, as things feel accustomed to its shape, while the lonesome letter does not have such feelings in its orbit.
18. Genus: a letter's genus is related to its shape and act of linkability. There are four types: single genus, bi-genus, tri-genus, and quadrant-genus.
19. Related letter with similar habit.
20. Letters' relation to God's names. In Islam, Allah (God) has 99 different names reflecting his majesty and existence, and all are indicated in the Qur'an. Thus Ibn Arabi merges the meaning and nature of the Arabic letters by connecting them to the God's names.

These aspects of the Arabic letters were created and categorized by Ibn Arabi in his Nation of Letters, which is the essence of 'ilm al-hurûf. He wrote a detailed description of all of the twenty-eight letters, the *hamza*, and the letter combination *alif-lam*, stressing the fact that one must know and understand the occasion between letters to establish a true connection between those letters. Moreover, Ibn Arabi affirms the fact that some letters share the same shrines (maqamat), shapes, nature, orbits, and other distinctive characteristics, which does not mean these letters act in the same way or have the same faces. He states that letters are just like people, having filiations and humanity. Each may have the same father, but each brother is not necessarily a copy of the other brother, as the sight and science differentiates between them. Also, the science differentiates between them in the letters (Ibn Arabi, 2008a). Each letter has its own spirit and entity, moving from the sensual to the intellectual, and thus formulating its distinct identity.

Certainly, Ibn Arabi has a deep and subtle understanding of the life of the Arabic alphabet, which fascinated the literati and thinkers, inspired philosophers, mystics, poets, artists,

and calligraphers, and holds significant implications for typographic design education. Ibn Arabi's science of letters offers an illuminating study of the mechanisms of letter connections in calligraphy, but more importantly, it presents his expansive view of the meaning of letterforms as an elevated model of critical thinking about the relation of letterforms to the broader realities typography addresses. The tables B1-B30 in appendix B are a compiled selection of Ibn Arabi's descriptions and interpretations of the Arabic alphabet as the Nation of Letters, in addition to the *hamza*, and the letter combination *lām-alif*. These selective descriptions can inspire artists and designers while elevating their sensibilities and sensitivity to Arabic letters without confusing or overwhelming them with complex, mystic formulations.

Examining Ibn Arabi's descriptions and interpretations of the Arabic alphabet certainly affirms that all of the Arabic letters have connotations and diverse inspirations, which are driven by each letter's soul, entity, and sacredness. Some letters have more descriptions and interpretations due to their sacredness, which is associated with the letter's world, orbit, and rank. The sacredness of a letter is judged by its existence in many Qur'anic ayaat (verses). The image of the letter is the corporeal existence of something representing its reality and appearance in relation to the internal. Such an image is a sensual mirror that allows us to penetrate to the internality of things (Obaid, 2006) invisible to us, contained deep inside this mirror-set of images, each reflecting a reality of the realities. In this perspective, the calligraphic image associated with the mind indicates the absolute appearance of the letter, to the extent that the appearance becomes the absolute. And this is the essence of Ibn Arabi's 'ilm al-hurûf (science of letters).

The Nation of Letters is the core of 'ilm al-hurûf, in which Ibn Arabi stressed the importance of understanding the world of the singular letters because they are components of the

world of speech or words. Inside the worlds of letters, Ibn Arabi sorted the Arabic letters into three statuses: intellectual letters, pronounced letters, and numerical letters, which have two ranks: the singular rank as in *Abjd* letters, and the combined rank as in *alif, bā, tā, thā*, etc. All numerical letters can be initial, finale, or middle, while having varied statues, and therefore, their particularities are diverse (Arabi, 2008d). Some letters may have greater particularities/exclusiveness than other letters, such as the numerical letters that do not have the ability to connect in all four shapes (initial, middle, finale, or isolated). For example, *dhāl*, *rā*, *zā*, *alif*, and *wāw* are different from the connected letters—the letters with the ability to connect from both sides, with a previous letter and with a following one. Hence, letters looking like the jaw as the head of the letters *mīm* and *wāw* are unlike the letter *nūn*. Each kind of letter has its own particularities, virtues, and other things specific to it. Some letter may look alike in form and shape such as *bā*, *tā*, and *thā* if their identifying *nuqat* (diacritic dots) are taken away; sometimes, the letters look alike in their extension, as do *ayn*, *ghayn*, *sīn*, and *shīn*, as *alif*, *rā, lām*, as *nūn*, *sād*, *dhād*. The rest of the letters are alike in this fact (Ibn Arabi, 2008d). In this way it is possible to understand the spacious worlds of letters, their different formations, colorations, stiffnesses, and spontaneities—acknowledging the letters' existence as creatures impelled by their meanings, connotations, symbolisms, and inspirations.

Composing Letters into Word Mechanisms

Ibn Arabi believes that 'ilm al-hurûf is a complex symbolic cosmological and analogical elaboration. Hence, he calls it 'âlam al-anfâs/World of Breaths, in which the singular world of letters, before any movement and without any assemblage, is the gateway to the world of words. The breathing movement, *blow my breath into him from my soul,* is the marking (harakat)

movement of the letters' vocalization after their adjustments, and this is the world of words and pronunciations, which was established from the world of letters; the letters for the words are its materials such as water, earth, fire, air (Ibn Arabi, 2008a). Ibn Arabi explains:

> The soul's movements are found by themselves just as the letters world was found by itself without the pronunciation marks movements, but the breathed blow into the soul is compound therefore it can not be given until added to the other. (Ibn Arabi, 2008a, p. 94)

He affirms that each connection between letters and vocalizations marking movement has its own science, and under each issues many diverging matters in which the vocalization movements (harakat) are two types; physical (*jesmaniyah*) and spiritual (*rawhaniyah*), and both have many kinds. Consequently, each letter is linked with all the others through the vocalization movement that raises (*rafa'a*), installs (*nasab*), lowers (*khafedh*), creates stillness (*skun*), and establishes selfness (*thateh*). In this view, all letters have the property of empowerment that is their construction ability. The letters are empowered in their status, not differing based on their stillness or isolation. When a pronouncer wants to convey to the listener the letter vocalization rendered to establish a world while speaking, he will move the letters' orbit that controls the vocalization movements. This act uses the kindness (*al-latafa*) that is the human breath that moves the upper orbits suiting the World of Breaths. In this way, Ibn Arabi (2008a) declares that the world of letters and movements are established accepting what we want from them, because they know they do not disappear from their condition and do not invalidate from their reality. Thus the speaker imagines changing the letter condition or movement while actually nothing is changed; it is simply the mechanism of composing letters into word, it is how the nation of letter's function and interact.

As a Sufi manifestation, 'ilm al-hurûf is an ultimate visualization of Arabic letters connecting them with metaphysical connotation, wherein the appearance of the Arabic alphabet,

either written or spoken, has proportions exceeding all dimensions. Understanding Ibn Arabi's 'ilm al-hurûf in an open-minded way would help to enhance one's Arabic letters sensibility and therefore, improve the practice and teaching of typography and graphic and communication design.

Acknowledgement of 'Ilm Al-Hurûf

Before explaining semiotics and visual culture and their association with 'ilm al-hurûf (science of letters), it is necessary to establish that such science is not a magical practice. It is also essential to explain numerical value and the letter combinations in the Qur'an in order to develop a clear, pragmatic understanding of 'ilm al-hurûf. Some scholars are confused by the mystic and interpretive language of 'ilm al-hurûf and do not fully appreciate its perspectives. Therefore, an examination of 'ilm al-hurûf is needed to make it intelligible and accessible as a valid form of knowledge.

It is Not Magic

'Ilm al-hurûf was built on interpretations and symbolic meanings of the written and oral divine message in the Qur'an. Consequently, it has not been considered to result in a unified vision of the world. Nevertheless, it is seen as a kind of onomancie—a practice based on magic of the alphabet letters' mysterious properties. Certainly, it is difficult to achieve an effective and detailed understanding of such a science. Some historians have been confounded by this science, but less in the Islamic cultures, mainly because from the beginning of Islam, meditation on the Qur'an's letters, words, and sentences has offered deeper explanations for some Qur'anic verses. Also, because 'ilm al-hurûf was used for practical purposes with a clear theoretical basis that

distinguishes it and qualifies its practical uses. Hence, one exposed to al-semiae or jafr knows it does not have the same practical context as 'ilm al-hurûf (science of letters), and therefore, one is defiantly certain that 'ilm al-hurûf (science of letters) is not magic (Crescenti, 2011). As intriguing as it sounds, for people without Islamic or other sacred beliefs, the more logic they find in 'ilm al-hurûf (science of letters), the more appealing they will find its abstract, mysterious cosmological content. From this point of view, one can imagine a great acceptance of 'ilm al-hurûf, and such approval could be employed in a simple method to enhance Arabic alphabet sensibility. Thus 'ilm al-hurûf could be a helpful way to engage with the Arabic letters and explore their graphic possibilities for contemporary communication practices.

Numerical Values

The ancient process associating letters and numeric values is also founded in the Arabic alphabet. This exclusive feature is established in the *abjad*—an alphabetical particular order—which can be used to turn interpretation of the Qur'an toward a contemplative practice (Crescenti, 2011). This association of numerical value and the letter is recognized as a sort of archetype in which numerical values are reflected semantically in words. However, such symbolic application of metaphysical understanding of Qur'anic manuscript notations is not used anymore. While the *abjad* numerical value is still used for talismanic, applications, this form of divination is mostly associated with al-semiae or jafr and not with 'ilm al-hurûf.

Letter Combinations

Some Qur'anic sura (chapters or sections) begins with mysterious letter combinations, appearing singly or in groups of two, three, four, or five. Counted, these mysterious letter

combinations add up to 14, which is precisely half of the Arabic alphabet letters. Since the Arabic letters are thought to correspond with the 28 lunar mansions, the mysterious Qur'anic letters were imagined as *nūrāniyya* (luminous) letters because of their expression of manazil (mansions) beneath the horizon (Schimmel, 1984). Mystics are inspired by both of sura 2, al-Baqara and sura 3, Al Imran's letter beginnings. Both start with the same letter combination group consisting of three letters: *alif* (a), *lām* (l), *mīm* (m), where this letter combination was and still is subject to different and varied explanations:

> Did it mean Allah-latif (subtle, kind)—majid (glorious)?
> Or did it mean Allah and Muhammad, connected by Gabriel, who appears here as l?
> Or does it point to the three modes of prayer—the *alif* being the upright position, the *lām* the genuflexion, and the *mīm* the prostration?
> Or—so profane poets would ask—was it not an allusion to the stature, the curls, and the mouth of the beloved that, in turn, caused them *alam* (pain)?
> (Schimmel, 1984, p. 91)

In sura 20, Taha begins with a group of letter combinations consisting of two letters taha: *ṭā* (no equivalent letter in English) and *hā* (h). Some interpreters believe this letter combination was addressing the prophet Mohammed, where *ṭā* signifies *tahir* (pure) and *h*ā signifies *hadi* (guiding). In addition, there is another way to interpret the meaning of this letter combination, "since the numerical value of these letters is 9 plus 5 equals 14, they could easily find here an allusion to the full moon on the 14th night, to which the Prophet was often compared and that he even surpasses in radiance" (Schimmel, 1984, p. 91). Also, *taha* is perceived as expression of the prophet's aspect as *natiqh* (speaker), while teaching people primordial purity mysteries. Meanwhile, sura 36 begins with the letter combination *yaseen*: *yā* (y) and *sịn* (s), presenting Muhammed as the prophet who preaches the Holy War. Hence, both letter groups are used as suitable substitutes names for Prophet Mohammad. Moreover, these isolated letters were occasionally used as predictors for historical events, including the prediction of the Abbasid

caliphate duration (Schimmel, 1984). In spite of this absence of a unitary explanation, we must rely on a science related to God's knowledge and avoid any other explanations (Crescenti, 2011) to understand what those letters stand for or signify. To this day, no one knows for sure what these letter combinations mean precisely, but Muslim people still speculate and meditate on these mysterious letters, as a way to reveal their meanings. Ibn Arabi in his science of letters offers a starting point from which one may approach the letters' meanings, reflections, and realities.

Ibn Arabi not only sees the Arabic letters as decorative expressions in calligraphy or as a means of communication, but for him, they are also philosophical, spiritual thoughts longing for the absolute, searching for truth, seeking existence, and looking for the unlimited through abstract signs and symbols that are unconnected to a place or a time. This is the Sufi manifestation of 'ilm al-hurûf, an ultimate vision of Arabic letters taking shape in metaphysical connotation, where the appearance of the Arabic alphabet, either written or spoken, has dimensions exceeding all places and times. All these interpretations and manifestations spring from Allah (God) as their center and come back, searching to be closer to him through a path that uses humanity as a subject to search for the divine (Obaid, 2006, p. 125). Although 'ilm al-hurûf was built on interpretations of divine knowledge, it bolsters the science that uncovers beauty and observes its interactions. In this view, such an understanding of 'ilm al-hurûf as a Sufist philosophy not only allows calligraphers to contemplate their practice and elevate their spiritualities, but also to recognize the nature of type/line itself, and thus establish the basis of a science of aesthetics (Laibi, 2006). Hence, 'ilm al-hurûf is an ideal philosophy to be introduced and applied to art and design education, specifically typography, because it will not only help students to look differently at letterforms, but it will also help them gain a more refined sensibility for the Arabic alphabet. Such a sensibility is critically needed for artists and designers

because it supports understanding, composing, arranging, juxtaposing, utilizing, and designing with the Arabic letters. However, in order to simplify the complicated, symbolic language of 'ilm al-hurûf, we need to use the lens of semiotics and the framework of visual culture theory. This collaboration will help to implement the practical side of 'ilm al-hurûf in contemporary art and design practice and education. The following section links semiotics to 'ilm al-hurûf, exploring how to understand and use the two approaches together.

Semiotics

Semiotics is the study of signs, a field that is expansive and emerges from many disciplines, where its origins are ancient. In fact, semiotics refers to both the general science of signs and the specificity of human semiosis—the specific human ability for metasemiasis, that is, the potential of reflecting on signs (Petrilli & Ponzio, 2005). Semiotics as the study of signs elicits diverse perceptions; some scholars view semiotics as a field of study that can embrace the whole universe to the extent that signs permeate (Peirce, 1955). Semiotics can also be viewed as a science or discipline (Saussure, 1916/1938), a theory (Morris, 1938), a doctrine (Sebeok, 1976), or a living organism or world (Sebeok, 1979). In addition, scholars ask who developed semiotics from Charles Sanders Peirce and identified sign processes and who distinguished global semiotics in which the processes of signs coincide with life. The boundaries of semiotics are determined by the nature of signs as object of study, and by the field's connections with other sciences. Hence, semiotics is closely related to logic, philosophy of language, as well as theories of knowledge (gnoseology), ontology, and metaphysics. Peirce is among the scholars who relates semiotics with these fields and their complexity, and thus, his sign conception has extended the boundaries of semiotics.

The idea of semiotics as a science of signs was formulated and introduced by Charles Sanders Peirce and then shortly followed by Ferdinand de Saussure. Both proposed significant theories of linguistics, which were adapted to be used for image and visual analysis. According to Peirce, language and thought are sign interpretation processes. Meaning resides in the interpretation of the perception and following action founded on that perception, and not in the initial perception of an object sign or representation. Thus, for Peirce, each thought is a sign with no meaning, until an interpretant, the subsequent thought, allows for sign interpretation. Additionally, Peirce acknowledges indexical signs that entail an existential relationship amid the interpretant and the sign—which means that both the sign and the interpretant have coexisted in the same place and time. For example, photographs are indexical signs testifying to the instant where the camera was in its subject's presence; here, photographs are both indexical and iconic. Considering photographs' cultural meaning is derived mostly from their indexical meaning as an imprint of the real (Sturken & Cartwright, 2009). Therefore, Peirce's principles of semiotics, specifically, his discussion of images as indexical signs, is the most helpful for understanding visual culture.

Saussure's science of signs or the boundaries of semiology is narrower than Peirce's semiotics. According to Saussure, the model of a sign is verbal, and thus, signs are intentional, conventional, and conscious. Hence, these signs and their processes are restricted to the social human sphere. Moreover, in Saussure's semiotics, language depends on its meanings, conventions, and codes. Consequently, a word's relationship with objects in the world is not fixed, but neither is it random and relative. Essential to Saussure's science is that meanings change, concurrent to language rules and context. A sign contains two components: the signifier and the signified, together composing meaning. A signifier is the entity that exists and the

signified refers to what it means. Thus, in Saussure's method, a word or image may have several meanings, constructs, and signs. Sign construction is contingent on cultural, social and historical context, whereas the construction of a sign is dependent upon the context presenting the image—a museum or a newspaper, for example—and on the viewers interpreting it. In this way, we are living in a world of signs, and our interpretation makes the signifier-signified relation active and fluid in the creation of signs and meaning (Sturken & Cartwright, 2009). Many theorists applied Saussure's science of signs, focusing on language, mainly to interpreting visual representational systems. Peirce's theory has also been applied to visual analysis.

Semiotics may be applied to understand Ibn Arabi's science of letters, particularly his use of the Arabic alphabet as both image and text for communication purposes. Focusing this semiotic approach with a visual analysis model provides a direct and clear method to recognize the relationships between visual representations and their meanings. The next section exemplifies how to use semiotics to read meanings.

Employing Semiotics

Fundamentally, semiotics is simply reading and interpreting nontraditional objects. We perform semiotics constantly and develop our capacity for it over the years. Moments of semiotic performance are called semiotic situations, demonstrating our efforts to understand our surroundings or interpret aspects of them according to the signs of our situation (Silverman & Rader, 2012). In this way, we are always reading and in the process of making sense of our world. Some signs are easy to read and interpret because at some point in our lives, we grasped their ideas and meanings and took these signs for granted. For instance, red means stop, green means go, yellow means caution or slow down. Some signs are complex, not easy to read

because they do not expose themselves easily. And so, our culture has approached a general understanding for a number of signs and symbolized certain concepts. The term symbol has been used as an alternative term for sign and has many meanings in both philosophical and everyday contexts, including semiotic discussion (Petrilli & Ponzio, 2005). Certainly, there are diverse ideations of the sign in which, a sign is an element in a process created either dyadically through signifier and signified (Saussure), or triadically by representamen, object, and interpretant (Peirce).

To simplify the mechanism of interpreting signs in semiotics, we have to explain a few terms. In semiotics, some scholars use the terms denotation and connotation to describe the signifier and its relationship to the signified. A specific sign or word may have denotation that is its literal meaning, while also having a connotation or a series of connotations. Denotation can be described as common sense or obvious in its literalness, while connotation relates to the personal, social or cultural sign interpretation range of an image or word (Nobel & Bestley, 2005). The connotative meaning of a sign or an image contributes to the understanding of the reader as an analytical tool.

When interpreting an image we encounter, to understand what it signifies, intentionally or not, we are using semiotics tools to help us understand its meaning or signification. It is critical to point out that sometimes a signifier can have the same physical signs (signifiers) but have different meanings (signifieds), especially for people from different cultures who might encounter the same signifier but deem it to signify something entirely different than would we. We create meaning of the world by understanding its entities and objects in their particular contexts, which occurs partly through using our drawn, written, gestural, or spoken representations. The process of representing a thing constructs its meaning. We only can see the

meaning of the world by representations, through the use of images and language. In this way, semiotics is a system of language with rules to express and interpret meaning that covers all kinds of representations, whether with little or much effort. Thus, semiotics is a powerful system adopted by artists, graphic and communication designers, filmmakers, and other visual producers to make images with the aim that people read them in specific ways.

Text as a Sign

Certainly, in semiotics we employ a system of reading language and its representations, not only the physical signs. And many semioticians consider everything a sign, even written texts—words are signs and so are the ways we read them (Silverman & Rader, 2012). Letters, words, and sentences are the components of writing, which is not only limited to transcription and display, following orality. In fact, writing is a specific human modeling device; through its means we organize our experience of the world and spatial and temporal surrounding realities (Petrilli & Ponzio, 2005). We are capable off constructing diverse views of the world and unlimited new senses with only a limited set of elements, which are the alphabet letters. In this sense, writing is the practice that models the world, opening it to an infinite splendor of invention, creativity, and otherness. Therefore, writing is fundamentally associated with thinking and reading, forming a trinity of expression forms, intimately tied. Figure 4 illustrates the relationship between writing, thinking, and reading, adopted and modified from Silverman and Rader (2012).

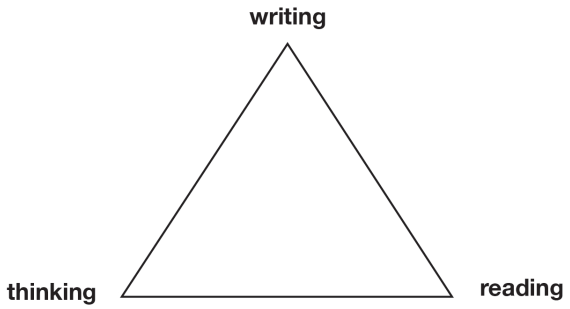

Figure 4. The three form a kind of trinity of articulation and expression.

The act of reading relates to the practice of reading the world, demonstrated in both traditional texts (books, newspapers and magazines), and nontraditional texts (the semiotic situation) (Silverman & Rader, 2012). It is a cycle in which writing, thinking, and reading influence and nourish each other. To be a good writer, one must be a good reader and thinker. Within the field of design, writing must include the mechanism of composing and arranging text—typography, in which thinking revolves around interpreting and understanding. Reading refers to reading everything (since everything is a sign), visuals and text. Therefore, to be a good designer, one must be a good writer, reader and thinker.

In order to be good readers, we must understand rhetoric. The Greek definition of rhetoric is speech/speaking, and Aristotle believed in rhetoric as the art that finds possible means of persuasion in any given condition. At a scholarly level, Burke describes rhetoric as a symbolic means of using language, inducing cooperation in beings who by nature respond to symbols (Golden, Berquist, Coleman, & Sproule, 2003). This emphasis on symbols in Burke's definition highlights the usefulness of the visual language, including signs and signifiers, which most of the communication in our world depends on. This shows how rhetoric is integrated

within the scope of culture and fused with the visual realm. Rhetorical principles and strategies applied mostly to cultural and visual texts can also work in writing. Certainly, the application of rhetoric allows us to understand the world through graffiti, video games, movies, buildings, clothing, almost anything. Any text created to have a meaning or an effect includes some aspect of rhetoric, and thus, rhetoric revolves around civic engagement. No doubt, texts hold a critical position within linguistics and semiotics systems. Understanding how to read a text's meaning will help us to understand how to read visual images' meanings with specific care, since images carry several signs and values, yet we interpret them simply and subconsciously. Due to the fact that images are not like words, having direct relations with the language of analysis, we do not analyze images as strongly, if at all (Silverman & Rader, 2012). Hence, analyzing and interpreting images requires more attention while fully understanding how texts' meanings are interpreted and understood.

Writing as a human modelling device provides a superior manifestation range fostering new expressive modes. Forms of writing include not only texts, words, or letters, but also encompass music, photography, film, and design—including typography. Accordingly, we must reconsider all forms of writing and appreciate them as the medium of a high level of creativity. In this way, visual representations are forms of writing and can be analyzed through semiotics. Hence, semiotics is a helpful lens for interpreting and understanding visual culture.

The Science of Letters and Semiotics

In such and understanding of semiotics, it is possible to say that Ibn Arabi uses the study of signs to carry out his science of letters, in which a letter as a sign has a denotation—its literal meaning as a letter for communication purposes—while also having series of connotations

through its sacredness and metaphysical existence as a living being. Both the connotation and denotation of the Arabic letter relates to its signifier and the signified relationship. The connotative meaning of an Arabic letter supplies to the reader an understanding particularly of the sacred text, the holy Qur'an, for the purpose of contemplation. Undoubtedly, Ibn Arabi's manifestation of the Arabic letters was achieved by adopting semiotics to examine the physical, mental and spiritual existence of the Arabic alphabet. Semiotics, indeed, is a powerful strategy that assisted Ibn Arabi to understand a wide range of visual and textual language systems that exist within the Arabic letters. Certainly, the Arabic letter is both image and text; it is understood as symbol that has multiple translation and interpretations, knowing that within "the threefold value system of the Semitic alphabets, among which Arabic is the most perfect" (Schimmel, 1984, p. 90). As letters have phonetic signs, semantic values, and arithmetic values, the power of these letters in some part comes from its simplicity. Hence, while Ibn Arabi contemplates and reads the Qur'an, he pays attention to details, looking for symbols, metaphors, and hidden themes, reading between the lines, within the lines, and focusing on every single letter. He is not only reading what is there, but also what is not there. Surely, this is the mechanism of reading into things, or simply, semiotics.

Employment of 'Ilm Al-Hurûrf and Semiotics in Visual Analysis

This study uses Ibn Arabi's science of letters, along with semiotics, to visually analyze the Arabic alphabet and to scrutinize the role of calligraphy in typography education in our visual world globally, but with a special focus on Arab and Islamic cultures, specifically evaluating the potential roles of Arabic calligraphy in the education of graphic designers. Graphic design is a practical application infused with artistic craft, carrying implicit or explicit

points of view; hence, it is correctly seen as a communication vehicle. Whereas typography is "a collection of abstract elements that work together to achieve pragmatic purpose" (AbiFarés, 2001, p. 174), the main concern of typography is the arrangement of letterforms in a space; it is concerned with micro-communication. Since this study aims to highlight how to use Arabic calligraphy for enhancing typography education, it emphasizes Ibn Arabi's science of letters as the main theory to examine the Arabic letters, while semiotics will afford an in-depth understanding of Arabic alphabets within our visual world.

The world we live in is filled with images, objects, and screens, all inviting us to look at them (Mirzoeff, 2009). Visual culture, as defined by Mirzoeff (1998), is the interface between all modes of visuality in contemporary culture (p. 210). Any viewing experience can include diverse types of media, meaning, infrastructure, and intertextual meanings (Sturken & Cartwright, 2009). Most importantly, it is the viewers themselves who produce cultural associations, which affects image interpretations by individuals. It is an interactive and dynamic process in which value and meaning are exchanged between people on one side and the articles and technologies on the other. In such a view, visual culture is understood as the shared and combined practices of a specific group of people, in a community or society, by which the visual, textual and aural representations help to construct meanings of the world. Visual culture engages us through communicative and symbolic activities.

Therefore, we better understand our world through visual culture. We use our understandings, our perceptions, and our interpretations to communicate and interact with the world. Consequently, visual culture opens many learning experiences for art and design practice and education, wherein, the applications of semiotics provide an explicit method for understanding and analyzing visual representations and their meanings, specifically, Arabic

letterforms within our visual world. Such an integration will formulate clearer understandings of Arabic calligraphy and typography, and ultimately contribute to improving research, pedagogy, and teaching practice in design education.

In relation to semiotics, Ibn Arabi does not see the Arabic letters as decorative expressions in calligraphy or merely as a means for communication. He visualizes letters as living entities with philosophical, spiritual thoughts, and as abstract signs and symbols. Therefore he views each and every letter is a living being, with its own nature, habits, and social interactions. And a word is not only an image consisting of straight, curved, slanted, or dot marks—letters, but also a combination of forms composing meanings, ideas, and images through the social interaction of their lines. Every letter has its own images and meanings; a word is an image that reflects multiple images and meanings according to its component letters. Accordingly, the science of letters was built on interpretations of sacred text. In a way, Ibn Arabi uses semiotics and rhetorical analysis to gather understandings of these Arabic letters, seeking to uncover their beauty.

Semiotics is a microscope that takes something as small as a single letter and examines it closely to reveal larger realities. Ibn Arabi's application of semiotics is a window that allows us to look outward from a Sufist perspective as a means to explore letters' nature and reality. As semiotics approaches overlap with each other, contributing to our world understandings and interpretations by mapping out networks of signs, they create a platform to understand the whole semiotic universe. Such task is most important in the face of global communication, which has changed our space, distance, time, and feelings. As a result, artists and designers especially must learn to read visual culture semiotically to understand the global communication system and its

messages to develop a better sense of reasoning and critique, and hence, contribute to their practice.

We live today in a global communication era, witnessing a remarkable spread of the productivity and efficiency of ideology (Petrilli & Ponzio, 2005) through visual culture. The act of reading our visual world is an act of opening ideas, reactions, and feelings to understand these ideologies. Learning how to read visual and cultural texts semiotically leads to a better use of rhetoric within our practice of art or design. Moreover, employing semiotics to analysis our visual world will enable us to live lives informed, questioning, and engaged, thereby enabling designers and artists to design or compose critically, consciously, and effectively. Additionally, when examining or reading visual culture, we will find Ibn Arabi's science of letters is active and still circulating visually among calligraphers, artists, designers, literati, thinkers and philosophers. This testifies to the complexity and depth of visual culture and its social interaction through viewers, image, and context. In addition, it confirms Ibn Arabi's science of letters' value and significance within our visual world, even though it is merely text that has been visualized by calligraphers. It is quite symbolic and complex, yet it is favored because of its sentimental and semiotic values. As a sequence, the science of letters not only supported calligraphers' contemplation of their practice, but also helped to identify the nature of type/line, hence establishing the scientific basis of aesthetics. For all these reasons, 'ilm al-hurûf is a springboard, a suitable philosophy to be applied to art and design education, particularly typography. It will help students to gain a higher sensibility for the Arabic alphabet, to look differently at letterforms, not only as shapes and form, and, therefore, to help them understand the process of composing and designing with and for the Arabic letters.

Pursuing such themes through the theoretical framework of this study, we may piece together a better understanding of 'ilm al-hurûf's complicated and symbolic language. The science of letters and semiotics will enable us to read visual culture in relation to it. Such an approach can help art and design students understand the Arabic letters, feel them, interact with them, and identify their visual and textual experssions. Visual analysis of images and texts, along with visual and textual formation in designing or composing, contributes to the process of knowledge formation. Such an outlook can help students not only to recognize meanings of Arabic letters but how their meaning is made, and how they connect, communicate, and interact. And this will help art and design students to get to know the Arabic alphabet from the inside out, so that when it comes to composing and designing, students will know, confidently, how letterforms work.

A concluding example that wraps up the exposition of the theoretical framework of this study is the work of an artist who has interpreted the Sufi science of letters, used semiotics within his work, and inspired a new generation through visual culture, the modern Iraqi artist Shaker Hassan Al Said (1925-2004). As an artist, philosopher, and teacher, he undertook a mystical journey through his modern artwork (Ali, 1997; Daghir, 1990; Shabout, 2007, 2008). His art philosophy was grounded equally in knowledge of Islamic Sufism (including Ibn Arabi's theories) and modern Western theories (deconstruction, existentialist thought, phenomenology, semiotics, and structuralism). Al Said contributed significantly to the development of Iraqi modern art, as he dedicated a substantial portion of his career to experimenting with the Arabic letter and its potentials. Sufism motivated him to paint, while painting was a method for him to contemplate God's glory, discover the truth, and express himself (Daghir, 1990; Shabout, 2007). Accordingly, Al Said's artistic approach is considered a spiritual and contemplative vision.

Notably, he developed into a Sufi sheikh, and Sufism affected his artistic use of Arabic letters or words to make sense of both linguistic and visual worlds.

Al Said's complex theory, the "One-Dimension" (*al-Bua'd al-Wahid*), which embraces technique and style, recapitulates his artistic investigation of the Arabic alphabet (Shabout, 2007, 2008). This theory conveys relationships between space and time, visual and non-visual, similar to the relation of the spirit and the body. Al Said describes his One-Dimension as an integration of the Arabic letter's graphic and spiritual qualities. He seeks inspiration (*istilham al-harf*) from letters or numbers as he employs them to reveal the significance of line—as a mere plastic value (Shabout, 2007). In addition, Al Said perceived using the letter (form and meaning) within his artworks as a way to search for the truth, to freely express his human thoughts for the purpose of obtaining equally spiritual and physical certainties. The Arabic letter, for Al Said, is composed from a single-dimension line, and that dimension has a significant role within itself. It is a positive imposition opposed to the blank, negative canvas, which represents the human ego. He treats the letter as an entity without identity or linguistic meaning, and thus, for him, the Arabic letterform is a contemplative sign (Daghir, 1990; Shabout, 2007). This concept is found in Al Said's works, in which the Arabic letter has many visual possibilities and mystic symbolisms more powerful than the linguistic meaning evident in its deconstruction. Therefore, he reduces the letter to its basic form and separates letters' external meanings. This abstraction transforms letters into symbols that carry Sufi messages. In this view, Shaker Hassan Al Said is in accordance with Ibn Arabi's science of letters, but Al Said contemplated the Arabic letters, not the Qur'anic text, to penetrate visible, purely linguistic meaning to espy hidden significances, moving from sensual image to symbolic reflection.

In the following chapter, I analyze and discuss three selected artworks produced by three Arab artists—modern or contemporary—all of whom embrace the Arabic letter as the main feature of their compositions. My analysis further uncovers how to apply Ibn Arabi's science of letters and semiotics to read the symbolism and significance of using the Arabic letterforms. First, however, I examine the *Aljazeera* media network logo as a case study that demonstrates the application of my theoretical framework to read and understand visual artifacts, especially graphic design products.

Case Study: The Aljazzera Network Media Logo

This self-study research aims to utilize Ibn Arabi's science of letters and the lens of semiotics to facilitate reading and analyzing artworks and design artifacts. In order to demonstrate the application of these selected theories for examining and explaining the symbolism of graphic design products—such as advertisements, books, brochures, cards, logos, posters, packaging, or websites—I chose the Aljazeera logo (Figure. 5) to exemplify the process of reading these visual textual artifacts with my chosen theoretical lenses. Aljazeera is a news and media network based in Doha, Qatar. When it started broadcasting in 1996, it was directed to the Middle East countries as a trustworthy source of news coverage and analysis. Soon after, Aljazeera turned into the largest Arabic news channel in the region (Peterson, 2006), while also becoming a trusted source of telecast news worldwide, hence expanding its network and outlets into many languages. This enterprising network has the most distinguishable and identifiable logo in the Middle East and worldwide, even though it is designed with Arabic letters. Therefore, I chose to interpret the visual and textual symbolism and significance of this influential ensign.

This logo was designed by artist and calligrapher Hamdi Al-Sharif (Hanafy, 2009; Humod, 2008), who worked for Qatar TV and the Aljazeera network, frequently designing logos and headlines for many programs. Al-Sharif used Arabic calligraphy to create the Aljazeera logo, which spells the Arabic word "Aljazeera" meaning 'the island' or 'the peninsula,' pointing to both the Arabian peninsula, and to the network's headquarters in Qatar (a smaller peninsular within the bigger Arabian one). Accordingly, the network represents Qatar as a significant part of the Arabian peninsula (Miles, 2005). The calligraphic, golden-colored logo takes the appearance of a drop of water (FAQ, 2015; Miles, 2005), referring to the networks' trademark image of a globe dropping into the ocean and rising upward, symbolizing the transparent, pioneering, and expeditious methods of Aljazeera's reporting on the world's major events. This iconic logo is recognized worldwide, even by non-Arabic speakers, but reading this *calligram* (calligraphic words forming a visual image where letters create the shape of an object, animal or plant) is not easy, yet its letters are legible (identifiable and distinguishable) for people who can read Arabic. Such calligraphic logos are not new to artistic expression in Arab and Islamic culture, but the Aljazeera logo has become a unique glyph within the domain of contemporary visual culture. To understand such symbolism, it is necessary to understand this logo by the means of 'ilm al-hurûf, then further explain its semiotics, and finally, reflect on its perception and visual analysis within the realm of our world.

Figure 5. The Aljazeera Logo.

Understanding the Aljazeera Logo

The Aljazeera teardrop-shaped logo utilizes the Arabic letters in their calligraphic form, emphasizing the letterforms' organic, fluid, and vivid nature. The calligrapher and designer of this logo grasped the lively world of the Arabic alphabet to formulate the letters into a decisive calligram reflecting the essence of the media network. At the same time, he also echoes the social, energetic, and metaphysical world of the Arabic letters as described in Ibn Arabi's 'ilm al-hurûf. Hence, this logo is in accordance with Ibn Arabi's formulations, as the Arabic letters are utilized not only as vehicles for communications, but also as entities of spirit, moving from the sensual to the intellectual. Each letter has an individual identity and metaphysical significance. The calligraphy reinforces these qualities, as the letters connect, interact, and breed to unite in a rhythmic, visual synthesis of appearance and content (Ibn Arabi, 2008a; Obaid, 2006). Thus, the graphic facade of the letters exposes their inner authenticity, while also mirroring Aljazeera's dynamic and proactive operations to report and analyze world events. Even if they are hidden or unnoticed, the network will strive to reveal both sides of the occurrences. In this view, the

calligram logo represents deeply and thoroughly both the nature of the Arabic alphabet and the media network's mission.

Analyzing the semiotics of the Aljazeera logo affirms that it is not only an intricate calligram composed by letters, but that it also appears as an abstracted glyph that symbolizes the network's national and cultural grounding as a Qatari, Arabic, and Islamic media leader determined to cast events in an unbiased, honest manner rapidly, suitable for today's fast-moving and global world. Although the calligraphic technique that employs Arabic letters for identity and branding is used frequently in the Arab and Islamic regions, the Aljazeera logo has a distinguished position in the visual communication design marketplace worldwide. This logo appears to signify equally the originality of the news network as a leading source in the region and the force of Arabic calligraphy innovation in employing valuable graphic qualities of the alphabet to mirror institutions' national and cultural identities. In this sense, Aljazeera's calligraphic logo, composed with an Arabic word (its literal name in the Arabic language), is reflecting the network's visual and social reputation as a news media pioneer for both the Arab region and the whole world.

Perceptions of the Aljazeera Logo

No doubt, the Aljazeera logo has an iconic reception within the domain of visual culture. It has a visual presence and impact even for people who do not read or speak the language. Certainly, the Arabic calligraphy in this logo has played a vital role in creating this impact on particular audiences, mainly thoses who understand the Arabic language. Specifically, the calligraphic logo recalls nearly the exact visual qualities of the Arabic calligraphy style *diwani,* which was developed during the Ottoman Empire in the early sixteenth century as the script of

the royal authority, used to write official documents and signatures (J. Mi'raj, personal communication, October 17, 2014). The diwani style is cursive, wherein letters beautifully, fluidly merge to create intricate texts and shapes or compose decorative forms. It is mostly used for shorter text, with some diacritical marks, and hence, this calligraphic style can form complex interlaced scripts. As a result, diwani is perceived as both a communicative and decorative calligraphic style. Accordingly, while walking in Istanbul, Turkey, looking at any artwork, artifact, or architectural space, one can see plenty of diwani calligraphic examples, both decorative (visual) and communicative (textual), all witnessing the great achievements and progress of the Ottoman Empire. As such, the Aljazeera calligraphic logo mirrors the complex diwani style to reflect its network's identity and status as a pioneer news media empire that pursues the highest level of professionalism and accuracy. The calligraphic logo is recognized as a brand nationally and internationally, since the Aljazeera logo appears also within Western network coverage that replays much of Aljazeera's exclusive footage. Furthermore, the symbolism of the Aljazeera logo also addresses its headquarters' geographical location, Qatar, marking this small state in the Gulf Cooperation Council as an emergent, progressive country aiming to reach its golden age. Indeed, the Aljazeera network media has contributed to Qatar's integration and advancement within the international system (Peterson, 2006). In this way, the calligraphic logo contributes visually and culturally to the nation's attainment of global status.

In conclusion, the Aljazeera logo provides an encounter with visual and textual representations of multiplicitous meaning. For the Arab countries, the Aljazeera logo is readable, while it signifies the golden age of Islamic civilization, and for the majority of Arabs, it reflects hope for a better, liberal, civilized future, a vision associated with the network at large. At the same time, for the rest of the world—people not familiar with the Arabic language—the

Aljazeera logo is recognizable as a visual symbol representing the voice of others, an insider view from the Arab nations, an original, respectable, and irreplaceable source of information. In this way, the calligraphic logo fully represents Aljazeera's vision of itself, presenting all sides of the story together in one place, while sustaining credibility and trust as a leading global media network.

Conclusion

This chapter justified and explained my rationales for employing a theoretical framework suitable for conducting my self-study research, which encompasses Ibn Arabi's 'ilm al-hurûf /science of letters and semiotics. 'Ilm al-hurûf has a complex and symbolic content, yet it is a catalyst within art and design education, which can help students gain greater awareness of the Arabic alphabet. Semiotics aids the examination of our visual world and the comprehension of our experience of looking, which can scrutinize the different roles of Arabic letters, nationally and globally within art and design works. Thus, applying such a method—reading our visual world—in the teaching of art and design, particularly typography, can enhance educational outcomes. Given the fact that the ability to read visual and cultural texts semiotically contributes to a better use of rhetoric within the practice of art and design, while enlightening our souls and minds through deeper interactions with our visual world, pursuing such themes through the theoretical framework of this study can aid art and design students to understand, feel, interact, and identify with the Arabic alphabet, along with its visual and textual represntations, ultimately, to compose and design effectively with the Arabic letters.

In the following pages, I forge a practical application of my selected theoretical framework—the science of letters and semiotics—to illustrate and understand their uses for

reading, examining, and understanding artworks, particularly the use of Arabic letters, discussing symbolism and representation. I contrast three selected works of art, two modern and one contemporary, to examine the works' utilizations of the Arabic alphabet and its symbolism. The aim of such exploration and analysis is to demonstrate how artists use the Arabic alphabet to express their national or cultural identities or other feelings and worldviews.

CHAPTER 4

ARABIC ALPHABET ANALYSIS

The previous chapter has discussed and explained the theoretical framework of this study, Ibn Arabi's 'ilm al-hurûf (science of letters), along with semiotics as a lens that can enable the reading of visual culture in relation to it. Such a theoretical framework can simplify the complicated symbolism of 'ilm al-hurûf to read our visual world and illuminate calligraphy's role in typography education and practice, thereby helping art and design students to understand, feel, and interact with the Arabic letterforms while recognizing their visual and textual rhetoric. Accordingly, students will be able to identify the Arabic alphabet from the inside out, thus recognizing how letterforms work in order to compose and design effectively with them.

This chapter pieces together a fuller, practical understanding of the uses of the science of letters alongside semiotics and visual analysis to read artworks, examine their uses of Arabic letters, and discuss symbolism and representation. Such an approach acknowledges that visual culture is assembled from the social field of visual construction (Mitchell, 2005) in which works of art, design, architecture, media, and communication are seen as carriers of communicative exchange. Consequently, visual culture provides abundant opportunities to analyze and reconstruct conventional understandings of the world. In such a view, visual culture displays diverse utilizations of the Arabic alphabet in the works of artists, specifically within modern and contemporary Arab art in the twentieth and twenty-first centuries. Here I have chosen to analyze works of art, not works of design, for two reasons. The first is related to Arabic calligraphy as a form of art that has been powerfully and creatively integrated into work by Arab artists, who deeply recognize the powerful graphic expression and symbolic representation possible with the Arabic alphabet. Second, typically within a graphic design learning setting, students discuss and

examine design products with pragmatic ends. Therefore, by demonstrating a method of reading and understanding calligraphy in complex works of art, I empower graphic design educators and students to recognize the larger context in which the Arabic alphabet is used and transformed.

Selected works of modern Arab artists Madiha Umar and Dia Azzawi are juxtaposed and contrasted with contemporary Arab artist Monuir Fatmi to explore how the Arabic letterforms function within their artworks. It is important to note that it may be difficult to differentiate between modern and contemporary artists and even among these three. However, analyzing the three artworks selected may help to distinguish the artistic style and concept behind each piece, while offering a glimpse of the characteristics of its period—modern or contemporary.

Analysis of the selected artworks employs the lens of semiotics along with Ibn Arabi's interpretations in his science of letters in order to enable the thorough, expanded examination of the use of Arabic letterforms within our visual world, thus deepening the fields of art and design. The ensuing dissection explicates how these selected artists perceive the Arabic alphabet characters and use letters' graphic, experimental, expressive, and symbolic qualities to vigorously reflect their cultural, epistemological, metaphorical, political, and radical ideas, identities, or passions. Thus, analysis that integrates Ibn Arabi's 'ilm al-hurûf and semiotics can affirm the alteration of the Arabic letters visually in order to signify cultural or national identities (Arabic) or as a means of internationalism and cultural intersection. Moreover, inspecting the Arabic alphabet's status as an identity marker—an indication of how we view our selves, values, and roles in life, mainly influenced by racial, gender, religon, cultural, or social contexts as presented in the visual culture domain—constitutes a resource for art and design students, demonstrating visually how a linguistic character has a great effect on the viewer while expressing messages or opening dialogues with self or others. Therefore, students will know not

only how to read the visual world, but also how to construct with the alphabet for optimum communication effect.

The Selected Artworks

The main two criteria I used to choose the specific artworks are the display of Arabic letters as a critical part of the works' constitutions and the works' representation of two periods of Arab art—modern (1950-early 1980s) and contemporary (late 1980s–present). I attempt to identify and describe the Arabic letter usage within these two most recent periods because there are limited resources discussing such topic. The art history of the Arab world has not been represented within the Western canon of art history, which defines its own periods, artistic styles and features, but fails to include Arab art (Shabout, 2010a). Islamic and Arab art has its own timeline of periods, styles, and features, which is independent from the Western canon, yet it may intersect with it occasionally. Therefore, I present estimated dates of these stylistic periods to help set rough boundaries for discussion, while attempting to define these two time periods and their characteristics.

Generally, Western scholars use *modernity* as a phrase referring to the eighteenth century Enlightenment period, along with its related cultural, economic, historical, and political conditions, pointing especially to the concepts of technology, rationalism, and controlling nature by means of science (Sturken & Cartwright, 2009). Moreover, modernity has always been seen as connected with the West, especially Europe, and thus, commonly, the term modern is used synonymously with the West (Mitchell, 2000). In a sense, Europe is the origin of modernity (Mitchell, 2000; Mufti, 2005), and from there it has been transmitted to the rest of the world, the non-West. Therefore, modernity is often associated with *Eurocentrism*—the concept that the

intellectual life in Europe formulates a cultural and social force as the extraordinary global power in the world (Mufti, 2005). Accordingly, to be modern is to follow or imitate Europe, the West.

Modern Arab artists had encountered the West in numerous ways, mainly through colonialism (European political and cultural control over the Arab countries), education in Western universities (in Europe or in the Arab countries), and sociocultural changes in the Arab region. Such encounters with the West has been characterized by ambivilance (Shabout, 2007). Consequently, Europe or the West became a symbol of power and advancement, and therefore, it also turned into a model for acquiring modernity. Suitably, modernity according to Arab artists can be described as a historical development, not a precise era, indicating artists' revived creativity and potency in utilizing their cultural, national, or Islamic heritage (Shabout, al-Khudairi, & Chalabi, 2010), as they were in the process of creating their own Arab, cultural, and national identity—after gaining liberation from the Western control over their countries. In this context, Arab artists formed their modern aesthetics by combining elements of their inherited tradition (letters, symbols, motifs, or patterns) with imported Western art techniques and theories, and hence, they created original, individual Arab styles that convey visual expressions of their time. Suitably, Arabism contributed to developing Arab modern art (Shabout, 2010a). The term Arabism is used to describe the early stages of Arab nationalism (Khalidi, 1991) as it originated from cultural interfaces. Nationalism became an ideology in the Arab region after the Ottoman Empire termination (Wilson, 1991), and thus, it functioned as a political force. The central idea of Arab nationalism is that Arabs are individuals connected through bonds formulated by sharing the same language (Arabic) and history, and hence, their politics and governments should mirror such reality (Khalidi, 1991). The emergence of Arab nationalism went side by side with the Arab awakening, wherein the Arabs entered the Western world of

modern secularism and science (Ernest Dawn, 1991). Thus, Arabism flourished culturally, affecting even artists and their production. Accordingly, Arab artists embraced Arabism as they were negotiating concepts of Western modernity. Thus, their work displayed unique personal journeys. Modernity, after all, was achieved as an effect of colonialism with an unequal impact on the colonizer and the colonized (Radhakrishnan, 2003, p. 9). Therefore, artists partook in creating Arab modernist aesthetics, while jointly they formed many diverse recognitions of their modernity.

Contemporary Arab art, on the other hand, is somewhat difficult to define, as it can also be described as postmodern or global Arab art. Its perception is disfigured by global political conditions, mass media influence, dominant Western curatorial practices, and contemporary art commodification. Oftentimes, contemporary Arab artists are perceived and categorized through stereotypes, according to particular political and cultural biases by uninformed audiences, employing calligraphy, veiled women, and other references to Islam (Fellrath, 2010). However, this is not a valid perception, given the fact that artists, like any human beings, can concurrently belong to numerous categories without contradiction. One's particular identity is created by all to which one belongs simultaneously (Sen, 2007). For example, an Arab artist can be concurrently a man and/or woman; a Muslim, Christian, and/or agnostic; an activist and/or traditionalist; a writer, poet, and/or visual performer; a citizen, native, and/or permanent resident of America; and so forth. Every artist produces artwork within particular contexts, experiences, and cultural intersections. Hence, contemporary Arab art has no single or distinctive characteristic. Each Arab contemporary artwork functions in relation to distinctive frameworks of space and time, and not by any categorization or labeling. In this view, Arab contemporary artists are carrying the same mission of their modern predecessors, while developing their artistic

styles and personalities, yet driven by their identities as global citizens, elevating their art and practice, at the same time valuing their beloved heritage and international, constructed identities. In this way, they contribute a glimpse of the Arab contemporary era and its characteristics.

Interestingly, the term *modern* is frequently used to signify the present time or views, while the present as *contemporary* is understood as an outcome of transiting from old to new, built on past periods with classical, timeless principles (Habermas, 1989). In this sense, both Arab art periods (modern and contemporary) embody such meanings of the terms modern and contemporary, making it hard to classify these two eras. Particularly, Arab contemporary art is not easy to define, but it is very much connected to modern Arab art. Arab artists of the modern era advocated the theorization of modernism while articulating its forms and aesthetics. At the same time, they evolved beyond its original formation, engaging in the contemporary condition (Shabout, 2010b). Therefore, experiments of modern Arab artists have remained inspiring to the generations of artists (including the current one) who followed them, continuing to be influential today. Accordingly, contemporary Arab artists carry the same enthusiasm and aspiration of modern artists, yet some of them resist labeling as 'Arab' or any other stereotype, especially the globalized artists of the diaspora. As Arab voluntarily or involuntary leave their Arab homelands due to political, social or economic factors and settle in Western or non-Arab countries, a phenomena still existing till this day), they identify as global human beings. Those artists seek to produce artworks that are self-explanatory—without being categorized themselves—according to identity, nationality, or ethnicity, as contemporary artist Buthayna Ali expresses her situation:

> I am not myself, not Buthayna Ali, not a body, not a woman, not a Muslim, not a Syrian, not an Arab… many prisons forces themselves upon me… My work is I. It's my existence, identity, memory, contradictions, screams, my words and my questions. (Fellrath, 2010, p. 69)

This validates the argument that as we live today in a globalized world, it appears nearly impossible to group artists by their geographical locations. With the availability of global communication and affordability of travel, artists are not limited in their sources of inspiration or the expression of their experiences and emotions. In this sense, due to the nature of the world we live in today, it may be not possible to precisely define contemporary Arab artists and their work. However, we still can use the phrase *contemporary Arab artists* because their artworks become navigation sites reflecting the special relationships among local and global, traditional and contemporary, while, at the same time, addressing personal, social, and political transformations, particularly if the artists themselves do not mind affixing the phrase 'Arab' to their resumes, due to their usage of any cultural, national, global roots that belong to the Arab nations (twenty-two Arab countries that are speak Arabic and are part of the Arab culture), language, or heritage. As such, the nature of being an Arab artist in the contemporary era seems to encompass the display of the global and local without contradiction through understanding the artistic reflection of oneself in an international framework.

Indeed, modern and contemporary Arab (or not) artists are closely related groups, each dealing with their cultural, national, or global circumstances using diverse mediums, techniques, and technology suitable for and reflective of their own times. In fact, some Arab artists' careers have extended across the years from modern to contemporary art (including Dia Azzawi, one of whose works will be discussed below). Those pioneer artists have contributed to the art scene and education, forming and promoting new ideas, most of which are still influential to this day. Notably, Arabism contributed to the maturation of those artists and modern Arab art, as artworks reflected the seeking out of a cultural identity as well as the aspiration to sustain cultural uniqueness, while reflecting their modern age ("Mathaf," 2011). This is also continued by

younger generations, who likewise desire to reflect cultural distinctiveness and preserve some of their diverse cultural roots and experiences. In this sense, both modern and contemporary Arab art constructed an exclusive body of works that utilizes the Arabic letterforms as a critical element.

Therefore, this chapter endeavors to examine the purpose and significance of the ways selected artists from modern and contemporary eras employ the Arabic alphabet. In particular, it explores the use of Arabic letters in modern and contemporary art by describing the letterforms within these artworks according to Ibn Arabi's 'ilm al-hurûf, extending my analysis further with the lens of semiotics and visual mensuration. This approach supports an analysis of selected artworks by two Modern Arab artists, *Hanging Gardens* by Madiha Umar and *Red Sky with Birds* by Dia Azzawi, that compares them with one selected artwork by contemporary Arab artist, *Modern Times: A History of the Machine* by Munir Fatmi. Before proceeding to analyze these three artworks, it is necessary to examine the method of analyzing these works to inspect their utilizations of the Arabic letterforms.

Process of Analyzing

I analyzed the three artworks to deconstruct and understand their content and their uses of the Arabic letter. Such an approach can interprate how works arouse feelings, thoughts, and understandings, creating a vision of the examined artwork by superimposing one's description and analysis. This method of studying contemporary artifacts forms conversations that are ongoing, vigorous, beneficial, compelling, and complex. It therefore eases access to works of art (discussing, reading, and talking), especially for students, helping them to more easily and knowledgeably describe and reflect on what they see, feel, and understand. In particular, since

this research aims to empower graphic design education through understanding the nature and symbolism of the Arabic alphabet and its written system, the three selected artworks are analyzed by translating art experiences into language that not only enlightens and stimulates readers (graphic designers), but also supports their creation of their own readings, interpretations, and meanings. Today, in our visual-dominant world, artworks are complex phenomena, and hence, graphic designers need to develop their abilities to think, write, and talk about art to ensure effective design for communication purposes. Specifically, this chapter demonstrates how graphic design students and educators can criticize the three selected artworks to gain an enhanced, holistic understanding of the Arabic alphabet's role in our visual world.

This analyzing artwork method is based on three main components: describing, examining, and understanding, all of which are interconnected processes. In the first part, art description, we must collect precise information about the artwork to ensure formulating meaningful examinations and understandings. Describing art includes gathering internal (artwork subject, medium, and form) and external (artist and context) descriptive information. The second component, art examination, is a complex art critique in which we compose persuasive arguments articulating conceptions of the artwork. In this phase, art examination is guided by feelings and built on theory, and thus, emotions and thoughts are completely inseparable at this stage. The third part, understanding art, is a critical activity that further inspects and deconstruct works of art, attempting to pinpoint the value of the examined work. Similar to art examination, art understanding is also driven by feelings, even while it is based on a wider worldview. In my analysis, I follow these three components as I describe the selected artworks, then examine their artistic methods, then, lastly, attempt to study the artworks briefly while further expanding my elucidations.

My method of art analysis—similar to art critiquing—is a process that initiates ongoing dialogue about modern and contemporary art, inspecting and analyzing the use of the Arabic letterforms while trying to add something valuable to the existing artistic conversation, starting with modern artworks and proceeding to contemporary ones, precisely characterizing the artworks' internal and external descriptive information. Subsequently, it is possible to examine these works' meanings by building arguments led by feelings provoked by viewing, then grounding discussion in the science of letters formulated by Ibn Arabi. As a result, one can describe artworks' worth in relation to viewers, referring to feelings and basing such study on semiotics, along with visual culture analysis as a wider theory to understand art. Finally, it is possible to juxtapose all three pieces examined in this study, endeavoring to illuminate their modern or contemporary applications of Arabic letters, while comparing their applications. I undertake such an analysis below.

Modern Arab Artist, Madiha Umar: Hanging Gardens

The application of abstracted Arabic letters started in modern Arab art with Madiha Umar, who investigated the relevance of Arabic calligraphy with abstract art of the West. Hanging Gardens, 1962, a semi-abstracted oil painting on canvas (116 x 81 cm), exemplifies Umar's method, which generates a new modern language exclusively as her signature as an artist (Figure 6). She centers an abstracted Arabic single letterform as the main element in her composition, juxtaposing it with a nearly realistic surroundings of walls, water, and palm trees, the background held back from realism by the simplified, repeated shape of the letter situated centrally amid a Levant courtyard. In this scenery, one almost can hear the water flowing and the wind blowing the palm tree branches. While the Arabic letter stands surrounded by the

beauty of the place and nature, merging itself with the environment yet still maintaining its pride, its identity is, nevertheless, not quite recognized. Is it the letter *ayn* or *ṭā*? The artist drastically reduces letters to their basic forms, while playing with their elasticity and abstraction.

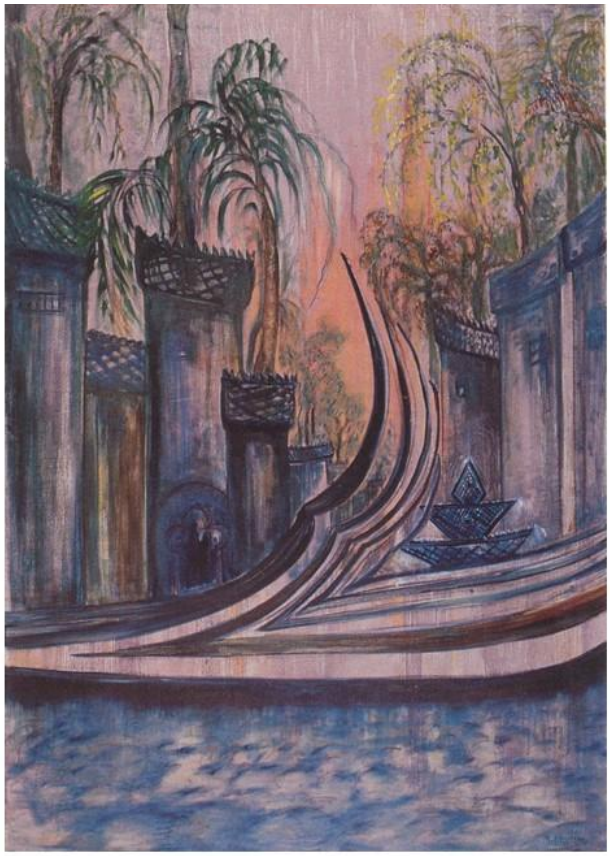

Figure 6. Hanging Gardens, Madiha Umar, 1962. Oil on Canvas, 116 x 81 cm. Jordan National Gallery of Fine Arts, Amman.

Iraqi artist Madiha Umar (1908-2005), graduated from the Teachers' Training School in Beirut, attended later the Sultaniyya School in Istanbul, and studied painting and handiwork at the Maria Grey Training College in London (Ali, 1997). Upon her return to Baghdad, she joined the Teachers' Training School for Women and was assigned to be the head of the Department of Arts and Painting. Later, in 1942, Umar moved to Washington, D. C., accompanying her husband to his new diplomatic job. While there she went to George Washington University and

took a course in art criticism. She then enrolled at the Corcoran School of Art to study painting and sculpture. There she encountered a calligraphy book by Nabia Abbott that shows the Arabic characters' development, and thus, Umar considered the abstracted forms of letters and started exploring them. She carried out research investigating the relationship between Western art and Arabic calligraphy. Umar shared her first calligraphic paintings with Richard Ettinghausen, Islamic art historian, who encouraged her to continue exploring along the same lines, using Arabic letters in modern art because no one had yet done so (Ali, 1997; Oweis, 2008). She followed Ettinghausen's advice and went on experimenting with Arabic letter characters as the main feature of her painting. In 1949, at the Georgetown Public Library in Washington, Umar displayed twenty-two of her works of art, marking this exhibition as the first modern Arab calligraphic art displayed in a Western city. In addition, she wrote a statement entitled *Arabic Calligraphy: An Element of Inspiration in Abstract Art*, in which Umar described her approach to analyzing the Arabic letterforms and their relationship to Western abstract art. Her explanation and analysis of the Arabic letter documented its historical evolution to its present form (Shabout, 2007).

The Hanging Gardens, part of the collection of the Jordan National Gallery of Fine Art in Amman, follows the same experimental techniques Umar used in her exhibition in Washington D. C., transforming the shape of a single Arabic letter into a simpler, vibrant, and expressive figure. Accordingly, as her style flickers between abstraction and realism, the single letter *ayn* or *ṭā* opens its shape, slightly curling and smoothing its strokes, composing the letter's free form with no direct connections to the letter itself or any word. Umar's treatment of the letter shape is unlike a traditional calligraphy approach, which highlights the words and their corresponding content; rather, she reshapes and employs the letterform as a major graphical element of her

composition, in which the letter is an interwoven element in the artwork, contributing to bringing together all compositional elements in a peaceful harmony.

Analyzing the Letter Ayn

The philosophy of Madiah Umar highlights the qualities inherited from Arabic script, abstracting the shape of the letters organically and animating them as lively elements. Her experimentations argued that the Arabic script has both abstract meaning and symbolic expression in its essence, and hence should not be viewed only as composed of geometrical forms (Daghir, 1990). This approach aligns with the essence of Ibn Arabi's science of letters—Arabic letters are both a vehicle for language and an entity with spirit that moves from the sensual to the intellectual, while each letter has a distinct identity and metaphysical significance in which the appearance of letters is a sign of their metaphysical meaning. Therefore, Arabic letters have special properties because of their beings as shapes.

Umar understood the graphic qualities of Arabic letters and their dynamic properties. She thus managed to utilize them abstractly, emphasizing their symbolic meaning along with specific ideas. Her artworks seek to celebrate the Arabic letterforms away from a geometric, fixed structure, (Mikdadi, Adnan, & Nader, 1994), not merely filling the canvas but interacting with other elements of her compositions. Umar explained her relationship with the Arabic letters:

> I take each letter, not the word, not the verse by itself. I believe that the letter has personality—has something to contribute to art—on what does that depend? It depends on the artist, on his imagination and how he treats it and what he thinks—it is inspiration … the letter by itself, I believe that each letter contributes to the design and meaning—what interests me is the design of the letter itself. Take for instance the letter *ayn* … what is *ayn*? It is a design, it has strong personality; I am interested in its symbolic design. (Al-Sadoun, 1999, p. 131)

Likewise, Ibn Arabi distinguishes the letter *ayn* as a representative of gracefulness (Laibi, 2006), its meaning derived from what it is written for, and when *ayn* is neglected it donate revelation (Daghir, 2006). In this sense, both Umar and Ibn Arabi affirm their strong belief in the significance of the Arabic alphabet beyond set geometrical shapes.

Despite the fact that 'ilm al-hurûf/science of letters was built on the manifestation of sacred text, the Qur'an, to reveal the nature of the Arabic alphabet, Umar's secular employment of the abstracted letters follows the same perceptions as Ibn Arabi's theory. The letter's image is the physical existence representing its reality and appearance in relation to its internal being. This image is a sensual mirror allowing us to access the internality of things (Obaid, 2006), an unseen mirror enclosing a mirror-set of images, each reflecting a distinct reality of the realitiess, wherein a letter's written image identified by the mind signifies the letter's absolute appearance, to the extent that the appearance becomes the absolute. Similarly, Umar uses individual letters in her artworks—particularly, the letter *ayn* is central to her artwork—painting them in a free and abstract form as a means not only to reflect their appearance, but also their absolute. Hence, the Arabic letters are not decorative elements in her paintings, but rather, she treats them as living entities that interplay centrally with other components in the composition. In the Hanging Gardens she stretches out the letter *ayn*, surrounded with water, greenery, sky, and some sort of architectural walls, and thus, the letter appears as a natural entity merging all these elements together amicably. The letter *ayn*, according to Umar, has no less value than other natural or architectural elements in her work, while its symbolic design is prominent, with a powerful artistic imposition.

The Letter Ayn in Umar's Brush

Umar was the first Arab artist to entirely devote her work to incorporating the Arabic letter in an abstract style (Daghir, 1990; Oweis, 2008; Shabout, 2007), as her exhibition in 1949 at Georgetown Public Library documented. She uses the letters as a main part in her work, utilizing the Arabic letterforms as images that have multiple translations and interpretations. Umar's aim was to create a combination of Western art and her own artistic style inspired by her heritage. Therefore, throughout her career, she produced artwork contributing to the scope of visual culture and enhancing Arab modern art, while influencing many generations of Arab artists to use Arabic letters in their works. Moreover, Umar was among the group of Arab artists who formed a new movement in Arab art in Iraq, *Hurufiyya*, using the Arabic letters or words as graphic elements within artworks (Oweis, 2008). The term Hurufiyya, after the Arabic word *harf*, meaning letter, was coined for this trend ("Word into Art," 2006). In this school of art, the letter sometimes takes abstract form and does not conform to the rules of traditional Arabic calligraphy. Numerous artworks produced by the Hurufiyya group are presented within the domain of visual culture, stand for artists' original use of the Arabic letters whilst inspiring many young artists.

As a modern Arab artist, Umar strives to create her own artistic language that is modern, yet with an emphasis on her cultural roots—generally by abstracting the letters of her native language. She believes that each letter has its own plastic shape while containing an individual meaning:

> Each letter as an abstract image fulfills a specific meaning, and through their differences in expression these letters become a source of inspiration: the letter *ya*, "Y," has a vigorous personality that expresses many meanings; the letter *ayn*, which has no equivalent in English, is a powerful, vital letter that has two different meanings in Arabic—it is a spring of water as well as the eye through which people see; the letter *lam*, "L," suggests delicate and musical movements. (Daghir, 1990, p. 141)

From this point of view, Umar's abstract works take Arabic letters as their basis, aiming to transform their simple forms into expressive images of thought. She understands the letters, perceiving them as both text and image, composing works that have powerful semiotic language. In this way her work is very similar to Ibn Arabi's manifestation of the Arabic alphabet, which uses semiotics along with rhetorical analysis to identify the letters, striving to uncover their beauty, nature, and reality. Accordingly, Umar's approach visualizes the letters as living entities, and as abstract signs. To her, a letter is not only an image that consists of straight or curved lines, but rather a combination of forms that generates meanings and feelings.

Her Hanging Gardens is a fine example of Umar's style. The letter *ayn* is spiritedly centralized, interplaying with the rest of the elements, yet it appears fuller of life than anything else painted in the artwork due to its reduced shape. Such abstraction enhances the letters' symbolism within this work, thus contributing sentimental visual value, enhancing visual culture, and, therefore, contributing to our global understandings and interpretations of the Arabic letterforms.

Today, more than ever, we live in a world full of images, objects, and screens, all urging us to look at them (Mirzoeff, 2009). Nonetheless, it is us, the viewers, who produce cultural associations that influence our interpretations of these visuals. In view of that, Umar's Hanging Gardens pleases our eyes with not only her abstracted letters, but also with other references to her culture and heritage, as she surrounds the letter *ayn* with semi-realistic painted walls referring to architectural and arabesque decoration that are most likely part of Iraqi, Syrian, or Turkish cultural heritages, since she lived in these countries, while being attached to her cultural roots. Thus Umar seeks to reproduce these elements along with Arabic letters as a means to

display her pride of heritage and culture. It is a way to show the whole world her uniqueness, as a modern Arab artist juxtaposing two main characters that represent her cultural and national identity.

As I sought to understand Madiah Umar's artistic approach of using abstracted Arabic letterforms as a main component in her modern paintings, it became clear to me that she was in accordance with Ibn Arabi's science of letters. However, to her, letters are not sacred entities, but rather, they represent lively bodies with meanings and symbolic language. Although I could not locate any literature affirming the science of letters' influence on Umar, her artwork and written statements verify that she can be grouped with calligraphers, artists, literati, thinkers, and philosophers who were inspired by Ibn Arabi's theory. Umar's Hanging Gardens explicitly illustrates the artist's effort to refer to her national and cultural identities, yet with a modern abstracted visual language.

Modern Arab Artist, Dia Azzawi: Red Sky with Birds

In the cheerful, colorful, bold narration, Red Sky with Birds, 1981, Dia Azzawi mixes Arabic letters with abstract figures and symbols to please our eyes with a vivid scenario. His artwork has dramatically integrated Arabic letters since the late 1960s (Ali, 1997), establishing his own method of playing with the Arabic letters' form and flexibility. Dia Azzawi's artwork falls under the category "text plaque," which uses the graphical shapes of the Arabic letters formatively or abstractly (Daghir, 1990). Red Sky with Birds is a fine example of Azzawi's expressionistic work. This oil paint on canvas, 120 x 200.2 cm (Figure 7), astonishes us with its composition, color, and graphical elements—including lines, figures and letters. The artist arranges a few hand-drawn letters within the central axis. Clearly visible is the Arabic letter *bā*,

"B," in the middle of the painting, and some other parts of letters, or nugat, "dots." Interwoven with these letters or segments of letters are three birds painted as if they are folk symbols in abstracted forms, presented harmoniously with strong colors and various shapes. Consequently, Red Sky with Birds, illustrates how productive Azzawi is as a painter, how skilled he is as a colorist, and how talented he is as a graphic designer.

The versatile Iraqi artist Dia Azzawi was born in 1939 in Baghdad. He studied archaeology at Baghdad University and later attended evening art lessons at the Institute of Fine Arts in Baghdad. Later, in 1976, the Iraqi Cultural Center in London appointed Azzawi as an art consultant (Ali, 1997). At the center he was able to introduce Arab and Iraqi art to the British community by arranging exhibitions (Pocock, 2009). However, he was forced by political instability and events in Iraq to leave his country, and in response he transformed himself into a material and spiritual teacher and Iraqi art leader, promoting Iraqi art and artists (Eigner, Caussé, & Masters, 2010; Shabout, 2010b). As an artist, his vision was stirred towards heritage because of his study in archaeology (Shabout, 2010a). Moreover, due to Azzawi's passionate relationship with Iraqi cultures and histories, his artworks draw from various sources and inspirations such as folk motifs, arabesque patterns, and Assyrian and Babylonian figures. Thus, his artworks become points of intersection among Arabic literature, contemporary conditions of Arabs (particularly those living in the diaspora), and Iraqi and Arabic-Islamic heritages.

Figure 7. Red Sky with Birds, Dia Azzawi, 1981. Oil on canvas, 120 x 200.2 cm. Mathaf Arab Museum of Modern Art, Doha.

Currently, his masterpiece, Red Sky with Birds is displayed and presented for the public as part of the permanent collection of Mathaf: Arab Museum of Modern Art, at Doha, Qatar. Mathaf offers a space to celebrate both modern and contemporary art from Qatar, the Arab nations, and the world. Thus, the museum encourages open dialogues about art, particularly modern and contemporary Arab artworks. Accordingly, visitors to the Mathaf building, website, or publications can see, view, read, and learn about Dia Azzawi's Red Sky with Birds and many other works of art displayed.

Analyzing the Text Plaque

Similar to Azzawi's signature paintings—particularly those produced early in his career (1960-1980s)—Red Sky with Birds presents the artist's own bold and recognizable style, mixing colors, shapes, and letters. Here, we can identify and see clearly the Arabic letter *bā*, almost centered in this composition, in addition to some other letters, parts of letters, and diacritical dots, most of which are not easy to identify. All of these characters are positioned horizontally on a central axis as if Azzawi is trying to compose a visual poem with these letters and segments, along with other graphical and figurative elements within the painting. He is especially known for using Arabic letters, words, and even poems expressively to engage the viewer. Poetry overpowers and influences Azzawi's paintings by creating

> two dimensions for the painting: one which invites viewers to engage with a work's literary content and its allusions; the other, compelling his audience to step back and view the painting as a complete visual work. Thus the conjunction of these two dimensions—the literary and the visual—render the actual content of the painting inconsequential. (Al-Haidari, 2010, pp. 22-23)

Accordingly, he employs the Arabic letters as inherited components that are dynamic, social, and interactive to animate his painting, parallel to Ibn Arabi's perception of the Arabic letters as living entities with physical, mental, and spiritual existence, along with metaphysical implications and dimensions transcending places and times. However, Azzawi treats the Arabic letter as a formative component with semantics, historical implications, and, sometimes, symbolism; the letter is not an entity unto itself (Daghir, 1990). He states:

> I found that the letter is not everything, yet it is an element of the composition, … the letter, to me, completes the color, as part of it intervenes with lines and shapes that are originally external to the letter. (Daghir, 1990, p. 101)

Hence, while Azzawi paints the whole outline of the letter *bā*, he chooses to show only segments of other letters, as he intended to stress some of these letters' symbolisms or meanings. The letter *bā*, according to Ibn Arabi, has a high status, representing the beginning of things (Abdulfatah, 2004). An honored, escorting letter opens the path for the rest of letters to enter. Therefore, *bā* is the first of sight and insight, drawing things, transforming them from their visible apparent to invisible soul (Ibn Arabi, 2004). In contrast, for Azzawi, the letter *bā* can refer to the first letter, "B," in Baghdad, his birthplace, and the abstract birds signify the diaspora that he experienced, as if he is glancing at diverse aspects of his country's heritage and his personal experiences while being forced to leave.

Nonetheless, Azzawi is not simply using the latter *bā* to refer to Baghdad in this case. Red Sky with Birds is a scene in which birds fly madly across a sky that is erupting with flames, seeking the black becalmed night ("Dia Azzawi," 2012). The letter *bā*, along with the other letter segments and diacritical dots, is another layer embedded in his artwork, a melody, a chant sung passionately by the Bedouin in the desert. These letters represents the hymn of the genuine voice of the Iraqi peasants, who habitually sing to convey their existence as nomads, along with their piety, superstitions, and highest aspirations. As such, Azzawi is certainly highlighting a particular group of people within his homeland, pointing to the richness of Iraqi's culture through Arabic letters, along with motifs, patterns, and colors.

Moreover, Azzawi in Red Sky with Birds plays with letters, letter fragments, dots, lines, motives, figurative shapes, and color as if this composition is a social activity. Letters, figures, and shapes are emphasized through steering their malleability—adjusting elements' lengths, angles, and movements. In this way, composition components are in a harmonious melody, symbolizing the harsh Bedouin chant. Azzawi understands the powerful symbolism of the

Arabic alphabet characters, their significant sociability that enhances any work. Such social performance is described by Ibn Arabi in his science of letters, in which he identifies letters as a nation that have eloquent tongues and clearer statements (Ibn Arabi, 2008a). There, letters constantly form new relations—connecting, interacting, and breeding—uniting in a rhythmic, visual synthesis of content and appearance (Obaid, 2006). Thus, such sociability produced by letters' relationships makes meaning possible. Accordingly, Azzawi also uses the Arabic alphabet's social activities within his work, overlapping and juxtaposing letters with other graphical elements in the composition to create a deeper sense of sociability. Thus, the letters' symbolisms emerge clearly to the viewer, through highlighting letterforms with intense colors and surrounding them by various illustrations. Red Sky with Birds is a complex artwork, positioning letters and graphical elements centrally on a horizontal axis, balancing them, while controlling their harmony, repetition and aesthetic possibilities within the compositional space. Taken altogether, such presentation demonstrates to the viewer the beauty and glow of Azzawi's masterpieces as visual enjoyment.

The Text Plaque Vivacity

Despite living abroad, away from his beloved country, Azzawi has developed his unique figurative style, inspired mainly by Iraq's cultural and historical heritage, and thus, he is never limited by distance or time. Likewise, Red Sky with Birds displays his bold style of composition, color, and rhythmic resonance, asserting Azzawi's status as an artist who speaks for and about his country. He believes that only his artistic history can aid him to create his unique identity. Therefore, he carefully chooses visual elements, mixing them while alluding to their symbolic and cultural implications, allowing alternative meanings to understand and interpret his

subjects (Al-Haidari, 2010). At the same time, Azzawi believes in the value of drawing inspiration from his heritage because it enriches and explains the present, as heritage is wide-ranging, not limited or detached from the present-day. He justifies his method of pulling inspiration from his country's heritage in the following quote:

> What I'm trying, actually, to go back a little bit to my roots of culture as an Iraqi, at the same time it gives me the opportunity to look to my culture from abroad. In a way, it's a new window. For example, when I was living in Iraq, I thought I have everything, in a sense. When I left and came to London, Iraq becomes like a small village. I managed to get more knowledge about my culture, about my history, when I'm here rather than when I was in Baghdad. ("TateShots," 2012, para. 1)

In a sense, due to his diasporic experience, he was only able to seek inspiration from visual culture and literature, yet it was a very educational experience that enables him to view his homeland in a more comprehensive fashion.

Furthermore, due to political events, Azzawi, as a modern Arab artist, developed a comprehensive epistemological perception of his heritage and was passionate to create his own identity, and thus, he experimented boldly with the Arabic alphabet (Shabout, 2010a). He views the Arabic letterforms as graphic bodies with both cultural and political signification, integrating letters with other figurative and decorative elements within his artworks, particularly early in his career. Nevertheless, the letter is only one of his elements. Letters are not predominant in his paintings, as he prefers to combine them with other elements of his compositions, perceiving letters as both form and sign (Shabout, 2007). Accordingly, his work Red Sky with Birds exhibits the Arabic letter as the visible sign of the chant in the composition, wherein letterforms are vocalized by their graphical outlines, and the melody is enhanced by other colorful figurative elements in the composition.

Letters have historical origins; hence, they are found naturally within the domain of visual culture (Dikovitskaya, 2005), which projects various modes of visuality upon its viewers. Azzawi understood the properties and energies of Arabic letters that reach out to the world, as he recognized the visual language of letters, reflecting visual culture, wherein visual signs can replace text. In this context, Azzawi's works suggest that such concepts of visual communication are deficient in the cultures of Arab nations (Shabout, 2007). In Red Sky with Birds, Azzawi is not only seeking inspiration from his Iraqi heritage through visual culture, but he is also enhancing and adding new artifacts to our visual world. In particular, his utilization of poems, words, or letters within his artworks is a continuation of the illustrated poems—the classical Islamic miniatures (Ali, 1997)—yet he is developing modern visual poetry of Iraqi culture and heritage as a means to link letters/words with painting. Azzawi intended to create a relationship between letters and other visual forms, that is, a dialogue between writing and the visual arts (Shabout, 2007, p. 130). Accordingly, reading Dia Azzawi's work is an act that enables us to recognize the intense symbolic language of Arabic letters that he simplifies through his figurative style. As a result, we can read Azzawi's ideas and concepts, generating many feelings and reactions to his artistic pursuit to reflect his cultural identity and pride, as modern Iraqi and Arab artist. Therefore, while engaging with Dia Azzawi's artworks, we must truly listen with our eyes, hearing the melodies of his cultural identity that glorifies the rich heritage and history of Iraq.

Contemporary Arab Artist Munir Fatmi: Modern Times, A History of the Machine

Monuir Fatmi animates his installation space with projections, sounds, and objects, constructing a visual atmosphere that manipulates with linguistics. Modern Times, A History of

the Machine, (2009-2010) is one such installation that engages its audience to examine their preconceptions—political, religious, and historical—while prompting them to question their desires and fears. In this view, the artist is examining human vulnerability through experimenting with drawing, painting, sculpture, video, and installation. The multi-media installation Modern Times (Figures 8 and 9) is a sculptural ensemble that incorporates steel saw blades, video, and sounds.

The installation features a large group of steel saw blades arranged in parallel rows, diagonally centralized, positioned on the floor of the space, appearing as half circles, as if these industrial blades are actually cutting through the ground, or as if the flooring is the cutting machine. These saw blades are inscribed with Arabic scripts, the letters cut out of the metal—as in a stencil mode. The text is stylized in Arabic calligraphy—*thuluth* or *jail thuluth* styles—carrying Qur'anic quotations, and Islamic sayings, all arranged in circular compositions (Fatmi, 2014; "Jameel Prize," 2013; "Mounir Fatmi", 2012). The video displays three different projections—a city skyline, a section of a machine, and a circular animated disc, each on a separate wall of the gallery space, surrounding the focal point, the assembly of steel saw blades on the floor. The skyline of a city is projected, covering the lower half of the wall. Buildings with various heights are composed mostly of figurative calligraphy in *kufi* style, exhibiting Islamic phrases. On the opposed wall, a different style is projected, featuring an animated set of circular industrial band saws, suspended, forming a cog system, a gear engine that moves relentlessly. The video casts illustrations of circular saw blades, which are all rotating, moving together in synchronization. Some of these rounded objects incorporate inscriptions with Arabic calligraphic scripts—both Qur'anic and Islamic quotes—in thuluth, jail thuluth, or kufi styles. Other rounded shapes appear solely with geometrical or graphical patterns. On the central wall

adjacent to these two projections, a third animated projection appears, a circular shape. Within this disk, smaller, various-sized round forms circulate, interlocking, each with its own design—either figurative, orbicular Arabic calligraphy in thuluth style or graphical lines forming patterns. All these projections present a cinematic environment, reflecting animated or still objects on the surrounding walls of the installation. Lastly, the broadcast audio resonates with factory sounds, diffusing the space with an additional acoustic layer that enhances the installation's sensational environment. Fatmi aspires in his Modern Times, A History of the Machine to create a delusion of beautiful and striking machines that is also, at the same time, dangerous (Fatmi, 2014). Hence, as viewers interact with the instillation, it envelops them, developing opposing feelings of pleasure and fright.

Figure 8. Modern Times, A History of the Machine, Munir Fatmi, 2009-2010, videos, sound, saw blades in steel. Mathaf Arab Museum of Modern Art, Doha.

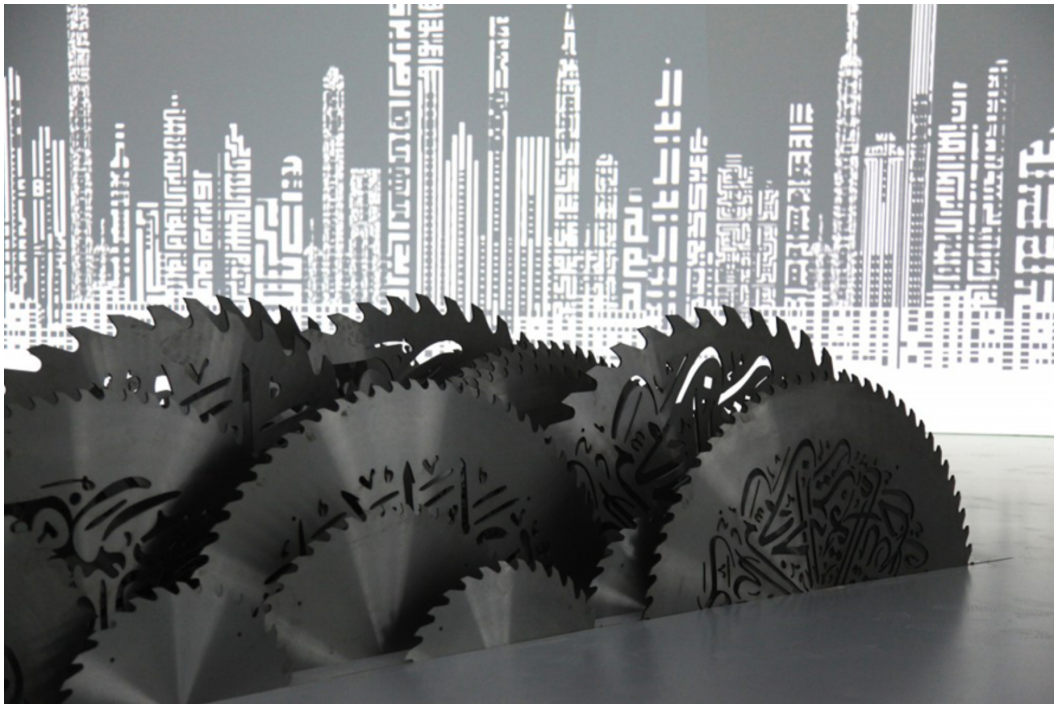

Figure 9. Modern Times, A History of the Machine, Munir Fatmi, 2009-2010, videos, sound, saw blades in steel. Mathaf Arab Museum of Modern Art, Doha.

The contemporary artist, Monuir Fatmi, was born in 1970 in Tangier, Morocco. He studied at the School of Fine Arts, Casablanca, and later continued his education at the School of Fine Arts in Rome. Fatmi lives and works in Tangier and Paris. His work directly addresses world current events, examining ideologies, religion, and its complexities. While presenting an expressive view of the world, he seeks to engage those whose lives are affected by particular incidents (Fatmi, 2014).

Modern Times, A History of the Machine, a multipart multimedia installation by Fatmi, was exhibited as part of Told, Untold, Retold exhibition at Mathaf Arab Museum of Modern Art, Doha, in 2011. The artist assembles a man-made atmosphere, manipulating its language and dimensions, symbolizing the Arab nations as they join the modern world. Fatmi uses the metaphor of an industrial machine as a representation for the modern age. He was inspired by the movie, Modern Times (1936) by Charlie Chaplin, who appears as a humble worker in a

factory (Fatmi, 2014), trapped within the industrialized world. Therefore, the machine signifies the effect of modernity and industrialization on humans (Sturken & Cartwright, 2009), and thus, is a symbol for the modern era. In this sense, Fatmi's Modern Times uses the saw steel blades as an indication of a machine. Accordingly, all the circular saws—objects or projections—bear Islamic or Qur'anic phrases in calligraphic styles, aiming to represent the cultural and national identity of Arabs, while suggesting the industrial dynamic illusion.

Analyzing the Industrialized Letters

The appealing yet striking employment of Arabic calligraphy on the harsh metal objects in Modern Times creates overwhelming feelings. Although Fatmi's installation seeks to investigate the origins of Arab nations' modern crises (Fatmi, 2014), he uses two styles of classical Arabic calligraphy that carry Islamic phrases and Qura'nic quotations. Arabic calligraphy is blended, wrapping both visual and sensible components of the artwork, covering the steel saw blades (on both object and projected video) in a circular calligraphic arrangement in thuluth calligraphic style, and projecting linear forms on a linear composition in kufi fashion. Here, calligraphy is not simply utilized to overlay the installation with delicate motifs, but rather, it is used as a powerful mode of critical reflection and thinking. Fatmi's approach, then, announces the significance of Arabic letters as models of critical philosophy, and thus, his approach is somewhat parallel to the basics of Ibn Arabi's science of letters in which letterforms display visual and textual language systems. As the Arabic letter is seen as both image and text, as symbol that has many translation and interpretations, every single letter has its own meaning; nevertheless, a word (as a combination of letters) has its distinctive significance as well. The Arabic alphabet, according to Ibn Arabi (2008d), is a whole lively world, with philosophical

thoughts searching for reality and the absolute through letterforms' abstract signs, independent of any place or time. Like this, Fatmi's installation employs the Arabic letters to elevate his machine, aiding its performance, to search for the reality of Arab modernity. In a few places, Fatmi has used single letterforms, while mostly he employs words and sentences within this installation. Hence, the artistic approach corresponds with the science of letters in which single letters have their own existence, natures, and worlds; however, the compound letters (words) also have their unique presence and spheres. In this way, Fatmi understands the spacious worlds of letters and acknowledges their existence, meanings, and symbolisms, thus utilizing letters and words dynamically in Modern Times.

Additionally, the curves of calligraphy and graphical elements appear to eclipse the meaning of the words, as though the message were vanishing into the machine. However, the abstract forms of the words are visually reanimated, reflecting the installation's circular motion in both the projections and the rounded blades. Such movement represents not only the mechanical action of the machine, but also can symbolize the natural orbital movement of our world, representing the occurrence of time or standing for Arabic letters' celestial world, as described in the science of letters—symbolic cosmological and analogical elaboration. Accordingly, due to the installation's circular movement, the work is viewed as a kind of kinetic art, showing sets of opposing pairs—steel saw blades (tangible) with animation video (sensible), movement with stillness, and mechanical motion with celestial orbits—unifying all these elements with Arabic calligraphy as a theme and infusing the space with noisy machine sounds throughout the entire work. Thus, as the viewers encounter the installation and its contents, they also can encounter opposing feelings—fear with delight, disturbance with pleasure, calmness with amazement, and confusion with serenity.

Moreover, Fatmi uses the Arabic letters in a different way in his installation, to create a linear calligraphic configuration, composing a skyline of a contemporary city, with buildings of various heights, sizes, and architectural styles. He utilizes kufi style, which is described as the angular and linear style, while forming a city outline is a modern application of this calligraphic style. Viewing the artist approach through the science of letters' lenses illuminates the artistic originality in employing the Arabic letters as building materials to construct a modern city. Here, the Arabic letters are a strong, durable, advanced substance with technological and structural characteristics that are capable of connections that erect and construct buildings. Therefore, this installation explicates two assertions. First, the Arabic letters are vigorous, sophisticated entities, transforming and forming our world in reality and fantasy. Second, this figurative skyline without doubt belongs to any Arab city (all of which are in the process of progressing into modernity), since this city inscribed as high-rise building and skyscraper indicates the Arab city's national and cultural identity.

Modern Times certainly is a compound installation that addresses the Arab countries while rejoining modernity ("Jameel Prize," 2013) and equally treats the complex social and cultural symbolism of the Arabic letterforms. The installation appears as a machine to convey the performance of entering a new era. Hence, this piece of equipment is dangerous and violent because modernity can consume nations' identities, changing their distinctive features through imported traditions and technological dominance. Nevertheless, at the same time, this machine is also splendid, because it functions with the aid of the Arabic alphabet, composed with treasured calligraphic script carrying Islamic quotations, as if the machine is power-driven by the Arabic letters, its connotations and denotations associated with the glorified Islamic civilization, as if Arabs' modernity needs to align and configure itself in relation to Islamic aesthetics and

standards in order to reach a golden age once again. Thus, this installation stresses the power of letters to transform, evolve, and adapt to join a new era while conserving nations' exceptional identities. In Fatmi's work, the Arabic letters represent Arabs' exclusive unifying characteristics and cultural markers. The artist uses Arabic calligraphy that refers to the Islamic culture's golden ages, suggesting that this form of art enables civilizations to reach new horizons and accomplishments. Thus, Fatmi suggests that only by means of the Arabic letters—specifically in their calligraphic forms—can Arab nationhood reach its modern form of civilization.

The Industrialized Letters Dynamics

Monuir Fatmi was affected by the recent rapid urbanization and development of the Middle East countries, which reflect the speed of growth and industrialization of cities. The deserts are transforming into cities, and buildings rise up in no time, making it hard to grasp and reflect on the transformation (Fatmi, 2014). Therefore, Fatmi's Modern Times manifests the mental link between current Eastern development and Western industrialization, symbolized by the interactions among the diverse elements of this installation. The machine and saw blades represent the West, while the circular or linear calligraphy formations symbolize the Arab countries. Particularly, the circular imagery inscribed with Qur'anic or Islamic phrases invites viewers to question the Arabic alphabet's significance in this artistic installation. Fatmi's goal is to use these circular calligraphic configurations to link visually all the works' components while pointing metaphorically to Arab countries cyclically violent past ("Jameel Prize," 2013). These features refer to the way Islamic or Arab nations were divided and experienced Western colonization controls and consumptions, and later how some of these countries were controlled by dictatorial regimes that proclaim Arabism while oppressing their own citizens. Hence, the

circular calligraphic formations are associated with Arab nations, possibly as their radical real-world counterparts.

In spite of this, one might wonder why Fatmi uses Islamic Qur'anic phrases if he is pointing to the Arab countries with such modes of visual representation, given that not all Arabs are Muslims. Here, Arabic calligraphy's circular figuration can be viewed as a mode of contemplation of the glorified past, the Islamic golden age and its civilization, particularly as a culture rich with visual artistic heritage that developed its own unique form of art, calligraphy, which is a celebrated and glorified art to this day. The configurations and two styles of calligraphy Fatmi uses are found in architectural spaces and also covering artifacts—coins, pottery, weaving, metals, jewelry, etc.—pointing to the Arabic letters' associations with Islamic culture. As a matter of fact, alongside tracing the development and growth of Islamic civilization, we can witness the improvement of the Arabic writing system—precisely in its calligraphic style. While Muslims expanded their lands to the East and West, so did the Arabic alphabet's scope and domain enlarge, as it transformed its shapes and styles according to its interactions with new people (calligraphers, artists, or *khalifahs*/rulers) from different places, thus creating new calligraphic styles and configurations. In this way, the Arabic alphabet went side by side with Islamic expansion and progress, contributing to constructing the Muslim empire. Accordingly, Fatmi's installation utilizes the intricate styles of Arabic calligraphic letters to figure the building of modern Arab nations' civilizations. At the same time, the artist indicates that the Arabic alphabet has powers to generate modernity, transforming places and spaces.

Certainly, in this installation, Islamic quotation supports the employment of Arabic letters to mirror Islamic art and architecture, yet the overlapping of text with metal industrial saws and

projections confuses the viewers while creating a sense of illusion. In fact, Fatmi believes that every art piece is an aesthetic trap ("Jameel Prize," 2013), and hence, he aspires to lead the audience to fall into his Modern Times delusion. In this sense, the trap is formed using animated calligraphic figuration video projections to convey the idea of illusion. While the projections are turned on, we can see the dynamic interaction between the Arabic letterforms and the machine, reflecting the reality of Arab countries' modernity. However, when turning off these projections, the reality no longer exists. Thus the artist is manipulating reality through Arabic calligraphic letterform projections in circles to create dizzying visual effects as they spin on the wall, forming a hypnotic abstracted machine, conveying modernity as trap. Such a metaphor is suitable for the contemporary world that is in constant development without end to consumption and production. The viewers are trapped within this Modern Times machine, experiencing similar confusions and emotions as the character of Chaplin did, where the product of the machine fails to be perfect. Hence, this multilayered work is a statement against oppression and subjugation, as Fatmi explains: "My work is an eternally conscious action and opposition to all forms of determinism, totalitarianism and every attempt at breaking down individualism. To exist is to oppose since life basically is subversive power" (Fellrath, 2010, p. 66). In this view, the artist works to confuse the viewers, inviting them to embark on a network of interconnections and interpretations, in order to develop their own understanding of the contemporary world. Fatmi's contemporary artistic practice in Modern Times: A History of the Machine, fashions the Arabic alphabet as a complex cultural and identity signifier, prompting us to confront our human, imperfect vision to start a dialogue while engaging with our contemporary world.

Discussion of Arabic Letterforms' Implementation

The three artists discussed here display remarkable uses of Arabic letters while exploring fascinating relationships among tradition, culture, modernity, and the contemporary. Clearly, their works illustrate their personal, cultural, social, and political transformations. The integration of the Arabic alphabet within their works does not contradict modernity, contemporaneity, or tradition. Every artwork examined was created in specific contexts, according to the artists' personal experiences and cultural connections. Appropriately, contrasting artworks of modern and contemporary artists facilitates understanding the Arabic letterforms' role within these works and in the larger context of the artistic period as well.

This study has distinguished these artworks within two periods, modern (1950-early 1980s) and contemporary (late 1980s-today) Arab art. Although there is no clear classification for Arab art similar to that of the Western art history canon, the estimated dates established in this inquiry have supported discussion and examination of the chosen artworks. Arab artists have described their modernity as a process, a time of historical development, in which artists stimulated their creativity utilizing their cultural and national heritage (Shabout et al., 2010), combining inherited elements with Western art techniques and theories. As an enlightenment era for Arab art, mixing old (inherited) with new (technique and method), contemporary Arab art carries the essence of modern Arab art, but it functions within a much larger context. Commonly, contemporary artworks function as points of navigation, allowing interactions among local and global, traditional and contemporary, while treating personal, social, and political transformations, without contradiction. Therefore, despite confusion in differentiating modern and contemporary Arab art, each artwork presented in this study shows unique artistic

approaches and concepts, while also displaying some characteristics of its art period—modern or contemporary.

As a reminder, the modern Arab artworks are Hanging Gardens by Madiha Umar and Red Sky with Birds by Dia Azzawi, while contemporary artwork is Modern Times: A History of the Machine by Munir Fatmi. This dissertation study's interpretations employ Ibn Arabi's 'ilm al-hurûf/science of letters as a semiotics to understand the nature of Arabic alphabet, and the subsequent examination utilizes semiotics and visual analysis as a means to expand our understanding of letterforms embedded within the works of art. I analyzed the three selected artworks to better recognize the role of the Arabic letter in the works featured in this chapter. Such analysis now makes possible a comparison of modern and contemporary art approaches, how artists use the Arabic alphabet, and the purposes and significance of those uses.

Discussion of Modern Artworks

Examining the two modern Arab artworks affirms that the artists Umar and Azzawi both understand the graphic qualities of Arabic letters while seeking uses of Western aesthetics within their modern artistic styles. The two works feature identifiable, readable, single letters, or fragments of letters. Umar plays with her letters' plastic form, stretching and bending them, presenting the letters as the focal point in the artwork. Thus, the Arabic abstracted single letterform is not only visually emphasized, but also made a lively creature. Umar enjoys playing with the forms of the Arabic letters within her artworks because she is simply enchanted by the philosophical interpretation of Arabic letters, like Ibn Arabi in his letter theory, wherein he enjoys experimenting with and analyzing the letters in his own style. Azzawi, on the other hand, transforms the Arabic letters in a different way, using word/s, letter/s, and parts of letters. He

incorporates letterforms with bold colors and shapes, sometimes arranging them with patterns or motifs, as if he is narrating a story with all of these elements to build his artistic concepts and style, a visual story inspired by Iraqi heritage, culture, and literature.

Consequently, both Umar and Azzawi investigate the Arabic letterforms to incorporate them as crucial elements within their works, using letters' sensual and sensible modes to connect their adored heritage and culture, employing letterforms in a modern fashion suitable to their times and artistic identities. Generally, most modern Arab artists have pursued Western art education. Some of them were part of a diaspora—forced to leave their beloved countries for mainly political reasons—and thus were compelled to view their country, culture, and heritage from afar. Forced to live away from their homelands, they seek to represent their yearning for them, and hence, their artistic styles are developed with a deep sense of nostalgia, yet in a modern way. Their artistic methods innovate to represent their individuality, principally incorporating Arabic letters in various forms to reinterpret their cultural heritage and nationality as Arabs. Therefore, the implementation of the Arabic alphabet within modern Arab art is a symbol of national and cultural identity, producing artworks with an original context in both execution and content.

Discussion of Contemporary Artwork

Contemporary artist Fatmi, on the other hand, developed his own interpretations and understandings of Arabic letters within his work. This generation has a distinctive understanding of itself in relation to global culture, having lived in and belonged to both the East and the West, by choice or not. Hence, in response to modern Arab art, they formulate their own contemporary artistic languages, also utilizing the Arabic letterforms to reflect personal, social, political, and

cultural experience, but in relation to a larger context and audience. The contemporary work discussed incorporate script that is identifiable yet unreadable, due to the nature of the medium in which the letters appear in constant movement. However, the idea of text and its meanings is recognizable, as some words are readable, thus pointing to their context. Additionally, the contemporary artist's work is open to various interpretations appealing to global contemporary aesthetics.

Fatmi enjoys working between Paris and Tangier, mixing elements from his heritage and culture with technology in his artwork. He celebrates the Arabic letter in its calligraphic forms to enhance his artwork with Islamic phrases, yet animates them optically within his installation space. For him, Arabic calligraphy synchronizes and symbolizes the golden era of Islamic civilization; hence, these letters will contribute to building his modern world. At the same time, the figurative calligraphy inscribed throughout his installation represents Arabs who are trapped in the modern time machine while seeking to build their present. Interestingly, the artwork juxtapose the Arabic letters with harsh and violent objects—industrial steel saw blade—to signify various social, cultural, or political forces. Therefore, Fatmi understands the nature of the Arabic alphabet, incorporating it in a powerful visual mode to present his views and experiences, hence offering us a glimpse of his compound contemporary identity. Accordingly, Arabic letters within the contemporary artwork also convey numerous divergent interpretations, allowing the audience to engage according to how they see, read, and perceive the work.

The Relation between Modern and Contemporary Art

An analysis of the three artworks can, to an extent, facilitate understanding both the differences and correlations between modern and contemporary Arab art. The term modern

refers to the hybrid of old and new. We constantly inherit entities that combine humans, objects, and technology, forming a world of hybrids (Latour, 1993), as we live among the interrelation of nature, objects, and machines, biology, culture, science, and technology. Thus, modernity is an intricate model of hybridity. Moreover, the modern is only found in the difference performed "between the modern and the non-modern, the West and the non-West" (Mitchell, 2000, p. 26). Hence, modernity was not a Western invention but the result of an interaction between the West and the non-West. Nevertheless, modernity is staged as the West, and each account of the modern and the postmodern reenacts this staging (Mitchell, 2000, p. 27). Accordingly, modern Arab art is a hybrid of old and new, East and West, inherited and adopted. Modern Arab artists have been influenced by Western art techniques and philosophy (new), through which they have striven to represent their cultural heritage (old), while exploring new possibilities. In this context, modern Arab art can be described as collective, innovative, and diverse efforts of self-expression, inspired by artist's culture, history, and lifestyle to reflect particular identities. As such, modern Arab artists use elements from their heritage and culture, transforming and hybridizing them according to their artistic styles in order to employ them as main elements in their artworks. Particularly, the Arabic letter is utilized not only as a unique visual or textual component, but also it is tied to the Arabism movement, and hence, the employment of the Arabic alphabet was a powerful expression of Arab national identity. Accordingly, in modern Arab artworks, the Arabic letter is abstracted, simplified, modified, stretched, or reduced according to artists' desires and visions. The employment of the Arabic alphabet demonstrates the artist's recognition of the letterforms as entities powerful to transmit visually and/or textually feeling, thoughts, and beliefs.

Contemporary Arab art follows the same method of hybridity to create artworks that are modern in their time, yet within larger and distinctive contexts. Therefore, *contemporary* as a name term might not be the appropriate classification label. Possibly *postmodern* would be better suited. However, there are a number of artists who prefer no label, as they live, learn, work and belong to so many various places around the globe. Hence, their art is dynamic and spans a wider scope. These artists believe everywhere and nowhere is home, and thus, they view themselves as products of the century (Panayi, 2012), bringing their renewed creative energy to the artistic scene while valuing historical resonances. In this sense, most of the Arab artists are somewhat eclectic; hence, we can address them as global Arab artists. In any case, we cannot truly isolate artists by labeling them according to cultural or regional belonging, as we live today in an increasingly visual, global, interactive world. The attempt to define artists' identities in this way is naïve. Art development in the Arab world is a story with multiple narratives. Each artist has a unique self-perception and perspective on the creation of artistic language. Nevertheless, whether contemporary or modern, both can be clarified through referring to a fixed heritage. Consequently, artists use their heritage and cultural references, creating artwork to express, communicate, experiment, and learn.

Like their Modernist predecessors, Arab contemporary artists understand themselves as contributing to art at both a national and international level, similarly formulating their artistic styles, incorporating the Arabic letters within their artworks but utilizing the letterforms in new approaches to diverse mediums and forms suitable for contemporary practices. They do not abandon their Eastern traditions or origins to adopt Western ones. They do not shift from the cultural and theoretical framework of the East and claim to be Westernized. Contemporary Arab artists value modern Arab artists as pioneers and are influenced by them, yet contemporary

artists are not only Arab or Middle Eastern. They belong to all places, especially now, in a world that is more than ever so global, powerfully connected by advanced communications. Therefore, when contemporary artists use the Arabic alphabet within their works, they use calligraphic, typographic, printed, or simple hand-written styles, using blocks of text or single letters, readable or illegible, and juxtaposing or overlapping the letters with other artwork components according to the artists' concepts and contexts. Accordingly, employment of the Arabic alphabet reveals contemporary artists' recognition of the letterforms within a global, visual world, as lively, extraordinary bodies that change the dynamic of any work by stimulating viewers feelings and thoughts related to the context of the artwork. Because contemporary artists recognize themselves as global citizens, their Arabic letters are also inclusive, engaging a worldwide audience, not only those who understand the language. Hence, despite using Arabic letterforms, contemporary artworks communicate in a transnational visual language, entertaining viewers' eyes, communicating with their minds, displaying the artists' heart pride or sorrow, and reflecting singular dimensions of the artists' identities.

Conclusion

Today, we are living in a global, visualized, small world, with diverse and rapid modes of communication. Semiotics and visual analysis provide lenses to help us understand and engage with our world, while Ibn Arabi's science of letters invites us to deeply examine and recognize the Arabic letters in artists' works. The process of analyzing the three selected artworks in my study permits us to describe and decode these works, all of which celebrate Arabic letters as a central component within their constitutions. Examining the work of modern Arab artists Madiha Umar and Dia Azzawi—supported by interpreting their personal and professional

lives—elucidates their modern applications of Arabic letters, transforming their meanings as cultural and national identities. On the other hand, amid the flux of contemporary visual culture, the work of contemporary artist Monuir Fatmi—illuminated partially by an examination of his private life and education—reflects the power of the Arabic letters as visual expression with divergent interpretations that expose personal or general experiences and represent a glimpse of the artist's identity and/or culture. In this context, the interconnected works of Arab, Muslim, Eastern, and Western artists enrich our experience while providing a cultural dialogue between self and other.

I conducted my investigation to identify the representation of Arabic letters within artworks, not design products. I made this choice because works of art are intricate pieces, integrating the Arabic letters in sophisticated, symbolic ways. Given the fact that it is critical for graphic design students to develop the ability to read, analyze, and contribute to our visual world, by examining artworks in this way, I invite students to deepen their intellectual capacities to grasp our world. Moreover, in this self-study I continually interconnect my roles as artist, designer, educator and researcher, and thus, by interpreting works of art I fulfill my diverse roles, thereby maximizing my learning experiences and enhancing my proposed Arabic typography curriculum.

Examination of the three artworks chosen for this study in light of Ibn Arabi's science of letters and semiotics clarifies the diverse uses of Arabic letterforms throughout the work of modern and contemporary artists. Arabic alphabets have become a vital signifier of national and cultural identities, carrying meanings that bridge past and present, yet highlighting interconnections with the global world. Hence, in our contemporary visual world, Arabic letterforms are a means of internationalism and cultural intersection. Modern and contemporary

artists have used Arabic letters in many striking ways that investigate their power to represent cultural, historical, political, and philosophical themes. Artists working through the meanings of the Arabic alphabet forms have especially addressed personal, cultural, political, and philosophical issues. Shaped by artists' use of material and technology to expand their creative energy, such explorations have developed into a tribune for artists to express their identities, while enriching our visual world.

Both modern and contemporary Arab artists variously use Arabic letterforms to create comprehensive and engaging experiences for viewers while formulating their own artistic and cultural identities. For modern Arab artists particularly, employing Arabic letters emphasizes national identity, as the Arabic language becomes instrumental in preserving heritage, religion, and values (Nydell, 2012, p. 134). Arabic writing has become art in Islamic culture, signifying the expression of sensory pleasure in everything (Grabar, 1992), and thus, Arabic calligraphy is the most cherished art form, standing for the greatest cultural achievement and treasure. Hence, Arabic letters were used as unifying icons of Arab national identity, essential for Arab countries after they gained independence. The secularized concepts of the Arabic letterforms employed by modern Arab artists have contributed to transforming the aesthetics of Arabic script from Islamic to Arabic (Shabout, 2007). These modern concepts employ the Arabic letters in a method that almost detaches them from anything Islamic, playing with the graphic qualities of letterforms to reach new dimensions and expressions. Modern artists abstract and materialize the alphabet to serve their needs and to reflect their beloved heritage and culture. The global ideas of contemporary Arab artists offer composite views of the Arabic alphabet, utilizing the liveliness and dynamics of the letters as navigation sites to open dialogue with self and others. Since most Arab contemporary artists view themselves in a context of internationalism informed by many

cultural intersections and influences, their letters hold the same qualities, despite being styled with Arabic calligraphy or conveying Islamic text. In this sense, the Arabic letterforms are an extension of their contemporary artists, representing a prevailing characteristic of their global identity.

This study has implemented my theoretical framework and discussed artists' application and recognition of the Arabic alphabet characters and their uses of letterforms experimentally, expressively, epistemologically, graphically, metaphorically politically, or revolutionarily to powerfully reflect their messages and cultural or national identities. Thus, the use of Arabic letters visually indicates cultural or national identities—Arab or Islamic, or international and culturally intersecting. Accordingly, I assert the significance of combining Ibn Arabi's science of letters with semiotics and visual mensuration to analyze artworks, inspecting their employment and meaning of Arabic letterforms, at the same time simplifying the process of reading artworks for art and design students. My analysis has revealed how Ibn Arabi's ideas and symbolic idioms can be translated readily with the aid of semiotics and can be used to examine works of art. In this way, the complex language of 'ilm al-hurûf can be unfolded for art and design students to understand the Arabic alphabet and its rhetoric. Therefore, my method of art analysis confirms the benefit of the science of letters and semiotics for typography education. Such an approach allows students to mindfully comprehend the various perspectives of the Arabic alphabet and indicating visually how a linguistic character can affect the viewer while expressing ideas or starting dialogues with self or others. Consequently, graphic design students can learn not only how to read the visual world, but also how to construct messages with the alphabet for optimum communication effect.

The next chapter will discuss my approach to examining Arabic calligraphy through two divergent but complementary approaches—study in a professional calligraphy workshop and self-study experimentations that encompass visual representations and narrative inquiry. Later, in this document, my calligraphic experimentations will inform my construction of university-level Arabic typography curriculum for contemporary graphic design practices.

CHAPTER 5

SELF-STUDY EXPERIMENTS

I aim in this study to understand the value of Arabic calligraphy in art and design education, its role in Arab and Islamic cultures, its status in visual culture, and its description in Ibn Arabi's science of letters, while gaining a greater comprehension of its semiotics. As such, I researched the art of Arabic calligraphy composition through two divergent, but complementary, approaches:

1. Learning calligraphy in a professional calligraphy workshop.
2. Self-study methods, through both self-learning and self-exploration projects.

In both methods, I composed calligraphic and or typographic experiments using traditional tools (such as reed pen and ink) and computer software (adobe Illustrator and Photoshop) to analyze my professional experiences as an artist, designer, teacher, and researcher. Next, I analyzed my experiments and data using diverse approaches stemming from my multiple roles. This analysis includes various forms of representation, including visual diagrams, commentary, and narrative analysis. Throughout my experiments, I especially addressed art production—in the form of visual diagrams—as a means of data analysis that allowed me to evaluate, assess, and refine my concurrent development of calligraphy and typography curriculum and pedagogy. In this way, I analyzed my experiments by translating them into simple findings, searching for ways to create Arabic typography lessons based on my art and design making, as well as my ongoing narrative commentary. From such efforts, I ultimately develop approaches to Arabic typography curriculum and pedagogy for contemporary university-level design students.

Self-Study through Calligraphic and Typographic Experiments

Given the fact that we live in a visual world, most of us tend to learn from our visual encounters, and visual data inform our learning processes in many ways, enabling us not only to think about our practice, but also to see how the insights we gain affect our practice (Loughran, 2007). When we conduct self-study with visual representation, we use various kinds of visuals as both data and catalyst to reflect our learning process, relying on pictures, video, drawing, and collage to document experiences and practice in order to analyze the role of visual representations. Similarly, art is used as a way of knowing (Eisner, 1997, 2002), and thus, artworks and/or visual representations facilitate critical thinking. Furthermore, the self-study method supports using metaphors that enhance the abstract thinking process (Lakoff & Núñez, 2000). Therefore, I have adopted and used metaphors whenever possible, along with visual representations in my experiments, mainly because such processes help to clarify visual representation's value and meaning in practice. In conjunction with visual representation and analysis, I embark on narrative inquiry grounded in the study of experience (Connelly & Clandinin, 1988; Dewey, 1938; Eisner, 1993; Schwab, 1973) to support the translation of my experience into research outcomes and meanings. Narrative inquiry is a reflection that creates contextualized and experiential learning for myself, graphic designers, and students. Thus, my self-study narratives represent a research methodology while, at the same time, offering forms of representation and the expression of practical knowledge. Employing narrative inquiry helped me understand the personal dimension of teaching typography. Therefore, I share my narrative as a way of showing, rather than telling. Hence, using both visual representation and narrative inquiry helped me to understand critically my calligraphic and typographic experiments while revealing how educators might teach typography.

I have pursued two different, but complementary, approaches to study and understand the Arabic alphabets in their calligraphic form. In the first approach, I learned the basics of Arabic calligraphy in a professional calligraphy workshop, practicing under the supervision and instruction of a calligraphy master. Second, I employed both self-learning and self-exploration projects to fully examine the Arabic letterforms. Here, I conducted three slightly different, connected self-study experiments. These calligraphic experiments are means to understand the mechanism of Arabic calligraphy and eventually the Arabic alphabet through visual representation. Both approaches featured self-study because I constantly investigated and learned independently, even when observing my calligraphy teacher. I worked to deepen my engagement as I observed him, disciplining myself while practicing drawing my letters, searching for new ways to understand, and, most of all, being patient with myself during this learning experience. I worked to keep my vision clear as I explored contemporary applications of Arabic calligraphy, translating my personal exploration and learning into the formation of innovative pedagogical approaches and strategies to teach Arabic typography. Most of all, I focused on truly valuing Arabic calligraphy, not only because it is a contemplative art or historical cultural phenomenon, but also because it is significant as a simple measurement for alphabets and their knowledge.

Part One: Calligraphy Workshop

My purpose for participating in a calligraphy workshop was to have a first-hand experience of what it is like to be a student learning the art of Arabic calligraphy, witnessing how much I could grasp in a short time frame, and what the significance of such an experience would be. I chose to arrange for a private calligraphy workshop at the Kuwait Islamic Arts Center

(KIAC)—a nonprofit educational institution interested in Islamic arts, particularly Arabic calligraphy. At this workshop, I worked with the calligrapher Jassim Mi'raj, who is an active member at KIAC, contributing significantly to the center through his teaching and demonstrations of Arabic calligraphy to diverse students.

Mi'raj Metier

Mi'raj volunteered to help me conduct my studies. He was very generous and knowledgeable while answering my questions, addressing many related topics or issues, and suggesting useful resources, both written and visual. Everyone called Mi'raj *oustath*, or master, because he performed master calligraphy and had become a *khattat* (calligrapher) when he earned an e*ijazah* (permission) to teach calligraphy and practice with the right of signing his name by writing *katabahu* (written by). This permission was received after long study with a calligraphy master. Mi'raj has been interested in calligraphy since he was about eleven years old. He started by teaching himself and then joined a calligraphy workshop. Afterword, Mi'raj became more and more involved with calligraphy and began learning with the famous Kuwaiti calligrapher, Waleed Al-Farhood, who advised Mi'raj to travel to Turkey to study calligraphy. Istanbul is the capital of Arabic calligraphy, a learning environment in which a student will feel the presence of tradition more than anywhere else, from alleys to houses, from mosques to graveyards (J. Mi'raj, personal communication, October 17, 2014). From there, Mi'raj studied under Dawood Bektash, earning his permission. Later, Mi'raj joined Farid Al-Ali and a youth group to establish KIAC as a center for enlightenment and education around Arabic calligraphy and Islamic art. Mi'raj still contributes to KIAC workshops, courses, exhibitions, concourses, and activities, while participating in numerous exhibitions and competitions around the world

and earning many rewards and certificates. Every time I meet Mi'raj, I learn something new, or discover an alternate insight. As a calligraphy master, he contributed positively to my learning process while offering me an environment that substantially facilitated the traditions of calligraphic schools.

Calligraphy Workshop Frontier

I conducted approximately twenty-four hours of data collection in the workshop, around six hours per week, for four weeks. However, after completing the allowed time for the workshop, my learning process did not stop. I continued analyzing my visual outcomes, evaluating my experience visually and narratively.

The KIAC is located at the Great Mosque, in Kuwait City. One undoubtedly feels a sense of sacredness, serenity, and grace while walking along the way to KIAC, viewing all the delicate work on the marble, stone, wood, glass and metal, both on the exterior and interior of the mosque. The experience elevated my spirit and senses before attending my workshop. The meeting room and library at KIAC was the location. The center of this rectangular room was an elongated oval table made of wood, around which were twelve leather, rolling chairs. The floor was marble, the two windows covered with *mashrabiya* (carved wood) panels. The natural light was dim, but the ambience of the artificial light was quite efficient for a studio setting. Along the two longest walls of the room there lay three rows of bookshelves holding different resources about Arabic calligraphy in addition to the center's various publications.

Requisite Instruments

Throughout my workshop, I used various tools and equipment to assist my learning

journey. Due to the nature and purpose of my study, I mixed traditional and contemporary tools and techniques to achieve the greatest learning outcomes. Some were essential for a calligraphy workshop, while others were recommended to strengthen the learning experience. Below are listed the tools and equipment I used during and after my workshop sessions.

Pens

One of the most fundamental tools in calligraphy is the pen. I used three different types of writing implements: the traditional reed pen, calligraphy ink pen, and pencil. My aim was to master using the reed pen, whereas both the pencil and ink pen helped my hand to follow the writing movement in calligraphy. The traditional calligraphy pen is cut from dry reed and has to be of the highest quality. The pen's shaft is curved, while its edges are blunted to prevent hurting the fingers. Its length is around ten centimeters, with a diameter of one centimeter and a rounded upper edge. The upper part of the pen, which is the lower part while writing, demands the most care and attention and has to be cut at a particular angle because the writing style depends mainly on the angle of the pen's cut and the ratio between the cut's two sides. In addition, within the trimming process, the calligrapher makes a groove in the middle of the pen nib in order to hold the ink and release it sparingly during the writing process. Many classical calligraphy books devote pages or even a chapter to the art of trimming and clipping reed pens, due to the fact that each calligrapher has an individual technique for pen trimming. I have used two additional tools to help me trim my reed pens—a heavy-duty cutting knife and a small cutting plate or *makta.* This plate is made of hard, durable bone. The makta has a gutter to place the reed pen to ease the shaping of the tip and slit of the pen.

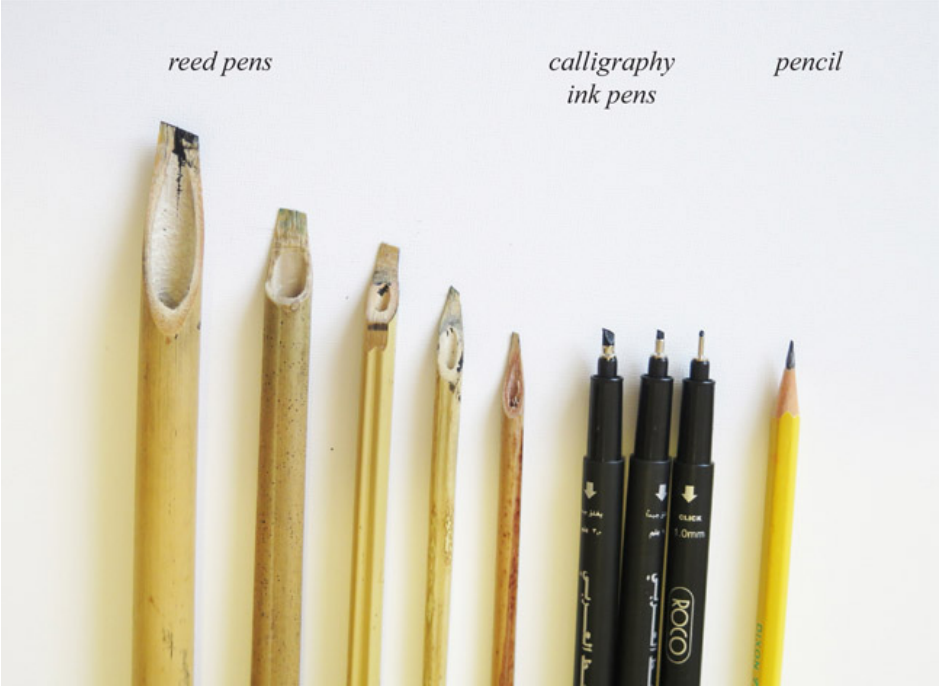

Figure 10. Executing Pens: Reed pens, calligraphy ink pen, and pencil.

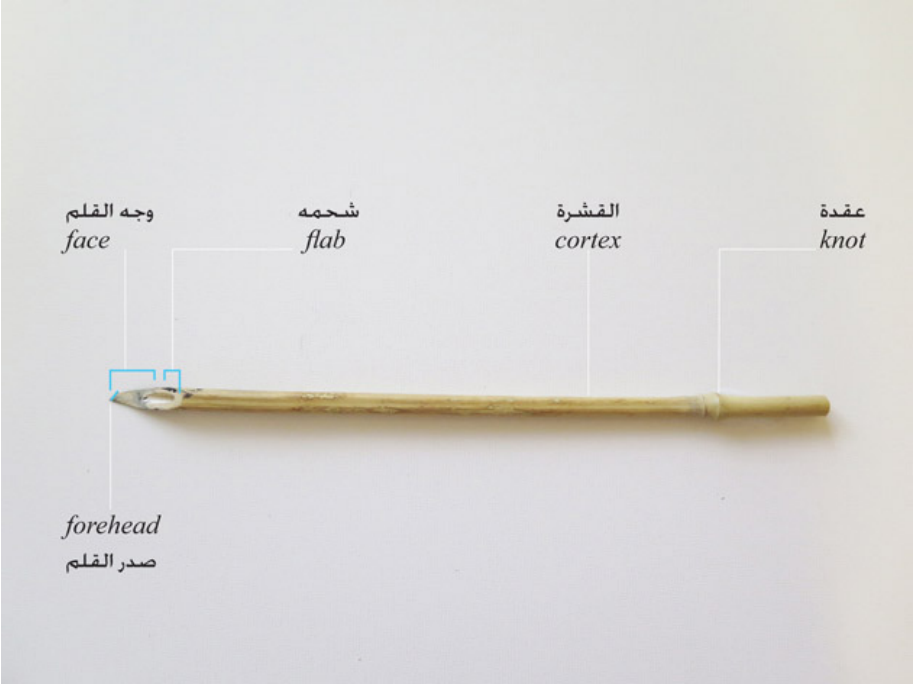

Figure 11. Anatomy of reed pen components.

Figure 12. The makta or cutting plate used for preparing and trimming reed pens.

Ink

Traditionally, calligraphy masters prepare their own ink for their practice, aiming to create ink that does not fade. Methods of preparing inks differ greatly. I did not make my own ink; I bought a few bottles of calligraphy ink from a local art store in Kuwait City. However, I had to prepare my ink before starting to practice writing. To do so, I poured small quantities of ink into a small jar, an inkwell or *dawat,* and added a few drops of distilled water to ensure the ink's fluidity and smoothness. Additionally, I placed pieces of raw silk threads, known as *liqa,* into my inkwell to prevent my ink from flowing too amply or dripping from the pen. The inkwell is very much essential in the field of calligraphy; some calligraphers picture it as a king on his throne.

Figure 13. Ink inside my dawat or inkwell.

Figure 14. The liqa, threads of raw slik.

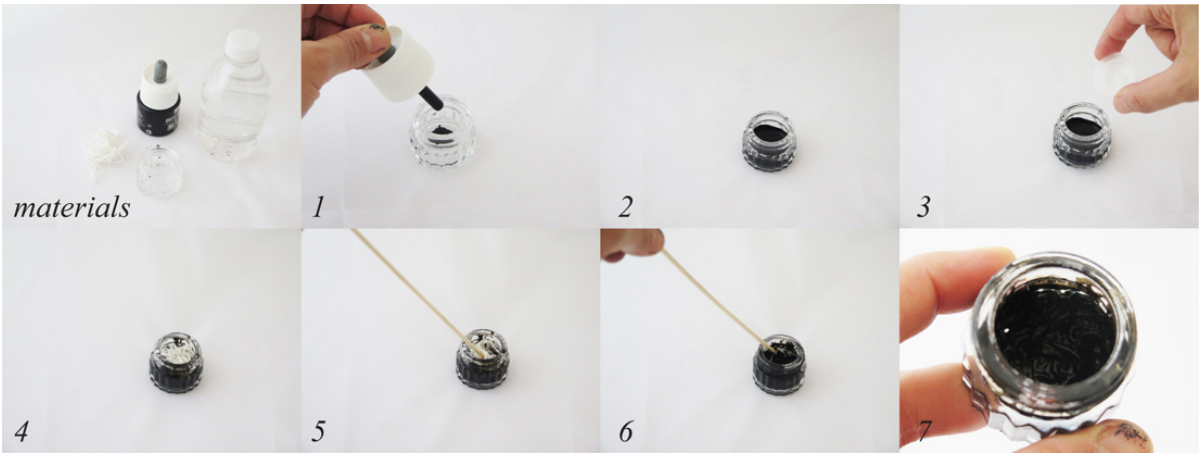

Figure 15. The process of ink prepartion.

Paper

Just as the pens and the ink have to be prepared for calligraphy writing, the paper has to be selected or specially treated. I used three kinds of paper—specially treated calligraphy paper, drawing pad paper with a smooth surface, and tracing paper with a smooth, lightweight texture. I used the calligraphy paper for my calligraphic assignments or lettering that I presented to my master for feedback and corrections, while I used the drawing and tracing paper for practice. Manufacturing the calligraphy paper is a long process, from selecting the right paper quality, to covering it with a fine mixture of starch, rice powder, quince kernels, egg white, and other components, to pressing to incorporate this mixture into the paper, to ultimately achieving a shiny and smooth surface for the pen to glide on easily. That is why I chose this paper to present my work in process to my teacher.

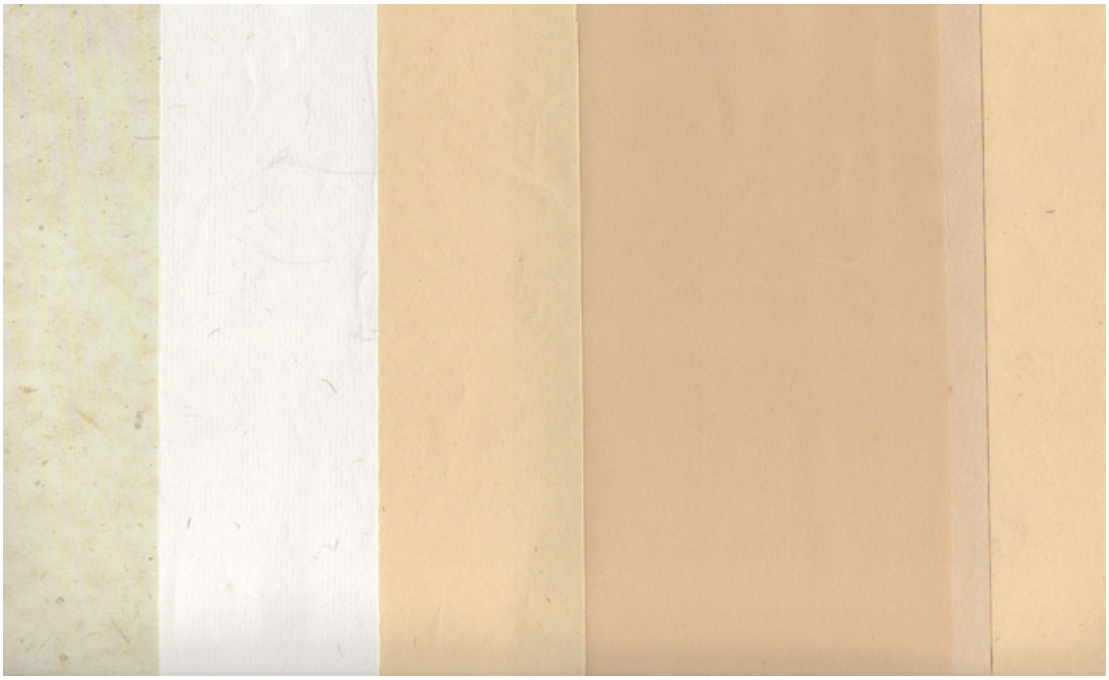

Figure 16. A close-up of the specially treated calligraphy paper.

Calligraphy Lettering Specimen

There are different types of calligraphy-lettering specimen sheets or books. Every calligrapher master has his or her own way of introducing, illustrating, and simplifying each letter in different script styles, or specializing in only one style. Commonly, these specimen sheets include the famous calligraphy phrase *rabi yasser wa la toa'asser wa tammem belkhair wa behe ala'awon,* (my God ease my task, do not make things hard, my God let my affairs end well, and with Thee we seek help). In addition, such books typically include the alphabet free-from letters, different cases of pairs of connecting letters, and a few phrases or Qur'anic verses. I studied various kinds of calligraphy lettering specimen books for this workshop and used what my calligraphy master provided and recommended. The first is by calligrapher master Muhammed Ezmil (2011), on the secrets of drawing in the *naskh* script style, which I used to practice the Arabic alphabets in calligraphy writing with the reed pen. The other is by calligrapher master Muhammed Sevki (1999), the thuluth and naskh mashqs, from which I practiced and copied the famous calligraphy phrase.

Figure 17. The lettering speciman used for practicing calligraphic letters and sentence.

Videos

The purpose of watching videos of calligraphers demonstrating writing is to achieve a higher level of contemplation and understanding because calligraphy is just like any other form of art, requiring consideration and controlled proportions. Examining the letters' relations, as each letter changes part of itself while connecting or joining other letters, the more rumination, deep observation, and inspection one performs, the better results one will achieve practicing calligraphy (J. Mi'raj, personal communication, October 17, 2014). These videos can be found almost everywhere, from specialized DVDs in calligraphy, to calligraphy websites and YouTube videos. It is essential to observe almost everything, including how the calligrapher holds and moves the pen, uses hand pressure, employs the ink, sets the paper or board, sits on the chair, and controls the angle of his hand on the table. When necessary, I repeated watching and taking notes until I sensed a recognition of the process. Indeed, I watched many videos of calligraphers giving workshops and demonstrating on YouTube and in various DVDs from KIAC, mostly prior to starting my workshop**,** but also during and after completing it. Learning from these videos is not required but it helps ease the learning process.

Notebook

Having a notebook or a journal is not necessary but I highly recommend it because it helps to keep all notes, comments, suggestions, thoughts, and even practice in one place. Throughout my learning process, I used a Moleskine unruled notebook, of the type typically used by designers due to its flatness while open and its elastic band to hold the notebook when closed. However, any kind of notebook that eases the process and engagement with learning—digital or manual, on screen or on paper—could be used. It is very helpful to use a notebook to keep track

of and record one's learning experience, witnessing the formulation and development of new skills and abilities.

Digital Camera

For documenting learning processes, samples of work, inspirations**,** and feelings, I used a digital camera. Such a camera might not be considered an essential tool for learning calligraphy in a calligraphy workshop, but I believe that we learn primarily visually, and by using a camera we can easily trace our progress and improvement, analyze our experience, and evaluate what went wrong or well.

Light-Table

To speed the learning process and improve mastering some difficult complex letters a light-table can be helpful because for the calligraphy learner, it facilitates tracing letters or words from the calligraphy lettering specimen sheet directly onto the calligraphy paper. It should be noted that due to the thickness of the calligraphy paper and the specimen sheet altogether, the letters will not appear very clearly, only the overall outlines, which is fine at the learning stage. Because a student wants to master both the proportion of a letter and the movement of hand with pen, the light-table eases learning to write the proportions accurately. My master did not ask me to use the light-table, but he gave me permission to use anything that might help my hand perform the movement of writing in calligraphy. I used a small LED tracing light pad light box that works with a USB cable. It is very easy and convenient to use due to its light-weight, slimness, and illuminated surface.

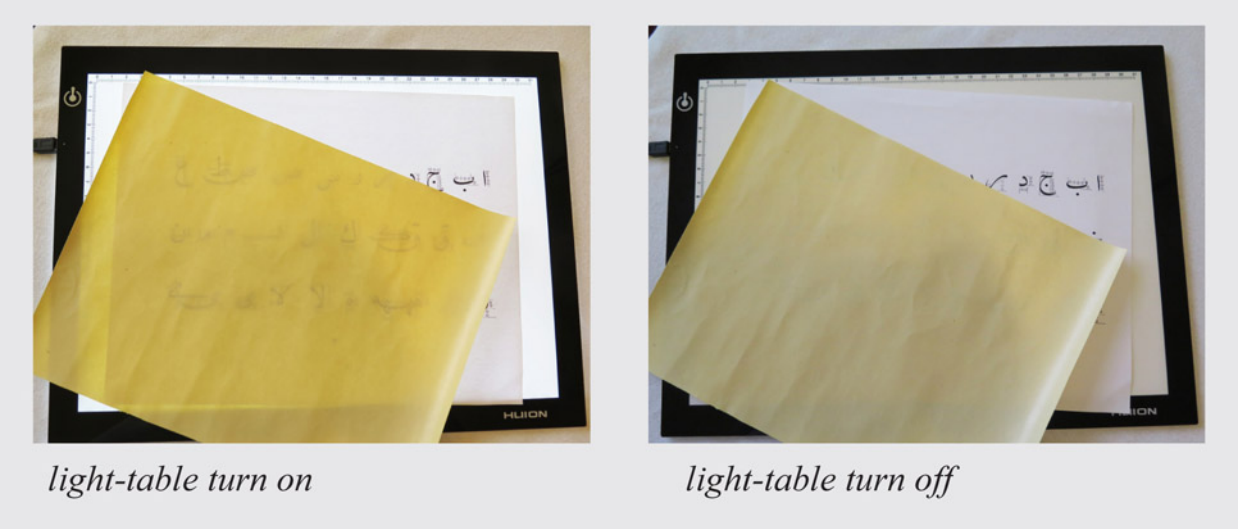

Figure 18. The method of using the light-table to trace calligraphic letters.

Computer Software

My calligraphy workshop solely relied on traditional instruments. Nevertheless, I used some computer software and a scanner to analyze my calligraphy workshop outcomes. After scanning my lessons, I used both Adobe Illustrator and Adobe Photoshop to illustrate visually the letters' composition and the writing mechanisms. The use of such computer applications simplifies and increases the value of the lessons in a traditional calligraphy workshop.

Calligraphy Workshop Operative Strategies

I started by interviewing my calligraphy master, Jassim Mi'raj, before beginning the workshop to document his perspectives as a teacher and my own as a student at the outset of the research process and also to ensure that I had covered all the basic aspects I needed to know as a learner and attained all the material and equipment needed. During this meeting, I chose to practice writing the Arabic letters in naskh script style, while writing the famous calligraphy

verses in thuluth script style because thuluth and naskh appear to be the most perfect styles encompassing the Arabic script genius (Schimmel, 1984). Therefore, I selected these cursive styles that embody most of the aesthetics and perfect proportions of Arabic calligraphy. My teacher gave me a copy of the naskh calligraphy lettering book by Ezmil (2011) and a copy of thuluth and naskh calligraphy lettering specimens by Sevki (1999).

I began writing the freeform Arabic letters in naskh script with reed pen, ink, and calligraphy paper. Next, I submitted my lesson to my calligraphy master, who started correcting and marking my writings, while explaining and demonstrating the mechanism of writing. As he was delivering his instructions and guidelines, I was fully attending and listening while trying to observe as much as I could.

After that, I started practicing by tracing the free form Arabic letters in naskh onto tracing paper with calligraphy ink pens. Next, I used my light-table to trace the letters with reed pen onto calligraphy paper. Once I practiced for a while with both techniques, I wrote the alphabet on calligraphy paper with reed pen. Next, I submitted my second lesson for correction. Again, my master corrected and marked my writings with red ink. He highlighted the letters that I wrote correctly and explained how I could improve my writing. Also, here, I observed his method in teaching and instructing.

Then, I started practicing and copying the famous calligraphy phrase with thuluth script. Again here, I started by using my light-table to help me trace the proportions and connections of letters, and as soon as I got the sense of proportions of the words, I moved to using only my reed pen and calligraphy paper. Afterward, I submitted my third and last lesson for correction. Once more, my calligraphy master marked and corrected my sentence. As I examined his method in teaching and instructing, he was highlighting the letters that I wrote correctly and incorrectly,

while describing how I could improve my writing.

Throughout the workshop, I documented my learning process by taking photographs, scanning my lessons and practice, and taking notes in my journal. I took both written and visual notes after each class session and whenever necessary. This step was very critical because it helped me to understand and examine my learning experiment.

Figure 19. A collage image of my learning lessons, corrections, and practice at the traditional calligraphy workshop.

Commentary

I wrote a commentary immediately after every session of my calligraphy workshop, aiming to document my thoughts, ideas, views, and feelings. Most importantly, I reflected on how well my hand and mind were keeping up with the calligraphy pen movement and pressure. This commentary is both visual and written. It is a reflection process that encouraged my work and examined my experiences in meaningful and deep ways (Brandenburg, 2009). Writing, sketching, and drawing this commentary helped me later on to write and reflect on my experience with reed pens, ink, and the proportions of letters. As a designer, this process felt just like taking notes or drawing any emergent idea from my mind into my sketchbook. It was an act of reflecting and maintaining my design/art practice.

The list below contains the words I wrote down in my notebook during my workshop period. Even though this list might seem unclear or unconnected, my further analysis will elucidate its significance. I used these words within my visual analysis—overlaying them on my pictures or diagrams like watermarks. In addition, I utilized them to write my analytical narratives—highlighting and italicizing them throughout my story.

Analyze	*Anatomy*	*Angle*	*Baseline*	*Break*
Breath	*Cut*	*Composition*	*Enjoy*	*Flow*
Fluidity	*Hard*	*Hate*	*Ink*	*Love*
Light	*Maintain*	*Mat*	*Movement*	*Music*
Observe	*Pain*	*Patient*	*Pressure*	*Pump*
Practice	*Process*	*Quite*	*Realize*	*Stick*
Repeat	*Rotation*	*Scale*	*Size*	*Shake*
Sharp	*Smudge*	*Spill*	*Stiff*	*Stroke*

Thickness	*Trace*	*Watch*	*Water*

In conjunction with these words, I drew many diagrams in my commentary. These visuals functioned to illustrate how I could improve my calligraphic writing by analyzing letters' compositions and proportions, along with pen movements and strokes. I used my pencil, calligraphy ink pen, and reed pen with three different ink colors. Figure 24 shows my various attempts to simplify and illustrate. Here, I want to point out that occasionally these efforts were inspired by my calligraphy master and my examination of the calligraphy lettering specimen sheets I had. Not simply mimicking them, I followed similar techniques.

Deciphering My Calligraphic Experience

Attending this workshop at the Kuwait Islamic Arts Center was my first-hand experience with Arabic calligraphy in a professional setting. My work under the supervision of calligraphy master Jassim Mi'raj was one of the most challenging, nourishing, and genuine learning experiences I have ever had. In a short period of time, I grasped the basics of learning Arabic calligraphy, even though I needed more practice to perfect my letters, and I found numerous ideas about how we might use Arabic calligraphy to contribute to the education of Arabic typography and graphic design. To describe my learning outcomes, I have pursued two complementary approaches—visual analysis and narrative inquiry. My visual analysis is inspired by my commentary and workshop outcomes and constitutes forms of visual representation that reflect my learning process.

Visual Analysis

After completing my calligraphy workshop and reviewing my commentary, notebook, and digital images from my camera, I composed three approaches to analyze my learning experience visually. My first method illustrates the eighteen basic Arabic letter shapes juxtaposed with their corresponding dot system for measurement, letter components, and stroke movement. In my second approach, I categorized the Arabic letterforms by types of calligraphic stroke movement in which the letters' stroke movements could include combinations of stroke styles to compose letters. These strokes could be:

1. Flat (*monsteh*): An extended stroke from right to left or the opposite.
2. Curved (*monhany*): A stroke that begins from the left and is diagonal.
3. Erected (*montaseb*): An erected stroke begins from top to bottom or the opposite.
4. Reclined (*mostalgi*): A stroke that begins from the right and descends to the left toward the top or the bottom.
5. Arched (*mogawus*): A stroke with inner side facing the top while its outer side faces downward or the opposite.
6. Rounded (*mostadeer*): A stroke with a movement similar to half a circle.

The third approach in my visual analysis examined the calligraphic sentence lesson. This approach focused on words and sentences rather than isolated free-form letters, seeking to evaluate the lesson and juxtapose it with the actual sentences I copied from the calligraphy specimen. Examining the three approaches offers a visual understanding of the calligraphic workshop outcomes—what one can learn from attending the calligraphy workshop. The following story of my experience with the traditional Arabic calligraphy workshop deepens this understanding.

Figure 20. Illustrations of the main eighteen Arabic letterforms, the dot system for measurement, letter components, and stroke movement analysis.

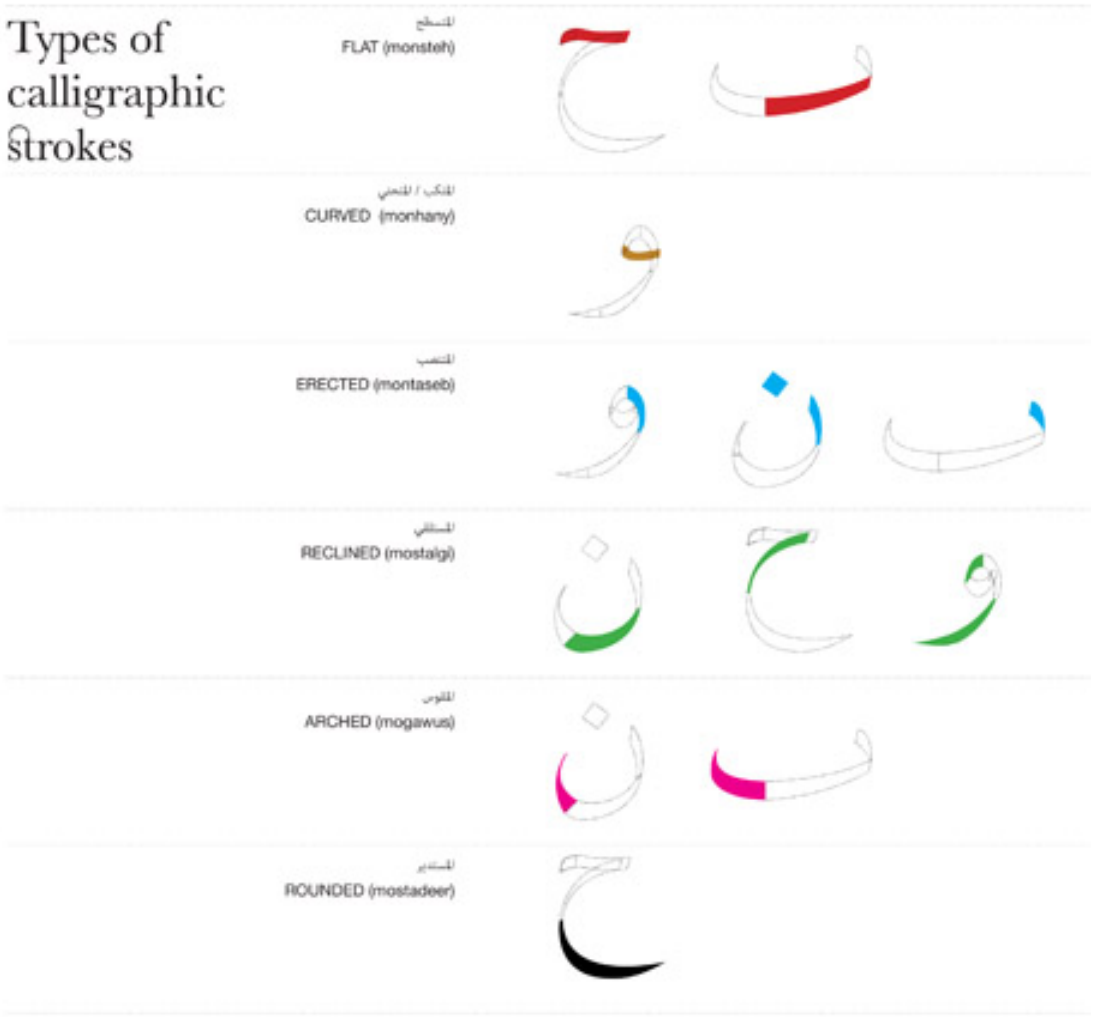

Figure 21. Arabic letterforms by type of calligraphic stroke movement.

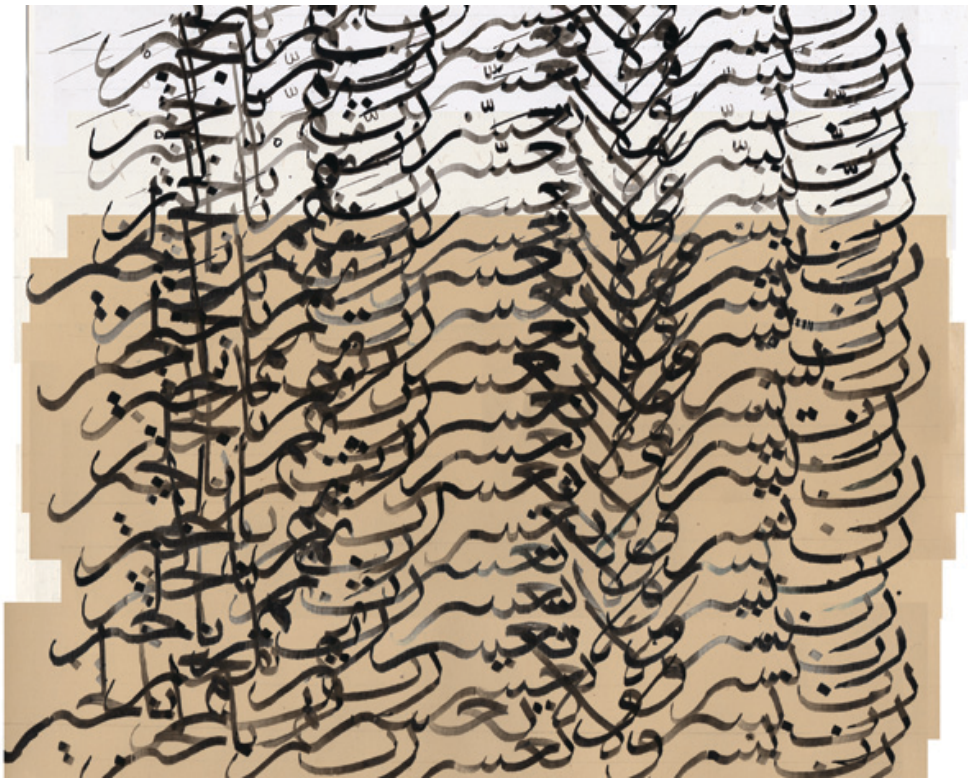

Figure 22. Analysis of my calligraphic sentence practice.

Story 1; Arabic Calligraphy, a Tradition of Ink, Breath, and Contemplation

I could not contain my excitement as I was about to start learning Arabic calligraphy with traditional methods and techniques. It was a real pleasure and an experience that I will always treasure, being fortunate enough to study with the talented khattat (calligrapher) Jassim Mi'raj. Arabic calligraphy has always fascinated me by its geometric ***proportions*** and organic ***fluidity***. My interest in Arabic calligraphy was strengthened even more when I pursued my current research that focuses on Arabic calligraphy and typography, especially as I devoted my research to understanding approaches to teaching Arabic typography. If we want to understand Arabic typography we have to comprehend its foundation in Arabic calligraphy because Arabic typography builds upon calligraphic writing styles. I deeply believe that by recognizing and

examining the meaning of Arabic calligraphy we can perceive the Arabic alphabet, thereby using it effectively in typographical communications. With such a point of view, I started my workshop. I was extremely eager to start, but I was nervous and anxious before my first lesson, so I convinced myself to arrive early that afternoon to give myself a space to contemplate and settle down before I would begin to ***cut*** my pen, hold it, and write.

As I walked through the courtyards and arcades of the Great Mosque on my way to attend my calligraphy workshop, my eyes were delighted to look at all the delicate carved and inlayed calligraphy within the walls and ceilings. The Arabic letters surrounded me. Calligraphy was everywhere, inviting me to look, perceive, relax, contemplate, and learn. No doubt, the space and its architecture have visual lessons for all of us. Passing by the Great Mosque, in a way, felt like walking in Istanbul, the capital of calligraphy, on my way to start my journey with calligraphy, just like the old days, as I found a calligraphy master to instruct me letter by letter. Traditionally, a disciple starts by ***practicing*** writing the famous calligraphy sentence, rabi yasser wa la toa'asser... (My lord eases do not distress…), as a first lesson and a test from the master to see if the student can be ***patient*** while learning calligraphy or not (J. Mi'raj, personal communication, October 17, 2014). From there, the lessons begin from single letters, to letter combinations, words, and sentences in order to complete the training and earn an eijazah (permission) to ***practice*** calligraphy. Historically, continual ***practice*** of single letters, especially in the eastern Muslim world, led to mastering beautiful scripts, in contrast to western Muslim ***practice***, where calligraphy lessons began with copying whole words and thus did not match the elegance of eastern styles (Ibn Khaldoun as cited in Schimmel, 1984). Working toward perfecting single letters, a student must ***practice***, filling countless page**s** with *mashg*—rapid writing. As a calligraphy student during this research study, I had to ***practice*** almost all of the

time. If I sat relaxed without ***practicing***, calligraphy would leave my hand, just as the color of Henna fades away.

Persistence to Embellish

I copied the Arabic alphabet every day, many times a day, during the workshop. When I presented my first lesson for correction, I was extremely nervous to show my teacher. My letters were nowhere near good yet. It was very ***painful*** and challenging to write these letters, especially holding the pen. "My hand hurt," I told my teacher. "It is normal to feel frustration, suffering from ***pain*** and soreness," he said calmly. He began looking at my lesson to correct it. He explained that calligraphy needs persistent ***practice***, just like physical exercise. If you just start writing your hand will get sore, but with time and effort, you will be able to get the ***movement*** and proportions of calligraphy. Unquestionably, the calligrapher's hand is his/her asset. Thus, while ***practicing***, a calligrapher has to protect his hand by not lifting anything heavy (Schimmel, 1984). I had to hold my *qalm* (reed pen) the traditional way, with my middle finger, forefinger, and thumb all spaced out well along the pen's shaft, yet I had to apply the lightest possible ***pressure***. With the same method, my master held his pen, dipped its tip into his red ***ink***, and started correcting my misproportioned letters, while also highlighting the ones that were almost satisfactory. In addition, he noticed the ***trace*** of ***ink*** that glided from my pen, which betrayed some resistance and showed some ***smudges***.

Striving to Write

Such a struggle can be caused by various factors. The type of paper can affect the smoothness of calligraphy writing. Calligraphers used to purchase the finest hand-made paper,

or even prepare and coat the paper themselves. The paper should be smooth, pressed, and durable to hold ***ink***. My paper did have these qualities, so I guessed something else affected my writing. "Could it have been my pen?", I wondered and asked my teacher. He took my pen and inspected its tip/head. Then he said it needed some clipping and trimming. The pen should be properly trimmed, with an ***angle*** suitable for the script style. There are different ways of trimming, my teacher explained. The pen is the most important tool in calligraphy. The pen has many benefits for the body, thoughts, and senses. It is an artistic machine, a ***musical*** instrument. Thus, every calligrapher has a particular style of ***cutting***. Apparently, I needed to pay more attention to this ***process***. I needed more ***practice cutting*** my ***hard***, dried-reed pen and preparing it for writing. That was not all, my master carried on, turning to my ***ink*** jar: "We need to make sure your ***ink*** is fluid and consistent enough." The ***ink*** preparation is essential, too. Before dripping some ***ink*** into my jar, I placed a few silk threads (the liqa) inside, which help keep the ***ink*** from drying out and prevent any ***spilling*** if the inkwell tumbles. However, I needed a few drops of distilled ***water***, since my ***ink*** had an almost inflexible consistency. To achieve exemplary calligraphy writing, one should consider the pen, ***ink***, paper, and her/his hand. These elements are best perceived by directly ***observing*** the calligraphy teacher. I have watched many videos and read many books on how to ***practice*** and write Arabic calligraphy, but I learned much faster from ***observing*** and paying attention to my teacher.

Calligraphic Breaths

The relation between the disciple and the master is very important because it is how a student learns to properly hold and write with the pen and also how to properly sit, ***breathe***, and contemplate. Sitting properly means supporting the head on the spine completely, not on the

neck. Otherwise, the heavy head would exhaust the neck muscles. More importantly, every inhalation and exhalation contributes to achieving beauteous writing. The pen provides serenity through its connection with ***breathing***. A calligrapher stops ***breathing*** automatically while writing, taking a new inhalation when stopping writing for a moment, reaching to the inkwell for more ***ink***. Such a cessation of ***breathing*** while writing is to grant life to the calligraphy ***movement*** (Massoudy, 2007). Humans stop ***breathing*** for a moment when seeking to focus on something, a natural act we perform from childhood. Especially if we want to focus on working on something difficult, we lock our ***breath*** for a few seconds. In calligraphy, this act is critical, controlling the ***breath*** and making its ***movement*** slower while writing, prolonging the period of holding one's ***breath*** (*habs alnafas*) until returning to the inkwell. Only then a calligrapher ***breathes*** again, exhaling and inhaling while supplying his or her pen with ***ink***. It is a short moment but enough to refresh the brain with oxygen while thinking of the letter's next part. Such an act allows us to control our ***breath*** as well as our bodies. The reed pen takes a small amount of ***ink***, proportionate to the human capacity to interrupt ***breathing*** (Massoudy, 2007). Therefore, while controlling my ***breaths*** as I write calligraphically, I calm and reassure myself. Additionally, controlled ***breathing*** helps me to contemplate and ***analyze*** the letters. Ibn Arabi called the world of letters the world of ***breaths***, not only because each of the twenty-eight Arabic letters has a distinctive sound emission, but also because letterforms are written and shaped based on ***breaths***. There is a connection between the elegance and evenness of a script, the pen and the holding of ***breath***. Letters float within our cosmos and react to our ***breaths*** as we write them down, pronounce them and form words. Letters follow certain orbits, according to our ***breath*** and their existence. Letter bodies react to the universe of ***breath***, changing parts of themselves to connect with other letters, forming words. In the same way, my hand reacts to my

breath, pressing, holding, and ***rotating*** the pen gently and softly on my paper, letting me see the letter. More and more, I felt satisfied with my ***process*** of learning in the workshop. I knew I needed more work and effort to achieve ideal letterforms, but the joy of perceiving the letters in new ways was overwhelming.

Devotion to Proportion

Patience, ***practice***, and persistence were my companions in my journey of learning calligraphy. Achieving fine calligraphy did not effortlessly come to my hand. My master's reviews and corrections illustrated that I improved, as some of my letters became nearly perfect. I did have some potential. I knew, deep inside my heart, that I was not going to be a calligrapher once I completed my workshop sessions. In the traditional approach, this ***practice*** takes years to achieve. I only sought to gain a sensibility, interacting with the Arabic alphabet, making it appear pretty and legible, but I still had a long way to go before perfecting the alphabet. My hand needed to develop a friendly relationship with the reed pen, whose weight is ***light***, importance is heavy, and use is enormous. I devoted more time to get to know my pen, continually writing something with it, or trimming it. It was clear to me that the elegance of a script stems from how the pen is ***angled*** to the paper face, along with the ***pressure*** on the pen's nib. The line width variation is executed by pressing on the pen nib's left or right side, or both together. A calligrapher modulates his ***stroke*** by pressing down any part of the nib's two sides (Khatibi & Sijelmassi, 2001). In addition, the nib width is exceptionally important since it determines the letter's *alif* unit of proportion. This module uses the *nuqat* (dot) width that is drawn by the pen to determine the *alif's* proportion, and accordingly, the rest of the alphabet letters. For that reason, calligraphers pay attention to their pens' nibs, ***cutting*** them to precise

points according to the rules of desired script. Additionally, my calligraphy teacher used a system of dots while reviewing my lessons. Using his red ***ink***, he rewrote some letters with their dots to demonstrate how a letter is executed according to its proportions.

Letters Presence

The system of dots was founded by Ibn Muqlah and modified by Ibn al-Bawwab, both the greatest masters in calligraphy. They ***enjoyed*** writing and applying these dots as rhyming exercises while teaching their disciples the craft secrets. Such traditional instructional settings have close connections with Sufi tradition and are integral to calligraphers' lives. Tying calligraphy ***practice*** to Ibn Arabi's theories, this system of dots measures writing while expressing the alphabet mysteries. When a calligraphy master trains his disciples, he also introduces them to the mysteries of divine ***love*** and beauty through the letters. The relation between Sufism and calligraphy was natural because calligraphy was viewed as a sacred art (Schimmel, 1984). Letters are perceived as creatures, having their own existence, worlds, and relations, vessels carrying the words of the Qur'an. Contemplating and beautifying letter is an act of ***love***; the ***love*** leading one to Allah. Ibn Arabi primarily explains the Arabic alphabet's realities by understanding their position within a sacred text, the Qur'an. Letters written with ***ink*** are one form of letters' realities. We identify letters with the material ***ink***, while calligraphers perceive the alphabet's existence as a distinct reality. Each letter unfolds amid various modifications while maintaining its own form. My calligraphy master clarified the meaning of such relations while affirming Ibn Arabi's ideas. He noted that he believes that every letter has a distinctive self, in its isolated form, yet when a letter connects to another, each of these two letters will change part of itself to honor this new union while yet retaining its distinctive self.

As I started to wrap up these ideas of unique letter identities and relationships, my eyes were able to see how the ***ink*** presents letters' realities. And at that moment, I was able to see, feel, and ***breathe*** the alphabet and its distinctive modifications. We initially perceive calligraphy by sight, then proceed to insight. First, we need to ***observe*** the letters' shapes to recognize them. Once we identify the Arabic alphabet, then we can lift the mask to extract and complete the letters' meanings. At this stage, our conscious mind views calligraphy as a visual and cultural expression, inviting us to reveal its meanings, ***analyze*** its shapes, and reflect on its dimensions (Obaid, 2006). Truly, calligraphy has symbolic and inspirational dimensions. As the letter glides from my pen, my ***ink*** manifests linear rhythmic ***composition***. As I write it, it writes me. I draw it, it draws me. I delineate it and it delineates me. I shape it and it shapes me. I live in it and it lives in me. Undoubtedly, I do have a special passion for this alphabet; it is part of me, part of my artistic, cultural and national identity.

Emergence of Calligraphic Consciousness

By the end of my calligraphy workshop, my feelings were transformed from anxiety to sobriety and calmness. I had gained much from my experience with traditional calligraphy. Nevertheless, my writing is still in progress. It is not perfect, and it could not become so in a short period of time. The most challenging task was not only to master writing the single isolated letterforms, but also to tame my hand to write connected letters for words in sentences, writing different forms of letters. It is a skill that enables the mastering of all forms of a letter, the isolated, initial, medial, and final. This skill honors and illuminates the worlds of letters and their relationships. Undertaking this challenge and the persistence to improve calligraphy writing is the key to gaining sensibility for the Arabic alphabet. Learning Arabic calligraphy is a

process demanding much devotion, ***practice***, and ***love***. Through this journey of learning, a student needs to have understanding of calligraphy, necessary tools, a good hand, fine temper, and ***pain*** endurance. Without these five components, no one will achieve good outcomes. Learning calligraphy is fraught with obstacles, physical and otherwise. I faced some struggles holding the pen and pointing its head to the paper, using the pen or the parts of its tip in different positions, and moving it across the page. Also, I struggled to link letter parts together and even link letters together in a word. It was difficult, but rewarding. Witnessing such struggles illustrates visually for the learner how to improve and overcome obstacles. Practicing calligraphy, focusing on its fine details, while being enlightened by Ibn Arabi's science of letters, connects one to letters and their various realities and distinctive forms.

My journey of learning the basics of Arabic calligraphy has demonstrated for me that this form of art is at the forefront of visual culture, connecting me to a ***practice*** rooted in more than 1,400 years of history, religion, culture, and identity. It is found almost anywhere and fascinates many people, even those who do not speak or understand the language. The art of Arabic calligraphy suffuses visual culture, reflecting and connecting daily life to national and cultural identities. Calligraphy is a ***practice*** based in ancient traditional tools and techniques. Nonetheless, it connects us to ourselves, allowing us to slow down, ***breathe***, and ***observe*** in order to carry on a contemporary ***practice***, communicating effectively while reflecting our identities. My experience with calligraphy will always hold a special place in my heart because it changed the way I perceive the Arabic letters forever.

Conclusion

The first part of my calligraphic and typographic self-study experiments was fulfilled by

attending an individual calligraphy workshop at the Kuwait Islamic Arts Center. I have outlined the basic tools and materials, the process of my learning, and the methods of analyzing the outcomes of my calligraphic workshop. In a professional setting, I worked with the calligrapher Jassim Mi'raj, who introduced me to the art of Arabic calligraphy, covering the basics, from using the tools to applying the techniques. Additionally, Mi'raj validated and approved my use of Ibn Arabi's science of letters because it helps the calligrapher to contemplate and feel the letter, thus improving practice. In a short period of time, I managed to write Arabic calligraphy in naskh style by practicing free-form Arabic letters, and in thuluth style, writing the famous calligraphy phrase. I documented my journey with both visual and written commentary, followed by analyzing my learning outcomes with complementary visual analysis and narrative inquiries. Both approaches are inspired by my commentary and workshop outcomes, and both are also modes of reflecting my learning experience. The visual diagrams highlight principal aspects of letterforms in calligraphy, which leads to the development of letter sensibility. My narrative reflects on my learning experience and makes sense of its meaning. My two approaches to analysis are the means for knowing and coming to understand while facilitating critical thinking. Even though I need more practice to perfect my letters, I encountered many ideas for utilizing Arabic calligraphy in teaching Arabic typography design for contemporary applications and practices.

Part Two: Self-Study Experimental Calligraphy and Typography

The second part of my self-study experiments aims to develop deeper perspectives to value and understand the mechanisms of Arabic calligraphy for art and design education. I highlight calligraphy's role in Arab and Islamic cultures and its place within our visual world,

while examining it through Ibn Arabi's description of letters, gaining a greater comprehension of its semiotics. This phase of my self-study experiments is complementary and integral with the first part—learning calligraphy in a traditional professional Arabic calligraphy workshop. As I scrutinize the Arabic alphabet through self-study methods that include both self-learning and self-exploration projects, the purpose of the three experiments in this phase is to examine aspects of the art of Arabic calligraphy not covered in the calligraphy workshop. Each of these self-study experimentations is distinctive, but connected. The first experiment concentrates on letter proportions by juxtaposing essential concepts: the dot system, the circle method, and the golden ratio of the Arabic alphabet. The second experiment addresses the relationships of letters and the mechanism of connection in calligraphy, especially in light of Ibn Arabi's ideas and its extensions within the scope of visual culture. The third self-study experimentation analyzes and inspects a page of the Qur'an to underline the elements, movement, and order of the composition of calligraphic pages, quite similar to typographic pages.

My calligraphic/typographic experimentation with Arabic letters utilized both manual tools (such as reed pens and ink) and computer applications (such as Adobe Illustrator and Photoshop) for composition. I used computer software primarily for analysis, inspecting and evaluating my experiences as an artist, designer, teacher, and researcher. Visual data dissection includes diverse approaches stemming from my multiple roles. These approaches encompass visual diagrams, commentary, and narrative analysis. The main elements in these three experiments are the visual diagrams, which constitute both data and data analysis, enabling evaluation, assessment, and refinement of the learning experience. Likewise, I supported my findings by synchronizing them with the semiotics of Ibn Arabi's science of letters and visual analysis. Hence, employed an ongoing narrative commentary, my data analysis and results form

a valuable source to create Arabic typography lessons, ultimately, facilitats the development of contemporary Arabic typography curriculum.

This second part of my self-study experimentation is not only complementary to the previous, but synchronized with it, as is the analysis and execution of the three experiments. I did not follow a linear mode while performing my examination, starting with one study, then moving to the second, and so on. Indeed, I carried on my self-study in overlapping, synchronous periods of drawing, writing, endeavoring, exploring, and testing. I strove to learn, understand, see, and feel the Arabic letterforms' sensibility critically to compose effective typography. From this basis, I intend to translate my personal learning and investigation to develop original pedagogical strategies for Arabic typography.

Experiment One: Letter Proportions

In this experiment I examined the Arabic alphabet proportions or what is known as *al-khatt al-mansoub* (the proportioned script). My aim in this experimentation was to understand the perfected proportions of the Arabic letterforms and their measurement by juxtaposing the Arabic letterforms, their dot measurement system, the circle system, and the golden ratio. The dot and circle systems relate to Arabic letter measurement theory. While the golden ratio—which is also known as the golden section, or golden mean and is linked to the divine/virtuous proportion—is associated with the number 1.618 as the most perfected proportion ratio proportion for any artifact or creature. Hence, it is ultimately connected to the human body's proportion, the most perfected ratio. This juxtaposition allows the inspection of diverse aspects of Arabic letters proportions and ultimately facilitates the translation and comparison of their rules with Ibn Arabi's description of the Arabic letters. Thus, this experiment facilitates a

deeper, more sensitive understanding of the letterforms, while creating an awareness of their legibility.

Exploring and examining the proportioned script (al-khatt al-mansoub*)*, also known as letter measurement theory, aids in obtaining a holistic understanding of the Arabic letterforms. This examination is not only helpful for grasping letterforms' sensibility and proportions, but it also aids in designing contemporary typefaces and typographic compositions. Arabic letter measurement theory is built on two formulas, the standard and aesthetic formations (Obaid, 2006). The standard configuration is based on balancing the volumetric variations of single letters, acquiring the letter molecules that swing from fine to thick with shifts between stiffness and ductility. The aesthetic formation develops from the golden proportions. Thus, Arabic calligraphy entered a new era with the establishment of the letter measurement theory, the proportioned script (al-khatt al-mansoub), which is still used today.

The Letter Measurement Theory

The founder and establisher of the proportioned script and its geometrical rules is Ibn Muqlah (886-940 AD), and after his death, his pupil Ibn Al-Bawwab (d.1022 AD) carried on his efforts and perfected them. The two calligraphers are considered the fathers of Arabic calligraphy (Khatibi & Sijelmassi, 2001). Their contributions codified calligraphy while establishing its geometric aesthetic rules, which use the dot (nuqta)—the origin of calligraphy—as the standard unit for measuring letter proportions. Ibn Muqla, known as the master of the proportioned script, was a calligrapher and a vizier at the court of the Abbasid Caliphate—the ruler of the Muslim empire from 750-1258 AD. He worked to create and refine new calligraphic scripts while establishing canonical Qur'an copies (Tabbaa, 2001). Such canonization helped to

make the Qur'anic script much clearer while confirming the Abbasid state authority over preserving the form and content of the Sacred Book. Hence, Ibn Muqlah codified calligraphy as he established the geometrical standards for the Arabic letters and their rules, which control and measure letter proportion and precision. This geometrical system uses the circle as a module to compose letters and measure them. Ibn Muqlah starts with the first letter of the Arabic alphabet, *alif*, as a pivot letter setting the rules for the rest. For this reason, *alif* is the diameter of the circle, which is essential to compose letter proportions. The rest of the alphabet is enclosed within the circle or part of the letter. At the same time, the geometrical system for measuring letters utilizes the dot (nuqta) system as a basic unit measuring every distinctive letterform and its proportions. Ibn Muqlah's efforts and vision in letter measurement theory contributed to developing and perfecting the calligraphic styles naskh and thuluth, while setting specific pens for each script. However, due to political and social circumstances of his time, no original manuscript of the proportioned script written by Ibn Muqlah has been preserved. Nevertheless, Ibn Muqlah's work was carried out and developed by his disciples, especially Ibn Al-Bawwab, who worked on refining and perfecting Ibn Muqlah's ideas by following Ibn Muqlah's method but expanding the calligraphic script to use more cursive, making possible more elegant, clear, and explicit expression. Ibn Al-Bawwab's method also uses measurement guidance and codes to establish an origin as a foundation to construct his letters. For instance, Ibn Al-Bawwab also starts first with the letter *alif*, writing it to any desired length whilst maintaining *alif's* thickness, appropriate for its height, which is one-eighth of its length, the lower part finer than its beginning, and then positioning *alif* as the diameter of a circle. By doing so, one can build the rest of the alphabet's letters in proportion to *alif's* height, width, and circle circumference.

Hence, Ibn Al-Bawwab created a definitive Arabic letter measurement system that is still used today.

Ibn Muqlah's and Ibn al-Bawwab's codification of Arabic calligraphy and their establishment of a measurement system uses not only the circle and dot system but also *al-nisbah al-fadhelah*, or the virtuous proportion. In virtuous proportion, a ratio is derived from the geometric relationship of a circle and one of the equilateral polygons drawn inside it. This geometrical correlation can be direct or derived from series of related relations, given that all such derivation phases or stages are justified geometrically. This virtuous proportion is connected to the virtuous geometry, which is based on the circle and the dot in coherent, derivative relations. Consequently, the finest body/structure is composed according to a ratio in which each part is built upon the virtuous proportion. That proportion is represented by a formula based on a relationship between the sum of the elements and the larger of the two quanta. The human body is the most perfected creation, the best example of the virtuous proportion. Consequently, the finest type of calligraphic writing, the most correct composition, features letters in accordance with the virtuous proportion (Habib, 1989). Surveying these perspectives establishing the Arabic letterforms according to standards of measurement and proportion, I aim to juxtapose them visually to examine them closely, seeking a higher level of sensibility, ultimately identifying how to compose with the Arabic alphabet effectively for contemporary practices and applications.

Compulsory Instruments

To fulfill the purpose of this experiment, recognizing the perfected proportions of the Arabic letterforms and their measurement, I used various tools, materials, and equipment to

facilitate my experimentation. I combined traditional and technological tools and techniques to achieve the greatest learning outcomes:

1. Pens: reed pen, ink pen, pencil, and colored marker.
2. Paper: tracing paper, calligraphy paper, and multipurpose paper.
3. Calligraphy lettering specimen: for copying the Arabic alphabet in freeform letters in thuluth style, I used a lettering specimen by calligrapher master Muhammed Sevki (1999), the thuluth and naskh Mashqs.
4. Computer software: my experiment relied on using the traditional calligraphy instrument. Nevertheless, I have used some computer software to analyze my work and learning outcomes. I used both Adobe Illustrator and Adobe Photoshop.
5. Digital Camera: for documenting the learning processes, samples of work, inspirations, and feelings I used a digital camera.
6. Notebook: as a journal that help to keep all notes, comments, suggestion, thoughts, and even practice in one place.
7. Light-table: to assist the learning process a light-table provides a good support facilitating tracing letters or shapes from the calligraphy lettering specimen sheet directly onto the calligraphy paper.
8. Additional tools and equipment: a scanner, copy machine, scotch tape, ruler, and cutting knife.

Formulas for Exploring Alphabet Proportions

This experiment began as I used my traditional calligraphy tools, reed pen and ink. I wrote the eighteen basic Arabic letterforms in calligraphic thuluth style. Then I used a tracing

paper to separately indicate the dot measuring system for these eighteen letters. Next, I scanned my papers that contain the Arabic letters and their dot measuring system to further experiment and analyze them with computer applications. After that, with Adobe Illustrator and Photoshop I overlapped my letters and their dot system. Then I drew the circle of measurement around the letters.

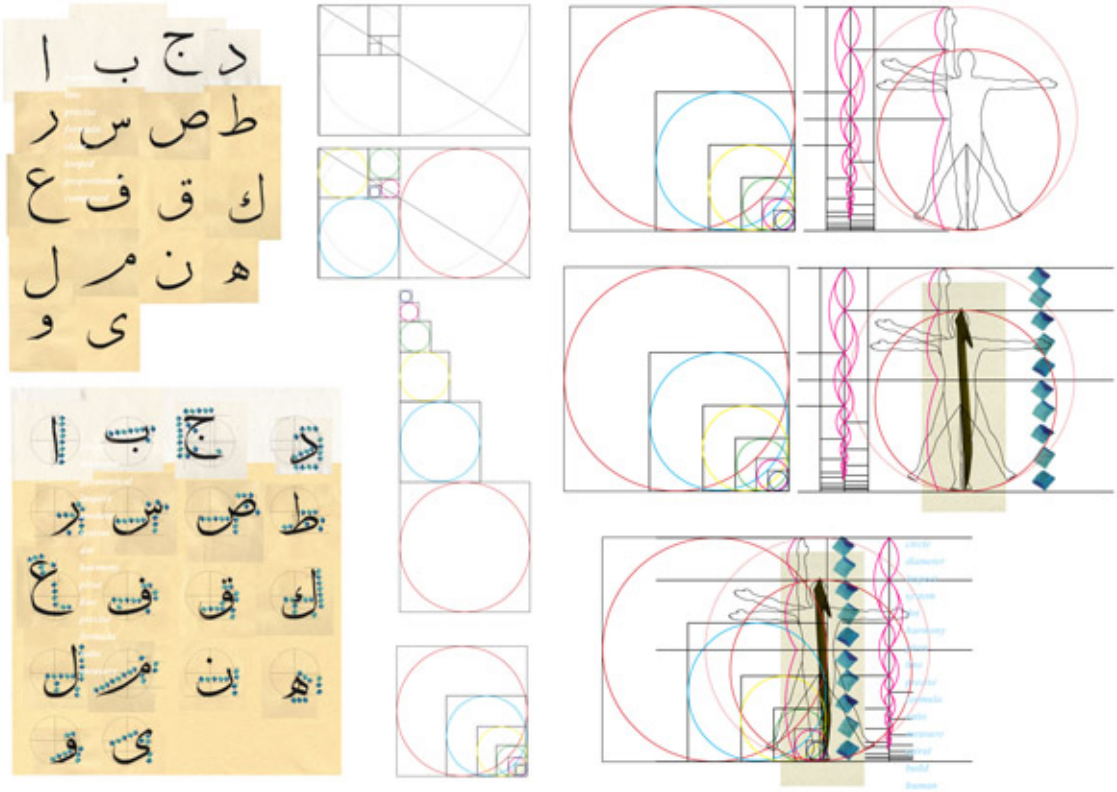

Figure 23. The basic Arabic letterforms in thuluth style overlapped with the dot and circle system, analysis of the golden ratio, virtuous proportion, and the human body.

Next, I started to simplify and analyze the golden ratio and virtuous proportion with the human body while comparing it with the letter *alif* and its dot system. Later, I explored how the ratio of the virtuous proportion and the golden ratio are found within the Arabic letters. Here, I created a measuring tool, similar to the ruler, based on the golden ratio and dot system, to help

me measure each letter's part and proportion. Finally, I juxtaposed all of the different approaches to measure the Arabic letter proportions, deepening the perception and recognition of these letterforms. This step facilitated a grasp of all the different kinds of Arabic letterforms' measuring and proportion systems.

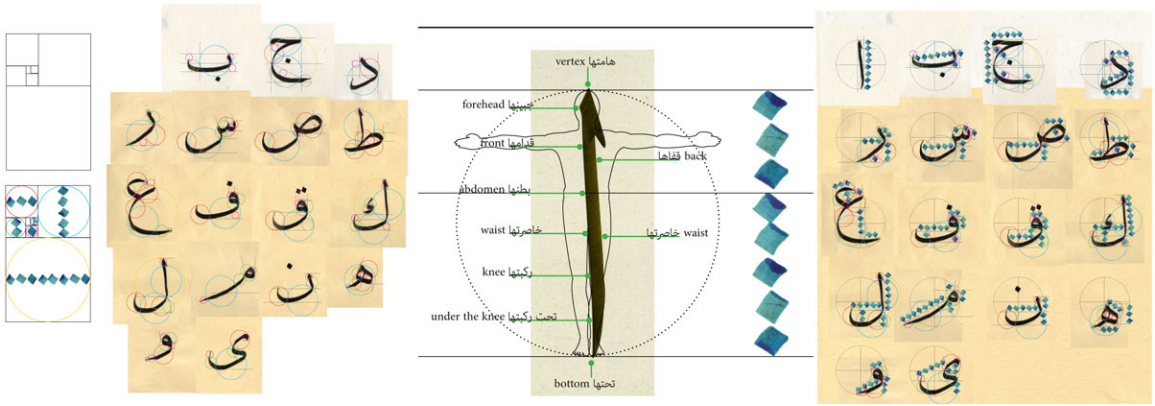

Figure 24. Analysis of the golden ratio, virtuous proportions, human body, and the Arabic letter alif and its dot system.

Commentary

Since my experimentations were an ongoing learning process, I wrote and drew in my notebook as a form of commentary during and after every step of executing the experiment. My commentary was a means for recording any emerging or developing thoughts, ideas, views, and feelings that I had while conducting this experiment. Therefore, my commentary was both visual and written because I constantly aimed to analyze my understanding and learning journey. Any word or line I wrote or drew was part of a reflection process examining my experiences in expressive ways (Brandenburg, 2009). In this view, my words and sketches certainly helped me reflect on what I experienced and learned, supporting the creation of my narrative analysis later

on. I collected different words that I documented while developing this experimentation. These words may have direct connection to each other or not, but they serve as a mode of documentation, and my analysis later in this study will translate and reflect these words' meanings. The list below contains the words I wrote down in my notebook during the visual representation and analysis of this experiment. In order to illustrate the words' significance, I used the content of this list, whenever suitable, integrating words into my visual examination—like a watermark. In addition, I employed them for my narratives analysis, highlighting and italicizing them within my story.

Alliance	*Back*	*Bend*	*Body*	*Build*
Circle	*Clear*	*Code*	*Complex*	*Composed*
Diameter	*Dot*	*Fit*	*Formula*	*Front*
Geometrical	*Harmony*	*Head*	*Hidden*	*Human*
Inspect	*Juxtapose*	*Line*	*Looped*	*Measure*
Module	*Nature*	*1.618*	*Overlap*	*Part*
Perfected	*Pivot*	*Precise*	*Proportioned*	*Ratio*
Repetition	*Scale*	*Structure*	*Struggle*	*Spiral*
System	*Toe*	*Twisted*		

Besides writing these words, I also drew and sketched in my notebook as a visual documentation and reflection. As I sought to grasp the perfected proportions of the Arabic alphabet, these diagrams and sketches aided my visual and written analysis. Most of my visual commentary was integrated and became part of the visual representation and investigation.

Elucidating My Experience with Letter Proportions

This experiment revolved around inspecting the Arabic alphabet proportions, or al-khatt al-mansoub. Throughout the investigation I aimed to identify the proportions and perfected measurements of the Arabic letterforms. Because there are many means of measuring the Arabic alphabet, such as the dot measurement system, the circle system, and the golden ratio or virtuous proportion, I chose to juxtapose these different systems, comparing a holistic view of the letterforms. At certain points, it became confusing to apply such a juxtaposition, but toward the end, it facilitated well the inspection of diverse aspects of Arabic letter proportions, eventually making possible the translation and comparison of those systems with Ibn Arabi's description of the Arabic letters. This unfolding of my learning outcome proceeded by visual analysis and narrative inquiry. At the same time, my narrative inquiry served as the overarching mode of analysis to describe and clarify al-khatt al-mansoub.

Visual Examination

Having completed my first calligraphic experiment and reviewed my visual and written commentary, I began analyzing the structure of the letter *alif* and its dot measuring system while comparing it to the golden ratio and the human body, since the rest of the Arabic alphabet letters follow and coordinate with the proportions of the letter *alif*. Understanding *alif* facilitates comprehending the entire alphabet. Thus, I began to analyze in more depth *alif* by overlapping the letter *alif* with a human body diagram and its corresponding body part (adopted from Abou Omar Al-Dani, 1052, as cited in Massoudy, 2010). Such a juxtaposition was edifying because it illustrated the letter's relation to human body parts. This step inspired creating a measuring tool for the Arabic letterforms; it has the rectangular shape of the golden ration section, while it also

coordinates with the dot measuring system of the letter *alif*, specifically the point size (reed pen's nib) I used in this experiment. To utilize my measuring tool, I printed it on a transparent vinyl sheet and trimmed it to the proper size in order to apply it to overlap my letters, seeking to uncover their proportions. From there, to record my examination, I chose circles with diameters related to the golden ratio section and the dot system. These circles were drawn on the letter's body-part to identify its proportion. All of the eighteen distinctive letterforms were analyzed and overlapped with these measuring circles. Finally, my visual analysis reached its ultimate articulation when juxtaposing all the different approaches to measuring the Arabic letterforms because, even though these systems use different approaches and means of measuring, they all correlate and harmonize with each other.

Story 2; Divine Proportions

The Arabic alphabet's beautiful shapes, elegant strokes and graceful connections have always mesmerized and preoccupied me. Nonetheless, my aim in trying to understand the ***nature*** and ***measurement*** of the ***perfected*** Arabic letterforms was to understand their graphic and aesthetic qualities, which contribute to their legibility and communication. I had been familiar with some aspects of what gives the Arabic alphabet such masterly ***proportions***, but I was not able to see these conceptions together. It felt like I had pieces of a puzzle, trying to make sense of them or putting them together, while not knowing what the finished puzzle would look like. My main concern in executing this investigation was to discover what gives the Arabic alphabet its ***perfected proportion***. The golden ***ratio*** was the concept I recognized in art, architecture, and design, but its application to the Arabic letterforms was not ***clear*** to me. The ***dot*** and ***circle system*** is the most commonly applied ***measuring*** theory for the Arabic letters. I was familiar

with this ***system***, which I fully understood during my practice in the traditional calligraphy workshop. The ***dot*** and ***circle system*** is linked to the virtuous ***proportion*** and golden section, and all are connected to the ***human body's perfected proportion***. In a way, I could grasp the concept of the golden ***ratio*** and ***dot*** and ***circle system*** but not how the Arabic alphabet is linked to the ***human body.*** Additionally, Ibn Arabi's manifestations of the Arabic letterforms and their comparison to the ***human body*** were somewhat imprecise to me. I was able to grasp some aspects of each approach, but not all the ***systems*** or concepts at once.

Thoroughness of a Dot

The ***dot*** and ***circle system*** is among the first things a calligraphy pupil needs to learn for mastering the letter ***measurements***, forming the ***dot*** by pressing the nib of the reed pen down on the paper until its fullest extent touches the surface, releasing even amounts of ink, and producing a rhombus or a square on the end, the ***dot*** or nuqta. By placing the ***dot*** vertex to vertex, this method assists in ***measuring*** the ***proportions*** of letters. This ***system*** was founded by Ibn Muqlah and further developed and clarified by Ibn Al-Bawwab. It is known as the written sign theory by calligraphers, or, as I describe it, the letter ***measurement*** theory. This approach permits letterforms to retrieve their fundamental ***geometrical*** shapes—the ***circle***, square, rectangle, and triangle. Hence, letters are assembled and formed from horizontal, vertical, prone, and reclining ***lines*** with ***precise*** amounts of softness and/or stiffness, while in unison with the virtuous ***proportion*** of every letter (Tabbaa, 2001). In this way, the ***dot*** with ***circle system*** is inspired by geometry and ***proportions*** of the most ***perfected*** creature in existence, the ***human***. While the ***dot*** in this theory became so iconic and well known, it is not only a measuring unit but

it is also perceived as an image of calligraphy technique and even more broadly as a symbol of eternity (Schimmel, 1984).

Applying the letter ***measurement*** theory assists in accomplishing well-***proportioned*** script, or al-khatt al-mansoub. Ibn Muqlah has specified five conditions for achieving beautiful calligraphy writing (Obaid, 2006). These conventions include:

- Fulfilling, or *al-tawfeyah*, which is executed by fulfilling each letter with the ***lines composing*** it—arched, curved, and straight ***lines***, knowing that every letter is distinguished by a soft ***part*** tending to be arched, another ***part*** slanted, curved and very fine, and another ***part*** that adopts the baseline as a surface to ***build*** and support itself.
- Completing, or *al-etmam*, to complete each letter based on the ***proportion*** it was ***built*** on, either shortening or lengthening, and attending to finesse or thickness.
- ***Perfecting***, or *al-ekmal*, ***perfecting*** all of the letter's ***line***, which could be erected, flattened, busy, reclining, or curved.
- Gratification, or *al-eshba'a*, controlling the pen, each letter stratified so no ***parts*** are finer or thicker than other ***parts*** unless intentionally.
- Sending, or *al-ersal*, sending the hand with the pen while writing every ***part*** of a letter, allowing the hand to flow rapidly without stopping.

Fulfilling Ibn Muqlah's five rules of beautiful writing, one can reach three basic artistic dimensions: the aesthetic, the knowledgeable, and the formative (Al-Julitti, 2006). The aesthetic dimension embodies aesthetic values and standards of beauty. In the knowledgeable dimension, we can conceptualize calligraphy from perspectives of craftsmanship or aesthetics, while the formative dimension enables the establishment of definitive standards of calligraphy form,

leading to beautiful configurations. All of these dimensions contribute to simplifying how we read calligraphic artworks on descriptive and interpretive levels.

Dimensional Meditation

Certainly, almost any artwork contains these three dimensions, aesthetics, knowledge, and formation, but the most perfect ones embody the golden ***ratio*** within their ***proportions***. Thus *Ikhwan al-Safa*, or the Brethren of Purity—a society of Muslim philosophers in the eighth century at Basra, Iraq—confirmed that the finest calligraphy, featuring ***precise*** scripts, is based on letters' relative ***proportions*** (Obaid, 2006). This Anonymous group of elite scholars were known for their treatises—rasā'il al-Ikhwān al-safā' (treatises of the Brethren of Purity). These treatises formed an Islamic encyclopedia discussing different philosophical issues and sciences—astronomy, logic, mathematics, music, and physical and natural sciences in addition to investigating the ***nature*** of the soul and other spiritual and ethical matters. The Brethren of Purity had a great impact on the literature of both the Muslim and the Western worlds, influencing, for example, Ibn Arabi. Notably, the Brethren of Purity believed that the Arabic alphabet displayed the golden ***ratio*** in its ***proportions***, which they called the virtuous ***proportion***, a ***formula*** relating the whole to the ***ratio*** of the half, the whole to the ***ratio*** of the quarter, and the whole to the ***ratio*** of the eighth. A letter geometry inspired by divine engineering of the virtuous ***proportions*** in the ***human body***, such script imitated God's best creation and geometry, the ***human body***. However, for the Brethren of Purity, the ***proportions*** of Arabic calligraphy are more than that, their ***preciseness*** situated within an internal relation calculated from all existence, encompassing the absolute duality of life (Laibi, 2006). Hence, Arabic letterforms are inspired by music and poetry, female and male humankind, the still and the moving, and geometry

between curved and straight ***lines***. Among all of these dualities, there is an assumed but fixed ***proportion***, which is the foundation in ***composing*** architecture, graphics, music, and social life. In this way, the Brethren of Purity's philosophical manifestations of Arabic letter geometry works along with Ibn Muqlah's letter ***measurement*** theory according to the ***dot system***, contributing to the emerging philosophy of letter ***measurement***. The mathematical ***measurements*** were set by Ibn Muqlah and later by Ibn Al-Bawwab, while the Brethren of Purity gave mathematic dimensional interpretations. Consequently, affirming the letters as creatures with metaphysical existence, confirming Ibn Arabi's concept of 'ilm al-hurûf.

Metaphysical Proportionality

The Arabic letter image in Sufism as introduced by Ibn Arabi is the physical existence of a thing returning to its reality and appearance returning to the internal. The letter's image here is more like a sensible mirror that allows us to penetrate to the internality of things, wherein facts invisible to us are collected as a group of images, each reflecting a reality. That is why Ibn Arabi believes that the letter is a soul and entity having connotations and diverse inspirations. He perceived the Arabic letter as a creature that moves by its meanings, connotations, and symbolic and simulated inspirations, a form in which the picture follows its creator/artist and the act resembles the actor. Hence, the letters have distinctive ***properties*** because of their beings as metaphysical shapes. Likewise, the Sufi philosopher, writer and teacher Al-Halaj (858 - 922 AD) proclaimed:

> in the Qur'an the knowledge of everything,
> the science of Qur'an is in the letters in the beginning of suras (chapters),
> the science of letters is in the letter combination *lam-alif*,
> the science of *lam-alif* is in the letter *alif*,
> the science of *alif* is in the ***dot***,
> the science of the ***dot*** is in original knowledge,

> the science of original knowledge is in eternity,
> the science of eternity is in the freewill,
> the science of the freewill is in unknown,
> and the science of the unknown there is nothing like He (God)
> and no ones know except Him. (as cited in Daghir, 2006, p. 60)

Similarly, all of the letters, according to Ibn Arabi, have special status while their shapes take metaphysical connotations, manifesting the higher name that is God's name, especially the letter *alif* since it is considered as the symbol of the Creator that follows God's oneness, and it is the beginning of the creation. Occasionally, *alif* is drawn with an excessive length to signify highness, from which one can search for the divine reality. Most importantly, *alif* is the commander of the letters, as Ibn Arabi compared all the letters' shapes to the ***human body***, before any other visual subject. Thus, all of the alphabet has the ***proportions*** of the ***human body*** while the letter *alif* takes the appearance of the erect ***human***. And that explains the rationale of the letter *alif*'s ***proportions***, eight measuring ***dots***, mimicking the height of the ***human body***, having almost eight times the height of his ***head***. There is absolute conformity between the Sufi definition of the ***perfect human proportions*** and the Arabic letters' geometric definitions, both relating to the description of the ***perfected proportions*** of the ***human body***. Therefore, Arabic letterforms are viewed as ***precise geometrical*** forms very close to the image of the perfect ***human*** (Shagroon, 2006). In a way, Sufis believed that the letter is connoted a conception of themselves as Sufi worshippers, as they reach the status of the ***perfect human*** in seeking the truthfulness.

Visual Mensuration

Following this chain of ideas, our visual experiences are formed by our interactions with images from diverse sources, touching many aspects of our lives, mostly interwoven. We can

piece together a better understanding of the varying concepts for ***measuring*** the Arabic alphabet through utilizing visual culture capacity and the lens of semiotics. Viewing Arabic letter ***proportion measurements*** as distinctive visual modes helps us understand the infrastructure and intertextual meanings of the alphabet, since all modes of visuality in contemporary culture interface constantly (Mirzoeff, 1998). Therefore, the entire forms of letter ***measurements***—the ***dot*** and ***circle***, golden ***ratio***, ***human proportions***, and Ibn Arabi's ***system***— interact dynamically in a process that creates and enhances the alphabet's configuration and beautification. In this sense, the semiotics of Ibn Arabi's description of Arabic letterforms corresponds with that of the ***dot*** and ***circle system***, golden ***ratio***, and the ***perfected human proportions***. Thus, the ***juxtaposition*** of all these measuring approaches intensifies their meaning and legitimacy. All these ***measuring*** modes emphasize the letter *alif*'s role and status as the foundation and origin for the entire alphabet.

Accordingly, in my experiment, ***inspecting*** the letter *alif*'s ***proportions*** and ***measurement*** according to visual semiotics was somewhat easier in comparison to the rest of the alphabet because of its standing posture. As for the rest of the letters—well, some of them angered me. Some made me laugh. Some confused me. In addition, some made me see them as I never viewed them before. Even though I was not able to see particularly how the entire alphabet reflected the ***human body***, I was capable of distinguishing the ***perfected proportion*** derived from it. I was hoping that by conducting this experiment, I would not only be able to view and admire the ***perfected proportions*** of the Arabic letters, but also my efforts would spark my imagination and push me toward vigorous and stimulating typographic processes. That is exactly what happened. My understanding of beauty, aesthetics and ***perfected proportions*** has expanded, linking art, architecture, design, typography, ***nature***, science, and the entire Cosmos, not merely

in calligraphy or the ***human body***. Now more than ever, I find myself in total agreement with Ibn Arabi in his statement, "we are lofty letters." Yes, we are. Letters are ***part*** of us. As I ***bend*** my fingers or stretch my arm or leg I can easily see how my ***body proportion*** is in the letters, too. Truly, they are ***part*** of me, I can feel them, I can relate to them, and mostly I cannot help but admire their beautiful ***proportions***. This clarifies how artists become creative with calligraphy through Arabic letters' graphic shapes, which are derived from metaphysics, ***nature*** moving us from the unseen to the sensible. Therefore, Arabic calligraphy is a ***trace*** proving ***human*** intelligence, manifesting and translating ***human*** insights, constructing the letters' geometry with the pen, ***composing*** letters with ink to blend the tangible blending with the insensible—and the ***dot*** is the basis for this pure, artistically intellectual composition. Genuinely, Arabic calligraphy is spiritual engineering manifested as a ***human*** machine.

Conclusion

After delineating the needed instruments and materials, alongside the procedures and process for enacting this experiment, executing it expanded my recognition of the Arabic alphabet's proportions. First, by letting me understand the letter measurement theory through the use of the dot and the circle system, and then the juxtaposition of the dot and the circle system with the golden ratio. This eased my understanding of how the perfected human body proportion is displayed within the Arabic alphabet. This juxtaposition facilitated translating these rules by way of Ibn Arabi's description of the Arabic letters and their comparison with the human body. Thus, I was able to gain a deeper understanding of the letterforms while recognizing their legibility and readability, particularly by examining al-khatt al-mansoub, letter measurement theory. Currently, the dot system continues to aid contemporary typographic and design

application, as Arabic typographers use it to design Arabic typefaces, a manual technique that is compatible with contemporary technology. However, since Arabic calligraphy's main foci are beauty and aesthetics to visually communicate meaning, sometimes it loses its legibility, and thus, calligraphy is not easily suitable to contemporary mass production. Nonetheless, after completing this experiment, I am able to affirm that practitioners of Arabic typography and typeface design can learn a great deal from the proportion principle and measuring systems of calligraphy.

Experiment Two: Social Alphabet

The purpose of my second experiment was to continue examining diverse aspects of the art of Arabic calligraphy, analyzing the Arabic alphabet's sociability, the relationships among letters, and to explore a single system of letter unification. Each letterform changes part of itself, displaying a different form to honor this new relation. Investigating the alphabet's sociability demonstrates not only how letters change their forms to new suitable shapes, but also how letters interact and connect as part of their social natures. Consequently, this experiment contributes to an enhanced recognition of word—and even sentence—formation, thus expanding the understanding of the Arabic alphabet's connecting mechanisms.

In this experiment, I explored the process of creating a word and a sentence using traditional calligraphy tools, tracing how a single letter changes its form in the process of composing a word as part of its cursive nature and sociable habits. Furthermore, I closely anatomized some Arabic letters, which are constructed from parts or wholes of other letters, according to Ibn Arabi's science of letters and its semiotics. These steps illuminated the nature of letterforms' relationships in companionable and harmonized proportions. Moreover, as part of

my visual analysis I tested the mechanism of form alteration with a single letter (the letter *ayn*) by using untraditional materials—flowers and thread. This step guided me to consider the Arabic alphabet as a visual entity while reading its semiotics within the scope of visual culture. The results of this investigation will aid in developing a practical consciousness of the Arabic alphabet letterforms, shaping Arabic typography education for contemporary practices.

Requisite Apparatus

To execute this experiment, I used various tools, material, and equipment. To achieve the maximum learning outcomes I mixed traditional and digital tools such as:

1. Pens and pencils: reed pen, colored pen, pencil, and colored pencils.
2. Paint: acrylic colors distilled with water.
3. Paper: tracing paper, calligraphy paper, and multipurpose paper.
4. Computer software: Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.
5. Digital camera: for documenting the learning processes, samples of work, and inspirations.
6. Notebook: as a journal that help to keep all notes, comments, suggestion, thoughts, and even practice in one place.
7. Additional utensils for experimental analysis: wire, scotch tape, fresh flowers, pins, colored threads, scissors, and foam board.

Modus Operandi

This experiment employed two phases to scrutinize the Arabic alphabet's sociability. In the first section, I started by using my reed pen with different colors of acrylic paint as the ink to

write five diverse words—*qalam* or pen, *kalemah* or word, nuqta or dot, *ashkal* or shapes, and *handasah* or geometry—in order to demonstrate joining mechanisms for one, two, three, four, or five letters that form a word. I displayed the first letter of a word in red paint. The first and second letters of the word (segment) I wrote in a blue color. The segment of second and third letters I visualized in a dark brown pigment. The sector of third and fourth letters I presented in a green tint. Lastly, the section of fourth and fifth letters I exhibited in yellow ink. I displayed all of these word segments on top of each other, presenting the isolated, initial, medial, or final letterforms overlapped, while differentiating these forms with dissimilar paint colors. Tracing the letters' silhouettes in a single word, amidst the alteration of letterforms as they formed a segment of a word or the word itself, allows the viewer to witness how letters connect and interact within one word. Next, I used the same method to write a sentence. I traced all letters in every word in a five-word sentence: *the letters are nation of nations*, using the same color code for letters and segments. In this way, I developed a holistic view of the letters' relationships, companionability, and harmonized proportions in text longer than one word.

In the second part of this experiment, I analyzed some letters that are constructed from other letters or parts of letters. My test was based upon my interpretations of Ibn Arabi's 'ilm al-hurûf, or science of letters, wherein I studied some intriguing letter formulas or codes related to breeding and sociability in such letters as: *alif*, *ḥā, dāl, dhāl, rā, zā, sīn, sād, ḍād, ṭā, ẓā, ayn, qāf,* k*āf, lām, nūn, hā, wāw,* and *yā.* Tracing these letters on a transparent paper and overlaying them with suitable letters corresponding with their shapes, I sought to understand how letters generate from each other, which illustrated visually how some letters are built from others while emphasizing letters' breeding and generative abilities, important factors in their sociability.

Figure 25. Letter traces of five analyzed words and one sentence.

Figure 26. Arabic alphabet structure dissection.

Commentary

Because all of my self-study experiments were part of my ongoing learning process and

conducted in intervals, I recorded a commentary for each investigation. This documentation in my notebook contains both words and drawings. I valued my commentary as a mnemonic resource for any developing or abrupt ideas, views, or even feelings while executing the experiment. It gathered visual and written artifacts because I aimed persistently to evaluate my learning experience. My words and lines were part of a reflection method to examine my experiences in meaningful ways (Brandenburg, 2009). Therefore, my commentary supported the assembly of my narrative and visual analysis later. For this reason, I gathered words that I documented while developing this experiment. My words sometimes displayed possible connections to each other and sometimes not. They operated as a means of documentation, and hence, awaited my later narration to reveal their meanings. The list below contains the words I recorded in my notebook during the procedures of this investigation. These words are displayed in my visual analysis—overlapped upon my diagram or pictures like the form of a watermark. In addition, these terms are employed in my narrative, highlighted and italicized throughout my analytical story.

Adopt	*Align*	*Alone*	*Alter*	*Attachment*
Bond	*Break*	*Communicate*	*Configure*	*Cuddle*
Cursive	*Cut*	*Detach*	*Dynamic*	*Effortless*
Emotion	*Extension*	*Flow*	*Flux*	*Genealogy*
Group	*Hand*	*Hold-Hands*	*Identity*	*Intimacy*
Isolate	*Join*	*Linkage*	*Live*	*Mercy*
Modify	*Move*	*Mutation*	*One-Way*	*Oneness*
Organic	*Part*	*Reform*	*Relate*	*Relation*
Relocate	*Reshape*	*Scarify*	*Secure*	*Smooth*

Social	*Space*	*Spot*	*Swing*	*Tenderness*
Together	*Transform*	*Two-Ways*	*Vary*	*Union*

Alongside these words, I also kept a record of some sketches as a visual reflection and documentation of my developing grasp of the Arabic alphabet's relations and sociability. Therefore, I assimilated my illustrated commentary into my visual analysis to deepen my findings.

Pondering the Alphabet's Sociability

This experiment strove to reveal the nature of cursive Arabic letters, especially their relationships and sociability, aiming to identify the mechanisms by which letters change their forms to join other letters, along with letters' generative abilities. Recognizing the Arabic alphabet's sociability is the key to understanding how to compose efficiently for communication and artistic purposes (such as in typographical or calligraphic compositions). Employing two complementary approaches—visual analysis and narrative inquiry—enhanced my learning experience. Both tactics stimulated my visual representation and commentary—modes for reflecting learning progression in which my narrative quest was embedded in Ibn Arabi's science of letters and its semiotics. At the same time, my analysis highlighted the Arabic alphabet's relationships and sociability within the semiotics of visual culture.

Visual Dissection

Following these experimental procedures, I pursued two additional investigations to understand visually the cursive, connected nature of the Arabic alphabet. As a final attempt to

examine the letters' sociability, I chose the letter *ayn*, further analyzing its changing form. In the first inspection, I constructed the isolated form of the letter *ayn* with craft wire. Then, I attached some fresh flowers around the letter skeleton. Later, I twisted the floral wire to change the letter *ayn*'s shape to its other three forms. However, I needed to use scissors to cut the letter's tail to obtain the initial and medial forms. The second approach utilized a foam board covered with black cotton fabric, on which I affixed sewing pins according to the five calligraphic forms of the letter *ayn.* From there, I used five differently colored cotton threads to net the letter's different silhouettes, a distinct color for every letterform. Hence, each shape was distinguished by its color and netting position on the board. In both modes of experiment, I was able to witness the letter a*yn* transforming its profile.

Such experimentation with materials found in our lives—flowers, threads and pins—not only enhanced my comprehension of the Arabic letter *ayn* but also created visual connections that allowed me to feel the letter *ayn* quite sensibly. Frequently, I (and probably the reader) encounter these visual, physical objects, while my interpretation of them carries a wide array of responses and emotions, particularly when these materials construct the shape of the letter *ayn*. The world we live in is loaded with images, objects, and screens, all inviting us to look at them (Mirzoeff, 2009). Hence, visual culture engages us through communicative and symbolic activities. In these looking experiences it is we, the viewers, who produce cultural associations that affects our interpretations. As I look at the letter *ayn* that is assembled from flowers or threads, I see the letter's different forms. I see flowers arranged in mesmerizing shapes. I see my grandmother's threads taking a new form, and I see the letter *ayn* integrating itself into objects that I have encountered in my life. Such experience and experiment confirms the visual nature of humans, particularly artists and designers. In this case my visuality, as I rely largely on

my sight, prompts me to examine the world, experiencing something new, the different shapes of the letter *ayn*. No doubt, experimenting with the Arabic letters in an artistic, visual mode affects and touches us like no other practice. Therefore, within the scope of visual culture, my visual analysis experimentations are artifacts, complex texts that I should not only look at but also read. Looking at the shape of the flowers or threads, while also reading the letter *ayn* to grasp its formation and coloration are essential to gaining responsiveness to this letter and the rest of the Arabic alphabet. Furthermore, conducting this additional visual analysis was an opportunity to leave my reed pens, ink, papers, screen, and computer for a while, working with my hand in a different way. Carrying out this investigation attached me visually, physically, and intellectually to the Arabic letter *ayn*, along with the rest of the Arabic alphabet letters. Even though I did not examine them all, I still feel them all more after completing this experiment. As a result, this visual analytical experimentation resonates with me in a profound way, touching different aspects of my sensibilities while bringing up many visual associations in relation to the Arabic letterforms and its social relations.

With that object in hand, and after reviewing my written and visual commentary, I began sensing the Arabic alphabet's sociability, feeling the letters' presence. I juxtaposed all forms of the Arabic letters on top of each other. Such superposition illustrated the letters' relations and interactions. Sometimes, a letter displayed only a few simple extensions. At others, a letter reduced or altered its form to its basic shape, while occasionally, a letter refused to connect graphically with the following letterform, yet all of these acts sprang from the alphabet's sociable nature. After this step, I analyzed the word and sentence traces, simplifying the transformation of letterforms, a social act. I began by inscribing the first isolated letterform in a word, then added one letter at a time until completing the whole word, pausing to ponder the

letters' actions and behaviors. In sum, my analysis generated an inventive perspective on the Arabic alphabet's inwardness—sociability, relationships, and interactions. This visual analysis supported my narration, demonstrating the power of Ibn Arabi's science of letters, and indicating the importance of Arabic letters' semiotics within visual culture. Consequently, such knowledge may contribute to formulating and improving contemporary Arabic typographical practice.

Figure 27. Simplification of letter connection mechanisim in the five analyzed words and the sentence.

Figure 28. The letter *ayn* shapes accomplished with floral frame.

Figure 29. The letter *ayn* shapes accomplished with colored threads and pins.

Story 3; Tale of Tenderness

Humans are ***social*** creatures; each one of us has her/his own exclusive ***identity*** and character. Nevertheless, when we interact with other people we display other dimensions of our personalities, which is the nature of our sociability. So does the Arabic alphabet. A single letter has its own sole charisma, but when ***joining*** another letter it displays a new face. Hence, the essence of letters' existence lies in their active ***sociality***—their conformation (*tashakol*) and composition (*tashkeel*). In this way, letters are similar to design elements for composition such as dot, line, shape, and color. These formation components connect, overlap, cohere, and collide within specific systems inside a platform. Similarly, letters connect to each other, forming ***parts*** of a word, and these segments become compatible to form a word, composing pronunciation and giving a word its meaning. However, the Arabic alphabet interacts in a deeper, ***livelier*** way. The adjustment of letters' graphical silhouettes is proof of their ***social*** consciousness.

As a matter of fact, Ibn Arabi's 'ilm al-hurûf (science of letters) elaborates on the Arabic alphabet's sociability, wherein, letters ***join***, interact, and generate to cohere in a rhythmic, visual synthesis of content and appearance. Each letter sustains a confluence with another, and two conjoined cohere to form a new segment. While ***transforming***, letters connect harmoniously through eliminating ***parts*** of themselves, changing their tails or head shapes, or lowering or rising themselves to honor their ***unions*** and new ***relations***. Despite losing ***part*** of itself, each letter maintains its beauty and identifiable shape (beginning, middle, or end). Nevertheless, some letters are shy or have a higher status and refuse to connect from both sides—lonesome letters. Only six letters perform this way, as if they were word ***breakers***, ***cutting*** the ***cursive*** script. Here, we have to remember that this is their exclusive ***social*** nature—their pride, ego,

lordliness, shyness, quietness, reclusiveness, or silence. These letters are not cold or introverted, they simply perform according to their distinct nature. Even in their near stillness and fixity, they display the greatest amount of ***tenderness*** while being ***part*** of a ***social*** atmosphere, a word. Certainly, Ibn Arabi considers that every letter has its own relationships and community, sacrificing ***part*** of its shape in its own preferred manner to maintain a new connection. Most importantly, the science of letters indicates that we need to know the occasions among letters to understand their ***social*** nexus. Each connection has its own propriety, and every ***relation*** has many diverging affairs. A letter can raise (rafa'a), install (nasab), lower (khafedh), or soothe (sokun) a peer or itself, depending on the liaisons among them. Ibn Arabi (2008a) expounds that a letter performs in such manner corresponding with its orbit and status. Orbits of ***social*** letters, which have four diverse forms and connect from both sides, function comfortably with sister spheres, as they feel accustomed to their shapes, while lonesome letters do not have the same behavior because they lack such feelings. However, both manners display vast amounts of kindness (latafah), accepting any relationship or role—companion, sibling, parent, guardian, friend, neighbor, or peer—because letters are aware of their realities, ***identities***, and personalities. Therefore, they do not lose themselves in any ***social*** situation. Sometimes, it appears as if a letter has fully ***transformed*** into another, unusual form, but this is all ***part*** of its sociability—how it interacts with others while still being itself.

Letters' Connections

Unquestionably, the Arabic alphabet's life has significant interactions and colorations according to Sufi conceptions. Interestingly, Ibn Arabi (2008a) indicates a distinct layer of letters' ***sociality***, their obstetric (*tawleed*) and generative (*tawalid*) abilities. The letters have

lineages—giving, taking, inheriting and receiving their genetic structures from one another. For example, the letter *rā* is has an obstetric capability. It is ***part*** and basis of the letters *wāw*, *qāf*, *sīn*, and *sād*, while the letter *bā*'s obstetric ***relations*** are *fā*, *ṭā*, *kāf*, and, *sād*, and these letters contain the shape of *bā*. Remarkably, the letter *sād* has a dual structure; it comes from *ṭā* (but without its *alif* ***part***), and recruits *nūn* at the end of *sād* or *ḍād.* The letters *ḥā* and *ayn* have the same roundness at the end of their structures—their circular shapes allow the pen to ***flow*** spontaneously, directing the letter's end from rigid straightness to swaying ductility in a spontaneous and suggestible mode. Such connections are not only fascinating for artist and designers, but also have significant implications for typographic education and practice. 'Ilm al-hurûf (science of letters) offers an illuminating study of the Arabic alphabet's relationship mechanisms. Nevertheless, Ibn Arabi's ideas are difficult to digest, and their semiotics need to be simplified. For artists and designers (both students and practitioners) to grasp letterforms' expansive ***relations***, they must perceive the sociability of the Arabic alphabet as a critical thinking model, which will broaden the conceptual scope of typography.

Pragmatics of Letters' Sociability

The central idea in semiotics is that everything is a sign (Silverman & Rader, 2012). We encounter signs everywhere and deal with them on a daily basis. Some signs are obvious, needing little or no interpretation to understand because, at some point in our ***lives***, we recognize their denotation and the ideas behind them. Hence, we become used to them. For instance, a red octagon with white letters on it stands for the STOP sign. Therefore, we stop when we see this signal. However, within today's visual world, there are much more complex signs that do not easily expose themselves. In these cases, we have to use semiotics to help us interpret their

meaning. The Arabic alphabet has both qualities of the sign, being simple and complicated at the same time. Its power comes from its readability as a text while also having complex graphic representations as an entity with existence and present. Thus, Arabic letters can be viewed as both texts and images, containing visual elements that we "see" and "read." Hence, we have to actively interpret them. Art and design educators need to help their students slow down and decode the Arabic alphabet in insightful ways. The goal is to read and see the rhetorical strategies of the letters, since textual analysis (reading or seeing) and textual formation (writing or composing) ***together*** partake in the process of knowledge construction (Silverman & Rader, 2012). Similar to my analysis of the three selected modern and contemporary works of art, I read and interpreted the letters shapes, placement, treatment and rhetoric to fully understand the function and role of the Arabic letter within these artworks. Therefore, art or design students need to know not only the Arabic alphabet's meaning, but also how it makes this meaning (sign, signifier and signified). As a result, learners can recognize the Arabic letters' reality and nature, so when it comes to designing with it, they will know confidently how to arrange letters because learning to describe the Arabic letters' representations in visual culture will empower their use of rhetoric in design or art compositions.

The Arabic Alphabet's Visuality

Increasingly, our life is dominated by communication technologies that circulate globally—ideas and information in visual form. Images perform central roles as information, representation, entertainment, and politics, both dividing and connecting worldwide (Sturken & Cartwright, 2009). We engage with visual culture almost all the time through the process of looking and interpreting. For this reason, semiotics is one of the most important lenses to read

imagery in distinctive ways. Visual culture explicates the Arabic letters' meanings while presenting them as visual signs to read. Artists and designers need to know how to pinpoint the communication Arabic characters evoke while understanding their modes, tones, and ***emotions*** because their interpretation can affect our ***lives emotionally*** and intellectually.

Decoding the Arabic alphabet's sociability according to its manifestation in visual culture enables us to see and feel how it interacts within its ***social*** sphere. In the experiment described below, I pursued a microscopic approach, taking something small and making it bigger to examine it closely to reveal a few larger realites, seeing the intended, unintended, and suggested meanings to translate how a letter performs ***socially***. I examined clues from the ***transformations*** of the graphical outlines of letter combinations or their trails (as demonstrated in this experiment's visual representations) to understand the connotations of their behaviors. When the letter *ayn* ***cuts*** its bowl or loops its head to connect with other letters, this act ***transform*** the letter into a new sign, its signifier developing new ***relations***, its signified ***holding*** many different ***emotions***—passion, kindness, ***attachment***, or fear. Just like people entering new relationships, the letters can behave differently while showing diverse ***emotions*** due to these emerging connections. We engage with other humans through visual culture to ***communicate***, persuade, and influence. So does the Arabic alphabet. The letters' ***social*** engagement visually illustrates how they interact among themselves, ***communicating*** and influencing, pleasing our eyes with their ***organic***, fluid ***linkages***.

Soulful Alphabet

Communication, graphic, and typography designers, more than anyone else, need to feel the Arabic letters' sociability because doing so will enable them to compose effectively for

contemporary usages. Since Arabic writing has a ***cursive*** nature, it is essential to know how to connect letters in a word for legibility purposes. Good writing comes by bracing the letters' shapes and composing them from each other (Obaid, 2006). Accordingly, through translating the alphabet's ***social*** activity, one can identify letters' various colorations, formations, stiffnesses, and spontaneities. The Arabic letterforms have a ***social*** touch woven ***together*** in black and white, void and fullness, connecting ***organically*** from their bases, as if they were mimicking plant branches to acquire natural connectability. Structural analysis of Arabic calligraphy composition reveals its principal connections for letters and words—relationship or separation (Habib, 1989). Compositional uniformity highlights shapes, dots, and white ***spaces*** (in-between letters) proportionally, which synchronize and respect each other. In this way, the meaning of synthesis is woven into the composition, and the beauty of the Arabic alphabet's amorous relationships captivates us.

Conclusion

Recognizing the Arabic alphabet's relationships and sociability is the essence of this experiment. After outlining the needed tools, material, and equipment, along with procedures and process for implementing this trail, I executed the investigation, inspecting how letters perform in words and sentences—changing themselves to honor new unions as part of their social nature. Integrating my visual and written commentary to assists my analysis, my findings were grounded in the semiotics of Ibn Arabi's science of letters, recognizing letterforms' companionable natures and harmonized proportions. In addition, my results recognized the meaning of visual culture, which conceptualizes the Arabic alphabet as a visual entity. This investigation can aid in developing a sensible consciousness of the Arabic letterforms, enhancing

the understanding of letters, words, and even sentences, thus advancing our understanding of the Arabic alphabet's connecting mechanisms, serving as a resource for contemporary Arabic typography education and practice.

Experiment Three: Calligraphic Inventory

My third experiment analyzed a page from the Qur'an, an exercise that underlined the elements and rules that comprise calligraphic spreads (facing pages) in order to pursue the most perfected layout, proportion, and arrangement, to contain the words of Allah. In such calligraphy generally, the Qur'an's words are manually inscribed with traditional calligraphy tools (reed pen and ink) in the most perfected legible scripts (usually naskh) to ease readability while achieving flawless, picturesque writing. Typically, a spread of the holy book contains around fifteen lines per page, including sentences (ayaat) of one or more section (sura), depending on the location of the spread within the 604 pages and 30 chapters (*ajza'a*). As such, in this experiment, by analyzing one page I sought to grasp the calligraphic writing system for longer texts, not simply a sentence, word, or letter. Additionally, I was able to examine the baseline system, the relations between words or letters, and the diverse contours of single letterform. All of these issues are closely related to typographic arrangements, hence forming a valuable resource for contemporary, classically-influenced compositions.

Here, I did not use my reed pen and ink to mimic a calligraphy page; I took another approach without using my traditional calligraphy tools. I chose to itemize the elements of one Qu'ranic sheet, sorting, counting, and assaying them. This inventory, not only examined every single dot, line, and letter, but it also defined the baseline, leading (spaces between lines), counter space (spacing between words), letter strokes, stem angularity, letter descenders (tail,

loops, or heads), and word movements. All these issues are the concerns of typography performance. As a result, executing and analyzing this experiment clarifies the anatomy of a calligraphic page, providing a helpful basis for typographic page composition, contributing substantially to the formation of a thoughtful contemporary typography curriculum.

Requisite Instruments

The nature of this experiment was different from my previous ones; I used distinct tools, material, and equipment to help me itemize a Qur'anic page, analyzing the Arabic alphabet and the entirety of its related components. To obtain the greatest understanding, I used both manual and digital tools:

1. Pens: colored pen and pencil.
2. Paper: tracing paper.
3. Computer software: Adobe Illustrator, Adobe Photoshop, and Adobe InDesign.
4. Digital camera: for documenting the learning processes and samples of work.
5. Notebook: a journal for keeping all of my notes, comments, thoughts, and sketches.
6. Additional copious contemplation and visual assessment of the inventory items.

Modus Strategy

For this study, I chose a *mus'haf* (a manuscript bound between two boards, which is a codex of Qur'anic sheets) written in 1992 in naskh script by Mehemd Özçay, a Turkish calligrapher. Most contemporary mus'hafs are inscribed in naskh style due to its legibility for pragmatic communications. First, I chose page 597 and focused on Chapter 96 (*surat al-alaq)*. It contains the first words of the Qur'an that reveal the prophet Muhammed, asking him to read

and learn. This sura covers about three fourth of one page, convenient to analyze, with nine lines of text.

Before sorting my inventory, I color-copied the selected Qur'anic page in order to easily interact with it manually, and I scanned it (with Adobe Illustrator and Photoshop) for digital inspection. In both modes, I focused only on the surat al-alaq within the page, since there are two lines from a previous chapter and a decorative heading for the following sura. The first element I examined was the ayah (sentence) number decorative icon, highlighted to consider how the chapter works with or without it. Following that, I started to anatomize the letters' strokes—erected, curved, flat, reclined, arched, and rounded. Then, I investigated the baselines of each line, in which frequently, there are two bases. From there, I began checking each and every character of the Arabic alphabet, one letter at a time, counting its displayed forms, shapes, and frequency. Subsequently, I examined the diacritic dots (nuqat) and the vocalization marks. From there, I finalized my enumeration by inspecting the words, drawing boxes around their outlines to check the word spacing and sentence flow.

Figure 30. The manual process of experiment three, calligraphic inventory.

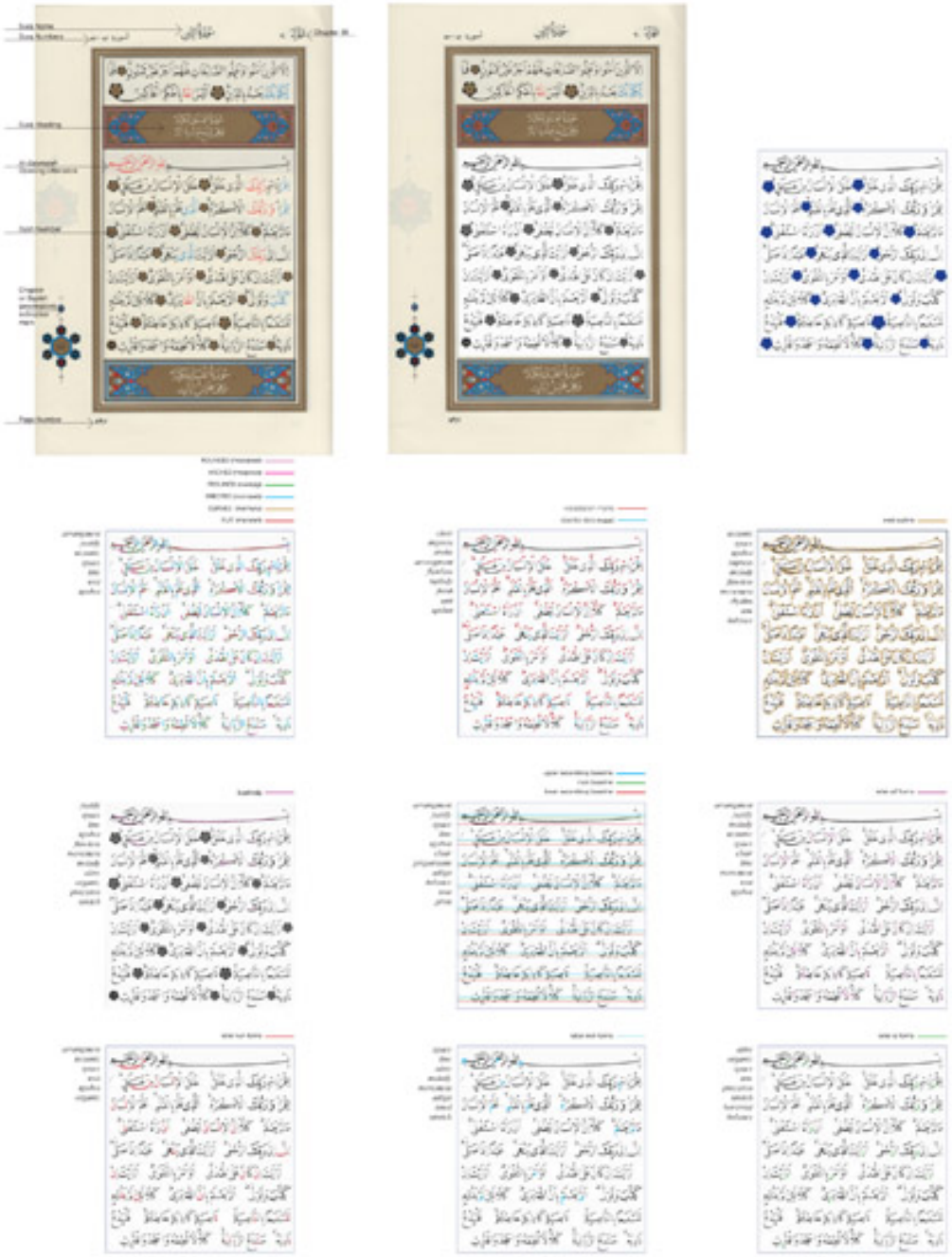

Figure 31. Chapter 96 inventory: content, stroke shapes, ayah (sentence) number decorative icons, the Arabic letters (*alif, rā, mīm,* and *nūn*), the diacritic dots and vocalization marks, baselines, and word outlines with space analysis.

Commentary

Throughout my experiment with the Arabic alphabet, I undertook an ongoing learning process. While executing this investigation, I constantly read, wrote, and drew. Hence, recording a commentary was a way to trace any developing thoughts, ideas, views, and feelings that I may have had while conducting this experiment. Consequently, my notes contain visual and written elements that analyze my understanding and learning experience. Any of my words or lines are reflection process components, which supports examining my experiences expressively (Brandenburg, 2009). Hence, I collected different words and sketches that I documented while developing this experimentation as aiding materials for reflecting visually and narratively. The list below contains my words recorded while conducting the visual representation and analysis of this experiment. Here, this list might not seem coherent, or the words may not show a direct connection to the purpose of the experiment. However, these are means of documentation, the rationale of which my subsequent analysis will reflect. Therefore, to exemplify their importance, whenever appropriate, I integrated the words in this list into my visual analysis, like a watermark. In addition, I used them for my investigative narrative, highlighting and italicizing them within my story.

Alive	*Arrangement*	*Adapt*	*Balance*	*Clear*
Coordination	*Flawless*	*Fresh*	*Harmony*	*Horizontal*
Impress	*Justify*	*Kashida*	*Line*	*Lined*
Melody	*Movement*	*Organic*	*Precision*	*Print*
Proportions	*Ratio*	*Rhythm*	*Space*	*Stretch*
Stroke	*Tectonic*	*Tow*	*Unit*	*Upshot*

My sketches worked hand-in-hand with the words listed above as a visual mode of documentation and reflection. While I sorted my calligraphic inventory, these diagrams aided my analysis and learning experience visually and verbally.

A Look into Calligraphy Inventory

Conducting this experiment, to my surprise, was interesting and rewarding. As I started to strip down the words, I gained a new insight about the structure and arrangement of calligraphic letters. This investigation led me to inspect the calligraphic composition closely, magnifying them in order to see how letters compose a word, words assemble a sentence, and subsequent sentences flow together, compiling the sacred chapter. Gaining such an analytical mindset contributes to understanding the technique of arranging Arabic letters for legibility and beauty—typography—considering such elements as script style, letter size, shape, and spaces, and line length and spaces. Spotting one letter at a time facilitated recognizing the shifting calligraphic letterforms of individual characters, demonstrating how a single Arabic letter modifies its shape within longer texts. Looking separately at every kind of element makes it possible to distinguish each within the calligraphic composition, since it can be overwhelming to gaze at these components altogether. Toward the end, I realized the power of such an inventory, not for counting the letters and elements, but to understand them visually. Within this process, I I analyzed the outcomes of my stocktaking experiment through semiotics and visual mensuration in order to contextualize my learning experience and translate my findings into applicable material and content for contemporary design and type education. For this reason, I pursued two complementary approaches to unfold my learning outcome—visual analysis and narration inquiry. The first component of this dissection functioned visually and was inspired by my

commentary, whereas the analytical narrative serves as an overarching elucidation of the calligraphic inventory and its structural arrangement.

Visual Analysis

Having completed my third experiment and reviewed my visual and written commentary, I began sorting four select Arabic letters—*alif*, *rā*, *mīm*, and *nūn*. I chose these characters because they display many variations in their letterform outlines. A closer, magnifying inspection illustrated the letters' performances as they changed their profiles according to the text, accommodating the whole plot of the chapter. From there, I sought to analyze some letters' stretching movements by juxtaposing their varied shapes and positions within the holy chapter. This approach illuminated techniques for applying *kashida*—the letter expansion stroke, which justifies the horizontal elongated connections between letters in a word. Knowing how to implement this expansionary element is essential for Arabic typography practice. Finally, I studied the spaces around letters, words, and sentences, considering that calligraphic composition consists of black and white, fullness and void, paper and ink. This step elevated my visual analysis for this experiment, serving to create a readable, beautiful manuscript. All of my approaches in analyzing this experimentation aimed to show how Arabic typography can enhance its performance by learning from Arabic calligraphy practice and tradition.

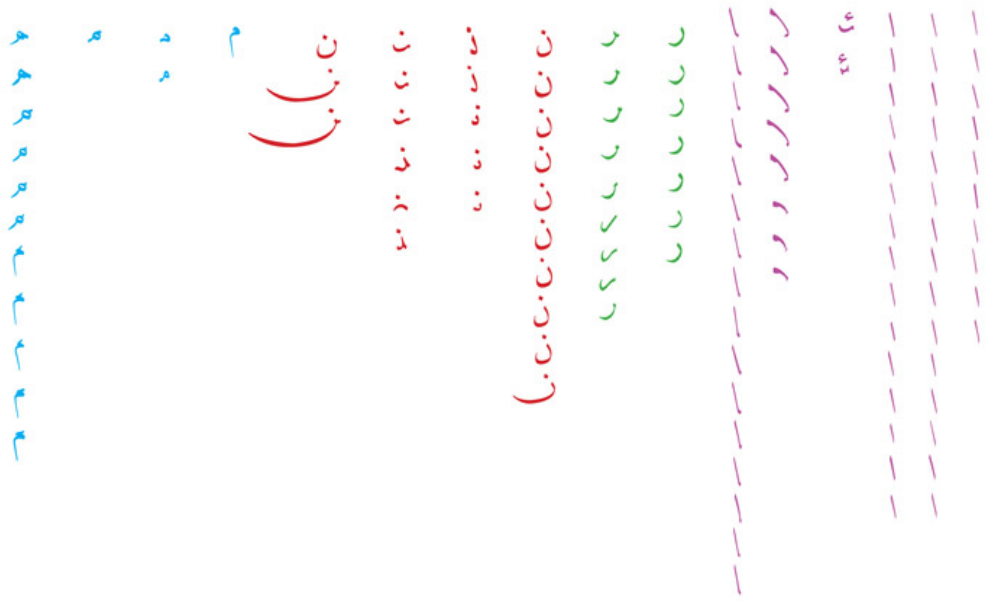

Figure 32. Arabic letterforms' shapes in chapter 96: The letters *alif, rā, mīm*, and *nūn*.

Story 4; The Calligraphic Store of Expressions

In my studio, I remained quite conscious while working on creating my calligraphic inventory. I was not sorting, counting, or inspecting for the sake of compiling a catalogue, small or big, but simply to create a picture honoring the calligraphic ***arrangement***. This perspective resembled looking through a window toward an exquisite perspective, distinguishing the calligraphic and graphic elements from the ***space*** surrounding, weighing the relationships of the elements that assembled the manuscript on the page. In like manner, I dealt with a sacred chapter that has influential messages, since calligraphic pieces desire to reflect an eternal dream captivating readers' imaginations (Khatibi & Sijelmassi, 2001). The Qur'anic chapter (surat al-alaq) I chose contains passages of particularly powerful significance since it begins with the first words revealed to the Prophet Muhammad, *iqra'a*, or read/recite, which enjoins not only to read

or recite texts, but also to read the world around us, with its collection of signs. In this way my work does so, but by transforming the letters into picturistic elements, exposing the page's character formation, structure, and organization. There is no single perfected ***arrangement*** for spreads of the Qur'an, what Ibn Arabi (2008a) calls, *almstor*, or the book of ***lines***, which he describes by emphasizing the prominence of the underlining quality of its baselines. Knowing that the Arabic writing system is created from a group of elements and their variants, blending vertical and ***horizontal strokes*** and featuring straight, curved, and flat ***lines*** with dots as diacritical marks to construct the letters' bodies, wherein the connections and textual flows display a ***horizontal movement***, giving the Arabic script its ***lined*** nature. Nevertheless, the Qur'anic calligraphic scripts carry feeling within. The stripes in the calligraphy stun their viewer with textual meaning and aesthetics jointly. Since this art contains all elements and fundamentals of aesthetics, calligraphy addresses itself to our eyes as it pleases us by its sensible artistic expressions. While the meaning of calligraphic text satisfies us intellectually, it also penetrates into our minds and hearts.

Forthcoming Goods

My experiments made ***clear*** that calligraphic compositions contain many qualities both tangible and insensible. Masterly calligraphy has a musical ***impress***, as the ***line's*** nature displays, jointly, the vertical and ***horizontal*** orderly array dancing to its tune (Obaid, 2006; Schimmel, 1984). A calligraphic artwork strikes us by its geometrical silence, and it subsequently gracefully comforts us as it enlivens its music within. Every word has a noiseless musical quality, contributing to the entire text's ***melody***, the tune called by the calligrapher that plays with ***line***, light, shade, shape, and size of letters. Nevertheless, this quality emerges from

textual interstices, and not the correspondence among graphic ***movement*** and musical ***rhythm*** (Khatibi & Sijelmassi, 2001). Indeed, Arabic calligraphy masters its *eiqa'a*, or ***rhythm***, arranging its elements according to kinesthetic formats wherein the repetition and distribution of ***lines***, shapes, and letters in different words are recurrent and compatible on the entire page. Therefore, letterforms are essential figurations for creating an ingenious optical composition, exploiting and balancing the ***space*** and making it easier for the eye to witness the silent ***movement*** of the alphabet. Likewise, this art exhibits an unparalleled artistic capacity because the Arabic letters demonstrate elasticity derived from their ***organic*** origins, not geometry, thus contributing to calligraphy's splendor. I must note here that itemizing Chapter 96 of the Qur'an enabled me to see ***clearly*** many aspects of calligraphy that I did not previously comprehend—such as its musical and lively quality. But most importantly, it empowered me to realize the naskh script's fundamentals for organizing letters into words and words into sentences. This skill requires the longest time to master (Özçay, 2007). Truly, pursuing this inventory of a holy scripture written in naskh script was a fruitful learning experience.

Expression Perusal

Experimentation made a calligraphy composition easier to breakdown, digest, and work with, while providing a source to learn how to compose with the Arabic alphabet. Remarkably, using this type of innovation, we can read calligraphic ***arrangements'*** semiotics by means of visual culture, especially because we live in a world filled by diverse modes of visuality—images, objects, and screens, all interfacing and inviting us to look at them (Mirzoeff, 1998, 2009). In this way, visual culture engages us through dynamic communicative and symbolic activities containing visible signs, letters and writing forms—as objects by themselves or aids to

analyzing imagery (Dikovitskaya, 2005). Because alphabets display complex graphic conventions with historical connections, understanding visual culture is essential to artists and communication, graphic, and type designers to find inspirations, explanations, ideas, and emerging concepts. Through the eyes of visual culture, the Arabic alphabet—in its calligraphic or typographic form—is found everywhere, in a mosaic of historical walls, ceramic plates from Samarkand, or Fatimi lantern lamps. It is not only in holy manuscript or within closed museums walls, but it is found everywhere, in life as it is lived. Arabic calligraphy ***adapts*** itself to many mediums, materials, and objects due to its system of writing genius—the flexible reciprocal adaptation between image and sign amid the writing act (Khatibi & Sijelmassi, 2001). Hence, many image producers (including artists and graphic designers) utilize the Arabic letterforms with the intent that we read them in a certain way.

But how does visual analysis help us reveal the meaning of the Arabic alphabet? Certainly, there are many approaches, yet semiotics can lend a valuable lens to simplify reflections and representations. The application of sign theory is necessary to understand the letterforms as both image and text for communication purposes. In particular, focusing on the semiotic approach to visual analysis provides a direct and ***clear*** approach to recognize the relationship between visual representations and their meanings, wherein the signifier and signified of the Arabic alphabet has two levels of meaning. The sign is created from the signifier (image, sound, or written text) and the signified (the concept evoked by that signifier). In this context, the symbolism of Arabic characters is formed by the word and/or image and its joint meaning from its signifier and signified. Reading with this strategy, we should not only read what is there, but also what is not there.

Deconstructing a calligraphic work by means of visual culture, one can grasp the text's malleable scenography. A single letter transforms into an image, while its physical performance creates a ***line*** driven by its ***rhythm***. Calligraphy alters written signs into decorative ones by changing the ***line*** treatments, simultaneously serving both the meaning of featured texts and the composition of these letters as images, a delicate ***balance*** achieved through color, sign, and context—the ink and medium of display (Khatibi & Sijelmassi, 2001). Unquestionably, fine Arabic calligraphic compositions are a laboratory of signs, where the meaning of synthesis and letters is woven into the composition. The scripture of chapter 96 of the Qur'an displays such qualities of ***line*** and ***arrangement***. By inspecting every single letter of the alphabet separately and visually, one is able to construct an alternative mode for examining these characters, shifting the reader's mind from seeing the Arabic characters as sacred text for contemplation to viewing it as secular sign for communication. Additionally, the itemization of Qur'anic composition highlights the significance of the background (the paper) not only to be covered with words, but also as a medium contributing to the ***arrangement*** of work, a force that distributes and divides the empty ***spaces*** (the white parts of letterforms) for us to see the colored letters' alternation in contrast to the ***spaces*** formed spontaneously between. Such geometrical ***coordination***, between paper and ink, fullness and emptiness, creates ***precision*** in weaving the letters into works of calligraphy.

The semiotic interpretation of calligraphic writing reveals its dual nature as symbolic and informative, connotative and denotative. Therefore, the visuality and receptivity of Arabic letters are fundamental for their perceptivity and interpretation. Likewise, the complex degree and intelligibility of calligraphic manuscripts must be engaged for maximum elucidation (Tabbaa, 2001). Hence, many proficient calligraphers are able not only to read the calligraphic

text, but also to appreciate artistic merit while analyzing its components and ***arrangement***. Because they can create and fashion the Arabic alphabet, they are aware of calligraphy's aesthetic values such as beauty, clarity, complexity, and skill. Consequently, it is important for artists and graphic designers to develop the ability to appreciate and create artworks with complex inscriptions of Arabic calligraphy. Such an ability will enable them to recognize the Arabic alphabet's aesthetic formations, which are essential for their contemporary practices, especially for individuals who want to work with Arabic typography because it always relies on calligraphy for good ***ratio*** and ***proportions*** (P. Zoghbi, personal communication, September 18, 2014). In this way, graphic designers ought to use visual culture alongside semiotics to better understand and use the Arabic alphabet's mechanisms and anatomy to juxtapose and integrate letters/text with images, creating bodies of work that are proactive for representing contemporary Arabic letterforms' significance culturally, nationally, and globally.

Many artists and designers—Arab or non-Arab—have employed, integrated, and utilized the art of Arabic calligraphy within their practice. Artists play with the Arabic letterforms' plasticity—using single letters, words, or sentences—as a primary or complementary element in their artistic compositions to convey diverse representations and explore identity, including Ghada Amer, Dia Azzawi, and Munir Fatmi. At the same time, designers incorporate the Arabic letters for the same purpose but also for creating practical products. Prominent examples are Azza Fahmy in jewelry design, Anas Younis Shanaah in designing footwear products, Dia Batal in furniture design, and Dareen Hakim in handbag design. Furthermore, graphic designers are also pursuing the same aspiration, often combining both modes of the Arabic writing system—calligraphy and typography—within their visual communication products, or seeking inspiration in calligraphy for composing well with typography, as in the work of Reza Abedini, Pascal

Zoghbi, and Lara Assouad Khoury. Today, many young designers are practicing, engaging with visual culture, and employing the art of Arabic calligraphy in numerous innovative ways.

Typography Learns from Calligraphy's Store of Vivacity

A product of the pen, Arabic calligraphy is perceived first by sight, then by insight. Readers are required first to observe the letters' shapes in order to recognize them. Only then can the reader lift the mask from the alphabet, extracting its meanings and viewing its strategy of connection and ***arrangement***. Thereupon, calligraphic lettering is visual cultural expression, inviting us to reveal its meanings, analyze its shapes, and ponder its dimensions (Obaid, 2006). For that reason, Arabic typography can improve its performance by learning from its sister in expression, calligraphy. Considering a whole page of calligraphy, one can notice its ***line*** regularity that is based on the three counterparts—the letter *alif*, dot, and circle—applied and selected by the calligrapher. These coordinates facilitate the appendicular components of the letter to distribute text spatially. Some of these appendices may extend their ends, forming a pattern of ***movement*** and ***rhythm*** over the page. This new plane allows letters to overlap and interact, constructing three-dimensional lettering. This lively surface can inspire typography to improve its letters ***lines***, angles, and shapes in accordance with geometrical ***proportions***, while seeking to attain ***rhythmic movement*** in ***printed*** text through polishing its interlocked and intertwined letters, with ***clear space*** around them, allowing typography to restructure its visual elements to aim for optimum communication.

Conclusion

Analyzing calligraphic elements of a chapter from the Qur'an opened my eyes to recognize the arrangement of the Arabic alphabet on the page. After describing and acquiring the needed instruments and materials, I followed the procedures and process for performing this experiment. Carrying out this experimentation, analyzing methods of writing and drawing, I developed a new feeling for calligraphic composition. My inventory not only allowed me to perceive letters, but also words and sentences, fluency and interactivity, and elements relevant to typographical arrangement. Thus, my findings stress the validity of calligraphy as a powerful resource for arranging contemporary printed compositions. Even though I did not touch my reed pen for executing this inventory, I was able to feel Arabic calligraphy's dimensional principle, wherein the alphabet is written to interlace the horizontal with the vertical in lines of letterforms, interwoven with various loops, directional dots, and diacritical marks positioned around the text baseline. At the same time, the baseline displays a rhythmic, subtle movement with appropriate pauses in-between, a kinetic design forming a periodic ease for the reader's eye as it runs over calligraphic scripts. From such insights I draw conceptions of Arabic calligraphy's originality, the genuine expression of which is formed by its letters' architecture and music. Such conceptions emerge by scrutinizing every dot, line, stroke, and angle of letterforms while recognizing baselines, leading, and all sorts of spaces around letters and words in their movements. In this way, completing this experiment revealed essential elements of the calligraphic page anatomy beneficial for typographic arrangements, significantly supporting the enhancement and development of insightful typography education for contemporary practice.

Finalization

The aim of each of my experiments was to examine the elements and art of Arabic calligraphy composition through two divergent but complementary approaches—learning calligraphy in a professional calligraphy workshop, along with self-study experiments based equally on self-learning and self-exploration. In such experiments, I explored the value of Arabic calligraphy for art and design education by drawing on its prestige in Arabic and Islamic cultures, its place in Ibn Arabi's science of letters, while gaining a greater comprehension of its semiotics and visual analysis. In the first phase of experimentation, I learned the basics of Arabic calligraphy in a professional calligraphy workshop, practicing under the supervision and instruction of a calligraphy master. In my second approach, I employed both self-learning and self-exploration projects to fully independently examine the Arabic letterforms. Here, I conducted three distinct but connected self-study experiments on the following themes: letter proportions, the social alphabet, and calligraphic inventory. These calligraphic experiments were means to understand the mechanism of Arabic calligraphy and eventually the Arabic alphabet through visual representation and analytical narrations. In both methods, I composed calligraphic and/or typographic experiments using and mixing traditional tools (such as reed pen and ink) with computer software (Adobe Illustrator and Photoshop) to dissect my professional experiences as an artist, designer, teacher, and researcher. Hence, my analysis includes various forms of representation, including visual diagrams, commentary, narrative inquiry, maps, and timelines. Using such methods, I progressed toward exploring contemporary implementations of Arabic calligraphy useful for innovative pedagogical approaches and strategies to teach Arabic typography.

My focus was continuously on the alphabet in its calligraphic formation (mostly naskh script, but at other times thuluth) because it is significant as a simple measurement for alphabets and their meanings. In this way, Arabic calligraphy is viewed as an art, a way of knowing (Eisner, 1997, 2002), and thus, calligraphic art works and/or visual representations facilitated my critical thinking. Additionally, the implementation of metaphors enhanced my abstract thinking process (Lakoff & Núñez, 2000) throughout these self-study experimentations. Accordingly, semiotic lenses aided my conjunction of calligraphy strokes with metaphorical formulations and interpretations for assessing the values or meanings of letterforms in practice. At the same time, embarking on narrative inquiry, which is grounded in the study of experience (Connelly & Clandinin, 1988; Dewey, 1938; Eisner, 1993; Schwab, 1973), supported translating my experimental experiences into research outcomes, grounding my findings within Ibn Arabi's philosophy of letters with semiotics and visual culture analysis. Appropriately, my narrative reflections helped me understand the personal dimension of teaching typography. For that reason, I share my stories as a way of showing, rather than telling. Using both narrative inquiry combined with visual representations elevated my critical understanding of calligraphic experiments while revealing how educators might teach typography for contemporary communications.

Challenges in Performing Calligraphic Experimentations

Conducting these experiments with Arabic calligraphy was both challenging and exhilarating at the same time. In a sense, it was like practicing yoga. You think the moves are easy to achieve, but once you attempt to join in, you realize how demanding it is. It is not difficult to start, but it requires persistence, patience, and flexibility to progress. It is somewhat

hard to grasp, but having accomplished the steps and directions, you feel better than ever. You feel your body and breath. Similarly, you can feel the alphabet bodies along with your breath and hand motions.

Personally, my experimentations helped kindle and keep alive my love of calligraphy, despite feelings of pain or uncertainty I faced. Undoubtedly, to have a successful calligraphic learning experience, one must have certain talents (holding and writing with reed pen and ink) and be tutored by a professional master (attending a workshop), and quite necessary are love, patience, and devotion to calligraphic practices. Sometimes, even with all of these qualities, one still fails to understand the pen's graceful strokes and movements, simply because they are beyond one's grasp. Nevertheless, with time and persistence, along with plenty of gazing and contemplation of calligraphy examples, one can see, feel, and hear the calligraphic Arabic letters' structures and performances.

More concretely, we may sort difficulties facing calligraphy learners into two types, material conditions of the setting and struggles encountered in writing. The first includes:

a. Obtaining the writing equipment and materials such as reed pens, ink, paper, etc.
b. Preparing an adequate, safe learning environment, encompassing:
    - Writing position.
    - Table height and degree of slope.
    - Sitting position.
    - Proper lighting.
    - Distance between learners.

Writing challenges include:

- The method of holding the reed pen and pointing its head to the paper—either writing with the right or left hand.
- The mechanism of using the calligraphy pen in different positions, moving it across the page, or, according to specific positions, working part of the pen's head or its tip.
- The technique of linking a single letter's components together or joining letters together forming words.

Ultimately, these obstacles are minor because with devotion and passion, one can be affected by the pen and ink, finding innovative inspirations, while communicating with the alphabet in creative compositions.

Aesthetical Empowerment

The analysis of my experiments confirms that we can learn from practicing and understanding Arabic calligraphy, especially as we consider it an art built upon geometrical and aesthetic rules, the creation of patterns based on theories of writing, language, and contemplation. Calligraphy evolved from linguistic structures, but proliferated by transposing itself into visual terms (Gowiaa, 2006). Hence, learning from such a rich artistic system helps us to recognize its marvelous organicism. Methods to approach the art of Arabic calligraphy in this way include:

1. Recognizing calligraphy as an ultimate purpose by itself, thus acknowledging its value apart from functional rationales.
2. Understanding the independent principles of aesthetics harmonized by the perfected aesthetic golden rules.

3. Allowing for adaptation in the execution of style.
4. Balancing complex structure with malleable forms, thus allowing open, creative structures.
5. Maintaining various artistic formations and values: composition, balance, unity, rhythm, movement, centralization, decentralization, diffusion, radiance, dispersal, chiaroscuro, and fullness and void.

Attending to these themes can integrate Arabic calligraphy into typography in vivifying ways through contemporary alphabet experimentation bearing the development of artistic visions.

Such visions can spring from considering the printed alphabet produced by typography in the structure of its vertical, horizontal, slanted, curved, arched, and rounded body parts. Essential to such an approach is controlling thicknesses to establish letterforms that have both broad and fine parts, while mimicking the calligraphy letters' linking methods, as if following the four commandments of the proportioned script master, Ibn Muqlah, for letterform corrections (Al-Julitti, 2006): kerbing, composing, underlining, and decolorization. The first commandment, al-tarseef or kerbing, links each connecting letter to the next letter properly. The second, al-ta'aleef or composing, gathers every unconnected letter with others in the most beautiful way possible. The third, al-tasteer or underlining, places words side by side, imitating a uniformed line drawn with the guidance of a ruler. The last, al-tanseel or decolorization, places preferred extensions (*madat or* kashida) in connected letters. These commandments for alphabet corrections supplement the written or printed character with not only meaning, but also life.

My final thoughts on drawing on the art of Arabic calligraphy for inspiration and practice in typography distinguish several aesthetic issues. From the constructivist plateau, we can grasp the calligraphic alphabet in its geometrical abstraction, while on the expressive level, we can

study Arabic calligraphy and kinetic design. In the arena of cognition, we can explore calligraphy as a visual representation, while from a pedagogical perspective, we may consider how the typographer must master formations encompassing matters of dot, line, and space in composition and performance. In this light, I have attempted to balance each of these aesthetic planes in the transplantation of Arabic calligraphy to a typographical environment. Although there are surely many other possible modes of experimenting with the calligraphic alphabet, my methods, nevertheless, may be repeated fruitfully with other kinds of scripts—round (naskh, thuluth, *ruqaa*, *taaliq*, and diwani), angular (kufi) or mixed (both rounded and angular as in *maghribi*). Examining these various styles is likely to reveal many new layers of calligraphic meaning. Hence, such methods represent excellent resources for the development and enhancement of Arabic typography in contemporary practice.

CHAPTER 6

ARABIC TYPOGRAPHY CULTURE

A fundamental basis of my research inquiry is to highlight Arabic calligraphy as an art form while emphasizing its pedagogical potential, thus recommending this written art as an essential component in art and design education specifically for graphic and communication design. Accordingly, my self-study inquiry principally revolves around my graphic design practice in a professional setting (Pinnegar, 1998), intertwining indivisibly my roles as a researcher and design teacher throughout the process (Tidwell et al., 2009). From this viewpoint, I discussed the value of Arabic calligraphy in art education, its role in Arabic and Islamic cultures, its status as a feature of our visual world, and its interpretations of semiotic analysis according to Ibn Arabi's theory 'ilm al-hurûf. In the previous chapter, I examined Arabic calligraphy through two divergent but complementary approaches—study in a professional calligraphy workshop and self-study experimentations that encompass visual representations and narrative inquiry. My calligraphic or typographic experiments demonstrated, analyzed, and confirmed, using traditional instruments (reed pen and ink) and computer software (Adobe Illustrator and Photoshop), the aesthetic and scholastic roles of Arabic calligraphy.

The findings of my calligraphic experimentations are utilized to create university-level Arabic typography curriculum and pedagogy for contemporary graphic or communication design practices in the twenty-first century. Given the fact that graphic design educators in the Middle East, somewhat problematically, build their curriculum around Western approaches that are not fully suitable for the visual and communicative power of the Arabic alphabet, my approaches to typography curriculum emphasize the typographic and calligraphic sensitivities of the Arabic alphabet—its structure, proportions, mechanism of connection, and aesthetics. In this way, my

proposed educational method and content will help re-align art historical knowledge with Arab and Islamic cultural needs and prepare designers to refashion Arab identities in the twenty-first century. Reviving the adored heritage of Arabic calligraphy, while making it a pragmatic form of art, can support students' learning journeys in diverse ways. Additionally, built on Western art education philosophy and suitable for current design education, my proposed curriculum and pedagogy emphasize the pedagogical potential of visual culture theory and the nature of learning within a design/art studio environment, thereby expanding the field of art education and providing a deeper understanding of the historical intersections between Eastern and Western visual cultures, print forms, and art traditions.

The Exigency of Typography Culture

Graphic design education equips designers with the resourcefulness to solve visual problems while encouraging a creative, generative spirit. Ideally, a good visual communication design education should present experiences that enable designers to express themselves in diverse media (Pullman, 2005). In addition, graphic design depends on the interaction of images with words to convey and communicate messages and is thereby intertwined with language in cultural contexts. In this way, graphic design is distinguished from other design disciplines because it has its roots in language, and consequently the core of its practice is in typography (Moholy-Nagy, 2009; Pullman, 2005). As communication composed of letters, typography allows rhythms of representation and language inflections. Read or viewed letterforms are the absolute representation of language. It is in the details of typeface that the subtleties of such exemplification emerge. Hence, the heart of the practice of typography is the study of the expressive possibilities of the details of typefaces (Coles, 2013; Heller, 2004). To be precise,

using typeface effectively in graphic design is not only essential for clear communication, but also a powerful means of conveying ideas, perceptions, and viewpoints for audience interaction. Therefore, mastering typography, considered a primordial language of communication, is an essential ability for each graphic designer (Lucid, 2005). Accordingly, type is a critical element in graphic design and typography, the central element in graphic and communication design education.

Despite the importance of typography in graphic design, many students in the field graduate without proper knowledge of its uses. Graphic design programs often neglect the study of typography because of the significant effort required to teach not only the mechanisms of composing type and the expression of type forms in design, but also the history of letterforms (Heller, 2005b). Over the past twenty years, digital media and technology have revolutionized graphic design, but in many ways its core principles remain the same (Baseman, 2005). The new media possibilities have generated a domain of experimentation and invention for communicating in graphic design, yet currently the increase of opportunities has only intensified graphic design core principles and their value (dissimilar from typography principles). As a result, designers manage to produce effectual communication, serving mainly economic, social, or political purposes (Rand, 2009), but design artifacts do not reflect a contemporary communication atmosphere of invention and experimentation. In this sense, graphic design educators need to expand the purview of the field's curriculum and pedagogy to reflect contemporary practice and communication, while at the same time continuing to emphasize the traditional and essential core principles of effective design. These core principles are also essential for graphic design students to learn communication that addresses contemporary economic, social, and political discourse in powerful ways. The study of typography is one of

the crucial elements of graphic design education and makes students' full understanding of both innovation and core principles possible within contemporary society.

There are presently a few approaches employed in the education of graphic designers that reflect present-day practice in the discipline. Such approaches include the use of technology to enhance learning experiences and the practice of innovative teaching methods that balance manual with technical tools, both of which are essential to making sense of calligraphy as an essential element in typography education.

Technology in Design Education

An innovative approach to making such improvements is reconceptualizing technology as more than a learning tool. In the digital age, graphic design educators must integrate the study of technology itself and its uses into curriculum as a subject, reflecting on how diverse types of graphic design technologies shape the field (Middendorp, 2009). Many design schools focus on teaching theory with traditional drawing techniques, limiting their curriculum, and thus, their students discover and play with digital methods on their own. Hence, these schools neglect to include digital tools, mostly resulting in students using technologies weakly and ineffectively. Moreover, graphic design educators are confronted daily with evidence of how their perceptions, intentions, reasoning, and actions are mediated and transformed by technology, and therefore, technology must become an object of study integral to design education curriculum (Davis, 2008). Certainly, design educators recognize technology's essential role in the processes of visual design and communication (Davis, 2008; Middendorp, 2009; Poggenpohl, 1993).

Today, technology is considered both tool and medium as designers execute their ideas in two or three dimensions, and they synthesize the uses of materials within design processes,

utilizing paper, film, computer applications, letterpress, video, etc. Likewise, the accessibility and affordability of technologies shapes students' educational and professional journeys (McCoy, 2003). As computers enable deeper and quicker progress toward students' learning outcomes, fully embracing digital technology in early typography courses enhances students' educations. In such contexts, my self-study research explores the creation of calligraphy and typography both with and without the use of digital technologies in order to comprehend first-hand the meanings of shifting between digital and manual techniques in design education. My approach to typography design education stresses the importance of incorporating traditional calligraphy with computer technology processes into Arabic typography curriculum in order to enrich students' educational and professional experiences.

Innovative Typography Educators

While most design educators favor incorporating technology into typography and graphic design courses, the most successful teaching and learning combines traditional and new technologies, blending calligraphy and typography. The following examination of two graphic design educators employing Arabic/Latin forms of calligraphy to inform contemporary typography curriculum and design practice demonstrates the power of this approach.

The first, an innovator who asserts that integrating calligraphy is essential to the development of her teaching and practice of graphic design is Lorrie Frear of the Rochester Institute of Technology (RIT), known for its visual and graphic arts program. Studying calligraphy as an RIT undergraduate showed Frear that drawing letters with nib revealed their structures in new ways, beginning her acquisition of the typographic sensitivity she works to impart to students in her calligraphy and typography courses (Frear, 2010). Frear introduces

foundational approaches to drawing calligraphic letters and words through an interactive, physical experience in which students learn the essentials of proportion, stroke sequence, anatomy, letter, word, and line spacing. In this process, her students learn such calligraphic elements as sentence breakers, secondary messages, margin alignment, hierarchy, composition, and negative space to become effective and alert visual communicators. Frear's method weighs the alphabet's beauty and integrity with the letterforms' terminology and historical development, while stressing the importance of arranging and composing letters as a powerful means of communication. Connecting typography to calligraphy while emphasizing the basics of calligraphic communication, my approach builds upon Frear's precepts to explore the use of manual calligraphy techniques with computer software to introduce students to this daunting subject while making it enjoyable to learn and execute.

Another significant graphic design educator to my research is Tarek Atrissi, a Lebanese graphic and type designer. He teaches at the Utrecht School of the Arts in the Netherlands and previously taught at Arab design schools—the American University in Dubai and the Virginia Commonwealth University in Qatar. Atrissi's teaching philosophy vision strives to define the key stages and skills needed to enhance the education of Arab designers (Atrissi, 2007). According to him, for bilingual cultures, it is critical to introduce typography languages in separate courses, each course concentrating on one language, Arabic or Latin, while also covering the historical development and writing system of every alphabet. Since most of the Arab world is bilingual, students should have a subsequent advanced course that teaches the juxtaposition of Arabic and Latin typography, focusing on understanding how to align the two scripts. Moreover, Atrissi believes that students must understand the distinctions between typography and calligraphy. He encourages design students to seek a true reflection of graphic

and typographic language in their native environments, drawing on their visual historical heritage. Atrissi invites young designers in the Arab nations to seek inspiration from the Arab culture's visual language, mainly from local design characteristics, to innovatively develop the practice of Arabic typography and visual design (Atrissi, 2007; Haupt & Binder, 2004). Such an approach affirms that today, there are various opportunities to pursue such innovations, as the fields of Arab graphic design and typography design are somewhat new, and thus, afford unlimited possibilities to improve the performance of the Arabic alphabet.

The innovations of design educators Frear and Atrissi affirm the importance of calligraphy in teaching typography. Frear adheres to traditional manual forms, developing new contexts for calligraphy as a way to improve the practice of typography, while Atrissi builds upon Arabic typography design and education through strengthening fundamentals of Arabic calligraphy while incorporating design inspirations from Arabic visual culture. Drawing on both approaches, my typographic experiments employed manual and technological methods, seeking inspiration from Arabic and Islamic visual culture. Such a synthesis supported the development of contemporary Arabic typography curricula, pedagogy, and my basic course.

There are many efforts to improve the current practice and education of Western graphic and typographic design; however, the Arabic branch is still in its infancy period and behind due to many technical, cultural, political, and developmental factors. Outlining these factors is essential to my research investigation in order to understand how can we enhance the current arena of Arabic typography. Hence, each avenue of investigation and analysis seeks to highlight connections between both Arabic calligraphy and typography. Tracing back the historical development of calligraphy along with the pragmatic evolution of typography has helped me

recognize the poor performance of Arabic typography and identify how to design contemporary Arabic typographic curriculum suitable for the visual, global twenty-first century.

The Arabic Alphabet from Script to Type

Throughout the process of my ongoing self-study and inquiry, I have sought to employ various representational forms—visual, written, or both, to convey the meaning of my experiences (Eisner, 1993). Hence, my representation employs diverse visual forms to make sense of data and to reflect upon the procedure of self-study. These representations are both data collection and analysis and, thus, reflections of my learning experience, to the extent that my art (my calligraphy to typography timeline and map) is a way of knowing (Eisner, 1997, 2002). As such, it helps me engage critically with my research while documenting my learning experience, then exploring my insights on typographic education. Consequently, for simplification, I synthesize my historical, investigational research into a simple, evolutionary timeline—which I divided it into three figures to ease reading it—(Figures 34, 35, 36) and map (Figure 33) to underpin critical understanding of written script's progression toward printed type. I was able to create this timeline and map after completing both my calligraphic workshop and my experimentations with the Arabic alphabet because such self-study projects allowed me to inspect the Arabic writing system from multiple perspectives.

Retracing the history of the Arabic writing system, calligraphy and typography, is critical for understanding completely how Arabic typography developed over the years. Additionally, such a survey can illustrate the importance of calligraphy within the scope of typography practice and education, thereby enabling the design of a well-developed Arabic typography foundational course. With this in mind, a decisive examination of both the transformational timeline and map

of the Arabic writing system, along with other related industrial advancements and political and social circumstances, can help clarify the development of representational forms of the Arabic alphabet. It is important to point out that I choose to juxtapose text with few illustrations in a linear mode for the timeline, preferring less textual information within the map. This is merely a research and design decision in order to display unique visual modes for representing data and its related analysis. After examining the development of the Arabic writing system, reading my timeline and map, it is then possible to note the emergence of the following themes: natural outgrowth; the influence of major inventions; the power of politics, religion, and conflict; and the nature of cursive Arabic. These themes are color-coded, a distinctive color for each one, to ease locating them within the timeline and map. Below, I describe and justify the emergence of each theme.

Natural Outgrowth

Gazing at the historical events or development of the Arabic writing systems over the years reveals the natural human progression from manual to technical, from sacred to secular, and from national to international. In this schemata, Arabic type design is modeled on calligraphic practice because Arabic script is cursive in its nature. Therefore, Arabic calligraphic styles of the pre-mechanical era have been absorbed into typography. Indeed, both Arabic and Latin calligraphic styles are the bases for their typographic formulations. Similarly, people are moving forward with inventions and social developments that ease their lives, formulate their civilizations, and create their legacies.

Influence of Major Inventions

Without a doubt, there have been many major industrial inventions affecting the development of the Arabic writing system. However, some of these have slowed the development of the Arabic alphabet, while others have helped speed the transformational process. Printing is one of the main inventions to have contributed to the progress of the Arabic writing system, although in a slow manner due to many factors. First, the print culture led to the creation of typography, which was carefully adapted from calligraphy printed letters and one of the most significant innovations in late eighteenth century Europe. However, the Arabic alphabet could not adopt itself easily, simply, and fluidly to printing techniques. This was mainly because the typography and printing masters at that time were European Western craftsmen, who had expertise with the nature of the Latin writing system, but not cursive Arabic. Despite the fact that, as professionals, these Western typography masters had a good knowledge of the Arabic alphabet from working with Arab or Muslim assistants, they were effortlessly seeking to simplify the Arabic, adopting it to technology that was built for the Latin letters. Therefore, they were making the Arabic more like the Latin in an effort to revolutionize the Arabic script for faster communication. It was an era for the Latin typography intellect (Raizman, 2004), and the Arabic had to be adapted to that (P. Zoghbi, personal communication, September 18, 2014). Second, European typographers opted to create printed font without its calligraphic character or any hand-written trail. From their effort the Latin type flourished and the Arabic alphabet was banished, thus limiting the Arabic letterforms' potentials. Third, the process of Arabic typography was a very slow procedure due to technical and manufacturing issues, which were normal back then. It was both time and cost consuming. From these rationales, which I constructed by compiling my timeline and map, along with the findings of my

experimentation with Arabic calligraphy, I developed my own understanding of the aesthetic, organic possibilities for calligraphy facilities of Arabic writing, while industrialized Western typography seeks to create a pragmatic writing system, displaying power and admiring influence. In other words, printing technology did not nurture the Arabic script, yet we can learn a lot from this journey about designing and composing effectively for contemporary Arabic typography practice. Instead of manual printing methods, the Arabic writing system can make promising progress with the aid of digital means.

Despite how Arabic printed text suffered, digital methods of print elevated the performance of the alphabet. Toward the very end of the twentieth century, the invention of microchips, computers, and computer software aided the rate of development of Arabic script. Now in the twenty-first century, there are enormous changes and improvements within the arena of Arabic typography. Definitely, efforts are increasing and the future of Arabic typography is promising.

Lastly, another significant event that affected not only the Arabic script, but also the printing industry was paper manufacturing, which was invented in China AD 105. During the Muslim conquest westward, they discovered paper factories in Samarqand in AD 571 (Bloom, 1999; Karabacek, 2001; Moginet, 2009), and from there, it was adopted in the Arab countries and then in Europe. This new medium greatly influenced Arabic writing style and, being easy to make at low cost, aided in spreading and accelerating the act of writing. Moreover, the smooth paper surface helped the reed pen and ink glide easily across the page. Thus, this new medium contributed significantly to the enhancement of the Arabic written script. As a result, paper manufacturing had a profound role in developing the six cursive calligraphic styles. Consequently, paper has served in enabling Arabic calligraphy to reach its golden age.

While developing the Arabic writing system timeline and map for my historical survey, I noticed that printing was also invented in China using the xylograph, block printing with woodcuts. This technique was found in Samarqand around the tenth century (Moginet, 2009). However, the Muslim expansion did not adopt the process of the xylograph for Arabic text, or, more likely, they did not take it into account. Was this because Arabic writing was associated with sacred text and designated only the human hand to execute it for minimal error? Or did the smooth surface of paper enchant calligraphers to perform creatively with their hand, reed pen, and ink? Or did the Caliphate in Andalusia, capital of the Islamic empire at that time, not perceive its pragmatic and effective employment? I keep wondering, what if they had adopted the printing techniques? Would the Arabic writing system have developed differently and reached a mature stage by now? The fact was that, in the twelfth century in Europe, xylograph printing emerged along with paper manufacturing and typography components developed jointly to revive the Latin text.

Power of Politics, Religion, and Conflict

Certainly, the Arabic writing system faced uneven historical development in comparison with Western script due to political and religious powers. Though letterpress printing was first invented in Germany in 1450, due to cultural and political forces, mechanical printing was prohibited within the Ottoman Empire, even under penalty of death, thus limiting the development of Arabic typography (Baten & Van Zanden, 2008). However, a few years later it was permitted with some constraints. Unquestionably, the conflict of power and authority between East and West, Muslims and Christians, contributed to an interruption of the development of the Arabic writing system. Even though Arabic typography and presses were

established in Europe first, they were created in the Arab world later. Therefore, 300 years later, Arabic typographical materials have experienced somewhat the same rich progress as the Latin type (AbiFarés, 2001). Subsequently, the Arabic script experienced a new transformation as the Arabic alphabet shifted its meaning from Islamic (sacred) to Arabic (secular) amid the historical, political, and cultural movement in the Arab region. Today, more than ever before, the Arabic alphabet is a national identity marker for people living around the globe while, at the same time, holding the beloved heritage of the art of Arabic calligraphy.

Nature of Cursive Arabic

The mechanism of writing Arabic text is cursive by virtue of its alphabet. Writing a word demands connecting the letters and not isolating them for legibility purposes. Arab and Muslim artists understood such behavior as a way to glorify their written art, calligraphy, as it was reaching an epoch of prosperity. Western typographers aspired to simplify Arabic printed letters, and, therefore, did not manage to carry over the aesthetic qualities of hand-drawn script. In this sense, calligraphy is neither lettering nor writing, but somewhere in between (AbiFarés, 2001). Whereas Arabic calligraphy has developed and emerged as a distinctive form of communication, serving equally both written and aesthetic purposes, in the evolution of Arabic typography, type has been tied to calligraphy in its golden age as these efforts were seeking to sustain the ostensible values of the written letterforms. This explains the reason that Arabic typography has not at all developed entirely on its own, instead of merely mimicking calligraphy. The aim of typographic form is not to replicate a calligraphic mode, but to realize the method of connections and structure (for letters, words, and sentences), to independently emerge as a spellbinding form of communication.

It is, therefore, exceedingly critical to introduce graphic communication and type design to students (and practitioners) with the history of the Arabic writing system, from script to type, in order to increase their perception and recognition of Arabic script. My typographic curriculum presents the history of the Arabic writing system, from calligraphy to typography, in both timeline and map formats, for students to interact with, understand, and analyze. Optimistically, this introduction will aid graphic design students as they enhance their contemporary practices. In what follows, I describe the values or potential we can gain from learning Arabic calligraphy to improve the practice of typography.

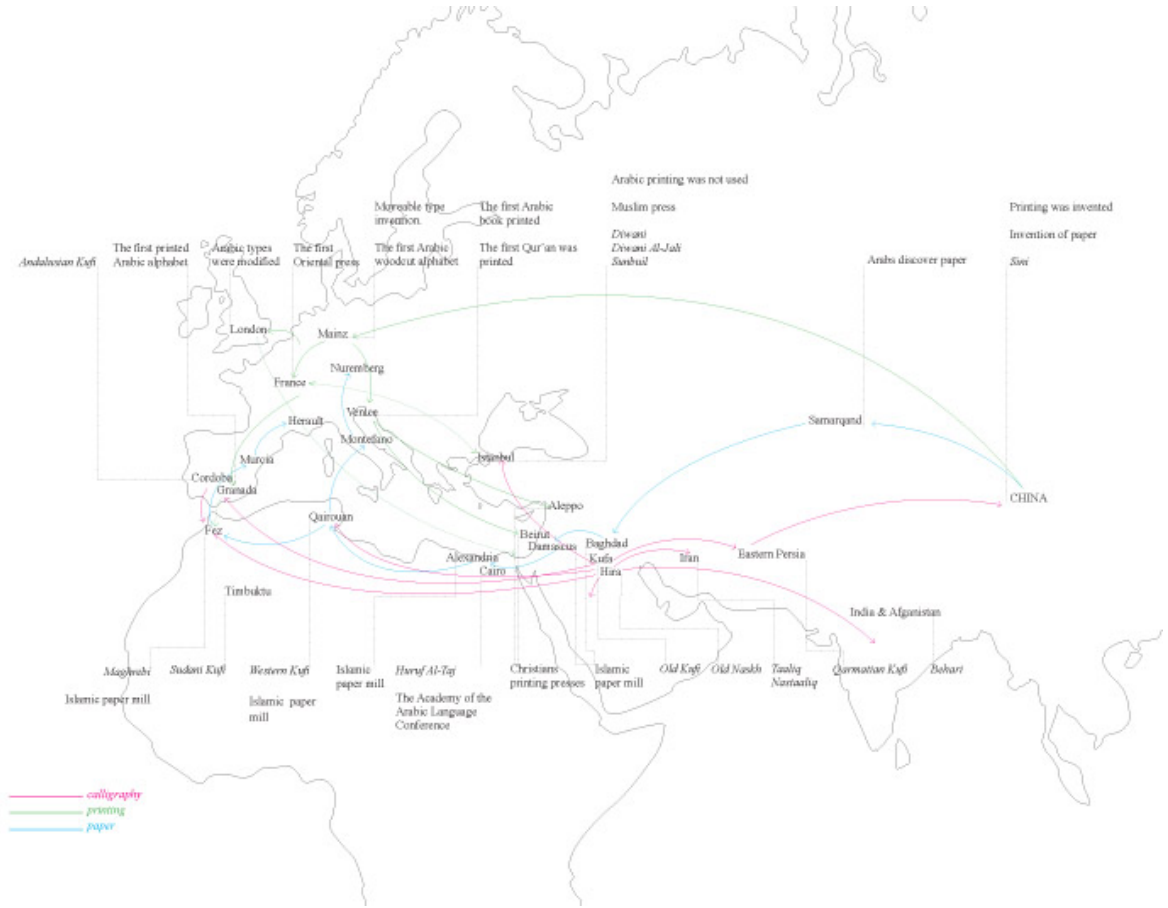

Figure 33. Map of the calligraphic and typographic evolution of the Arabic writing system. This figure indicaes the major cities in which the Arabic alphabet has transformed due to political or religious influnces, industrial inventions, or social and cultural events.

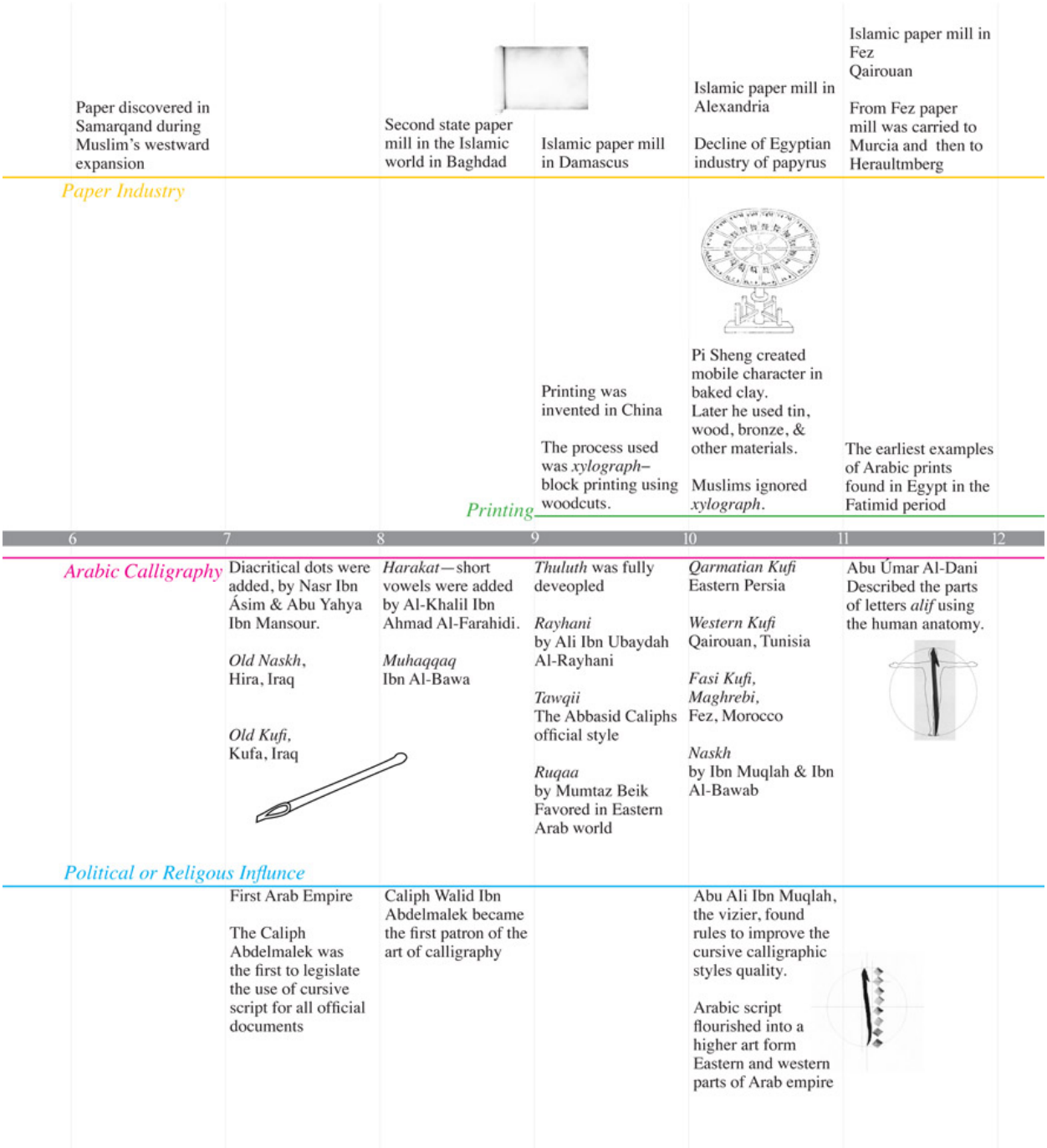

Figure 34. Timeline of the Arabic writing system, showing its evolution from calligraphy to typography—Part One. This figure illustrates the historical development of the Arabic writing system and any influntial events that contributed to its progress.

	11	12	13	14	15	16	17
Paper Industry			Paper mill was carried from Qairouan to Montefano & Nuremberg The size & quality of paper available in Iran has increased				
Printing		Woodblock printing (*xylograph*) had existed in Europe.	Printing began in Europe with the Arabs introduceing the Chinese papermaking via their western provinces in Sicily & Andalusia in Spain. Under the Mongol rule, bank notes with Arabic and Chinese texts were printed in Tabriz.	Invention of movable type by Johannes Gutenberg, Mainz, Germany The foundation of commercial printing and typography	The first Arabic woodcut alphabet – Mainz The first Arabic alphabet printed – Granada The first Arabic book printed with moveable metal type –Venice The first printed Qur'an –Venice	 The richest Latin type typographical period	
Arabic Calligraphy		*Andalusian Kufi* Cordoba, Spain *Sudani Kufi,* Timbuktu		*Behari* India & Afghanistan *Sini* China	*Diwani* For the Ottoman Imperial court *Diwani Al-Jali* Turkish sultans signatures *Taaliq* Persia *Nastaaliq* National Persian style *Shikasten* Persian & Urdu scripts		
Political or Religous Influnce					Printing have been suppressed by the Sufi murshids, who believed in the holy act of writing amulets.		

Figure 35. Timeline of the Arabic writing system, showing its evolution from calligraphy to typography—Part Two.

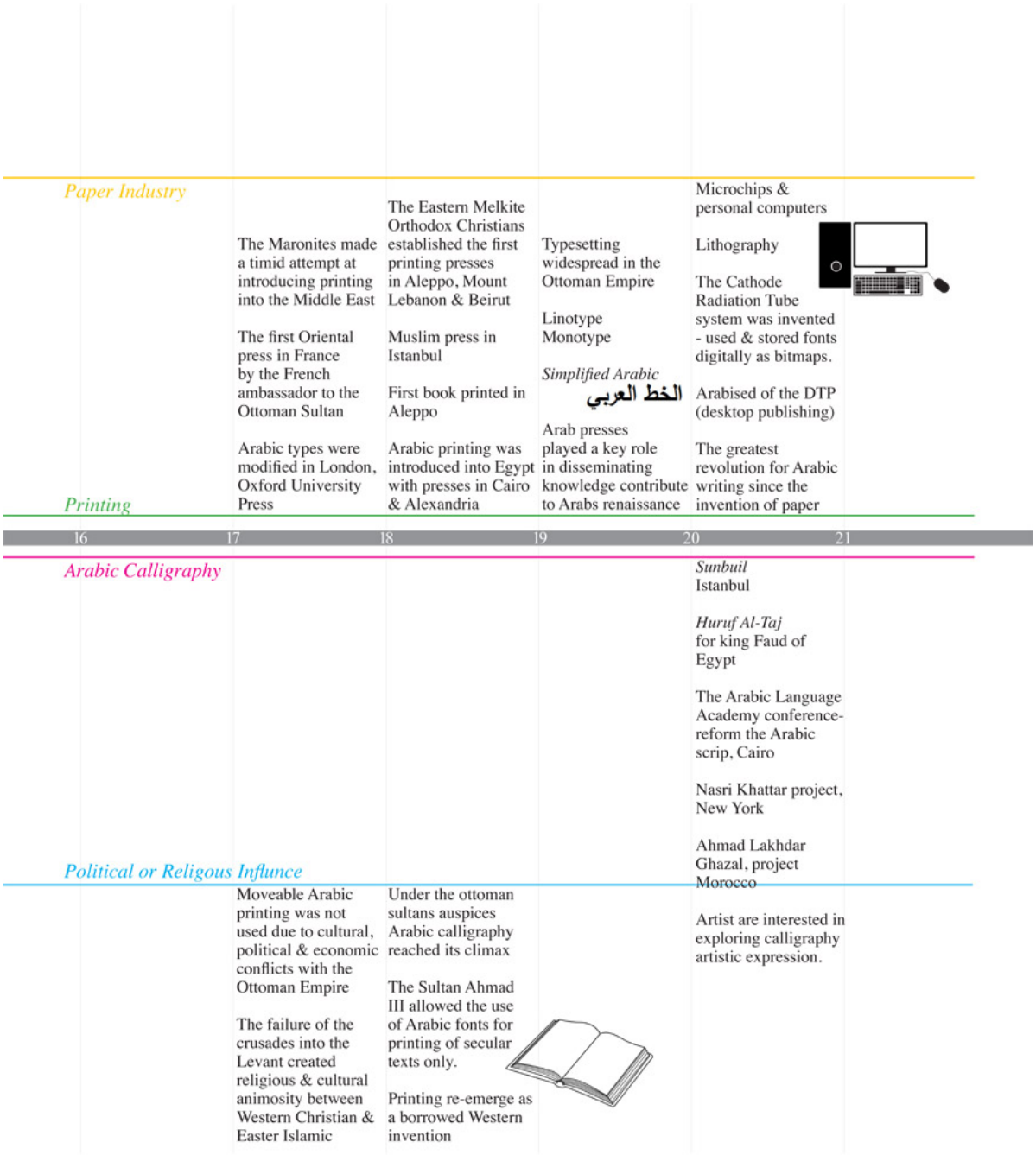

Figure 36. Timeline of the Arabic writing system, showing its evolution from calligraphy to typography—Part Three.

Edification from Arabic Calligraphy

I experimented with Arabic calligraphy for the purpose of gaining a sense of the alphabet's proportions, connections, and composing system and conducted a historical development survey of the Arabic writing system from calligraphy to typography. Recognizing the need for a better transition between the two forms, I am now able to comprehend the gap between calligraphy and typography so as to assure that the aesthetic beauty of the Arabic writing system is maintained in the course of creating a new mechanical/electronic printed type. In a sense, understanding calligraphy helps in identifying Arabic script values and properties. As a result, many artists, calligraphers, and graphic design scholars or practitioners support the development of original typographical styles suitable for present-day uses or aspects and affirm the importance of relying on calligraphy to better work with typography (Al-Julitti, 2006; Gowiaa, 2006; J. Mi'raj, personal communication, October 17, 2014; P. Zoghbi, personal communication, September 18, 2014). Almost all of the professionals interested in the Arabic writing system, including myself, recognize two major factors in calligraphy's contribution to enhancing the performance of typography. The first is the Arabic alphabet's particularities, and the second is calligraphy's capacity to facilitate artistic composition.

Alphabet Particularities

Unquestionably, I found myself in total agreement with scholars and practitioners who believe in the value of learning Arabic calligraphy to gain letterform responsiveness. Particularly, acknowledging the fact that all of the Arabic letters are capable of forming almost any geometrical shape (or image) without changing their essence, my eyes, hand, and mind perceive the Arabic alphabet completely in a new, fresh, elastic, organic, social, structural, and

geometrical perspective. Moreover, I am especially astonished by the genius of Ibn Muqlah's letters measurement theory or al-khatt al-mansoub (Figure 37). Even more than 1000 years later, his rules and descriptions are not only still valid today, but are also applicable to typed letters. In this way, understanding the various letter shapes and connections (Gowiaa, 2006; J. Mi'raj, personal communication, October 17, 2014; P. Zoghbi, personal communication, September 18, 2014) is equally useful for composing typographically and for designing contemporary typefaces. Ibn Arabi's science of letters can accommodate art and design students for contemporary practices, along with learning Arabic calligraphy and distinguishing the position Arabic alphabet within the scope of visual culture.

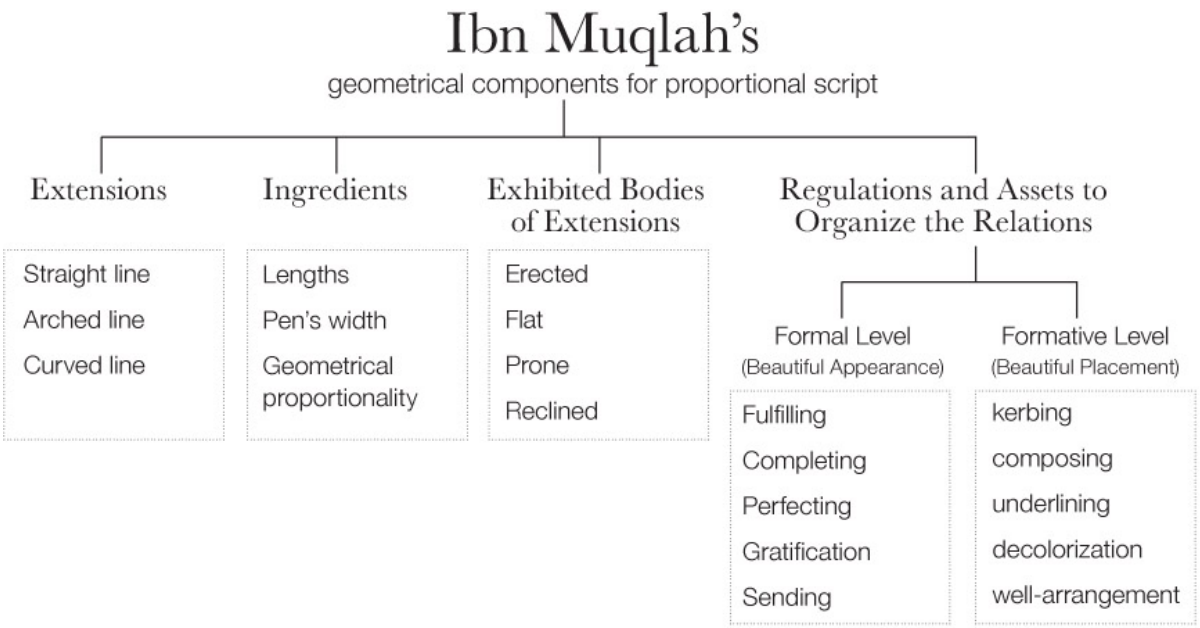

Figure 37. Diagram simplifies Ibn Muqlah's geometrical components for an aesthetically, well-proportioned script, adapted from Baha' Aldeen Abdel Rahman (2012).

Handling of Artistic Compositions

Another significant value of studying the art of Arabic calligraphy is found within its rich and artistic language as a resource for composing expressive communication, using letters, shapes, and colors. Calligraphers include within their practice the old aesthetic criteria of perfect beauty: balance, centering, symmetry, unity, and golden rules. Arabic calligraphy also encompasses modern events of rhythm, movement, and the aesthetics of disruption and deconcentration, while allowing at the same time, composition and experimentation with contemporary artistic approaches that keep pace with visual development. Therefore, using a calligraphic lens, art and design students can treat numerous present-day issues on many levels (Gowiaa, 2006). Arabic calligraphy can be viewed not as a complicated, traditional craft, but as a sophisticated, artistic, and educational approach, that facilitates the treatment and handling of countless matters of contemporary artistic or design formation. Appropriately, we should not only incorporate calligraphic rules and conventions, but also experiment and bring in modern additions to fully benefit from the art of the written.

Nonetheless, the challenge is how to approach calligraphy to engage learners with its far-reaching potential. How can art and design educators instill their students with passion to examine calligraphy's rules, to compose and distribute calligraphic letterforms, and to become inspired by the possibilities of pen-and-ink. Most of all, how can an examination of calligraphy enhance and contribute to design pupils' intelligence and sensitivity to the alphabet for creative practice? There are many methods to introduce students to the art of calligraphy, yet no fixed rules, since the field of graphic and communication design is constantly emerging and developing to define itself within the range of contemporary visual culture. Design educators are trying to outline the best approach for teaching calligraphy to improve typography practice.

Typically, students who are interested in type design would naturally adore working with calligraphy, the mother of typography (P. Zoghbi, personal communication, September 18, 2014), since this group of students appreciates the importance of letterform in either printed or written mode. However, the other graphic design or visual art students do not carry the same appreciation for calligraphy; they merely see it as general knowledge and thus do not involve it in their work. Therefore, teachers should, first, evaluate their learners' needs and specializations. Then, when introducing the art of Arabic calligraphy in their Arabic typography courses, design educators should obtain an approach, which is appropriate for their audience and balanced among such issues as the amount of history of the Arabic writing system and the quantity and extent of experimental exercises. The challenge is to introduce calligraphy to students, offer adequate resources, approaches, and materials, and from there, learners might develop a passion, interest, or simply a thoughtful appreciation of the Arabic writing system.

Experimenting with the Arabic Alphabet

Experimentation with the Arabic alphabet in both of its forms—calligraphic and typographic—is an opportunity to interact, examine, and understand the Arabic writing system. The term "experiment" in a scientific context, refers to testing an idea in a way that proves or disapproves a hypothesis through a preformed set of actions. Eventually, experimentation leads to knowledge through an empirical process. Within controlled settings, the experiment demands objectivity with all measurements and procedures, thus allowing other scholars to repeat the process and thereby affirm the incidence of a phenomenon following a precise set of actions. However, in the field of graphic and typographic design, "experiment" is a noun, employed to indicate something new, exceptional, or challenging with fixed and perplexing expectations

(Bilak, 2006). Oftentimes, the design process itself is synonymous with experimentation; hence, it could complicate the meaning of the term, since the design process produces the design outcome/artifacts.

Design terminology adores the scientific echo of the phrase "experiment." Science is indispensable to our modern age, revolving around clarity, rationalism, transparency, specificity, analysis, and our entire reality (Helfand, & Drenttel, 2006). Graphic designers have strived to establish solid grounds for their field, borrowing a few scientific terms or processes to validate and theorize communication design education and practice, and to focus on the experimental process for dealing with unknown matters or subjects (Bilak, 2006). This process stimulates the mind and eyes to construct inventive solutions for, in our case, the field of typography and communication design. In this way, experimentation with the alphabet is only experimental during the process of formation. Upon completion of the procedure, the experiment reaches its final point and, therefore, can be analyzed, sorted and classified to become part of expertise knowledge, enhancing and challenging the target field for growth and progress. Thus, I carried out my calligraphic experimentations to engage both my sense and intellect, for the purpose of gaining sensibility for the Arabic alphabet and generating knowledge about it, thus understanding how to enhance the practice of typography.

The vivid art of experimenting constantly attracts more and more professionals, educators, and students, including myself, who not only redefine the purpose of experimentation, but also contribute to the development of the graphic design field with their creative results and, through their actions, shift the boundaries of their practices. Accordingly, the inventive experiments approve the exclusiveness of Arabic calligraphy for both artistic expression and pedagogical benefit (Gowiaa, 2006). However, it is important to stress that carrying out

experimentations with the Arabic alphabet does not mean adhering strictly to calligraphic forms and methods and being uncreative (AbiFarès, 2007, 2013; P. Zoghbi, personal communication, September 18, 2014). The constraints of the letterforms, calligraphic or typographic shapes, should inspire designers to experiment, discover, and understand, while offering a reference or starting point. Experimenting with the alphabet has no limits as long as one understands the purpose, context, and nature of such inquiry, feeling free to break away from any common standards or protocol. In other words, we need to define and justify why we are conducting these experiments with the alphabet, while comprehending the line that balances the experimental and the professional. Therefore, before I conducted any of my calligraphic experimentations, I established my aims and purposes in executing each experiment to ensure achieving useful, practical, and logical findings that can contribute to my proposed Arabic typography curriculum.

Likewise, using the experimental approach to teach Arabic typography design aims to make learning an enjoyable experience while nourishing students' creative memory for contemporary practices. We do not teach by telling students things (Bierut, 2007); we facilitate the learning environment, resources, process, and techniques to empower students to discover and gain knowledge of the Arabic writing system in ways convenient for students to develop typographic fluency. In a similar way, I want my future graphic design students to have an educational opportunity to experiment with the Arabic alphabet. The next section of this chapter discuss the procedures for implementing these proposed experimental lessons within a contemporary typographic curriculum, utilizing pedagogy suitable to enhance the performance of Arabic typography design education in the current era. To support and ground the novel curriculum, theories such as Ibn Arabi's 'ilm al-hurûf (or science of letters) can help describe and discuss the meaning, role, and existence of the Arabic alphabet, and semiotics combined with

visual mensuration can be utilized as an interpretive lens to simplify both philosophies, ultimately consolidate contemporary education and the practice of the Arabic writing system.

Arabic Typography Design Education

Currently, the education of Arabic graphic designers parallels that of their Western counterparts due to the fact that most Arab graphic design educators studied in American or European design schools. Like this, Arabic typography follows Western tradition, making the educational process of learning Arabic typography complex and difficult. In fact, in all of design education today, there exists no course in Arabic typography, which makes Arabic typography the fundamental basis of its curriculum (Atrissi, 2004; P. Zoghbi, personal communication, September 18, 2014). Typically, a typography course (within Arab design schools) includes a fundamental introduction to Latin typography, covering primary historical movements and styles in typography, along with existing practice and theory while Arabic typography may be taught separately or introduced as part of a bilingual class (P. Zoghbi, personal communication, September 18, 2014). Since almost all Arab countries are bilingual, communicating in Arabic and English or French, there is clearly a need for Arab designers to learn to compose in both Arabic and Latin type, ideally with equal significance devoted to each. Nevertheless, there are no Arab visual communication design schools or programs exclusively devoted to Arabic type and design, only schools that follow the Western model while focusing secondarily on Arabic typography. As a result, most typography classes focus mainly on typographic matchmaking or the mechanism of juxtaposing Arabic and Latin typefaces. Hence, these courses are not assisting students to fully understand fundamental typographic details.

The core problem, therefore, is with the Westernized curriculum that does not attend to the nature of the Arabic alphabet and its cultural significance. Consequently, Arab visual communication designers need to rethink and rebuild their curriculum or courses around Arabic design culture, addressing Arabic calligraphy as an essential component of their programs or even offering a class in calligraphy or history of calligraphy. The aim here is not to produce students who are fluent in calligraphy, but to develop a high sense of understanding for the Arabic alphabet and an awareness of the script and its essence, which is a similar reason for why students take photography or drawing courses. They will not be photographers or artists, but they take these courses to understand and gain knowledge in order to utilize those skills within their professional practices. Typographically speaking, this rationale is similar to the purpose for graphic design students (particularly in the West) to enroll in typesetting (metal and old printing presses), stone carving (carving letters on stone), or font labs (for designing open type). They take these classes to obtain all kinds of essential type knowledge to support their learning journey and practice. Sadly, however, none of these specialized type-related courses are available in any design school in the Arab nations nor even a basic one (P. Zoghbi, personal communication, September 18, 2014). Therefore, I seek to develop an Arabic typography curriculum, which supports contemporary practice enlightened by historical development, mainly, the art of Arabic calligraphy.

Moving Forward Back to Basics

Throughout my research, as I was examining the value of Arabic calligraphy for art and design education, specifically for the Arab universities and colleges, the importance became clear to me of incorporating the valuable art of the drawn script into the art and design program

of the higher education system. Calligraphy, the artistic practice of handwritten letters, is intertwined with Arab and Muslim history and culture and was the reference base for typography through the evolution of mechanical printing, letters in machine-made form. Arabic typography synthesizes the two types of writing, written and printed, built upon rendering letters in calligraphic form (AbiFarés, 2001). In other words, typography is a form of design, expressed in typed letters.

As a design practice, however, Arabic typography faces many limitations due to the characteristics of Arabic fonts. One of the main difficulties is the limited number of Arabic fonts, which is very small compared to the number of Latin ones. Arabic typeface designers simply have created very few fonts. Moreover, there are several problems with existing Arabic typefaces, most of which seek to replicate the calligraphic style, rather than rethink calligraphic forms for mechanical type. As a result of this, Arabic fonts do not reflect the aesthetic and grace of calligraphy universally associated with the Arabic writing system. Not surprisingly, most of the available Arabic typefaces fail to address the needs of contemporary designers because they are unsuitable for new media applications, especially since they are illegible in small sizes. Thus, in designing for the Arab world, it is difficult to use type as an effective major graphic element, for example, in a poster (Atrissi, 2004). Such a shortness of useful fonts has restricted the practice of design itself in the Arab world. Hence, one primary objective of Arab design educators requires that their students learn the relationships between calligraphy and typography in order to use effectively—separately or together—both Arabic and Latin alphabets. Eventually, the skills and knowledge acquired will aid (a few designers or typographers) to develop well-designed Arabic typefaces for contemporary design.

The mastery of Arabic calligraphy requires long years of practice, and it is certainly not necessary for graphic design students to learn calligraphy perfectly, since it is not directly applicable to the field of contemporary graphic design. Nevertheless, graphic and typographic designers must have a thorough understanding of the ways that calligraphy has shaped typographic letterforms, since building on the legacy of calligraphy in such forms is essential to the creation of new possibilities. Young designers should formally and systematically study the synthesis of calligraphy and typography in modern Arabic letterforms in order to devise effective forms of communication in contemporary contexts.

Approaching Arabic Typographic Education

Graphic and typographic design represents a recent profession in Arab countries, and developing new forms of type is difficult because designers lack a heritage of master designers to emulate. While there is as yet no fully comprehensive curriculum or program, there are several promising efforts to elevate the education of Arab graphic designers, but most still follow Western models that require educators to justify the study of Arabic typography as an addition to existing curriculum (Atrissi, 2004). In such an atmosphere, Arab graphic design educators must be careful to observe the boundary between drawing inspiration from the West and importing unsuitable methods inappropriate for Arab contexts. Hence, the teaching of Arabic typography is very critical within design education, without concentrating on instruction to harmonize and organize the two alphabets. Rather, typographic design tackles wider, more compelling issues that generate a fine mix of global forms and address the best from Western and Eastern worlds while preserving local distinctiveness. Adopting such an approach in graphic design and

typography education will form the basis of engaging, well-composed graphic and typographic work.

In order to truly meet the needs and support the aspirations of new generations of Arab designers, the integration of typography in Arab graphic design curriculum must recognize the importance of such work in social, cultural, and political discourses within the Arab world. A strong current in the tradition of Western design education sees design as a conception that emphasizes the vitality of students' engagement with society, culture, and politics, envisioning design as a form of interpretation and representation in public discourse (Armstrong, 2009; Lupton & Miller, 2005). As such, many design practitioners express the conviction that art and design are cultural missions, wherein work and life are inseparable. In this context, addressing the social, cultural, and historical aspects of graphic and typographic design is an essential component of Arab design education, crucial to stimulating students to construct effective visual communication in contemporary cultural, political, and social environments. It is such a framework that will allow a new generation of graphic and type designers not only to renew the power of Arabic typefaces, but also to make typography one expression of a broader initiative to generate new models of graphic design that speak powerfully to contemporary conditions.

Most undergraduate graphic design programs require four years of study. Many design educators believe, however, that four years is a short period to master the basics of the graphic design profession (Davis, 2005; Haley, 2004; Heller, 2005a; McCoy, 2005) and that specialized graduate programs are necessary for graphic designers. This would certainly be true for Arab graphic design programs in which design undergraduates struggle to focus fully on bilingual type design. For this reason, there is a pressing need for either a specialized undergraduate program or a course of graduate study in Arabic type design and typography. Such a program's mission

should be to prepare students to explore Arabic type design completely, overcoming technical and conceptual barriers to the generation of new, well-designed Arabic typefaces. Such students would then be prepared to join the advances of contemporary Arab graphic and type design innovators, carrying forward both Arabic typography and the profession itself.

Ideally, a curriculum for Arab graphic design should incorporate the following elements: separate introductory courses in Arabic and Latin typography, studies in the juxtaposition of Arabic and Latin type, and classes covering the historical development of the two writing systems. Such a curriculum would help Arab visual communication design students master typography and composition in each alphabet for diverse purposes of communication, which must be the ultimate goal of Arab graphic design education. As a starting point, to improve the practice of Arabic typography and graphic design, I proposed an Arabic typography curriculum for visual communication design in the Arab nations. From there, I created an Arabic typography course to ensure the teaching of both typographic sensibility and fluency. Consequently, these young designers will nourish the current typographic and graphic practices in the region and, ultimately, enable the Arabic typographic industry to flourish.

Arabic Typography Design Curriculum

Curriculum is described as an artistic mode, making use of scientific inquiry while also being an aesthetic education that assists in grasping the essence of teaching (Freedman, 2003). As a contribution to the equal enhancement of design instruction in Arab higher education and contemporary visual communication practice, I present this Arabic typographic curriculum, focusing on the study of the essentials of Arabic calligraphy. The curriculum aims not to teach the practice of calligraphy but, rather, a deep understanding of Arabic letterforms. My

preliminary Arabic typography curriculum include the following elements: the mechanics of typography; critical thinking and the manifestation and interpretation of the Arabic alphabet; learning to see beyond the letterform; type history covering the evolution of writing; type classifications, the effects of tools and media; and cultural and historical connections. As a prerequisite, students would take an introduction to design course to ensure their understanding of design principles such as composition of line, representation, quality of tone, dark and light composition, light and shadow representation, color as hue, value, intensity of color and harmony, and color composition. The difference between design principles and typography principles, however, is that there are no fixed or defined sets of rules for type design (I present my own preferred typography principles later on in Appendix A within the glossary terms). In my curriculum as presented, students will gain a fundamental knowledge of Arabic typography while developing diverse skills as a result of their intensive study. The following sections detail each phase of the proposed curriculum, and the basic course of Arabic typography.

Blueprint of Arabic Typography Curriculum

As a designer pursing my graduate degree in art education, I have found numerous connections and interrelations between the fields of art and design. Design education is concerned with the formulistic branch of art education, concentrating on visual relations. Some scholars have differentiated art and design education according to their purpose—art paired with philosophy, for example—while design is created for specific purposes (Brady, 1998). Other academics view design as a technical significance and not related to philosophical concepts (Hickman, 2005). Despite these constricted views, I found various interlocking qualities of design education within both historical and current art education literature. The history of design

education is strongly allied with the history of abstract art; thus, it influences many educators' thinking and teaching (Daichendt, 2010) in which design is perceived of as functional (to organize our thinking) and theoretical (aid us in understanding art and life).

Amazingly, graphic design is a discipline that is equally art and science translating a language for people (Doyle, 2007; Euchner, 2014; Millman, 2007). Visual communication designers juggle both logic and artfulness while interpreting letters, words, messages, ideas, and stories, with imagery and visual representations for the audiences to ease their understanding of our complex visual life. Theories of education are ultimately established within broader philosophies of knowledge, explaining our visual perception, our sight, our understanding, and the way we use our visuality (Thomson, 2005). Consequently, there are educators in design education, who are teaching while practicing experimentally to initiate inventive theory and investigation (McCoy, 2005) in ways that address larger frameworks, especially the state of contemporary design practices. As a result, design provides an environment for constant learning to sustain, enhance, and elaborate our world (Doyle, 2007; Miller, 2007). Graphic design is an uncharacteristic field as it revolves around everything within our lives, cultures, and world. Whatever subject a graphic designer is working on, she/he strives to construct a work that is comprehensible, attainable, and beautiful. Such constant learning practice leads to the formation of individuals (designers) who are lively and fully engaged with humanity. Therefore, art education can provide useful concepts and frameworks for the field of graphic design (including typography) to build a contemporary curriculum, suitable for current practices while enhancing the field.

Borrowed from Art Education

Design scholars are constantly striving to define their professional practice and advance their educational practice. After all, the field of design is relatively young and needs the effort and support of all for its development. Hence, the profession and literature of art education can lend design education a boost to formulate visual communication design curriculum and pedagogy suitable for modern times. The field of graphic design needs a new reviving perspective that reflects the reality of contemporary culture without following the same path of current and earlier style, content, and method of education. Accordingly, I repurposed a few art theories and approaches to education curriculum, concentrating on visual culture as a social process for understanding the world; constructivism as a learning model to develop social engagement; play principle as an activity for exploring and innovation; semiotics; and critical reflection as an assessment process for studying and engaging with typography/design making and thinking. Semiotics is included not only as a lens to understand Ibn Arabi's 'ilm al-hurûf (science of letters), but also as a means to define the process of audience communication. All of these are critical components for assembling my proposed comprehensive Arabic typography curriculum.

Visual Culture an Educational Enrichment

Art education gravitatee toward and intertwines with visual culture, a major paradigm shift in the field. Our contemporary world is extremely visual, and with technological advances (such as the Internet and social media) imagery has rapidly dominated our world, making visual culture more accessible than any other form. Moreover, art education has adapted visual culture and its complexities as a learning medium pivotal for human development (Freedman, 2003).

Consider visual culture as an enrichment activity for art education, useful for designing and employing educational plans and for assessing art educational modules. It is viewed as a process, which facilitates a diverse representation of visual forms to students and allows learners to recognize their role within visual culture not only as viewers, but also as contributors. Hence, endowing art and design students with an education enables them to be aware of their choices while producing their artistic or design work and making contributions to visual culture.

Accordingly, my Arabic typography curriculum is grounded in visual culture, both as theory and action, to reflect my hopes and dreams for enhancing the practice and education of Arabic typography in particular, and visual communication design in general. Additionally, this proposed curriculum arranges cultural knowledge of the Arabic writing system—script and type—with any related issues and matters, thus facilitating the communication of human ideas and thoughts within learning environments. Given that Arabic letter design—typography—has developed visual possibilities with functions equivalent to images (Fahimifar, Mehrnegar, Sinaki, & Bafghi, 2012), any form of the Arabic alphabet can carry numerous symbols of culture, identity, politics, religion, society, and spirituality. Accordingly, visual culture, undoubtedly can display both forms of the Arabic alphabet as text and image for teachers and learners to analyze, discuss, and interpret. Using visual culture as a central component of my curriculum process will potentially improve educational outcomes for Arabic typography.

Curriculum as process refers to the means by which students learn both inside the classroom and out (Freedman, 2003). As the curriculum is enacted, the intended component of the curriculum process may alter; hence, an art or design studio is perceived as an environment for technical work and not merely a setting for intellectual activity. Accordingly, curriculum as process displays five conditions (Freedman, 2003): First, as a form of representation, curriculum

is not entirely focused on knowledge issues; rather, it is oriented toward the way knowledge is shaped by beliefs, values, and social frameworks. Where educators seek to build learning experiences with reasonable sequences, curriculum, while bring incalculable, tends to be demanding with imprecise boundaries. With the second condition, a curriculum functions similar to a collage with several cultural personalities in which culture contributes to the clarification of a social problem within a curriculum such that the curriculum is not a cohesive entity and displays various inputs from diverse sources and contending welfares. In the third condition, curriculum is drafted, shaped, and executed as a creative production, while continuously modifying throughout its implementation, critique, and revisions. Educators compile manuscripts related to disciplined inquiry, design curriculum, and methods of teaching to implement curriculum. From there, teachers and students translate the written curriculum, carrying out a disciplined inquiry according to their learning outcomes. However, the most significant part is the performance: How did teaching and learning occur during the curriculum process? How did the act of interpreting knowledge teach students to construct their own cognizance? Fourth, a curriculum is more like narrative, in lieu of material and tangible exactness, which facilitates interaction between teachers, students, and a wide scope of images and texts. Hence, the process of curriculum is creative in facilitating students' understanding of multiple complex issues at the same time. Similar to telling a story, a curriculum has multiple layers of meaning parallel to our lived experience that are at once suggestive and evocative. Lastly, as a transparent form, curriculum reveals the methods it is composed of by means of research and action (plan, read, write, report, interpret, and enact) as well as the manner by which teachers understand their curriculum and implement it. Therefore, students can conveniently engage with this transparent curriculum, both the teaching and the learning

processes, at their own levels, thus enabling students to install meaning within their practices and their lives.

There is no ideal curriculum for graphic design (Heller, 2005a); however, outstanding curriculum offers an environment for students to explore, examine, and recognize (Richardson, 2005). Indeed, a comprehensive Arabic typography curriculum that utilizes visual culture as a process will enable learners to explore the nature of the Arabic writing system more broadly and to blur boundaries, orienting them toward knowledge that is formed by beliefs, values, and social contexts. Furthermore, Arabic typography curriculum offers diverse cultural perspectives to refine and address problems with printed letterforms in particular and the writing system in general. Additionally, inclusive curriculum of Arabic typography celebrates teachers' and students' acts of interpretation or creative production performance, which they donate to develop their own knowledge, focusing on the occurrence of learning and teaching in the typography studio. Likewise, Arabic typography curriculum is creative in narrating stories of our complex cultural visual world, therefore, facilitating students' understanding of sophisticated issues of the Arabic writing system at once. Moreover, the comprehensive curriculum of Arabic typography has transparent methods, revealing its act of planning, reading, writing, reporting, interpreting, and enacting and thus engages students with its transparency when they are ready while injecting meaning into their practices. Similarly, my self-study research was an opportunity for me as a designer to interact with visual culture using many methods to understand the Arabic writing system in both its forms—calligraphy and typography. Thus, I view my proposed curriculum as an extension of my research, allowing graphic design students to experience and understand the Arabic alphabet within the scope of visual culture.

Constructivism a Learning Process

Ideally, the learning process should engage the student in authentic, meaningful activities that help the learner construct understanding while developing skills appropriate for solving problems and finding meaning. The constructivist perspective on learning incorporates similar ideas, especially emphasizing that knowledge construction results from activity (Jonassen, Peck, & Wilson, 1999). In the constructivist view, knowledge and experience are inseparable, and, consequently, learning must always be seen in the context of active intellectual engagement. The constructivist epistemological paradigm promoted by Vygotsky (1978) and von Glasersfeld (1989, 1990, 1997) is commonly embraced in education as a pedagogical model. More specifically, an influential concept within such a framework is situated within the interpersonal, whereby collaboration leads to social engagement intertwined with culturally significant learning, a concept opposed to the cognitive school of constructivism, which emphasizes the intrapersonal and highlights the ways collaboration results in superior individual understanding (Wang, 2011). Constructivism as an educational theory stems fundamentally from John Dewey's (1897, 1929, 1938) philosophy. Dewey's core conception of education envisions the goal and process of learning as one and the same, with education having the purpose of attaining knowledge through experience in a lifelong process. Indebted deeply to Dewey, constructivism has formed an important touchstone for design education.

In addition, constructivism is appealing to design education because of its compatibility with Experiential Learning Theory (ELT) (Kolb 1984; Kolb, Boyatzis, & Mainemelis, 1999). ELT maintains that knowledge is formed through transformations in behavior and long-term memory, which are prompted by the learning experience itself. ELT combines behavioral and cognitive learning theories while also recognizing the importance of affective changes during the

learning process. In addition to recognizing affective changes during learning, ELT distinguishes four prominent learning styles:

- Assimilating: Learners think, read, and employ rationality.
- Diverging: Learners use imagination and work in groups.
- Converging: Learners experiment with value practicality and technical tasks.
- Accommodating: Learners collaborate and confront challenges to find solutions.

Constructivist learning models define learning as the intersection of three learning styles: convergence, divergence, and accommodation (Wang, 2011). Consequently, within learning settings, everything is considered to build and enrich the learning experience. Constructivists produce their own reality and their experiences aid in understanding the world. Thus, constructivism is student-centered and emphasizes collaborative problem solving with the teacher's function being that of facilitator and/or coach. Accordingly, students as active learners formulate individual meaning that reflects their experiences. Yet, some learners' experiences emerge from common interpretations that were constructed and transmitted by the dominance of visual culture. Hence, educators must utilize selected instructional methods, such as associative questioning, since these methods offer students possibilities to interpret their experiences interactively in order to grasp sociocultural causes and their relations (Freedman, 2003). As a result, students can advance their thinking and learning because they learn how to boost the connection of new with previous information, thus, asserting their new knowledge as it is being constructed.

The learning environment that stems from the practice of constructivist principles is especially conducive to graphic design education, specifically the teaching of typography, and useful for teachers to recognize how can they help students construct their typographical

knowledge. They start from the conceptual level of the learners (what do they know about Arabic typography) to ensure effective engaging and expanding learning experiences (compose effectively with the Arabic alphabet). At the same time acknowledging the approach by means of student engagement with an array of activities within the studio learning space, such as computer programs, manual tools, writing techniques, mass media, discussions, presentations, critiques, field trips, professional guest speakers, and so on. Furthermore, within their practice, graphic design or typography educators ought to celebrate the three learning styles of ELT—convergence, divergence, and accommodation—to ensure the creation of a learning environment suitable for stimulating students to use imagination, experimentation, collaboration and confrontation for efficient contemporary Arabic typography practice. Similarly, my approach to experimenting with the Arabic alphabet embraced constructivist principles as a mindful means to improve my recognition and understanding of the Arabic letters. I started from what I already knew about the art of Arabic calligraphy, then progressed and engaged with deeper, complex learning experiences that enabled me not only to understand calligraphy, but also learn to improve and enhance Arabic typographic arrangement. Additionally, my employment of constructivism as a learning process facilitated my use of new materials and tools—manual and technical—in my self-study experiments, thus enriching my findings and outcomes. Accordingly, by evaluating my self-study experimentation experiences, I believe in utilizing constructivist learning models to enhance the performance of graphic design education.

The Activity of Play Principle

Experimentation is commonly conceived of as a form of play underpinned by judgment, entailing a spontaneous but discriminating sensibility (Dormer, 1994). According to Paul Rand,

the designer must enact a sense of play in order to innovate (Golec, 2005). Such activity allows designers to explore freely among countless possibilities. Furthermore, Rand's play principle allows the tracing of several interactions among design elements—type, graphic, and image. The rules of play are important, as they motivate test skills and impel the seeking of rewards. At the same time, to play means to forget the rules, if only for a moment, and return to instinct. According to the play principle, it is not important if the playful moment leads to a bad or good design; rather, it is essential that the student/designer preserves this moment and stores it for future use. As a result, the play principle is a mode of learning and exceptionally resourceful for design education settings.

Graphic design educators invite their students to think of what is important for them to learn while conducting an experiment or playing with the Arabic alphabet. In an approach directed toward enriching students' perception and practice of typography design, the play activity contributes to students' developing sensibility of the Arabic writing system, while steering their feelings of enthusiasm toward the animate letterforms. Rather than limiting their learning experience to merely finding solutions to problems, such as understanding Arabic type, leading students to enhance their overall recognition of the Arabic writing system through enjoyment of these playful experimentations increases their appreciation of the art of Arabic calligraphy. Undeniably, design students find that Rand's approach to play acts as a powerful approach to problem solving, demonstrating its utility as an educational model in the field.

Employment of the play principle as a learning activity makes design students' education open to engaging in recreation with the Arabic alphabet. In a sense, these playful activities formulate interactive environments to provide students with opportunities to use text as a game for playing. As students play with the letters, the letters also participate by infusing the players

with information about the letterforms (Lupton, 2006). In this way, the Arabic alphabet reveals its nature, condition, and formation by means of calligraphy and typography, while making itself available for students to interact with playfully and enrich their sensibility of letters. Therefore, I adopted the principle of play while conducting my experimentations with the Arabic alphabet. Using a playful yet thoughtful method, I utilized this principle as a learning activity to support my engagement with Arabic calligraphy. Specifically, the principle of play helped me face difficult or complex issues by interacting differently to overcome obstacles. As such, this principle can help graphic design students to interact with, engage with, and adore the Arabic letters, allowing them to enrich their ability to compose effectively for contemporary products.

Semiotics as a Learning Communication Process

Earlier in the theoretical framework chapter, we discussed semiotics as a broad method useful for identifying signs and their meanings in our lives. Scholars have developed many semiotic approaches (Barthes, 1967; Morris, 1938; Peirce, 1955; Saussure, 1916/1938; Sebeok, 1976) to understand signs and their meanings. Furthermore, we have explained how we may apply semiotics to understand Ibn Arabi's science of letters and, in particular, how the Arabic alphabet is utilized as both image and text for communication purposes. I choose to focus on a semiotic approach to visual analysis that ensures a clear approach toward recognizing the relationship between visual representations and their meanings and attaining a high sensibility for the Arabic alphabet. As such, semiotics is a powerful strategy for understanding Ibn Arabi letter theory, which contributes to the simplification of a wide range of textual and visual language systems, existing within Arabic letters and contained within visual culture.

However, here I employ semiotics as a method to define audience's communication process and means of pedagogy. With the audience as interpreter, the focus is altered from an analysis of semiotics to rhetoric, thus intensifying on argument and defining the spectators within an active and contributory relation within the communication process (Tyler, 2006). Since communication, both visual and textual, encompasses a viewer's existing beliefs in order to construct an obvious and convincing argument, design educators should be fluent in recognizing and implementing rhetoric within their classrooms/studios to improve their students' learning experiences. The communication process within rhetoric enables teachers to engage with their students by recognizing their extant beliefs or knowledge (of the Arabic writing system) and attracting them to dynamic and participatory dialogue throughout their learning journey.

Simultaneously, semiotic pedagogy, founded by American semiotics philosopher Charles Sanders Peirce (1839-1914), certifies the university as a learning area and not an instructional one and endorses the roles played by teachers, learners, and subject matter in educational activities (Smith-Shank, 1995). This approach employs semiotics not only from a theoretical perspective, but also as a practical experience that can inform art and design education to allow the discipline to better understand and read our visual world. Peirce's semiotic pedagogy is grounded by five logical, thinking assumptions, which create its basis and are comprised of the following: reasoning utilizes triadic components, including the sign, object, and interpretant relation; reasoning is constantly developed from former reasoning; all reasoning emerges from external signs; thinking does not occur without signs; and the entire mental procedure is inferences. Such semiotics concentrate on signs, codes, and their interconnections; thus, as a pedagogy, it is suitable for every educational setting and context, particularly, for learning atmospheres in art and design. Expanding the margins of learning inquiry cooperatively,

actively, and experientially to be without any limits and beneficial for finalizing a task after revolving interpretants (Smith-Shank, 1995). Similarly, semiotic pedagogy is an engaging methodology for students, empowering them to start from their own current experience and juxtapose it with unknown and unclear knowledge to create thoughtful associations, thus, recognizing new experience.

In both semiotic pedagogical situations, students are empowered not only to solve communication problems but also to be engaged in using abstract communication systems. Realizing through their own efforts the meaning of the communication process as an abstract tool and also an essential element within the formal skills of visual communication designers (Tyler, 2006), design students are able to make informed choices, while recognizing how the wider implications affect on their practice. As a consequence, graphic design students can examine their surroundings to critically reflect on the significance of text and imagery, to shape their individual identities and culture; hence, to expand their understanding of their visual experiences. Being conscious, first, of their citizenship in the world, a, as contributors to a global visual communication, a visual communication designer can develop enormous sensibility relative to typography for composing with the Arabic alphabet, while communicating effectively, eliminating confusion, and simplifying the complexity of the text and intended message.

Furthermore, drawing on the learning outcomes of my self-study experiments with the Arabic letters, along with my interpretation of the selected artworks to understand the Arabic alphabet within contemporary culture, I witnessed the significant role of semiotics to ease, explain, engage and empower my understanding and utilization of the Arabic letterforms. Indeed, semiotics helped me understand my cognition and learning process in seeing letters as both text and image and in recognizing letters' power and various roles. At the same time,

semiotics helped simplify the application of Ibn Arabi's science of letters in a synthesis with visual culture analysis to examine the uses and symbolism of Arabic letters in both calligraphic and typographic forms. For these reasons, I integrated semiotics as both a lens and a process to examine and use the Arabic alphabet in contemporary art and design works.

Critical Reflection within the Making and Thinking Process

Critical reflection during production and evaluation in design education is not only an assessment process helpful for understanding students' making and thinking process in the classroom but also to grasp how they engage with typography design creation and analysis. Such critical reflection within the studio context necessitates experiences to becoming engaged with type design, both making and teaching, in order to simplify and simultaneously justify what makes a work of typography successful or not. Throughout each phase of this proposed Arabic typography course, students will be required to complete carefully defined exercises and projects of limited scope that systematically explore diverse aspects of Arabic language and typographic forms. Organized around integrated objectives with discrete units of content, such experiments and investigations require a diversity of assessment and evaluation methods in order to measure students' learning outcomes. Critical reflection approaches include verbal evaluation via desk and group critiques and written evaluation structured in rubric feedback. Hence, the groundwork of this process will enable students to develop a visual vocabulary, reinforcing their analytical, critical, and perceptual skills.

Written Evaluation

For each project, students will be equipped with a copy of the rubric for the project evaluation before they start designing in order to understand fully and plan for the scope of the project. The grading derived from the rubric will be based on criteria established in the problem statement and problem objectives for every project, typically weighting projects and assignments according to importance, complexity of the concepts and the solutions desired (Curran, 2005). After each critique, students will receive a rubric completed by the teacher, with or without a grade by which each student can track his or her progress and study the strengths and weaknesses of ongoing work. It is important to note that the term "criticism" is rooted in concepts of inquiry, critique, and judgment (Mayer, 2005, p. 98). The practice of critique in design curriculum must be aligned with such uses of criticism in order to serve effectively the objectives of the educational experience.

Verbal Reflection

While objectives and learning processes may be clearly defined, it is not, however, always evident how to judge whether design students have truly understood and learned subject matter. Some graphic design educators affirm that education has been successful if a student leaves the studio with the design confidence to manage composition on a page, the insight to look deeply into a problem, and the courage to think and speak for her- or himself (Chessin, 2004). In this framework, the practice of critique throughout the educational process represents the ultimate method to evaluate design students' learning experiences by which students are allowed to cultivate their abilities as they spend hours, preparing to present, discuss, query, explain, synthesize, and justify the strength and weakness of each piece. Within this process,

teacher and students jointly describe the presented work, suggest advice for improvement, recommend new techniques for enhancement, and connect the work to other works by well-known designers or to examples from visual culture.

Therefore, critique is characterized as the last phase of instruction, following the introductory phase, in which an educator introduces foundational techniques, and the studio phase, when students experiment with design components (James, 1996). The critique stage forms an environment that is not only safe but conveys compassion, parity, and spontaneity. Thus, the studio is viewed as an educational atmosphere; it is the learning community foundation and a space for social interaction, enabling students and their teachers to reflect critically on art/design making (Freedman, 2003). While the teacher plays a critical role within this phase, offering a platform for students to debate and negotiate the presented work, later, the teacher concludes the session by implementing major concepts through pointing out and utilizing student work as examples. By this mean, given their personal importance for students, critiques should be performed in a systematic yet organic way, creating a safe, nurturing atmosphere for young designers. At the same time, this practice must observe high standards of critical analysis, and, indeed, in my own teaching I call this practice “crits,” encompassing not only the exercise of critique but also the injunction to think and reflect carefully on the process.

In specific terms, the regular design critiques integrated into my proposed curriculum will proceed with first, the entire class, followed by the teacher to examine each student’s work in turn, evaluating the successes or failures of a piece's optical objectives and considering overall performance. In the phase of design criticism, students go on to address higher-order issues, such as theories of design, social and cultural contexts of the individual design, and the assignment overall, while examining how the student’s design process contributed to the success

or failure of the experiment/project. The most significant contributors within these crits are the students. Within the critical, reflective environment, they learn to think decisively about art and design, its place in the global visual culture, starting with discussion of their peers' work. Critique amid student designers should not be directed solely by the instructor or negative, judgmental, oblique, prescriptive, and lacking in approval (Barrett, 1997). The critical process must have a purpose, feel friendly and inviting to students to participate, address both positive and negative views that are grounded by rationales, focusing more on interpreting the works rather than evaluating them, and distinguishing the spectator as the central participant. Therefore, the critique facilitators should be ready to pose and obtain fine questions, to tackle basic issues related to artistic or design influence, sources, content, form, intent, subject matter, and social topics (Barrett, 2012). As such, critique is viewed as a mode of argumentation and persuasion based on evidence in which learners review both their own design work and their peers' work, as they are reflecting on their personal and mutual philosophies through their interpretations. In this way, crits play a dual role as evaluation method and learning experience.

One-on-One

In order to mentor students, it is essential for design educators to model in critical ways the practice of the design profession (Daichendt, 2010). Accordingly, one-on-one verbal communication, desk crits, that approximate professional mentoring in the field of graphic design, are crucial for design educators to assess student understanding and progress. Such conversations allow students to think out loud, bringing reflection and analysis of their own work to the forefront (Becker, 2005). In addition, desk crits entail a break to slow down the process of design, as design practice typically is complex in contemporary settings and correlates to the

production process, which is frequently accelerated by technological means. Desk crits are especially helpful in their focus on design decisions, emphasizing the need for individual students to develop both decisiveness and perspicacity in their design practice. Finally, since typography proficiency requires intensive instruction (Heller, 2005a), direct interaction between students and master typographers are essential for students to fully develop their abilities in the field.

Crit Challenges

The critical reflection process of assessing student work is often complex and tough, especially since young designers have limited visual experience and community debate habit (Freedman, 2003). Such experience must embrace the most current art and design production, while community debate should be installed as a persistent challenge, hence, ensuring maximum learning outcomes. Other difficulties relate to student susceptibilities, as some may feel offended at being corrected by their peers, as if they are judging the individual's overall performance and persona. Here, the design educator's role is crucial to highlight necessary production skills for their students in order for them to be confident while producing, presenting, and discussing their own work. Therefore, students can develop more appreciation for their own design work and for their peers' production. Additionally, teachers must attempt always to create a safe learning environment for design students to examine, inquire, produce, discuss, and write about a wide range of issues related to practice within their visual culture. As a result, young designers with abilities to go beyond what is expected feel prepared and able to improve the practice of typography and visual communication design.

Kind Crits

For easing design crits, or any other type of artistic critique, design educators and students can use a "crits card," a simplified card, postcard-size, created under the Kind Crits project. This card contains 20 quotes, 10 on each side, written by professor Terry Barrett, coordinated by my colleague Brent Hinrak, and designed by myself in 2012. The project goal is two-fold:

1. Assist in empowering those new to the critique environment.
2. Offer advice to facilitators interested in embellishing their current practice.

The copyright of the Kind Crits postcard was released in order to facilitate easier distribution and promote fair use for any of those who are interested in using these cards. Figure 38 displays both sides of the postcard, each with ten quotes, as it was created and designed for easy reference and review before any crits assembly. Since the developers of this project are seeking to share this helpful card and aspire to know about the cards' reception, appendix D includes the true size template for the postcard and contact information to share any critique experience narratives teachers have collected from their students. Personally, while I was arranging the text on the postcard, italicizing and bolding some words for emphasis, I gained a deeper sense of how the crits environment and atmosphere are supposed to feel and function. The language of the sentences is simple and clear yet very precise; thus, it is easy for anyone to grasp the meaning and follow. It was a great opportunity to be involved briefly in this project and offer our effort to those it may assist.

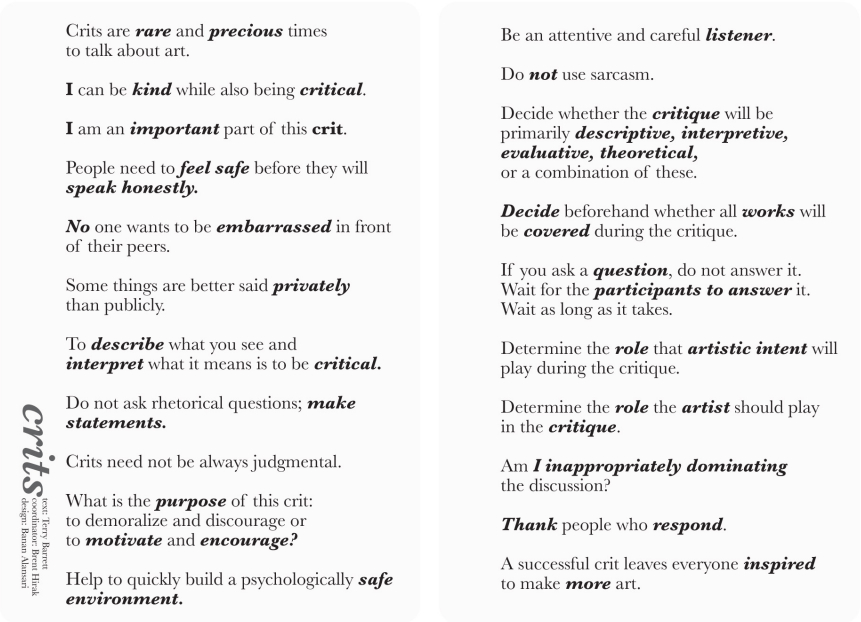

Figure 38. Kind Crits postcard, fron and back side.

The Positive Side of Crits

Despite any challenges students may face or feel, these critical sessions enable them to build confidence within their own opinions, while also to envision how outsider reviewers would find their work. Due to the fact that these crits have no direct association on grades or tests, students merely negotiate their works collaboratively to predict audience reactions (Soep, 2004). Students are empowered to speak up and interpret design work, not relying on the teacher as the only valid opinion or interpreter. Design educational environments follow constantly shifting conventions, assigning self and peer assessments as the ultimate arbiter. As a result, students turn to each other for opinion and inspiration and they criticize each others' work, exposing it to internal group evaluation preparing, thus, to cast their work to outside viewers (Heath & Soep, 1998). Accordingly, crits environments reinforced by self and peer critiques create groundwork for design learning and making.

Critical reflection of student design work—in this curriculum, typography design and experiments—can endorse inquiry into many visual culture issues, subsequently reinforced by many aspects of the Arabic writing system. These crits are ongoing, carried out individually or in a group, initiated mostly by students and other times by the teacher, and performed before or after production (Freedman, 2003). Thusly, ongoing critique is a component of exceptional art or design lessons, and the critical analysis styles employed in art education classrooms are valuable processes for composing reflective educational practice in general (Eisner, 1985; Schon, 1987). When design students compose, using printed or typed letterforms, they are at the same time articulating related skills and interrelated concepts, reasoning their design decisions and executions, and justifying what is successful or ineffective in their work. Respectively, design students are fostering their ability to be meaningful, while being socially engaged, and critically stimulated toward exploring the Arabic alphabet sensibility and communication capability.

To this end, I have discussed how design scholars and educators can improve their educational practice by borrowing and adapting some art education curriculum approaches and pedagogical methods suitable for design settings. Employing visual culture as a social process enables us understands the world. Utilizing a learning model of constructivism creates social engagement, along with using the principle of play for exploring and creativity. Such an approach repurposes semiotics not only as a lens to understand Ibn Arabi's science of letters within visual culture, but also as a method to identify audience communication processes that enable students to design as conscious citizens in our visual, global world. Adopting the assessment process of critical reflection is helpful for studying and engaging with typography and design making and thinking. Altogether, these are the key components to assemble the projected comprehensive Arabic typography curriculum for enhanced contemporary practice.

Some of the methods within the components are already being used in typography education, but as I have stated earlier, design educators must not walk the same teaching path they followed in their own educations, but rather, they must seek and develop new, engaging, and powerful approaches to a contemporary practice of teaching. For example, I started my higher education journey by studying architecture for my undergraduate bachelor's degree, then pursued a master of fine arts degree in graphic design, and currently, I am a Ph.D. candidate in art education writing my dissertation, which focuses on enhancing the Arabic writing system, understanding how to use calligraphy for improving typography education and practice. In a sense, I am constantly moving from one discipline to another to gain knowledge and expertise because there is a shared basic foundation between art and design that enables me to understand and relate to any topic within my educational pursuits. Therefore, in my future practice as a design educator, I will not follow precisely any of my previous learning experiences. Rather, I will be creative and pioneering to formulate and apply educational pedagogy suitable for and exciting to future graphic designers. For this reason, I engaged myself in this self-study inquiry to understand how to improve as an educator, researcher, and designer, aiming to discover the most appropriate methods for teaching composition with the Arabic alphabet. Similarly, I invite graphic design teachers—particularly the one who focuses on typography—to recognize the reality of our contemporary world and, thus, pursue a new path that combines traditional practice (calligraphy) and innovative techniques (experimentations and using technological tools) with a lively perspective and energy suitable for visual communication design education in the modern world.

Arabic Typography Curriculum Aspirations

This comprehensive Arabic typography curriculum aspires to enhance students' learning outcomes and experiences in order to contribute to design practice, both in the Arab nation and globally. Instead of importing Arabic typography content into existing frameworks in design curriculum, I composed a new curriculum for the subject, building a contemporary learning model while drawing inspiration from a great tradition of philosophers and visionaries of Arabic script. This curriculum is squarely focused on the future of Arabic typography, grounded in a commitment to play and experimentation as a methodology for creativity and learning, semiotics pedagogy to detect the communication process of an audience, and critical reflection as a process to engage with the Arabic letterforms for making and thinking. All of these are dedicated to constructing knowledge through experience. This curriculum, based on the Arabic writing system, script and print, within the domain of Ibn Arabi's 'ilm al-hurûf, or science of letters, the semiotics and visual analysis, is a means to translate Ibn Arabi's theory and our visual global world. Each element of the curriculum stems from the topics and theories I explored throughout my self-study inquiry to understand the value of calligraphy in the development and teaching of typography. Accordingly, my learning experiences throughout my research have formed a valuable resource to build this proposed Arabic typography curriculum.

In order to clarify the essence, hopes, and dreams of this Arabic typography curriculum, we must first describe its missions (the larger educational interests), goals (the interest of higher education curriculum), and learning objectives (lessons or particular interest projects). The Arabic typography curriculum should be reflexive to contribute to shaping what design students know and how they gain such knowledge. Consideration of curricular missions and goals should pay attention equally to content organization and social situations that impact the ways students

attain knowledge, for example, student experience, juxtaposition of language practices, and cultural values and standards (Freedman, 2003). It is natural for art and even design educators not to predict the outcomes of their teaching, even while enacting learning objectives, as students' creativity and originality cannot be anticipated due to the sociocultural nature of the field and of learning itself. Consequently, when design students create innovative solutions or composition, they are going outside the box, creating what is regarded as the best outcomes. Like this, Arabic typography design curriculum must state its mission, goals, and learning objectives in order to represent the curriculum appropriately, even if the learning results are not foreseeable. These three levels of statements define the exclusive roles of the educational institutions, what they do and how they intend to do it.

Mission and Goals of Teaching the Arabic Writing System

Any art or design undergraduate program functions within specific contexts according to intricate forces beyond the institution. Hence, this context is fundamental to compose the program mission, goals, objectives, and other components. The presented curriculum is designed specifically for the Middle East region, but it also can be adapted into any other program that uses variations of the Arabic alphabet as the basis for its writing system—such as Persian, Kurdish, Urdu, and Pashto. This featured Arabic typography curriculum is created for higher education university settings, specifically for an undergraduate degree in graphic/visual communication design. Accordingly, the universities in the Arab countries encompass different demographics with diverse economic status; however, the cultural directions generally are similar as pride in the Arabic letters as a national and cultural identity marker. Yet, despite this appreciation of the Arabic writing system, there are no nearby specialized programs or

institutions with strong emphasis on Arabic typography in the region (AbiFarés, 2001; Atrissi, 2004; P. Zoghbi, personal communication, September 18, 2014). Therefore, this presented curriculum aspires to enhance and influence the performance of graphic design programs and typography courses in the region.

Consequently, the results of this research project could provide influential justification to implement this proposed Arabic typography curriculum within existing graphic design programs in the region or preferably to contribute to developing Arabic typography and visual communication design practice and education by motivating and inspiring professionals to use or implement any recommended strategy or method. Thus, the mission, goals, and objectives of this presented curriculum work to create a combined understanding of all interrelations and aspects of this typography unit. These statements can help translate the essence of the curriculum, while creating a healthy mode of reciprocity between faculty and art and design schools. Therefore, the mission, goals, and objectives have to be precise, clear, rational, simple, and focused to grant a fundamental framework for any operational structure within design schools.

Mission Statements

The mission declarations define distinctive functions of the curriculum within the larger context of design and artistic endeavors, concentrating on the curriculum's overarching social values and purposes and offering broad connections among the institution’s efforts in typography design and art, design, communication, intellect, and cultural spheres.

Goals

Usually goals are broad statements of mission that address specific needs or efforts to be directed. Consequently, goals are less distant and more precise than mission statements, which focuses on the curriculum method to fulfill its mission. Goals are mutually related to the whole endeavor of undergraduate graphic design and to the particular typography curriculum purpose.

Objectives

The articulation of objectives is essential to provide specific steps for accomplishing the delineated goals. Any curriculum must incorporate expressive objectives emerging from instructional objectives and educational experiences, and thus can predict learning behavior (Eisner, 1973/1974). As an outcome of engagement with learning activity, students can recognize these expressive objectives as intended and distinctive personal responses. The character of the instructional objective is mainly prescriptive, but the nature of instructional activity is non-instructional relative to the tactic for achieving it. On the other hand, the expressive activity is evocative and not prescriptive, as it does not try to anticipate specific student responses or a specific kind of produced work. "Instead it aims at constructing an encounter, creating a setting, forming a situation which will stimulate diverse and largely unanticipated responses and solutions from students. What students learn from such encounters becomes—post-facto—the expressive objective" (Eisner, 1973/1974, p. 190). Typically, objectives are measurable components, such as number, time, skill, or any particular activity. Similar to the curriculum goals, objectives relate equally to the entire effort of undergraduate graphic design and to a meticulous typography curriculum purpose. Like this, objectives are naturally aligned with both the mission and goals of the curriculum. However, each course has

its own specific formulated set of objectives. We stated the objectives of the proposed basic typography course, later on in this chapter.

Arabic Typography Curriculum Missions and Goals

Mission 1. To promote sensibility of the visual environment.

Goal 1. Understanding and analysis of visual culture.

Mission 2. To promote global visual communication design proficiency.

Goal 2. Awareness of typography as a vital component in visual culture.

Mission 3. To promote the development of the Arabic writing system.

Goal 3. Typography recognition and sensitivity.

Mission 4. Promote the historical and cultural effects of the Arabic alphabet.

Goal 4. Consciousness of the Arabic letters as an identity marker.

Mission 5. Promote the creation of affective communication.

Goal 5. Support creative written and visual production.

Mission 6. Promote innovative keys for communication.

Goal 6. Bridging manual aesthetics with technological innovations to enhance the integrity of the Arabic writing system.

These mission statements correspond with precise goals in order to facilitate the involvement of all constituencies in an undergraduate graphic design curriculum. This involvement is critical to maintain a rational sense of the variety of operations that cause it to function. Like this, the undergraduate Arabic typography curriculum is turning complexities into simplifications while moving forward to a better practice and education. By mixing traditional, professional undergraduate educational approaches with experimental, innovative undergraduate

educational methods, this Arabic typography curriculum is not demolishing existing approaches; it is taking the valuable, effective components of both and mixing them with inventive methods. Consequently, design educators are invited to use this featured curriculum, or part of it, as a means for improving their teaching practices. It may be difficult to fully implement this curriculum within an existing school that does not offer an independent Arabic typography course. For these cases, I would suggest dedicating half or a quarter of the bilingual typography courses only to Arabic before moving to Latin and juxtaposing the two alphabets. The change may be difficult, yet any step to enhance the performance of Arab design education should be encouraged. Probably graphic design schools will need to assess their programs and curriculum, adapting Arabic calligraphy as an important art for the education of graphic design students. They should consider assigning a separate course for Arabic typography before going into a bilingual one or start with few changes to gradually improve their educational system and outcomes. The following section illustrates the operation of the Arabic typography curriculum and also addresses ways to simplify its presentation.

Three-Stage Curriculum

This proposed curriculum addresses typographical issues and methods based on the relationship between the experimental process and theoretical reflection. Nevertheless, my curriculum is designed to avoid completely turning the class into a laboratory to test and expand new typography models, seeking, instead, a balanced approach drawn from diverse theories and principles, including Ibn Arabi's science of letters, semiotics, visual culture, constructivism theory, and play principle. Throughout my curriculum, the comprehensive implementation of

the letter theory of Ibn Arabi, as well as the application of semiotics and visual culture analysis, stands as a unique dimension of this study's approach.

We are social creatures, and design is a social experience. Drawing on Ibn Arabi's vision of Arabic letters as a world of social becoming, my curriculum urges aspiring designers and typographers to embrace fully the social potential for responding to audiences, clients, collaborators, publishers, and institutions (Lupton, 2009). In typography, every element is interdependent, each exerting considerable influence on the other with continual interaction, shaping the overall appearance of a text (AbiFarés, 2001, p. 180). The typographer makes such relationships visible and clear by selecting appropriate type styles, weights, sizes, and line arrangements for letters and by integrating photography, color, and other elements (Tschichold, 2009). Just as the creation of typography entails a dynamic interaction of diverse elements, so the work of the designer unfolds in a network of vibrant social relationships. Design is fundamentally a social activity, embracing individual aesthetics and personal expression, but also always formulating a common vision of shared experience.

Before illustrating how this Arabic typography curriculum functions, we must first explain the nature of learning within the visual communication design studio environment. Also, we need to understand the role of the teacher before recognizing how the components and theoretical frameworks interact to produce vigorous learning experiences.

The Nature of Learning Experience in Graphic Design Education

Design educators continually ponder the question, how do we learn? Due to the nature of the field, a companion question is always, do we call the object of such learning, design education or training? Some influential design educators have approached such inquiries with a

model of learning that emphasizes design learning as a matter of trial and error (Golec, 2005) in which students focus on the work of arranging materials to reach design solutions. In contrast, I believe that typography and design study are better considered as an ongoing process (Heller, 2004) in which fluency in typographical and design sensitivity is characterized by confidence in one's form decisions moment to moment in the design process. In this context, fluency is characterized as the ability to draw on a subsistence of knowledge and experience in order to enact careful choices, and that is the core of successful education.

The essence of the teaching process in graphic design, then, must inculcate such sensibilities, even as it pushes undergraduates to think critically through a specific curriculum, which is crucial for students to train, practicing in the actual world where they can gain a sense of self while developing deep discipline (Daichendt, 2010; Hiebert, 2005). Such an approach makes a design education studio a space for building authenticity, honesty, and sympathy, amidst the cultivation of skills for effective communication outcomes. In order to create such an engaging and proactive educational atmosphere, it is necessary to incorporate learning theories to facilitate the desired experiences and outcomes. Such theoretical approaches include visual culture analysis, constructivism, play principle, semiotics, art criticizing, and critical reflection. Each of these conceptions is a significant component to formulate my proposed Arabic typography curriculum.

Moreover, since design process always necessarily involves defining and combining components for various communication purposes, normally within a short time frame, design students should exercise these faculties as a form of experience like mature designers as it educates them in a natural manner (Koch, 2004). Making such methods a recurrent feature of design education allows students to create structures, evaluate their mistakes, revise their work,

and build improvements as steps toward a final product. While such processes provide structured opportunities for design students to develop their own abilities, graphic design education can never give students all the tools or skills they need. Essentially, designers should learn how to be self-regulated, pursuing on their own wider educational views for new resources, achieving this task through reading beyond their course materials; being involved with professional practice, designers, artists, thinkers who are practicing graphic design; and accepting any opportunity they encounter as visual communicator designers in the real world.

Performance of Graphic Design Teachers

Most design educators walk a line between teaching students the practicalities of professional work and addressing theoretical ideas of graphic design. Graphic design pedagogy necessarily seeks a balance between the two approaches (Ishino, 2005). To prepare practitioners that are fluent in design, knowledgeable about typography, and adept with technologies, however, is only part of the mission of design education. A design educator's job is also to put students off-balance, test their sense of reality, and ultimately lead them to a transformation of perception to become what they behold (Richardson, 2005)—active citizens of our visual world and effective visual communication designers. In this context, it is no surprise that many designers attest to the fact that their best teachers, rather than emphasizing the transfer of knowledge, engaged with their students' own aspirations, were curious about students, challenged them (Lehrer, 2005), and believed in them at the same time.

Resourceful art or design educators mostly listen to their students and, when they do talk, tell stories while spinning interpretations. Appropriately, teachers are displaying their semiotic intelligence, encouraging examination and stimulating the curiosity of their students to share and

collect cultural clues and artifacts (Smith-Shank, 1995). These teachers employ semiotic tactics combined with other pedagogical approaches, inviting young designers to share and discuss their own experiences, thus, expanding the class educational journey. For instance, teachers feel most prosperous when they remain silent while providing a platform for their students to discuss, negotiate with each other, and share any thrilling, troublesome, or appealing artifacts related to the course topic, the Arabic writing system. Yet, the teacher is not dull, but rather, performs as a contributor to the discussion, arbitrator, mediator, mentor, and at times as an expert. In this way, a powerful graphic design teacher facilitates the process of learning as an act of collaborative creation, continually examining the purpose, meaning, and objective of educating students and carefully weighing what it means to have a command of typographic design in the contemporary world.

The operational method of my proposed Arabic typography curriculum makes it possible to recognize the interaction between its components and theoretical frameworks to generate dynamic learning experiences. To demonstrate, I have created a model, the tri-stage interactive, to simplify for design educators the adaptation and implementation of my comprehensive curriculum, and to organize the content of any desired course.

Tri-stage Interactive Curriculum

To implement its missions and goals, the Arabic typography curriculum featured operates within a three-stage process centered on the relationship between theoretical reflection and experimental process. Each of the three components focuses on certain aspects related to the creative teaching of the Arabic writing system, including both calligraphy and typography. These stages consist of the following:

Basic Preparatory Lessons

These guiding lessons include an overarching inspection of the history of the Arabic writing system and current practice and analysis and interpretation of visual culture, while providing an environment for critique, dialogue, discussion, and story-telling.

Technical Instructions

This stage offers fundamental technical training to enable students to use type effectively and covers typography fundamentals such as principles of typography, anatomy and structure of letterforms, and composition. In addition, students are encouraged to utilize both manual and technological tools for dealing with the technical issues of making letterforms. Also, this stage provides space for experimenting with materials and ingredients related to communicating with the alphabet.

Typography Project

Here, the two previous stages are combined, as this phase allows students to complete a project or assignment that involves solving a specific typography or communication problem and then present their work, sharing their story and interacting with other students' narratives of learning experiences.

It is extremely important to be aware that these stages interact dynamically and do not operate in a linear mode. The learning experiences are constructed organically, mapping personal, cumulative, and new experiences together, and this tri-stage interactive curriculum is ongoing as it evolves over time, moving forward, outward, and inward. Consequently, this

Arabic typography behaves as a spiral curriculum—an educational method grounded in the students' and teachers' life experiences and interests (Gude, n.d.). Being focused on experience as an outcome of making art and design, therefore, such curriculum is expressive while embracing complexities, contradictions, multiple views, and even surprises.

As a result, the tri-stage interactions of this curriculum reinforce firm guidance in the theoretical, practical, and technical aspects of Arabic typography practice and education. Moreover, it underpins the value and knowledge of the Arabic letterform in contemporary visual culture, while exploring the future potential of typography in all its forms, print as well as digital, within an evolving field of visual communication design, and tackles all these matters through a creative interactive teaching approach and learning environment.

It is necessary, however, to recognize that the interaction between these three stages formulates one learning cycle (Figures 39, 40, and 41). This cycle is typically repeated three to five times within any typography course, depending on the course level and its content, and on students' interactions, knowledge, and experiences related to the Arabic writing system. In this way, some cycles are smaller or larger, faster or slower than others. The design educator can estimate how much students can handle within one cycle and at what speed when the typography course is implemented. Accordingly, the typography course fulfills the curriculum mission and goals, ultimately preparing students, who are exclusively fluent in Arabic typography and will contribute their knowledge and skills to a career in the field of visual communication design as designers, typographers, or communicators.

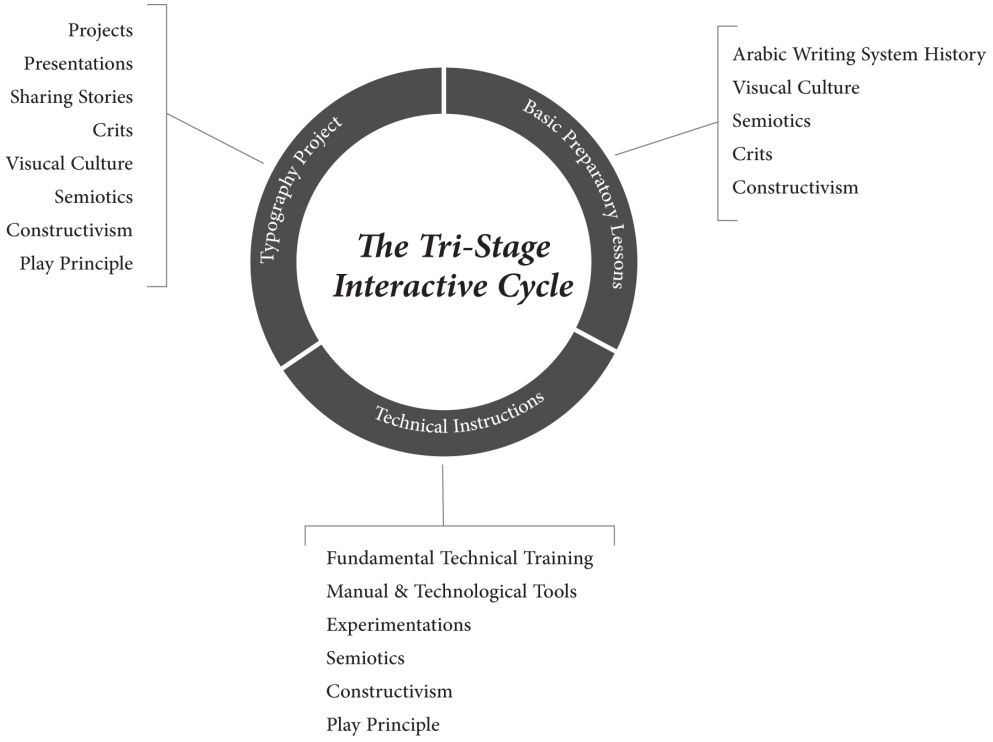

Figure 39. The tri-stage interactive cycle within the Arabic typography curriculum.

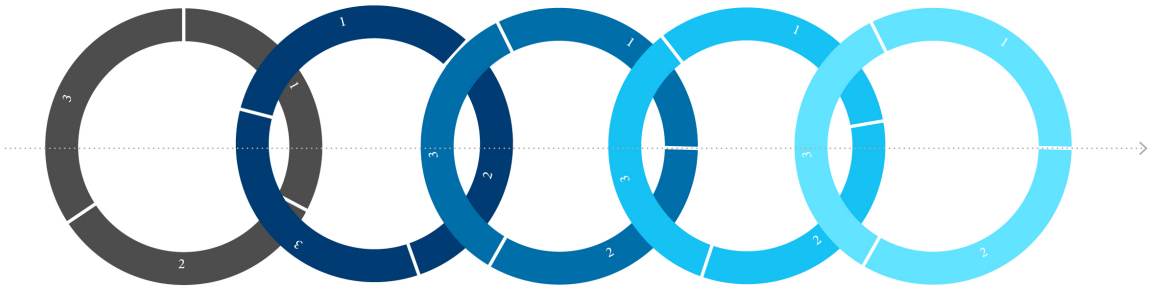

Figure 40. The tri-stage cycles of interactivty of Arabic typography curriculum, which are repeated as needed within any typography course to deal with different issues or proplems.

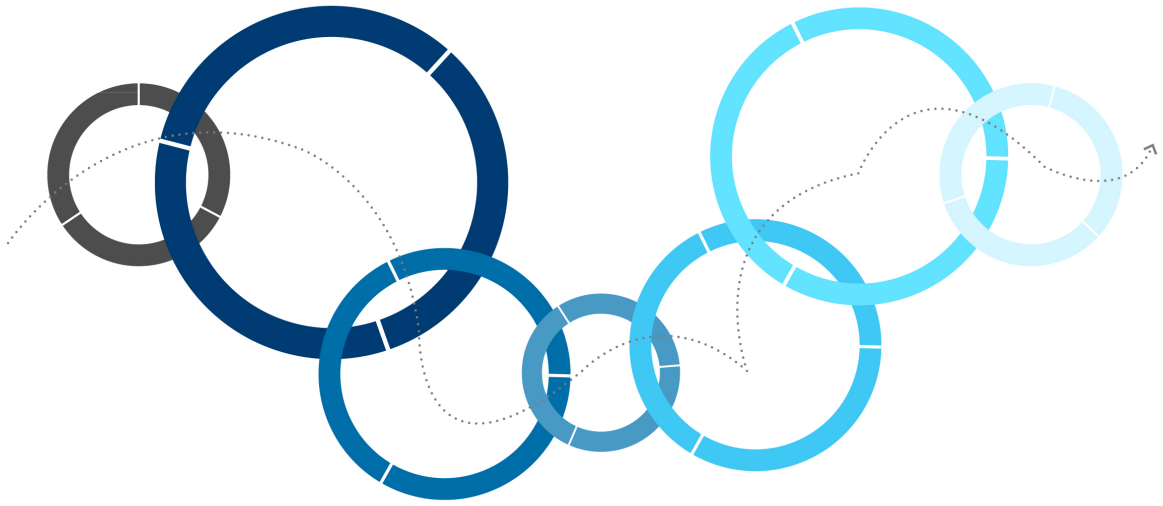

Figure 41. The tri-stage cycles interactivity of Arabic typography curriculum. As the cycles are repeated within any typography course, depending on the course level and content along with students' interactions, some cycles are smaller or larger and faster or slower than others, in order to deal with different issues in the ongoing educational experience.

To reveal how these tri-stages function and reflect the curriculum missions, goals, components, and pedagogy, the next section presents an outline for a basic Arabic typography course. The course demonstrate a mechanism for implementing such a curriculum for practical use and optimal educational experience and, it is hoped, to clear any confusion, while demonstrating the application of this proposed Arabic curriculum.

Basic Arabic Typography Course

A key point in this research inquiry is to highlight Arabic calligraphy and typographic forms, to understand their connections, shared histories, and related practices. Throughout this investigation, I have found numerous integrated progressive relationships among Arabic calligraphic and typographic letterforms, upon which I have utilized and emphasized the pedagogical potential of Arabic calligraphy to contribute to the improvement of the education

and practice of typography. Accordingly, my approach to the education of typography stresses the typographic and calligraphic sensitivities of the Arabic alphabet, comprehending its structure, proportions, mechanism of connection, and aesthetics. The Arabic typography curriculum is supported by Ibn Arabi's science of letters along with semiotics and visual analysis as a mean of simplifying theoretical complexity. This curriculum is balanced on certain theories and principles: visual culture as a process, semiotics as a pedagogy, art criticizing, constructivism theory, play principle, and critical thinking as an assessment method. Hence, typographical issues and methods are based on the relationship between experimental process and theoretical reflection. The Arabic typography curriculum runs through the tri-stage process, to reflect educational missions, goals, components, and pedagogy. Every stage focuses on specific aspects of teaching the Arabic writing system creatively, including basic preparatory lessons, technical instructions, and a typography project.

As an extendable application of my featured curriculum, this Arabic typography course would serve as a valuable resource for all of typography education, research and practice, and as a basis for making educational decisions that add context and depth to learning in the studio. Alternatively, this course can simply serve as a source of creative inspiration for design educators, practitioners or artists interested in enhancing their typographic skills. By promoting the development of Arabic typography, such a course will serve ultimately to enrich the education, knowledge and skills of future designers.

Course Description

Basic Arabic Typography is an introductory studio course that presents an opportunity for direct practical and theoretical involvement in issues pertaining to the Arabic writing system,

concentrating on both typographic and calligraphic forms of the Arabic alphabet, the history, practice, and related forms of communication. In this course, students develop a clear understanding of how to compose with typography. Students are introduced to Arabic typography fundamentals and apply them in consecutive order by means of different projects distributed throughout the course. All projects aim to expose students to basic Arabic typography and calligraphy principles, the anatomy of letters, and the mechanism for connection and composing, while instructing them in relevant foundation studio skills. Simultaneously, students are invited to engage in critical thinking through an exchange of narratives, description, analysis, and interpretation of their varied visual performances, all the while concentrating on the use of the Arabic alphabet. All need to be assessed at the end of this course, and students will demonstrate fluency in their use of Arabic typography in design work, knowledge of Arabic letterforms, and the ability to deliver a message using letterforms as both text and image.

Prerequisite

Introductory design course (to ensure knowledge of design principles).

Student Level

Typically, graphic design sophomore students are encouraged to take this Basic Arabic Typography course in order to increase their experience and practice with Arabic typography. Given the fact that typography is a design element, it should not be taught independently but, rather, integrated into the program.

Time Frame

Fifteen weeks, two classes per week, three hours per class—a total of 90 hours. Throughout this course, students will be provided with adequate amounts of time to experiment and compose with Arabic typography, while examining Arabic calligraphy essentials at their own pace.

Course Objectives

1. Develop recognition of type as a critical design element.
2. Establish comprehensive understanding of Arabic typography fundamentals.
3. Demonstrate ability to utilize the Arabic alphabet for written and visual expression.
4. Gain understanding of the historical development and evolution of Arabic letterforms from calligraphy to typography.
5. Understand the Arabic alphabet as a communication system within our visual world.
6. Employ experimentations to obtain letterform sensitivity.
7. Recognize the effect of technological advances on written communication.
8. Demonstrate ability, using different instruments, to apply typographic knowledge through various mediums and for different communication purposes and compositions.
9. Demonstrate ability to share stories, experiences, views, and understanding of the Arabic writing system.

Course Outcomes

Students will develop a fundamental grasp of the Arabic writing system, recognizing its development and evolution from script to print, understanding the nature of the Arabic alphabet

and method of composing, and having proper sensibility of Arabic typography and its uses. Concurrently, students will form a deeper awareness of the Arabic alphabet's symbolism and role within our visual world. Simultaneously, students will be able to reflect critically on their experiences and professional views. Eventually, students will strengthen their skills and abilities as graphic designers, building upon their new Arabic typographical knowledge throughout their education and later in their practices.

Course Content

This course is fully devoted to equipping students with the necessary fundamental knowledge of Arabic typography by providing learning experiences that are experimental, practical, and theoretical. The tri-stage process is integrated thoroughly into this course to ensure that course objectives are aligned with curriculum goals and mission. Each cycle of this pedagogical process consists of three integrated, interactive stages—basic preparatory lessons, technical instruction, and a typography project. Every cycle aims to concentrate on specific key aspects of the Arabic writing system and on typography specifically. The main concepts of Arabic typography include:

- Typographic anatomy of Arabic letterforms and related terms.
- Principles of Arabic typography.
- Principles and aesthetics of Arabic typography.
- Arabic writing system.
- Typographical composition grounded in both design and typography principles.
- Analysis of the Arabic alphabet's role in visual culture with the aid of semiotics.
- Examination and familiarity of current Arabic typefaces.

The course includes of five cycles. Each cycle displays the tri-stage process, consisting of basic preparatory lessons, technical instruction, and a typography project in which students first encounter the lessons alongside related technical instruction in order to fulfill their assigned project. The course will contain five lessons along with five projects. All lessons allow students to explore typography through experimentation with calligraphy with the goal of building Arabic alphabet sensibility. Accordingly, technical instruction assists students in building their typographic or calligraphic skills and abilities. Every project facilitates student implementation of the experiences and skills gained in order to construct typographically and expand visual knowledge. Additionally, throughout the learning cycles, students are given adequate amounts of time to reflect and discuss critically on their experiences with the Arabic alphabet or to share their stories.

Lessons, projects, and learning materials are developed to ensure fulfillment of the learning cycles, course objectives, and curricular goals and aims, thus assuring enrichment of the student learning experience.

Cycle One: Anatomy and Proportions of Letters

The first learning cycle will focus on the Arabic writing system, including its historical evolution from script to print. Students will examine the most prominent Arabic calligraphic styles and review particular characteristics of each style. In addition, the cycle will cover the emergence of Arabic typography and current practice. In this phase, the course instructor will host an Arabic calligraphy master (teacher), to contribute to the cycle, enhancing the discussion, presenting her/his tools, and demonstrating tool preparation methods—for example, cutting the reed pen, preparing the ink, selecting and preparing the paper, and more. Later, the calligraphy

master will demonstrate for students her/his writing techniques and answer any questions they may have.

The first lesson will introduce students to the art and practice of Arabic calligraphy. Students will practice writing calligraphic exercises by copying the alphabet from a specimen photocopy. While in the first project, students will create their own Arabic letter anatomy sheet, thereby demonstrating their recognition of the basic elements of written communication: the letterforms. Here, students have the opportunity to include any terminology or specific aspect of either calligraphy or typography, which is related to the Arabic alphabet (stroke analysis, letter connection method, dot measuring system, and more). Crit sessions for critical reflection will follow lesson and project completion, while discussions can occur at any time depending on student need.

Cycle Two: Arabic Alphabet Sociability

In the second learning cycle, students will tackle deeper issues related to the micro level of alphabet calligraphy and typography equally and the relationship and connection mechanism of the alphabet as an act of tender sociability. Drawing mainly on Ibn Arabi's 'ilm al-hurûf or science of letters, students will develop a critical understanding of letterforms as a social act, acknowledging the four or two distinctive shapes of the Arabic letters along with their connecting method. At the same time, in this cycle students are encouraged to examine visual culture as a way of exploring the use of Arabic letters in different mediums and with different means in order to form an understanding and perception of this utilization. Artwork or designs that feature the Arabic alphabet will be discussed and analyzed in the studio, including the work of Azza Fahemy, Dia Azzawi, Madiha Umar, Monuir Fatmi, Pascal Zoghbi, Reza Abidin,

Shaker Hassan, Shirin Neshat, and Tarik Atrissi. The cycle is not restricted to these artists/designers, however, and students can suggest or discuss any other work that contains Arabic letterforms. This cycle will enable students to view the Arabic alphabet for written and visual communication, revealing its distinguished feature as a cultural and national identity marker.

In the second lesson, students will experiment with Arabic letterforms, playing analytically with the letters of one word, for example, students' first or last names. The lesson should end with the creation of a new form in which these letters are connected into a logo or signature that is at once readable (easy to read) and legible (every letter distinguishable from every other). As an extension, the second project requires students to design a business card using the logo or signature they created in lesson two. Finally, students will constantly read poems that deliberate on the nature of Arabic letterforms (written by Ibn Arabi or any other scholar/writer) as a way of sharing and discussing their stories, which are the main components of their crit conferences.

Cycle Three: Proportions of the Arabic Letterforms

The third cycle of learning Arabic typography concentrates on the perfected proportions of the alphabet, which have been compared to the divine proportions in the human body, the most perfected of creatures. Here, students will be introduced to al-khatt al-mansoub or the letter measurement theory established by Ibn Muqlah and reformed by Ibn Al-Bawwab. This theory codified Arabic calligraphy, while establishing its geometric aesthetic rules based on the dot (nuqta), the origin of calligraphy, as the standard unit of measurement for letter proportions. Understanding this theory can facilitate recognition of the nature and measurement of the

perfected Arabic letterforms and, hence, contribute to students' understanding of the graphic and aesthetic qualities of letters. As a consequence, this theory contributes not only to communication through the legibility of letters, but also to the overall hierarchy of the composition and arrangement of a text. This is especially important since this theory is still valid and continues to aid contemporary typographic and design applications. Thus, there are many examples of works of art or design, and even products that include the Arabic letters with its dot and/or circle measuring system. Students will be asked to find some of these examples, to decode their semiotics, and to understand their content within the larger theoretical purview of visual culture analysis. Some examples include works of Wissam Shawkat (calligrapher and graphic designer), Reza Abedini (graphic designer), and in addition, many other industrial or fashion designers who frequently utilize the Arabic letters with its predominant measuring method.

In the third lesson, students will be introduced to the mechanism of measuring the Arabic letterforms, and then they will test and apply the letter measurement theory through any chosen style of main calligraphic classification (for example nashk, thuluth, kufi) to at least five basic letterforms of the Arabic alphabet and to one word. The third project is merely typographical yet reflects calligraphic proportions and principles of hierarchy as students design their own resumes. The task is to arrange words, numbers, and sentences according to proportional hierarchy in a way that facilitates ease of reading and directs the flow of sight smoothly over information. Students will learn in this cycle to grasp the smallest details of the letters, working their way to grasping the proportions of a bigger groups of letters—words and sentences—on a larger scale, a page with many lines. Therefore, students will recognize how to compose with the Arabic alphabet, developing an understanding from its micro (single letter) measurements all

the way to the macro level (a page of text). Also in this cycle, crits are a fundamental element for critical reflection, especially upon completing the third lesson and project. The focus of this reflection will be on how students grasped the letter measurement theory and other related measuring methods and how they translated their understandings to compose larger pieces of text.

Cycle Four: Alphabet Inventory

The aim of cycle four is to strengthen students' typographic sensibility and their utilization of its elements and rules. Additionally, this phase seeks to reinforce the strong relationship between Arabic calligraphy and typography, making this connection clear, simple, and visible for students. By facilitating learners' ability to see the various letterforms in one letter and recognize their connections, students will also apprehend the aesthetic visual flow of calligraphy. Therefore, in lesson four, each student will work with new, different calligraphic artwork by known calligraphers such as Dawood Bektash, Jassim Mi'raj, Mehemd Ozcay, Muhammed Sevki, Waleed Al-Farhood or any other calligrapher who has an ejazah (a permission to teach calligraphy and practice it). The chosen work could be a Qur'anic saying or simple text with two to three sentences. In this lesson, students will analyze the calligraphic work, investigating letterforms, baselines, kashida (stretching of a letter), and the overall arrangement of sentences. The aim in this lesson is to help students deconstruct calligraphic work, to simplify the process of reading the composition and every letterform within. This work illustrates visually how calligraphy functions on a page or surface, thus enabling students to develop higher levels of understanding of the Arabic writing system—in both calligraphy and typography. Before starting this lesson, students are required to bring interesting calligraphic

compositions found in visual culture—in architecture, fine art, public art, products, commercials, etc. Then, the collected examples will be discussed, and the class will vote on which one or two to choose for further analysis. Next, the graphic design educator will demonstrate for students the procedures to analyze the selected calligraphic work. Such a demonstration will engage students and ask them to participate in finding, seeing, counting, and recognizing all the different letterforms found within the examined manuscript.

Students will continue their investigations in project four, in which they will use the same calligraphic text and alter or modify the arrangement to employ it in a contemporary poster. The content of the inventory that was compiled in lesson four will be the starting point for this project. Students are required to reconstruct the calligraphic letters using a mindful method to enhance the composition or stress certain parts within the text. Essential to this project is the text setting, including hierarchy, justification and the addition of kashida, alignment, flow of text, and typeface selection. All these contribute to the construction of a poster that visually communicates with readers or viewers effectively. Here, the educator will not share or point to how to assemble these letters and words again. Rather he/she will direct students to freely, creatively, and thoughtfully construct their pieces. Then, similar to the other cycles, after students build their compositions, a session of crits can help them understand the objective of the project and how well they obtained it. The critical reflection is a major component that empowers students to expand their learning and develop their typographic skills and knowledge. In this part, the discussion will describe students' compositions and evaluate their executions, thus requiring students to provide suggestions and ideas for further improvement.

Cycle Five: Alphabet Performance

The last cycle aims to strengthen students' ability to compose with Arabic typography, particularly recognizing its horizontal movement, which keeps the script closely to its baseline, due to letters' shapes and connections. Students will also understand the cursive nature of the Arabic script while recognizing how Arabic typography is related to calligraphy and handwritten text. Realizing that Arabic script has retained its structure with connected letters, students must gain proper knowledge of handwritten letterforms. In view of that, in lesson five students will select a classical Arabic poem with one line or sentence and then experimentally abstract the poem's lines, using black pens and pencils of varying thicknesses. First, students should start writing the poem by hand, using at least five different pens and pencils. Next, students will use this sheet to create additional new sheets with drawings of abstract patterns, delivering them in single lines with rhythmic, calculated strokes. Later, students can transfer these abstracted patterns and render them into patterns made by Adobe InDesign, playing with the size, weight, and typeface until they produce the closest possible expression of their manual drawings. Finally, students will juxtapose their results, compiling them into a composition in order to examine the sense of the manual cursive movement. Here, students can develop a sensibility for text as a texture or pattern, thereby enabling them to examine Arabic script essence, flow, and proportion.

Subsequently, students will examine several works from visual culture that incorporate and juxtapose calligraphy with typography to critically analyze their semiotics and use of the Arabic letters. Some of these examples can include the work of Iranian graphic designers such as Mehdi Saeedi, Shadi Rezaei, Majid Abbasi, Farhad Fozouni, and many others. In addition, students will respond to other examples from calligraphers (Hassan Massoudy, Wissam Shawkat,

and Malik Anas Al-Rajab), artists (Nji Mahdaoui, Julien Breton, and Joans Bournat), and many other instances found within the scope of visual culture—graffiti, murals, film, television, video, video games, animation, graphic novels, comic books, entertainment, advertising, digital images, news images, and social media. After thoughtful discussion and analysis of examples chosen, students can start working on project five, designing a book cover for a selection of poems by the same poet they chose earlier. The aim of this project is to reflect the essence of the poem they chose for lesson five on the cover of the book. The cover should include the title of the book, the author, and a sentence with a brief description of the content or the selected poem. Additionally, students must address the book spine and the back of it, including text necessary to enhance the visual appeal of their product. To conclude, in this course students will assemble a crits session twice during the cycle after executing the fifth lesson and project. This critical reflection will help students describe their work, execution, and design decisions, and then compare or contrast their work with any of the discussed examples. Such sessions aim to facilitate students' grasp of their own approaches to understanding the Arabic writing system and the state of the Arabic alphabet within contemporary visual work.

Projects Assessment

The nature of learning within each cycle is grounded in the tri-stage approach of process, assessment, and evaluation and requires diverse methods of assessment to measure students' learning outcomes. Approaches will include verbal evaluation via desk, peer assessment, and group crits and written evaluation structured in rubric feedback. Students can visualize their progression clearly through rubrics, which assess the following criteria:

1. Concepts: The overall project concept assessing its clarity, relevance, and extent of

addressing the given problem.

2. Letterforms setting: utilization of the Arabic alphabet characters either in calligraphic or typographic form whenever possible.
3. Composition: design and/or typography elements utilization within space, which allows for easily reading (both visually and textually) the work and its flow.
4. Creative process: innovative, novel, or original ideas, layouts, compositions and execution.
5. Learning progress: overall development and improvement of concepts, lesson or projects pursuance, and critical thinking.
6. Techniques: using suitable manual, mechanical, or both methods to execute lessons or projects with the Arabic letters.
7. Theoretical or historical recognition: demonstrate understanding of the Arabic alphabet and its writing system from perspectives of theory (science of letters, visual culture, and semiotics) and historical development (from calligraphy to typography).
8. Crits and presentations: engagement with classmates to share stories, experiences, and Arabic writing system understanding.

These criteria reflect and meet the course objectives to ensure providing students with optimal learning experiences. The rubric will assess these measures based on a 4-point system: 1 weak, 2 needs improvement, 3 meets expectation, and 4 excellent. Eventually, these written evaluation forms can be used to assign grades (number or letter) to lessons and projects and to overall performance in the course. Therefore, it is preferable to supply students with copies of this rubric from the first day of class, ideally, accompanied by a syllabus in order to grasp the method of assessment and understand the nature of the course.

This basic Arabic typography course aspires to educate graphic design students' typographic fluency. Each cycle, lesson, and project in this course is designed for students to discover certain aspects of Arabic typography, encouraging conceptual thinking at the same time through exploration and experimentation, which produces personal and original work. Consequently, as an educational outcome for this course via the tri-stage process, students will develop a visual vocabulary, reinforcing their analytical, critical, and perceptual skills. The ultimate aim of this course and of my featured curriculum is to educate graphic, visual communication, and typography designers who can improve the current practice of Arabic typographic communication, while renovating and reforming the industry of Arabic typography.

Final Words

Arabic typography culture emerges and evolves through its practice, research, and education, all of which contribute to the development of pragmatic and/or artistic communication solutions for diverse mediums and means. As a human activity, typography is a sophisticated area that demands an extensive education and wide knowledge for acquainted practice (Carter et al., 2007), transferring ideas, thoughts, and feelings from one mind to other minds. Currently, people absorb information visually more than ever, which makes alphabets vital, critical components of our visual, global world. In this sense, typography is a macro level essential to every design. Therefore, typography is critical to graphic design education; it should first be independently introduced for students to grasp its essence and then integrated throughout their educational program.

Graphic design educators, researchers, and practitioners confirm the fragility of Arabic typography culture, its limited number of efficient typefaces and books on typography and

design education (AbiFarès, 2001, 2013; Atrissi, 2004; P. Zoghbi, personal communication, September 18, 2014). The books and editorial publications available in the market provide samples of existing Arabic typography works or parts of other forms of visual design. However, these picture books do not include clear, or even any, description of the featured typographic works, nor do they explain concepts, methods, or principles for execution and implementation. Moreover, because design educators teach Arabic typography based on their professional and personal experiences, the educational outcomes are not satisfying the thirst of the market for fluent, proficient designers in Arabic typography.

From these demanding needs and through the performance of experimental Arabic calligraphy and typography projects, I have formulated an Arabic typography curriculum with innovative vision and energy to enhance the education and, eventually, the practice and market of graphic designers in the Arab world and globally. The featured curriculum draws inspiration from Arabic script's great traditions, philosophy, and visionaries, while pursuing a contemporary learning model. Intrinsically, Western art education curriculum theories and pedagogical methods were employed to utilize the art of Arabic calligraphy as a resource for typography edification. Therefore, this curriculum is squarely focused on the future of Arabic typography, grounded in a commitment to experiment and play as a methodology for creativity and learning, and dedicated to the construction of knowledge through experience and interpretation of visual culture. Accordingly, the clear statements of curricular aims and goals describe the interactivity of different learning methods and teaching approaches that build the structure of this Arabic typography curriculum. In addition, the outlined course and its objectives can assist better understanding of the curriculum scope and clarify the tri-stage process while demonstrating how to use this curriculum.

I firmly believe it is urgent and significant to reconceptualize and reconstruct Arabic typography education. Now, we are living in an exceptionally fast-paced, visual, social, and global world, in which letterforms are perceived as both text and image that convey a different assortment of human representations and meanings. Changes in practice and education have to address these intensely influential visual cultural issues. My approach and effort to design this contemporary curriculum is one of the things we educators or practitioners can do to be proactive and contribute to the development of Arabic typography culture as well as the field of graphic design. Unquestionably, we need more efforts, contributions, and collaborations to spread our experience in the teaching and understanding of the Arabic alphabet. We need to carry out more research—writing, testing, investigating, experimenting, inventing, inspiring, assessing, and engaging—and never stop learning.

CHAPTER 7

EPILOGUE

The influential architect and theorist Le Corbusier (as cited in Rand, 2009) said, "to be modern is not fashion, it is a state. It is necessary to understand history, and he who understands history knows how to find continuity between that which was, that which is, and that which will be" (p. 68). In this self-study inquiry, I constantly aimed to understand the educational, aesthetic, historical, and cultural values of the art of Arabic calligraphy. Consequently, I strove to utilize Arabic calligraphy as an essential educational component for Arab art and design students, principally to be implemented in contemporary graphic design and typography education. Arabic calligraphy is handwritten, aesthetically fluid, and proportionally measured. It has spiritual, religious and cultural symbolism. Typography, on the other hand, is mechanically printed, optically legible, and commensurately arranged. It reflects technology, practicality, and the conditions of modernity. The two modes are part of the Arabic writing system, but calligraphy is more valued sentimentally and is well-developed, while typography is pragmatic and still needs to be improved. As the German designer Helmut Schmid (2007) affirms: "Typography needs to be audible. Typography needs to be felt. Typography needs to be experienced" (p. 43). Accordingly, as I examined and experimented with the Arabic alphabet in its calligraphic forms, I sought to understand calligraphy's rich potential contributions to and involvement with typography education and practice.

Stages of this Study

Broadly conceived as an examination of graphic design in art education, throughout this self-study research I considered my own graphic design practice in a professional setting

(Pinnegar, 1998), noting that my roles as a researcher and design educator are strongly intertwined and indivisible (Tidwell et al., 2009). I worked to understand the value of Arabic calligraphy in art and design education, its different roles in Arab and Islamic cultures, status in Ibn Arabi's science of letters, and importance as a feature of visual culture. My essential task in this dissertation has been to reveal how learning Arabic calligraphy might contribute to Arabic typography education, aiming to assess the rules of Arabic calligraphy and describe how art and design educators can utilize this form of art for comprehensive knowledge. Therefore, I pursued self-study methodology (Berry, 2004; Bullough & Pinnegar, 2004; LaBosky, 2004; Loughran, 2004; Russell, 2004) that provides a personal space for learning and exploring the Arabic writing system while focusing on my writing and artistic production, both derived from and addressing my learning experiences. As such, my self-study inquiry indivisibly intertwines my roles as researcher and teacher to describe my studies, actions, and ideas, along with my view of others' interpretations (Hamilton & Pinnegar, 1998). In the process of conducting this dissertation, I employed various representational and analytical forms to convey the meaning of my experiences and refine my practice. In this sense, as a researcher, I used my personal learning experience to inform public knowledge about teaching Arabic typography and stress the value of Arabic calligraphy. In this way, self-study inquiry allowed me, as a design educator, to recognize my power to theorize, research, and understand teaching, and hence, my research endeavors reached beyond an individual space to devise findings applicable to the field in general.

Central to my self-study research, I outlined two appropriate theories for examining the Arabic alphabet. First, I employed Ibn Arabi's 'ilm al-hurûf, or science of letters, wherein the Arabic alphabet has physical, mental, and spiritual existence, with metaphysical dimensions and

connotations exceeding particular times and places (Ibn Arabi, 2008a, 2008d; Obaid, 2006; Yousef, 2008). I revived, defined, and simplified this theory by investigating its holistic content and semiotics in relation to the Arabic alphabet's nature and descriptions. My explanations and interpretations of the symbolic science, 'ilm al-hurûf, aimed to illustrate how to apply this sacred science to present-day practical art and design. Given the fact that Ibn Arabi's manifestation of the Arabic letters facilitates calligraphers' contemplation of their practice while elevating their spiritualities, it has inspired many generations of calligraphers, artists, designers, literati, thinkers, and philosophers. Because using 'ilm al-hurûf in artistic or critical practice helps to distinguish and develop a superior sensibility for the Arabic alphabet, I chose Ibn Arabi's science of letters as an ideal philosophy to be applied to art and design education, specifically typography. Second, I described semiotics—the study of signs—in ways helpful to translating Ibn Arabi's theory and reading our visual world. There are many approaches and applications of semiotics: as a field of study embracing the whole universe (Peirce, 1955); as a science or discipline (Saussure, 1916/1938); as a theory (Morris, 1938); as a doctrine (Sebeok, 1976); and as a living world (Sebeok, 1979). I chose a semiotic approach that provides a direct and clear method to understand the relationship between visual representations and their meanings, specifically in the case of my work, Arabic letterforms. Then, I described how to use 'ilm al-hurûf and semiotics to analyze our visual world. Furthermore, I illustrated the role of semiotics and visual analysis to simplify the complicated, symbolic language of 'ilm al-hurûf while explicating the diverse symbolism of the Arabic alphabet. Here, I utilized visual analysis to understand the nature of the Arabic alphabet—as an image and as a text—in our world and identify letters' signification in cultural and national identities. Both endeavors are essential to graphic design education. Thus, semiotics and visual analysis can help designers to enhance

their recognition of the meeting, juxtaposition, and integration of text and image. Such combinations can facilitate the implementation and application of 'ilm al-hurûf in contemporary art and design education and practice.

To piece together a enhanced illustration of the chosen theoretical framework—Ibn Arabi's 'ilm al-hurûf and semiotics—I utilized the space of my self-study inquiry to demonstrate how artists and designers can understand the Arabic letters within contemporary culture, particularly to distinguish the Arabic alphabet's power and various roles displayed in artworks. Therefore, I analyzed three selected works of art, produced by three artists, through employing Ibn Arabi's science of letters together with semiotics to examine the artworks' use of Arabic letters and symbolism. I juxtaposed and contrasted selected works of modern Arab artists Madiha Umar and Dia Azzawi with a work by contemporary Arab artist Monuir Fatmi to explore how the Arabic letterforms function within their artworks. I studied these artworks in order to demonstrate and simplify the process of reading visual art and its menaings. My analysis revealed many symbolic dimensions of the Arabic alphabet forms, while it demonstrated the practical application of the science of letters and semiotics to discern Arabic letterforms' meanings and forms of representation. This approach illuminated how these selected artists perceive the Arabic letters and use them graphically (Umar); expressively, symbolically, passionately, and epistemologically (Azzawi); politically, revolutionarily, experimentally, and metaphorically (Fatmi) to powerfully reflect their concepts and cultural or national identities.

A significant part of my self-study research was devoted to learning typography and/or calligraphy composition, facing experiences similar to those of my future students in order to develop my own curricula. I examined the art of Arabic calligraphy composition through two divergent but complementary approaches: 1) learning Arabic calligraphy in a professional

calligraphy workshop, and 2) conducting three experimentations in self-study methods, both self-learning and self-exploration projects. The sessions of my Arabic calligraphy workshop spanned over twenty-four hours of writing, practicing, and correcting. My first experiment focused on the Arabic letters' proportions, as I juxtaposed essential concepts related to the Arabic alphabet—the dot system, the circle method, and the golden ratio. The second experimentation addressed letters' relationships and the mechanisms of their connection in the art of Arabic calligraphy. In my third experiment I analyzed a short Qur'anic chapter (sura) to underline calligraphic page elements, movement, and composition. In these two primary methods, I composed calligraphic and/or typographic experiments using both traditional techniques and computer software in an effort to analyze my professional experience as an artist, designer, and teacher. I used visual representations, commentary, and narrative inquiry to analyze my experience with Arabic calligraphy, grounding my analysis in Ibn Arabi's 'ilm al-hurûf, semiotics, and visual culture aiming to explore Arabic calligraphy's value for art and design education. My calligraphic and typographic experiments demonstrated and confirmed, using traditional instruments (reed pen and ink) with computer software (Adobe Illustrator and Photoshop), the aesthetic and scholastic roles of Arabic calligraphy. Accordingly, my self-study experimentations, analysis, and findings offer a public space that exhibits visual statements and narratives of the Arabic letters—from calligraphy to typography—permitting readers, including artists, designers, educators, students, and practitioners, to understand, absorb, and engage with the Arabic alphabet themselves. Moreover, I used my findings in my experimentation with the Arabic alphabet to develop a timeline and map of the Arabic writing system's evolution, stressing the importance of understanding Arabic calligraphy to develop and enhance the performance of printed Arabic letterforms. I simplified and presented predominantly visually the

Arabic writing system timeline and map in order to illustrate the connection of calligraphy with typography.

Similarly, I described Arabic typography culture—education and practice—and justified the need to create original curriculum and pedagogical approaches suitable for the nature of the Arabic alphabet. As such, I used my research findings while drawing on my ongoing narrative commentary to establish a concrete basis to devise a contemporary Arabic typography curriculum and pedagogy proper for contemporary university-level students. My proposed curriculum is built on theories of Ibn Arabi's science of letters and semiotics, while it is also based on visual culture as a process, semiotics as a pedagogy, constructivist theory, play principles, and critical thinking as an assessment method. My aim was to design a typography curriculum that enhances students' learning outcomes and experiences in order to contribute to their design practice, both in the Arab world and globally. Therefore, the art of Arabic calligraphy is centrally important to my contemporary typography curriculum, yet calligraphic letters are introduced as a modern learning model. Finally, I created a basic Arabic typography course for graphic design students, which stresses the typographic and calligraphic sensitivities of the Arabic alphabet, comprehending its structure, proportions, mechanism of connection, and aesthetics. The course aims to help students develop Arabic typography fluency through completing five lessons and five projects, which are based on my calligraphic and typographic experimentations, ultimately aiming to educate artists and designers, whose efforts can improve the current practice of Arabic typography and communication.

Throughout this self-study research, I desired to make broad leaps to reconnect and realign Arabic calligraphy with typography, as I trusted that my experimental projects could provide a valuable model for students, educators, and practitioners. Consequently, my proposed

Arabic typography curriculum and basic course demonstrate the importance of learning Arabic calligraphy and undertaking experimentation with the Arabic alphabet. In this way, the findings of my dissertation affirm that the process of learning calligraphy can contribute to design and art education. Furthermore, my journey to completing this self-study research was an ongoing process in which I was constantly reflexive about how I see, encounter, use, write, draw, analyze, and perceive the Arabic alphabet in both of its forms—calligraphic and typographic. Conducting this dissertation was an opportunity for me as a researcher to challenge myself as a designer and face difficult obstacles about my own practice as an educator of graphic design. In this way, my self-study research was based on art and design education closely similar to art and design learning experiences; both are truly personal and utterly social (Soep, 2004). Performing this research was an intense and emotional undertaking, yet it allowed me to move into the space of the Arabic alphabet and its writing system, to interact with and expand my knowledge in a visceral way. I hope that my words, drawing, writing, imagery, and stories can open the hearts of artists and designers, educators and professionals, to allow them to relate to, utilize, and expand on the topic in new and astonishing ways.

Arabic Calligraphy a Valuable Art

In this self-study research, I brought my educational experiences with Arabic calligraphy into my teaching and practice of typography and graphic design. I learned how to write calligraphically mostly by teaching myself, and briefly, under the supervision of a calligraphy master. As a result, I encountered complex concepts and processes to understand and perform calligraphy. Frequently, as I experimented to learn by myself, it felt like a slow and lengthy process, but it was also rewarding. I am not a calligrapher, and my calligraphy needs more

practice to reach a competent level of artistic writing. Nonetheless, it became clear to me over the period of executing this dissertation that calligraphy is the most valuable way of learning to understand the nature of the Arabic alphabet, its proportions, properties, connection mechanisms, and composition system. Hence, through holding the reed pen, supplying it with ink, moving it across the surface of the paper, and controlling my breath, I gained a deep sensibility of the letterforms. As such, I am mindful of the Arabic letters in both forms—calligraphic and typographic—as I recognize well their shapes, proportions, interactions, and organic properties. Throughout all the stages and processes of my self-study research, I gained valuable understanding related to the Arabic writing system in general and artistic sensitivity to the Arabic alphabet in particular.

Calligraphy is a form of art in civilizations that utilize visual aesthetic expressions founded on letters as graphic elements, including the Arab, Islamic, and Eastern cultures. Consequently, in Islamic visual culture, calligraphy—the art of beautiful writing in Arabic script—has been the primary avenue of artists' expression historically (Blair, 2008). Until today, artists and designers (Arabs, Muslims, or not) still utilize the Arabic alphabet—calligraphically, typographically, and abstractly—in creative ways, expressing diverse emotions and experiences. Accordingly, I came to understand in my self-study research that calligraphy is not only an art form, but also a practice with educational significance. As a graphic designer, my purpose for learning the basic methods of the calligraphic styles naskh and thuluth has been to train my eyes, hand, and brain to recognize letterforms' structures and visual patterns, thus identifying their rhythms and aesthetics. Such knowledge can ultimately help graphic designers or typographers produce Arabic typefaces that are equally distinguishable and delightful to the eye (AbiFarès, 2013). In this light, calligraphy should have a fundamental place in art and design education,

particularly in Islamic and Arabic cultures. Thus, art and design educators in the Arab nations should not solely copy Western curriculum, which does not include calligraphy, but rather, they should adopt methods suitable to their cultures and include the art of Arabic calligraphy as an essential educational principle and subject. This approach can re-align art historical knowledge with Arab and Islamic cultural needs, help designers create genuine Arabic identities in the twenty-first century while nourishing the adored legacy of Arabic calligraphy, and support students' learning experiences in many ways.

Challenges of the Study

Looking back at my process of pursing this self-study research, I can identify three limitations in relation to studying and experimenting with the Arabic alphabet and its writing system. These limitations are related to 1) the nature of learning Arabic calligraphy, 2) the method of balancing technological instruments with manual techniques, and 3) the limited educational resources for Arabic graphic design and typography.

The first challenge is related to the nature of learning the art of Arabic calligraphy, which can be hard to understand and master. Despite the fact that my research findings affirm that calligraphy is an ideal springboard for recognizing the Arabic alphabet and its writing system, studying calligraphy in a traditional workshop or by oneself is a lengthy process. Especially difficult is comprehending the method of holding the pen and the mechanism of moving the pen to achieve ideal letters. Unfortunately, there is no easy and fast method to learn Arabic calligraphy (J. Mi'raj, personal communication, October 17, 2014). Accordingly, incorporating this form of art into any art or design course at a university level may take a considerable amount of time, yet it will surely contribute to developing the sensitivity necessary to compose with the

Arabic alphabet. Therefore, in my self-study experimentations, I decided to only experiment with and learn two basic calligraphic styles—naskh and thuluth, since this allowed me to grasp as much detail as possible as I focused on those two styles. At times, I wished I had included more styles—such as kufi or maghribi, yet limiting my learning experience with Arabic calligraphy was the right choice to ensure the greatest educational potential of these two styles.

Second challenge I faced while conducting experimentations with the Arabic alphabet was the tactic of balancing technological tools (computer software) with manual techniques (reed pen and ink). Sometimes, it was truly overwhelming to shift between these two modes when one seemed more comfortable and interesting than the other. However, it was shifting between different tools and media that helped me to shape both my learning experiences and to design the Arabic typography curriculum and basic course. Doubtless, blending computer processes with traditional techniques in typographic courses is the key to a more effective curriculum (McCoy, 2003; P. Zoghbi, personal communication, September 18, 2014). Therefore, incorporating the art of traditional Arabic calligraphy into graphic design courses should be carefully planned to avoid focusing too much on one method over the other. Being cautious to not limit the learning experience of students and balancing technological instruments with manual techniques are the keys to developing sensibilities to fully comprehend the Arabic letters' composing systems.

The third limitation is related to the circumscribed number of educational resources for Arabic graphic design and typography. In this study, I did not discuss the current curriculum and pedagogical approaches of Arabic typography in the Arab nations. As a visual communication designer, researcher and educator, I constantly seek to read and examine resources to enhance my practice and develop my teaching approaches. However, the resources are very finite. Design educators do not share their curriculum or course content with other professors, and

neither do design schools fully explain their aims, goals, or objectives for teaching Arabic typography. There are a few resources that discuss the field and practice in general, but not specifically discussing educational aspects. On the other hand, graphic design and typography practitioners—some are educators—are trying to advance the field by publishing books, writing articles, or posting on their websites or blogs. These efforts are truly helpful, but we need more academic work that can aid educators and practitioners to enhance their students' learning experiences and outcomes. One very promising recent study by Basma Almusallam (2014) reviews the current status of visual communication design in the Middle East and develops a basic Arabic typography foundation course suitable for current contemporary practice in the twenty-first century. She focuses mainly on Arabic typography, while also introducing a bilingual typography project (Arabic and Latin), in order to provide students with typographic knowledge and skills for enhancing their practice and enriching the market with valuable productions. Studies like Almusallam's are important because they illustrate how to improve Arabic typography education and create practical courses. However, these studies are very few, or omit the discussion of the educational aspects of typography, opting instead to focus only on professional practice or innovation design. Therefore, we need more studies and research to understand the practice and develop the teaching of Arabic typography design.

Future Research

This research marks a springboard to an educational journey in visual communication design concentrating on the Arabic writing system. The next steps of my research include sharing it with art and design educators in the Arab countries and other places that use the Arabic letters. I hope that my dissertation work can inspire them to develop their educational and

professional practices by implementing my proposed Arabic typography curriculum or basic course, or part of it, devoting some time to concentrating on Arabic typography before addressing bilingual approaches.

This research will also advance with me as I carry on my practice as a graphic design and typography educator, as well as a continuing student of calligraphy. In the next phase of this research, I hope to implement the basic Arabic typography course and evaluate my students' learning outcomes. My research was based on self-study inquiry as I studied and learned independently and with a master, but my ultimate aim in these endeavors was to enhance my future students' educational experiences. I am eager to document how my research findings can assist graphic design students to develop intellectual sensibilities for the Arabic alphabet, compose the alphabet critically and meaningfully, and elevate their design abilities. Furthermore, I expect to explore further possibilities of employing my research findings in new ways, generating new Arabic typefaces. I have learned so much throughout the course of executing my self-study experiments—and I expect the reader has, also—drawing, reading, writing, and analyzing the Arabic alphabet aesthetically and theoretically. The findings of my experimentations can be utilized to design Arabic typefaces, generating innovative ideas and solutions as a result of recognizing aesthetic, historical, and technical aspects of the Arabic writing system.

Moreover, I believe I will be able to continue experimenting with the Arabic alphabet through employing other calligraphic styles—kufi, maghribi, riqa'a, or farsi—or by approaching new methods of investigation such as focusing on the line and hand movement in calligraphy or using printing letterpress blocks and mechanical production tools. I believe that my dissertation has covered the basics of utilizing Arabic calligraphy in the learning of typography, yet there is

much more to uncover and study. The visual characteristics of calligraphic Arabic (or Persian) letters have many educational possibilities, which are primary principles for graphic designers and typographers (Fahimifar et al., 2012). The Arabic alphabet letterforms have many roles as written communications, visual entities, and aesthetic vehicles; all are equally critical for composing with the letters.

An additional topic that can be further explored to enhance Arabic typography education and practice is the creation of modern, new methods to teach and learn the art of Arabic calligraphy. The development of such methods requires collaboration between master calligraphers, artists, educators, and graphic designers in order to create a faster, easier, more effective approach to learning Arabic calligraphy, combining manual instruments with technological tools. Such collaboration allows the implementation of this innovative method of learning Arabic calligraphy in various educational institutions (traditional calligraphy workshops, art and design schools, and K–12 education) in a way suitable to contemporary education, fostering communion and dialogue among diverse professionals interested in Arabic calligraphy. In this way, their efforts will shape and define calligraphy's contemporary discourse and practice while enhancing art and design education.

The Beginning

As I reach the end of my dissertation, I feel it is just the beginning, the start to improving both art and design education in the Arab nations. Mostly, I think my research contributes to the field of graphic design and typography education, but at the same time, I am enriching the art education field because I have realigned the art of Arabic calligraphy within the perspective of art education, demonstrating its aesthetic, cultural, national, social, and visual importance to

Arab and Muslim worlds. This research is the beginning to inspire both art and design educators and practitioners to share, develop, enhance, and improve the Arabic alphabet and its writing system. I will continue to explore, experiment, analyze, create, share, teach, and learn more about the Arabic letters.

APPENDIX A

ARABIC ALPHABET RELATED TERMINOLOGIES

This section enumerates and describes comprehensively terminologies related to the Arabic alphabet and its typography application. It begins with a brief description of the Arabic language, its letters, and its writing system. It proceeds to provide a full explanation of Arabic typography vocabulary, letter anatomy and components, type settings, vocalization marks, and punctuation marks. The section concludes by stating key principles of Arabic typography. All of these features are essential to understanding and practicing Arabic typography and type design and are, therefore, central to Arabic typography education.

The Arabic Alphabet

The Arabic alphabet is used for writing several languages including Arabic, Persian, and Urdu. As a Semitic language, Arabic shares roots with Aramaic, Hebrew, Nabatean and Phoenician languages. The Arabic writing system is alphabetic in nature, running from right to left in texts and from left to right in numbers and mathematics. The Arabic alphabet consists of twenty-eight letters, but only eighteen have distinct, basic letter shapes, since some letters share the same form but differentiate themselves by directional dots. Letters can be arranged within graphical or historical systems. The most common method arranges letters according to their graphical resemblance. In this system, letters with the same basic forms are grouped one after another and distinguished with directional dots. By contrast, in the historical method, the *abjd* letters are sorted according to their numerical values. This method is less common but is still used, for example, to number pages or outlines in some classical books.

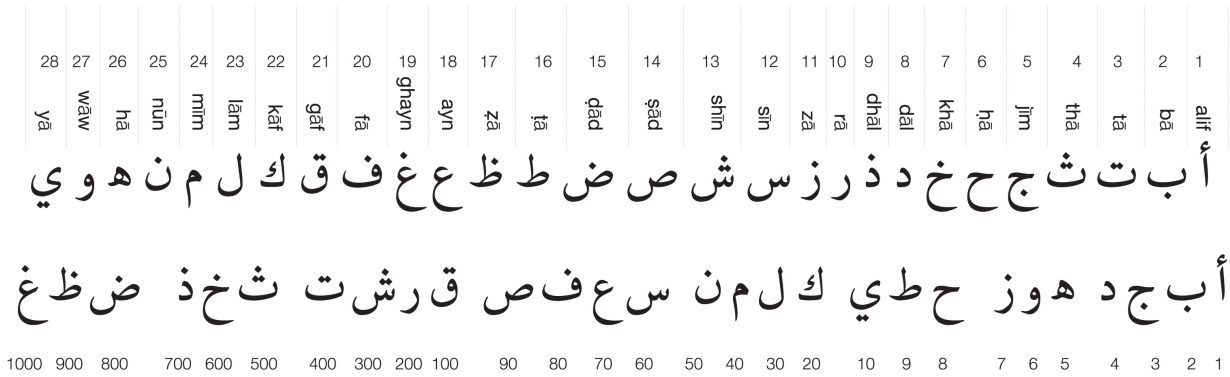

Figure A.1. The Arabic alphabet in graphical and historical systems.

Figure A.2. The Arabic alphabet's eighteen distinct, basic letterforms.

The alphabet of the Arabic language has only consonants, and hence, in order to clarify pronunciation, short vowels are added on top of or below the letters. These short vowels are directional indicators, called vocalization marks. Arabic can be written without these vocalization marks, but they are essential for transcribing the Qur'an since they help avoid misinterpretation and ambiguity. The consonants in the Arabic alphabet are divided into solar and lunar letters, each with fourteen letters. The two letter groups behave differently when pronounced with the Arabic definite article 'al.' With a solar letter following 'al,' only 'a' will be pronounced, not 'l,' while with a lunar letter following, both sounds of the letters 'al' will be pronounced.

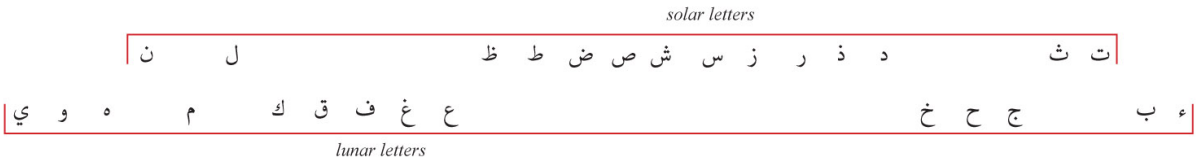

Figure A.3. The Arabic solar and lunar letters.

The Arabic Writing System

Unlike cursive writing based on the Latin alphabet, the standard Arabic style of lettering uses significantly different shapes depending on whether letters will connect to previous and/or following letters. Both printed and handwritten Arabic letters are cursive, rooted in their intrinsic calligraphic form. With the exception of six letters that connect only from one side, most letters within a word are joined to the adjacent letters on both sides. Therefore, letters continually merge and change their shapes according to the appropriate formation of words. Thus, all primary letters contain conditional forms for their glyphs, depending on whether they are at the beginnings, middles, or ends of words. Therefore, they may exhibit four distinct forms—isolated, initial, medial, and final. Some letters look almost the same in all four forms, while others show considerable variation. Six letters have only isolated and final forms; they force the letters following them (if any) to take an initial or isolated form, as if there were interposed a word breaker.

alif	bā	tā	thā	jīm	hā	khā	dāl	dhal	rā	zā	sīn	shīn	ṣād	ḍād	ṭā	ẓā	ayn	ghayn	fā	qāf	kāf	lām	mīm	nūn	hā	wāw	yā
أ	ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص	ض	ط	ظ	ع	غ	ف	ق	ك	ل	م	ن	ه	و	ي
إ	ب	ت	ث	ج	ح	خ					س	ش	ص	ض	ط	ظ	ع	غ	ف	ق	ك	ل	م	ن	ه		ي
آ	ب	ت	ث	ج	ح	خ					س	ش	ص	ض	ط	ظ	ع	غ	ف	ق	ك	ل	م	ن	ه		ي
ا	ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص	ض	ط	ظ	ع	غ	ف	ق	ك	ل	م	ن	ه	و	ي
لأ																									ة		
لا																									ة		

Figure A.4. The Arabic alpahabet's four distinct forms: The isolated, intial, medial, and final.

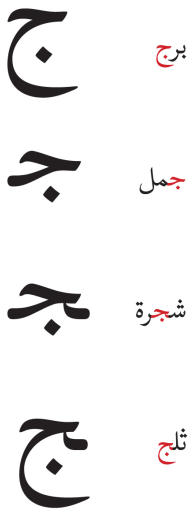

Figure A.5. Illustration of the letter *jīm* in four different words displaying its four distinct forms, depending on its location within a word.

ت

تج

تجر

تجرب

تجربة

Figure A.6. Illustration of the mechansim of composing a word with the Arabic letters, running from right to left. While typing the word, the last letter changes its form to connect to the new letter added.

The Arabic Letter's Anatomy

Legibility. The smallest units in the Arabic writing system are words or parts of words. These units contain links between two letters or more. Such links are the parts of the letterforms that allow their connection. As a result of such links, Arabic script may not be easily legible in small type sizes.

Stroke movement. The Arabic letterforms consist of three main stroke movements: the straight or erect, curved (rounded, arched, or slanted), and flat.

Glossary of Arabic Typography

In order to develop a comprehensive understanding of Arabic typography, we need to list and properly describe the terminology associated with its characteristics and measurements. This glossary lists typographical terms or items starting with definitions, then moving to the

basic elements (letter anatomy) and aspects of Arabic type measurement and justification, then to describing secondary elements (vocalization and punctuation marks). All of these components are vital for creating typographical compositions with suitable capacities for communication.

The Alphabet Forms in Typography

Letterforms: the fundamental characters, both alphabetic and numeric, are letterforms, which can be rendered in numerous varied styles to communicate for different purposes.

Font: letterforms' physical, coherent appearance to form a typeface—for example, in digital codes, letterpress blocks, typewriters, etc.

Typeface: the set of letters, numerals, characters, punctuation, and symbols which share an articulate design.

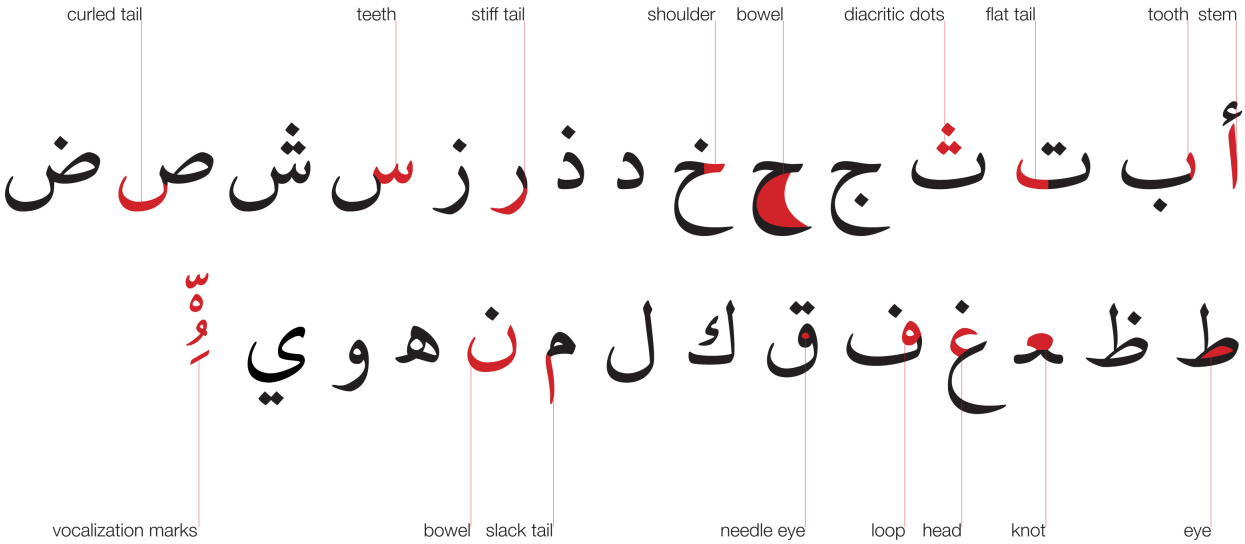

Figure A.7. The components of Arabic letterforms' anatomy.

Table A.1. The components of Arabic letterforms' anatomy and their visual representations.

Stroke/Shape	Component	Visual Representation
Beginning strokes	Curved Hook	ج
	Head	ء
	Crooked Nose	ح
	Plain Nose	د
	Short Nose	ٮ
	Shoulder	ـ
	Stem	ا
	Zig-zag	ر
Middle Strokes	Tooth	ـه
	Stem	ا
Ending strokes	Bowl	ـج
	Flat Tail	ـب
	Flat Stroke	ـب
	Curved Tail	ـب
	Slack Tail	ا
	Stiff Tail	ر
Connecting strokes	Curved	ٮ
	Flat	ـ
Closed shapes	Big Eye	ص
	Inverted Eye	ه
	Round Eye	ه
	Triangular Eye	ه
	Small Eye	ه
	Knot	ه
	Double Knot	ه
	Loop	ه
	Double Loop	ه
Diacritic	Single Dot	ـ
	Double Dot	ـ
	Triple Dot	ـ

Typeface Anatomy: The Basic Letter Components

Type-weight variation: Arabic typefaces today can have regular, bold, and italic versions.

Baseline: An imagined, fixed, horizontal line that letters' bases rest on.

Meanline: an imagined horizontal line, which contributes to determining the height of letters' main bodies.

X-height: the height of letterforms measured between the baseline and the meanline.

Ascender: a letter stroke that extends above the x-height and meanline.

Descender: a letter stroke that drops beneath the baseline.

Ligatures: established, distinct characters that display the combination of two letters. Although the Arabic letters naturally connect and change their forms to create words, there is a popular ligature, which is the combination of the alif and lam. The connection of these two letters forms a vertical knotted character.

Kashida: In both typography and handwritten scripts, Kashida is used. It is a kind of expansion, which justifies the horizontal elongation of certain letter connections in a word.

Leading: the space between one baseline to another in a text block.

Letter spacing in a word: When a word contains one or more unconnected letters (letters that connect only from one side), the word contains an opening, which appears to break the word or separate it. Nonetheless, the surrounding letters of this gap interact with such a space to make the word appear smooth and attached. Typically, this opening is smaller than the other spaces within a text or sentences—the other spaces between words.

Alignment: a text block can be positioned at both planes, the horizontal (centered, right, left, or justified) and vertical (top, center, or bottom).

Legibility: the capability to differentiate a letterform from others by distinguishing the typeface-specific characteristics.

Readability: related to type or design properties, which involve the capacity for it to be understood.

Vocalization marks (Alamat al-Tashkeel)

The Arabic language has unwritten vowels, which are not signified by letters but by small signs positioned above or below specific letters in a word. These small marks stand for short vowels, consonant enhancers, and diphthongs. The vocalization marks are critical to properly understand the meaning because they work to specify grammatical function. Vocalization signs are used today primarily in sacred text (to ensure correct reading and pronunciation of the Qur'an) or in secular texts for teaching the Arabic language (helpful aids for children or foreigners who are learning the language), and they are optionally used to clarify any meaning that could be misread or confusing. However, currently, these marks are excluded from print or digital letterforms in media to simplify their visual and economical space usage.

Table A.2. Vocalization marks for the Arabic writing system.

Sign Shape	Sign	Description	Visual Representation
The small stripe	*Fathah*	One stripe placed above the letters, denoting a short vowel *a*.	ـَ
	Tanwin Fathah	Dual stripes placed above the letters, denoting a short vowel *an*.	ـً

	Kasrah	One stripe placed beneath the letters, denoting a short vowel *i*.	ِ
	Tanwin Kasrah	Dual stripes placed beneath the letters, denoting a short vowel *in*.	ٍ
The small letter *waw* shape	*Dammah*	Placed above the letters, denoting a short vowel *u*.	ُ
	Tanwin Dammah	Placed above the letters, denoting a short vowel *un*.	ٌ
The small letter *O*	*Sukun*	Placed above the letters, denoting a lack of a short vowel, indicating a kind of consonant enhancers.	ْ
The small letter *sin* shape (but with no tail)	*Shaddah*	Placed above the letters, often joined with any mark of the short vowels, denoting an emphasis on the consonant-letter, as a kind of consonant enhancer.	ّ
The small letter *ayn* shape (but with no tail)	*Hamzah*	Placed above the letters, usually joined with long vowel letters—*alif* (a), *waw* (u), *ya* (i), denoting a glottal stop. Also, when *hamzah* is placed beneath letter *alif* it indicates the vowel *i*, as a short glottal.	ء

		Hamzah is accounted a letter when applied in a free-standing shape and in a bigger size.	
The small horizontal sweep	*Maddah*	Placed above the letter *alif* denoting a prolonged sound, as it indicates the diphthong.	آ
The small letter *sad* (but with no tail)	*Waslah*	Placed above the letter *alif*, with no pronunciational value.	أٱ

Punctuation Marks (Alamat al-Targeem)

Punctuation marks in Arabic typography are just like Latin ones, denoting a text's configuration through characterizing occasions of rest or emphasis. However, almost all of the Arabic punctuation marks are flipped or rotated forms of the Latin marks, slightly adjusted to correlate with the Arabic writing system's flow and direction.

Table A.3. Punctuation marks for the Arabic writing system.

Type of signs	Sign	Description	Visual Representation
Sentence ending	Period or Nuqta	A dot positioned on the baseline to indicate the end of sentence.	.
	Question Mark	About the same size as the letter *alif*, and faces right, used to indicate a	؟

		question.	
	Exclamation Paint	About the same height of the letter *alif*, used to signify an exclamation, or to imply an intense feeling.	!
	Ellipsis	A set of three dots sequentially positioned on the baseline, used to denote an omission of a text, or text flow suspension.	. . .
Sentence breaks or juxtapositions	Colon	Applied for grammatical functions, to direct consideration toward certain issues such as an item list, an explanation, or a quotation.	:
	Comma	Used for grammatical functions to separate elements within a sentence.	،
	Semi-Colon	Used to imply a combination of independent sections within a complex sentence.	؛
	Dash: Each dash serve a specific function.	En dash: Used to signify ranges and relationships. Em dash: used to mark a break in the sentence structure or in the thinking. The size of an em dash is double the size of an en dash.	– —

Sentence sequences or editorial functions	Parentheses	A pair of round brackets used to enclose a word or explanatory details or phrases embedded into a text passage.	( )
	Square Brackets	A pair of square brackets used to enclose words for editorial functions, marking text inserted by someone other than the writer of the passage.	[ ]
	Quotation Marks	A pair of double small, flat round brackets used to enclose text that is an exact quotation being cited.	؟
	Guillemets	A pair of double small, angled brackets, used to enclose text that is an exact quotation.	« »
	Virgule	A slanting line, used to indicate *or*, *per*, fractions, or as a separation sign.	/

Arabic Typography Principles

Knowledge of Arabic typographical elements and anatomy is not enough to ensure effective composition with letterforms. Designers and typographers need to understand Arabic typography principles for creating efficient pieces of communication, but it is highly important to understand that theses typographical elements are different from design principles (unity, repetition, balance, harmony, rhythm, etc.), in relation to type and composition. There is no

fixed set of Arabic typography principles, but this study has assembled the most useful, such as typeface selection, typographical hierarchy, grid, color, and texture, all of which are essential to form communicational works, both textual and visual, for print, digital, or architectural spaces.

Selection of Arabic Typeface

One of the most critical principles is the selection of typeface for executing a desired project, wherein type selection should correlate with the design concept of the project to achieve a satisfying outcome. Some designs combine two or more typefaces, and, therefore, these juxtaposed letterforms must perform harmoniously and/or in contrast, depending on the intention of such a combination. In Latin typography, referring to type classification can assist appropriate selection. However, there is no established Arabic type classification organized similarly to Latin type—i.e., according to type characteristics and style, the period in which the typeface was developed, or usage of type. The aim of any kind of type classification is to provide meaningful order for a vast number of typefaces. Generally, we can classify Arabic fonts according to their applications and main characteristics such as calligraphic fonts (which mimic calligraphic script), text fonts (which are meant for publication and designed to ease readability), and expressive fonts (which afford visually appealing titles or other large text).

Typographical Hierarchy

Another significant aspect of typography is the sense of hierarchy: the visual, logical manner in which text and other design elements (graphics or images) are presented. Such hierarchy aspires to guide the readers/viewers visually—navigating the way for their eyes to move about the page or screen, displaying the layout in a clear and simple arrangement and

giving the layout its structure. This hierarchy can be created by using various elements such as font size, weight, contrast, and color, while considering the three hierarchy levels of text—sentence, paragraph, and text block. Additionally, typographical hierarchy allows for playing with white spaces through adjusting text windows (a very short last line of a paragraph) and orphans (a very short first line of an opening page or paragraph). Intrinsically, such hierarchy not only organizes the content visually to enhance its communicational value, but it also provides visual structure that is logical and intuitive in order to increase content comprehensibility.

Grid

The geometrical structure of lines forms a grid, upon which we can design and organize words, sentences, paragraphs and other visual elements on a page, screen, or space. Such a structural outline can influence and strengthen any of the other typography principles because this grid offers a systematic yet dynamic space to arrange text and visuals for optimizing a piece of communication. This grid can enforce and apply the typographical hierarchy desired for the entire document, website, or space.

Color

In typography, color can help convey information while enhancing the overall design and its visual impact. In this context, color refers to the text block density, achieved by the ascenders' and descenders' frequency, fulfilling this typographical color principle through harmonizing the white and black shapes of text on a page. Font selection can affect this color in a text block. Different typefaces provide various strokes (both movements and widths), and thus, by employing suitably diverse sizes and weights, a text block can appear light (with less ink) or condensed (with more ink), shaping the surface of communication.

Texture

Using type can imply a sense of texture, one of the typographical principles. Similar to utilizing fonts for obtaining color density, this principle adds sensible surface to a design. The ability to employ this principle requires understanding the basics of Arabic typography in order to employ various typefaces, creating a method to cover a surface while creating the impression of a texture. Typographical texture can be functional (or not) and readable (or not), while informing the interplay of line movements through black and white, void and fullness, across the page/screen/space.

APPENDIX B

IBN ARABI'S DESCRIPTIONS AND INTERPRETATIONS OF THE ARABIC ALPHABET

Table B.1. Ibn Arabi's descriptions and interpretations of the letter *alif.*

Letter		Description
Arabic	أ *alif*	• According to some Sufis, *alif* is not a one of the letters but has a general character as a letter. *Alif* is considered a letter as a way of transcendence, serving as a whole combination of God names, while having the same commandments (gayoumiah), qualities, and plural status (magamat) (Ibn Arabi, 2008a). • *Alif* has all of the ranks, yet appears on the sixth. *Alif* has the sum of the letters world, without its ranks, and does not go outside the circle point, which consists of its perimeter, composite worlds, and its simplicity (Ibn Arabi, 2008a). • *Alif* is named as "gayoum al-hurouf," the trustee or commander of the letters. "It is a symbol for God the creator, oneness, and the starting point. Its linear form is very elongated to represent glory and highness while seeking for the truth and authenticity of the divine truth that human seeks" (Obaid, 2006, p. 124). • The breath flow associated with sound emission while pronouncing *alif* is from the furthest throat, emitting the breath extending the air outside the mouth to other breaths while you are silent, and that is called echo. This is *alif's* commandments (gayoumiah), not because of its standing or its numerical value. All letters unravel to it and are composed of it while *alif* does not unravel to the rest of the letters.
Latin Equivalent	a	
Number	1	

		Alif only unravels to its spirituality, and thus *alif* is a swivel/pole (Ibn Arabi, 2008a, p. 86). • *Alif* signifies the providence straightness over the ability, the straightness of ability over the order, the straightness of order over the human, and the straightness of human over the letters and names (Ibn Arabi, 2004, p. 127). • *Alif* is fortune of al-hag (truth) (Ibn Arabi, 2008a). • *Alif* is for knowledge. Also, *alif* is for the soul and the brain is it character (Ibn Arabi, 2008b). • The first of *alif* existence is in the *taa* (Abdulfatah, 2004, p. 126). • *Alif* is the ending of every beginning (Abdulfatah, 2004, p. 126). • The four "wedges" (al-awtad) are *alif*, *waw*, *yaa*, and *noon*, which are the expression marks (Ibn Arabi, 2008a, p. 86). The letter *alif* speaks through the tongue of Ibn Arabi as the weak worshipper: I am the weak worshipper chosen (almujtaba), I am who glorified my majesty (soltani) and almighty (jalali) (Laibi, 2006, p. 174).

Table B.2. Ibn Arabi's descriptions and interpretations of *hamza.*

Letter		Description
Arabic	ء *hamzah*	• *Hamzah* is a symbol representing a glottal stop. • *Hamzah* is from the letters of the Testimony and Kingdom world (al-shahada wa al-Malakot).
Latin Equivalent	non	

Number	non	• *Hamzah's* sound emission is from the farthest throat. • It was debated whether it is a letter or half letter in numerical letters, while it was agreed that *hamzah* is a letter while pronouncing it (Ibn Arabi, 2008a). • *Alif* is not counted with letters, and some see that *alif* is a half letter, and the *hamzah* is its other half. Therefore *alif* (a) and *hamzah* are one letter (Ibn Arabi, 2008d, p.16-17).

Table B.3. Ibn Arabi's descriptions and interpretations of the letter *bā.*

Letter		Description
Arabic	ب *bā*	• *Bā* is a letter from the Property, Testimony, and Oppression (al-Molk wa al-shahada wa al-gaher) world. • *Bā*'s sound emission from the lips. • *Bā* stratums are: he Especially Private, and the Essence of Especially Private Pureness Recap. • *Bā* has a blending (momtazej) movement. • *Bā* is a complete pure (khalesaah) letter, sociable, from the world of quadrant-genus (Ibn Arabi, 2008a). • *Bā* offers the character; the *bā* is royalty, the dot (nugta) is tyranny, and the mark is royalty testimony (Ibn Arabi, 2008b, p. 135). • *Bā* has the status of the brain (Ibn Arabi, 2008d, p. 21). • With *bā* the existence appears, and with its dot the worship is
Latin Equivalent	b	
Number	2	

		distinguished from the worshipper (Ibn Arabi, 2008b, p. 134). • The presence of *bā* escorts you, just as the messenger connects you to Allah (God), so does *bā* connects you to heaven and to the presence of prerogative (Ibn Arabi, 2008b, p. 140). • God composed the letter *bā* from the letter *alif* and honored *bā* with the existence of sight, while with it existence and survival spread (Ibn Arabi, 2004, p. 115). • *Bā* is the first letter that has the secrets of God, and with whom God begins. *Bā* is a dragging (jar) letter that was honored and begins the Qur'an with *basmalah* (the opening utterance), because *bā* is the first of sight (basar) and insight (basirah) that drags things from their apparent to their inner soles (Ibn Arabi, 2004, p. 123). • *Bā* is the beginning of things (Abdulfatah, 2004, p. 126). The letters: *fā*, *ṭā*, *kāf*, and *sād* are created from the letter *bā* and contain it at the same time (Obaid, 2006, p. 113).

Table B.4. Ibn Arabi's descriptions and interpretations of the letter *tā.*

Letter		Description
Arabic	ت *tā*	• *Tā* is a letter from of the Unseen and Tyranny (al-ghaib wa al-Jabarout) world. • *Tā's* sound emission is from the tongue edge and the origins of folds. • *Tā* stratum is the Especially Private. • *Tā* has a blending (momtazej) movement. • *Tā* is a complete pure (khalesaah) letter, sociable, from the world of quadrant-genus, and to it belongs the self and the adjectives (Ibn Arabi, 2008a).
Latin Equivalent	t	
Number	400	

Table B.5. Ibn Arabi's descriptions and interpretations of the letter *thā.*

Letter		Description
Arabic	ث *thā*	• *Thā* is a letter from the Unseen, Tyranny, and Kindness (al-ghaib wa al-Jabarout wa al-lutf) world. • *Thā's* sound emission is from in between the tips of the tongue and above the tips of the folds. • *Thā* stratum is the General world. • *Thā* has a blending (momtazej) movement. • A complete pure (khalesaah) letter, sociable from the world of quadrant-genus, and to it belongs the self, adjectives, and acts (Ibn Arabi, 2008a).
Latin Equivalent	th	
Number	500	

Table B. 6. Ibn Arabi's descriptions and interpretations of the letter *jīm.*

<table>
<tr><th colspan="2">Letter</th><th>Description</th></tr>
<tr><td>Arabic</td><td>ج jīm</td><td rowspan="3">• Jīm is a letter from the world of Testimony and Tyranny (al-shahada wa al-Jabarout).
• Jīm's sound emission is from the middle of the tongue and between the palate.
• Jīm stratum is the General world.
• Jīm has a crooked movement.
• Jīm is a complete blending (momtazej) letter.
• According to people of lights and secrets Jīm raises any letter connected to it, but does not according to the Kuffis.
• Jīm is a sociable letter from the tri-genus world, and its sign is its individuality (Ibn Arabi, 2008a).
• The tongue folds zapping with jīm by its amount to explain its notable essence (Ibn Arabi, 2008d, p. 21).
• The letter Jīm is a metaphor for a temple (saadegh) (Obaid, 2006, p. 124).
The veil of Jīm is heaven and hell, its holy image in Jibril, and the image of the veil is the mountain (Ibn Arabi, 2008d, p. 21).</td></tr>
<tr><td>Latin Equivalent</td><td>j</td></tr>
<tr><td>Number</td><td>3</td></tr>
</table>

Table B.7. Ibn Arabi's description and interpretations of the letter *ḥā.*

Letter		Description
Arabic	ح *ḥā*	• *Ḥā* is a letter from the Unseen (al-ghaib) world and the Kingdom world (al-Malakout). • *Ḥā's* sound emission is from amid the throat. • *Ḥā* stratums are the Special and the Especially Private. • *Ḥā* has a crooked movement. • *Ḥā* is a complete letter that raises any letter connected to it. • *Ḥā* is a pure (khalesaah) letter not blending (momtazej), from the tri-genus world (Ibn Arabi, 2008a). • *Ḥā* signifies the existence of self-perfection (Ibn Arabi, 2008b, p. 162). • The letter *ḥā* and *ayn* have the same roundness at the end parts of their structure in a circular ductility shape allowing the pen to flow with them spontaneously, directing the end of the letter from its rigid structural straightness to forming it in swaying ductility movement that is spontaneous and gullibility (Obaid, 2006, p. 114).
Latin Equivalent	non	
Number	8	

Table B.8. Ibn Arabi's description and interpretation for the letter *kḥā.*

Letter		Description
Arabic	خ *kḥā*	• *Kḥā* is a letter from the Testimony and Kingdom world (al-shahada wa al-Malakot). • *Kḥā's* sound emission is from the lower throat nearest to the mouth. • *Kḥā* stratum is the General world. • *Kḥā* has a crooked movement. • *Kḥā* ia a complete blending (momtazej) letter, which raises any letter connected to it. • Sociable from the tri-genus world. It has self, adjectives, and active names (Ibn Arabi, 2008a).
Latin Equivalent	non	
Number	600	

Table B.9. Ibn Arabi's descriptions and interpretations of the letter *dāl.*

Letter		Description
Arabic	د *dāl*	• *Dāl* is a letter from the Property and Tyranny world (al-Molk wa al-Jabarout). • *Dāl*'s sound emission is from the tongue edge and the origins of folds. • *Dāl* has the uttermost path. • *Dāl* has a blending (momtazej) movement. • *Dāl* is an incomplete pure (khalesaah), sacred letter, sociable from the world of bi- genus (Ibn Arabi, 2008a).
Latin Equivalent	d	
Number	4	

		• *Dāl* 2/5 *ṭā* (Ibn Arabi, 2008a, p. 89).

Table B.10. Ibn Arabi's descriptions and interpretations of the letter *dhāl.*

Letter		Description
Arabic	ذ *dhāl*	• *Dhāl* is a letter from the Unseen, Tyranny, and Oppression (al-ghaib wa al-Jabarout wa al-gaher) world. • *Dhāl*'s sound emission is from in-between the tips of the tongue and above the tips of the folds. • *Dhāl* stratum is the General world. • *Dhāl* has a blended (momtazej) and crooked movement. • *Dhāl* is a complete letter from the pure (khalesaah) letters, sacred, sociable from the world of bi-genus, and to it belongs the self (Ibn Arabi, 2008a).
Latin Equivalent	non	
Number	700	

Table B.11. Ibn Arabi's descriptions and interpretations of the letter *rā.*

Letter		Description
Arabic	ر *rā*	• *Rā* is from the world of Testimony and Tyranny (al-shahada wa al-Jabarout). • *Rā's* sound emission from the back of the tongue edge and above folds. • *Rā* stratums are: the Special and the Especially Private. • *Rā* has a blending (momtazej) movement. • *Rā* is an incomplete letter from the pure (khalesaah) letters, sacred,
Latin Equivalent	r	
Number	200	

		sociable from the world of bi-genus (Ibn Arabi, 2008a). • *Rā* is for ability, signifies the word and also the soul (Ibn Arabi, 2008b, p. 160). • The tenderness (al-riggah) of *rā* cries from *rā's* mercy, connecting to *rā's* womb, coming out in a fine tenderness (Ibn Arabi, 2004, p. 79). • The first of *nuqat's* (dots) existence is in the *rā* (Abdulfatah, 2004, p. 126). • *Rā* or *zā* are half *nūn* (Ibn Arabi, 2008a, p. 89). • The letter *rā* generates the letters: *wāw*, *qāf*, *sīn*, and *sād,* since *rā* is part of these letters and is their basis (Obaid, 2006, p. 113).

Table B.12. Ibn Arabi's descriptions and interpretations of the letter *zā.*

Letter		Description
Arabic	ز *zā*	• *Zā* is a letter from the Unseen, Tyranny, and Oppression (al-ghaib wa al-Jabarout wa al-gaher) world. • *Zā's* sound emission is from in-between the tips of the tongue and above the lower folds. • *Zā* stratums are: the Special and the Especially Private. • *Zā* has a blending (momtazej) movement. • *Zā* is an incomplete pure (khalesaah) letter, sacred, sociable from the world of bi-genus (Ibn Arabi, 2008a). • *Rā* or *zā* are half *nūn* (Ibn Arabi, 2008a, p. 89).
Latin Equivalent	z	
Number	7	

Table B.13. Ibn Arabi's descriptions and interpretations of the letter *sīn.*

Letter		Description
Arabic	س *sīn*	• *Sīn* is a letter from the Unseen, Tyranny, and Kindness (al-ghaib wa al-Jabarout wa al-lutf) world. • *Sīn's* sound emission is from in between the tips of the tongue and above the lower folds. • *Sīn* stratums are: the Special, the Especially Private, Especially Private Recap, and Especially Private Pureness Recap. • *Sīn* has a blending (momtazej) movement. • *Sīn* is a complete letter from the pure (khalesaah) letters, sociable from the world of bi-genus (Ibn Arabi, 2008a). • *Sīn* is the first of stillness (Ibn Arabi, 2004, p. 123). • *Sīn* is stillness, shows its lack and need in a very polite way (Ibn Arabi, 2008b, p. 139).
Latin Equivalent	s	
Number	300	

Table B.14. Ibn Arabi's descriptions and interpretations of the letter shīn.

Letter		Description
Arabic	ش *shīn*	• *Shīn* is a letter from the middle of the Unseen and Tyranny (al-ghaib wa al-Jabarout) world. • *Shīn's* sound emission is from the middle of the tongue and between the palate. • *Shīn* stratum is the General world.
Latin Equivalent	sh	
Number	1000	

		• *Shīn* has a blending (momtazej) movement. • *Shīn* is a complete letter from the pure (khalesaah) letters, a sociable letter from the world of bi-genus (Ibn Arabi, 2008a).

Table B.15. Ibn Arabi's descriptions and interpretations of the letter *sād.*

Letter		Description
Arabic	ص *sād*	• *Sād* is a letter from the Unseen and Tyranny (al-ghaib wa al-Jabarout) world. • *Sād*'s sound emission from in between the tips of the tongue and above the lower folds. • *Sād* stratums are: the Special and the Especially Private. • *Sād* has a blending (momtazej) unknown movement. • *Sād* is a complete letter from the pure (khalesaah) letters, sociable from the world of bi-genus (Ibn Arabi, 2008a). The letter *sād* is a dual structure, and its basis is the letter *ṭā* but cutting its *alif* part and recruiting the letter *nūn* at the end of the letter *sād* or *ḍād* (Obaid, 2006, p. 113).
Latin Equivalent	non	
Number	60	

Table B.16. Ibn Arabi's descriptions and interpretations of the letter *ḍād.*

Letter		Description
Arabic	ض *ḍād*	
Latin Equivalent	non	

Number	90	follows from the upper molars. • *Ḍād* stratum is the General world. • *Ḍād* has a blending (momtazej) movement. • *Ḍād* is a complete letter from the pure (khalesaah) letters, sociable from the world of bi-genus, and its sign is its individuality (Ibn Arabi, 2008a, p. 75). • In the letter *Ḍād* is the secret of the Arabic letters, its distinctiveness and uniqueness from the rest of the world languages (Obaid, 2006, p. 113).

Table B.17. Ibn Arabi's descriptions and interpretations of the letter *ṭā.*

Letter		Description
Arabic	ط *ṭā*	• *Ṭā* is a letter from the Property and Tyranny world (Alam al-Molk wa al-Jabarout). • *Ṭā's* sound emission from the tongue edge and the origins of folds. • *Ṭā* stratums are: the Special and the Especially Private. • Its movement: straight according to people of the lights, crooked according to people of the secrets, blending (momtazejah) according to Ibn Arabi (Ibn Arabi, 2008a). • *Ṭā* is a letter from the norms (al-a'araf) letters; a complete pure (khalesaah) letter, sociable from the world of bi-genus (Ibn Arabi, 2008a).
Latin Equivalent	non	
Number	9	

Table B.18. Ibn Arabi's descriptions and interpretations of the letter *ẓā*.

Letter		Description
Arabic	ظ *ẓā*	• *Ẓā* is a letter from the Unseen, Tyranny, and Oppression (al-ghaib wa al-Jabarout wa al-gaher) world. • *Ẓā*'s sound emission is from in between the tips of the tongue and above the tips of the folds. • *Ẓā* stratum is the Especially Private Recap. • *Ẓā* has a blending (momtazej) movement. • *Ẓā* is a complete blending (momtazej) letter, sociable from the world of bi-genus, and to it belongs the self (Ibn Arabi, 2008a).
Latin Equivalent	non	
Numbe	800	

Table B 19. Ibn Arabi's descriptions and interpertations of the letter *ayn.*

Letter		Description
Arabic	ع *ayn*	• *Ayn* is from the letters of the Testimony and Kingdom world (al-shahada wa al-Malakot). • *Ayn's* sound emission from amid the throat. • *Ayn* stratums are: the Special and the Especially Private. • *Ayn* has a horizontal movement that is crooked. • *Ayn* is a letter from the norms (al-a'araf) letters; it is a complete letter from the pure (khalesaah) letters, from the world of bi-genus (Ibn Arabi, 2008a). • The letter *ayn* is for Gracefulness (Laibi, 2006). • The letter *ayn* is 'written' meaning what is written for, and no one
Latin Equivalent	a	
Number	70	

		knows it, and other cannot reach. Notifying to reveal and stopping when abandoned (Dagher, 2006, p. 57). • The letter *ḥā* and *ayn* have the same roundness at the end parts of their structure in a circular ductility shape, allowing the pen to flow with them spontaneously, directing the end of the letter from its rigid structural straightness to forming it swaying ductility movement that is spontaneous and gullibility (Obaid, 2006, p. 114).

Table B.20. Ibn Arabi's descriptions and interpretations of the letter *ghayn.*

Letter		Description
Arabic	غ *ghayn*	• *Ghayn* is a letter from the Testimony and Kingdom world (al-shahada wa al-Malakot). • *Ghayn's* sound emission is from the lower throat nearest to the mouth. • *Ghayn* stratum is the General world. • *Ghayn* has a crooked movement. • *Ghayn* is a complete letter from the pure (khalesaah) letters, from the world of bi-genus, sociable with individual self (Ibn Arabi, 2008a).
Latin Equivalent	non	
Number	900	

Table B 21. Ibn Arabi's descriptions and interpertations of the letter *fā.*

Letter		Description
Arabic	ف *fā*	• *Fā* is a letter from the world of Testimony, Tyranny, Unseen, and Kindness (al-shahada wa al-Jabarout wa al-ghaib wa al-lutf).
Latin	f	

Equivalent	f	• *Fā's* sound emission is from the soles of the lower lip and tips of upper folds. • *Fā* stratum is the Especially Private Recap. • *Fā* has a blending (momtazej) movement. • *Fā* is a complete, blending (momtazej) letter, social from the bi-genus world and lonesome to the self (Ibn Arabi, 2008a). • *Fā* is from *alif*, has the same extensions as *alif*, and in every extension the tongue accelerates with speech (Ibn Arabi, 2004, p. 80).
Number	80	

Table B.22. Ibn Arabi's descriptions and interpretations of the letter *qāf.*

Letter		Description
Arabic	ق *qāf*	• *Qāf* is a letter from the world of Testimony and Tyranny (al-shahada wa al-Jabarout). • *Qāf*'s sound emission is from the furthest tongue above the palate. • *Qāf* stratum are: the Special and the Especially Private. • *Qāf* has a blending (momtazej) movement. • *Qāf* is a social, blending (momtazej) letter from the bi-genus world (Ibn Arabi, 2008a).
Latin Equivalent	q	
Number	100	

Table B.23. Ibn Arabi's descriptions and interpretations of the letter *kāf*.

Letter		Description
Arabic	ك k*āf*	• *Kāf* is a letter from the world of Testimony and Tyranny (al-shahada wa al-Jabarout). • *Kāf's* sound emission is from the furthest tongue above the palate. • *Kāf* stratums are: the Special and the Especially Private. • *Kāf* has a blending (momtazej) movement. • *Kāf* is a complete pure (khalesaah) letter. • *Kāf* raises any letter connected to it, while also some think it does not raises any letter connected to it (Ibn Arabi, 2008a). • *Kāf* is a lonesome letter from the single genus world (Ibn Arabi, 2008a). • *Kāf* is the entire existence (kawn); from this existence are the books and descending words (Ibn Arabi, 2004, p. 115). • *Kāf* is 4/5 of *ṭā* , and 4/6 of *ẓā* (Ibn Arabi, 2008a, p. 89).
Latin Equivalent	k	
Number	20	

Table B.24. Ibn Arabi's descriptions and interpretations of the letter *lām.*

Letter		Description
Arabic	ل *lām*	• *Lām* is a letter from the world of Testimony and Tyranny (al-shahada wa al-Jabarout). • *Lām's* sound emission is from the lowest tongue edge to its tip. • *Lām* stratums are: the Special and the Especially Private. • *Lām* has a straight and blending (momtazej) movement. • *Lām* is a lonesome, complete blending (momtazej) letter from the single genus world (Ibn Arabi, 2008a). • The beam of *lām* signifies God, and the semi-circle is for the tangible, and also it is the shape of the letter *nūn*, signifying the creation and the spiritual unseen kingdom (malakout) (Ibn Arabi, 2008a, p. 85). • *Lām* is from the tongue (Ibn Arabi, 2008b, p. 155). • *Lām* is for will (Ibn Arabi, 2008b, p. 160). • *Lām* is the human luck (Ibn Arabi, 2008a, p. 85). • *Lām* is made of combining *alif* with *nūn*, hence the *lām* additionally has the power of *alif* and *nūn* (Ibn Arabi, 2008d, p. 17). • *Lām* is more than *alif* with addition of *nūn*, and more than *nūn* with the addition of *alif* (Ibn Arabi, 2008a, p. 89).
Latin Equivalent	l	
Number	30	

Table B.25. Ibn Arabi's descriptions and interpretations of the letter *mīm.*

Letter		Description
Arabic	م *mīm*	• *Mīm* is a letter from the Property, Testimony, and Oppression (al-Molk wa al-shahada wa al-gaher) world. • *Mīm's* sound emission is from the lips. • *Mīm* stratums are: the Special, Especially Private Recap, and Especially Private Pureness Recap. • *Mīm* is a complete, pure (khalesaah) letter; sacred, and social from the single genus world (Ibn Arabi, 2008a). • *Mīm* has some of *alif's* extensions in creatures' moods; thus *mīm* has the moods of the creatures (Ibn Arabi, 2004, p. 80). • God created the head, heart, and navel in the shape of *mīm*, which are the three *mīms* in the *basmalah* (the opening utterance) (Ibn Arabi, 2004, p. 130). • *Mīm* is the leveled ocean in the continuous comprehensive meaning (Ibn Arabi, 2004, p. 79). • The letter *mīm* is an expression of tightness (Obaid, 2006, p. 124). • The intended meaning are in *mīm*, so does the meanings of surrounding with things (Ibn Arabi, 2004, p. 116). • The most paramount existence and witnesses are the presence of the letters *mīm*, *wāw*, and *nūn* (Ibn Arabi, 2008d). • Suitable for the viewer the *mīm*'s end is its starts, it does not have a
Latin Equivalent	m	
Number	40	

		beginning and an ending (Ibn Arabi, 2008d, p. 14).

Table B.26. Ibn Arabi's descriptions and interpretations of the letter *nūn.*

Letter		Description
Arabic	ن *nūn*	• *Nūn* is a letter from the Property and Tyranny world (Alam al-Molk wa al-Jabarout). • *Nūn's* sound emission is from the tongue edge and above folds. • *Nūn* stratums are: the Special and the Especially Private. • *Nūn* has a blending (momtazej) movement. • *Nūn* is an incomplete letter from the pure (khalesaah) letters, lonesome from the single genus world, with individual self (Ibn Arabi, 2008a). • *Nūn* is half circle, its other half is found in its dot (nugta). (Ibn Arabi, 2008b, p. 159). • *Nūn* was beautified for the pen (Ibn Arabi, 2004, p. 93). • The appearing *nūn* occur in the tangibles, the other hidden *nūn* occur in spiritualities (Ibn Arabi, 2008d, p. 24). • *Nūn* was descended, and *nūn* is a prophet and custodian; *nūn* is the descent of God's light (noor Allah) (Ibn Arabi, 2004, p. 129). • *Nūn* is the entire descent (nozul), and from this descent are the souls, bright illuminations (Ibn Arabi, 2004, p. 115). • *Nūn* is physical (jismany), and with it the materials of the soul, brain, breath and action existence are found (Ibn Arabi, 2008b, p. 162).
Latin Equivalent	n	
Number	50	

		• Extending the *nūn* leads to highlighting what cannot be highlighted, and *nūn* is the secret of luxury and mercy (Ibn Arabi, 2008d, p. 25). • The most paramount existence and witnesses are the presence of the letters *mīm*, *wāw*, and *nūn* (Ibn Arabi, 2008d). • Suitable for the viewer the *nūn's* end is its starts, it does not have a beginning and an ending (Ibn Arabi, 2008d, p. 14). • *Nūn* is made of combining *rā* with *zā*, and *nūn* has the power of *rā* and *zā* (Ibn Arabi, 2008d, p. 17). • The four "wedges" (al-awtad) are *alif*, *wāw*, *yā*, and *nūn*, which are the expression marks (Ibn Arabi, 2008a, p. 86).

Table B.27. Ibn Arabi's descriptions and interpretations of the letter *hā.*

Letter		Description
Arabic	ه *hā*	• *Hā* is a letter from the Unseen (al-ghaib) world and from the kingdom world. • *Hā's* sound emission is from the farthest throat. • *Hā* stratums are: the Special and the Especially Private. • *Hā* movements are straight and crooked, and has the blending ability (al-imtezaj), it is from the perfections (al-kawamel) (Ibn Arabi, 2008a, p. 72). • *Hā* is from the single genus world, and has the uttermost path (Ibn Arabi, 2008a). • *Hā* is inverted *wāw*; it is the head of *wāw*, it is part of *wāw* (Ibn
Latin Equivalent	h	
Number	5	

		Arabi, 2008d, p. 22). • *Hā* signifies the powerful spiritual ratio to higher heavens (Ibn Arabi, 2008d, p. 22). • The letter *hā* is a representative of the divine identity (Obaid, 2006, p. 124).

Table B.28. Ibn Arabi's descriptions and interpretations of the letter *wāw.*

Letter		Description
Arabic	و *wāw*	• *Wāw* is a letter from the Property, Testimony, and Oppression (al-Molk wa al-shahada wa al-gaher) world. • *Wāw's* sound emission is from the lips. • *Wāw* stratums are: the Especially Private and the Especially Private Recap. • *Wāw* has a blending (momtazej) movement. • *Wāw is an* incomplete pure (khalesaah) letter, sacred, lonesome letter from the single genus world (Ibn Arabi, 2008a). • *Wāw* is a noble letter, has many faces, has many segments: half, third, sixth. *Wāw* is the generator composed from the letters *bā* and *jīm*, and it has the powers of its parents (b*ā* and jīm) (Ibn Arabi, 2008d, p. 21). • Who contemplates *wāw* will have a noble spirituality descend on him (Ibn Arabi, 2008d, p. 22). • *Wāw* has a spiritual self, taking the talents from the upper part and
Latin Equivalent	w	
Number	6	

		drawing it to its other physical part. *Wāw* has the lover's intimacy and connection, especially with the letter *nūn* (Ibn Arabi, 2008d, p. 24). • *Wāw* is the breath and is contraction is its character (Ibn Arabi, 2008b, p. 159). • *Wāw* is for oath; *wāw* is for sympathy (Ibn Arabi, 2008b, p. 52). • The most paramount existence and witnesses are the presence of *mīm*, *wāw*, and *nūn* (Ibn Arabi, 2008d). • Suitable for the viewer the *wāw's* end is its starts, it does not have a beginning and an ending (Ibn Arabi, 2008d, p. 14). • *Wāw* and *yā* are the "two imams" (imaman), the ailing (Al-moa'talan) letters that are extensional and softener letters, and not the accurate (Al-sahihtan) ones (Ibn Arabi, 2008a, p. 86). • The four "wedges" (al-awtad) are *alif*, *wāw*, *yā*, and *nūn*, which are the expression marks (Ibn Arabi, 2008a, p. 86). • *Wāw* is half *qāf* (Ibn Arabi, 2008a, p. 89).

Table B 29. Ibn Arabi's descriptions and interpretations of the letter *yā.*

Letter		Description
Arabic	ي *yā*	• *Yā* is a letter from the world of Testimony and Tyranny (al-shahada wa al-Jabarout). • *Yā's* sound emission is from the middle of the tongue and between the palate.
Latin Equivalent	y	
Number	10	

		• *Yā* stratums are: the Special and the Especially Private. • *Yā* has a blending (momtazej) movement. • *Yā* is a social, complete blending (momtazej) letter from the quadrant-genus world (Ibn Arabi, 2008a). • *Yā* has the truth of both stillness and insight, and thus, it is a collector letter (Ibn Arabi, 2004, p. 124). • *Yā* has the meaning of the left (yasar) for the left hand (Ibn Arabi, 2004, p. 124). • When *yā* is fulfilled it will drag any head letter connected to it (Ibn Arabi, 2004, p. 124). *Yā* is the body and its existence action is in its character (Ibn Arabi, 2008b, p. 159). • *Yā* in some of its exclusiveness is made of two combined *dhāl*, and hence, it has two dots, one for each *dhāl* (Ibn Arabi, 2008d, p. 17). • *Wāw* and *yā* are the "two imams" (imaman), the ailing (Al-moa'talan) letters that are extensional and softener letters, and not the accurate (Al-sahihtan) ones (Ibn Arabi, 2008a, p. 86). • The four "wedges" (al-awtad) are *alif*, *wāw*, *yā*, and *nūn*, which are the expression marks (Ibn Arabi, 2008a, p. 86).

Table B.30. Ibn Arabi's descriptions and interpretations of the letter combination *alif-lām.*

<table>
<tr><th colspan="2">Letter</th><th>Description</th></tr>
<tr><td>Arabic</td><td>أل
lām-alif</td><td rowspan="3">The *alif-lām* accompanied each other, each with its own slope, which is passion and purpose. This leanness is only of the movement of love. The movement of *lām* is a self-movement, and the movement of the *alif* is transverse movement. *Lām* is showing authority over *alif* to make the movement in it, and in this way *lām* is stronger than *alif* because it is more in love, and its mettle is in its fully existent and fulfiller act, while *alif* is less passionate and its mettle is less attached to *lām* and thus, it couldn't assess its amiability. *Alif's* tendency to lean slightly not because *lam's* mettle is stronger but to show some respect to *lām* courtliness enabling *lām's* act of love to occur (Ibn Arabi, 2008a, p. 83).
Lām twists its leg into *alif's* base and turn around it cautious from missing their union (Ibn Arabi, 2008a).
Alif's tendency is for union and communication. All that is offered through the case of Love, and honesty in love inherits the orientation to request the adored, and honest orientation inherits the reunion from the adored to the lover (Ibn Arabi, 2008a, p. 83).</td></tr>
<tr><td>Latin Equivalent</td><td>la</td></tr>
<tr><td>Number</td><td>Non</td></tr>
</table>

APPENDIX C

SELF-STUDY EXPERIMENTS (CHAPTER 5)

LARGER VISUAL REPRESENTATIONS

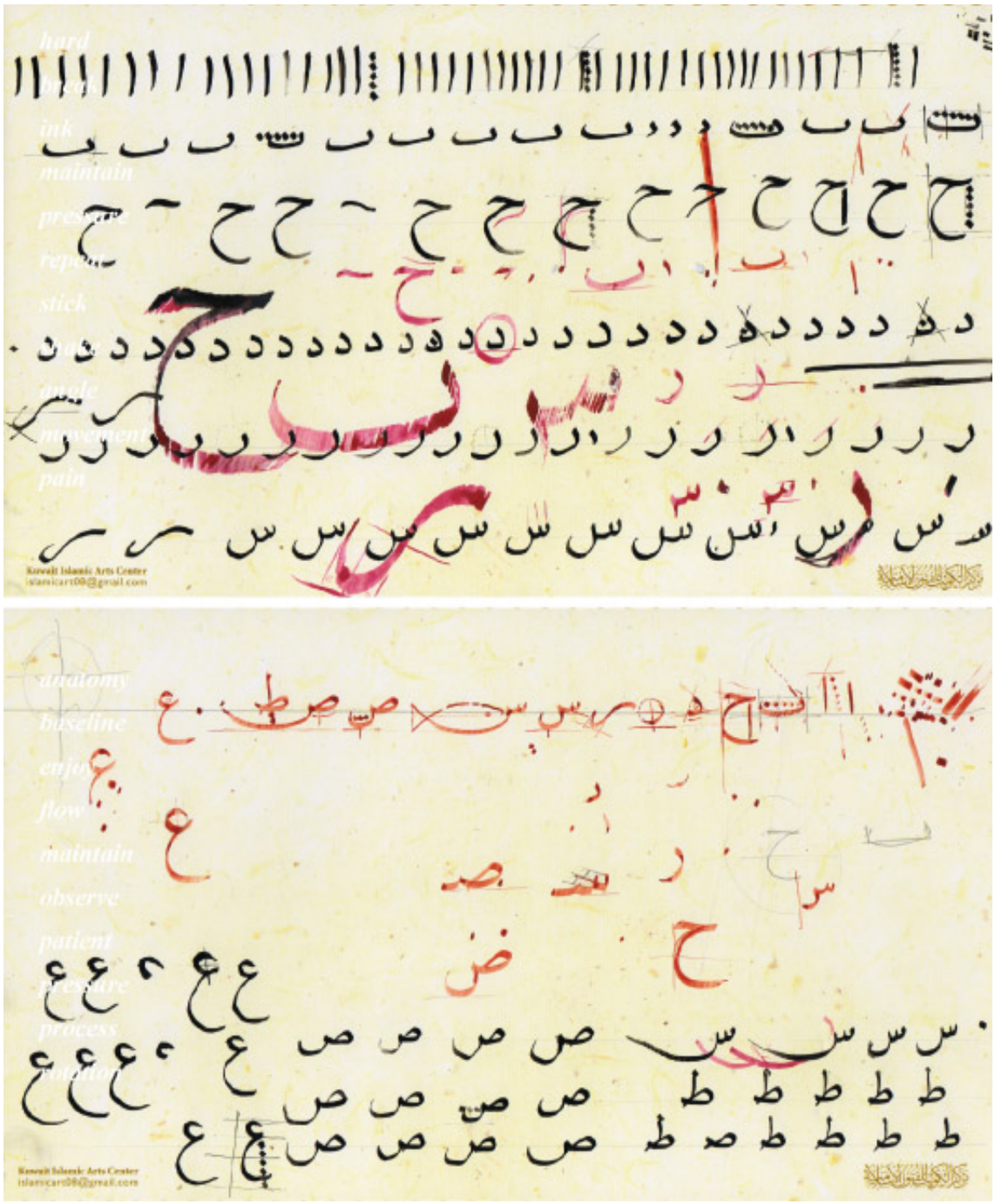

Figure C.1. Lesson one, first and second pages with corrections.

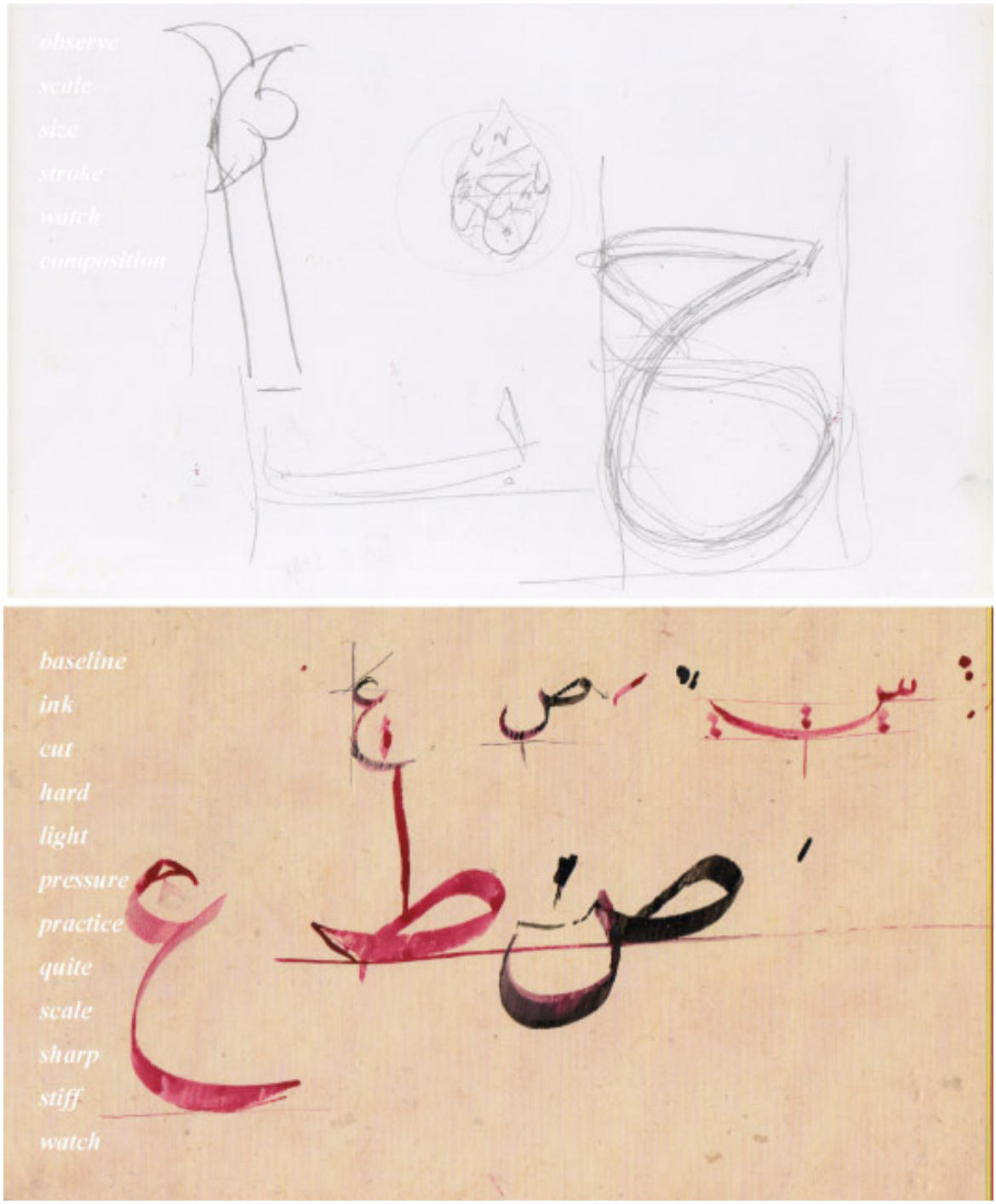

Figure C.2. Lesson one, third and fourth pages with explinations.

Figure C.3. Calligraphy practice with tracing paper and ink.

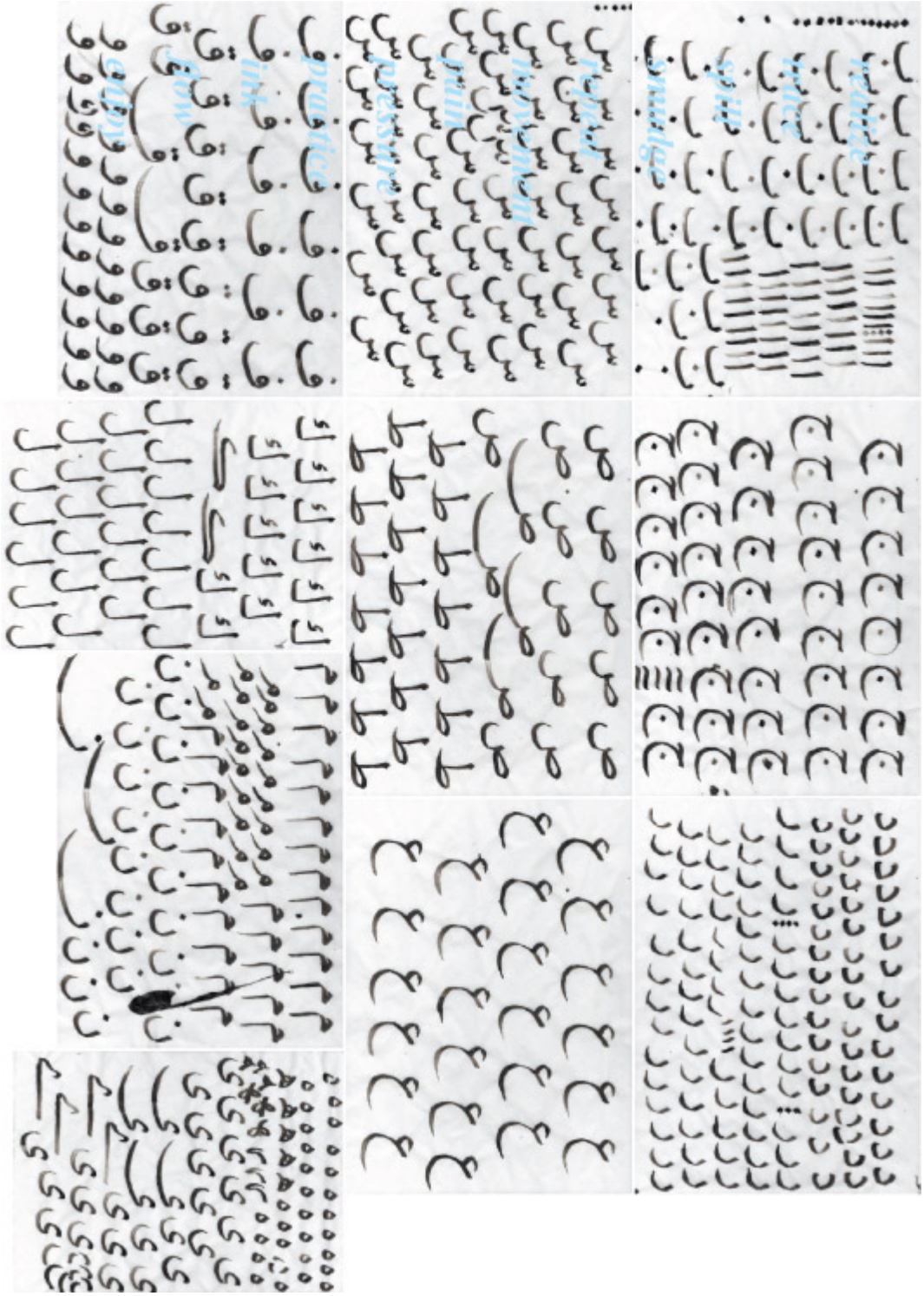

Figure C.4. Calligraphy practice with tracing paper and light-table.

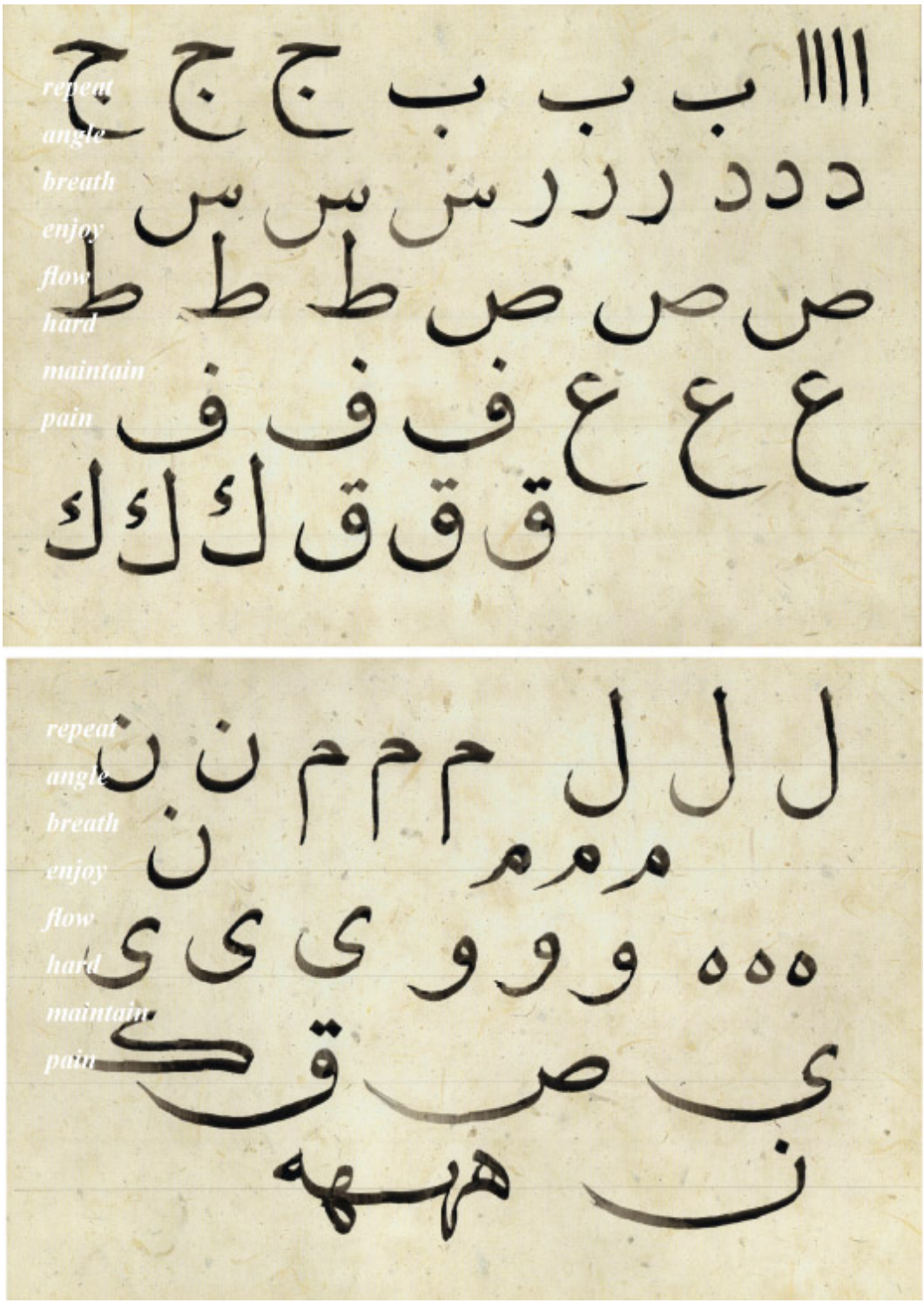

Figure C.5. Lesson two, first and second pages.

Figure C.6. Lesson two, first and second page with corrections.

Figure C.7. Practice, tracing sentense with light-table.

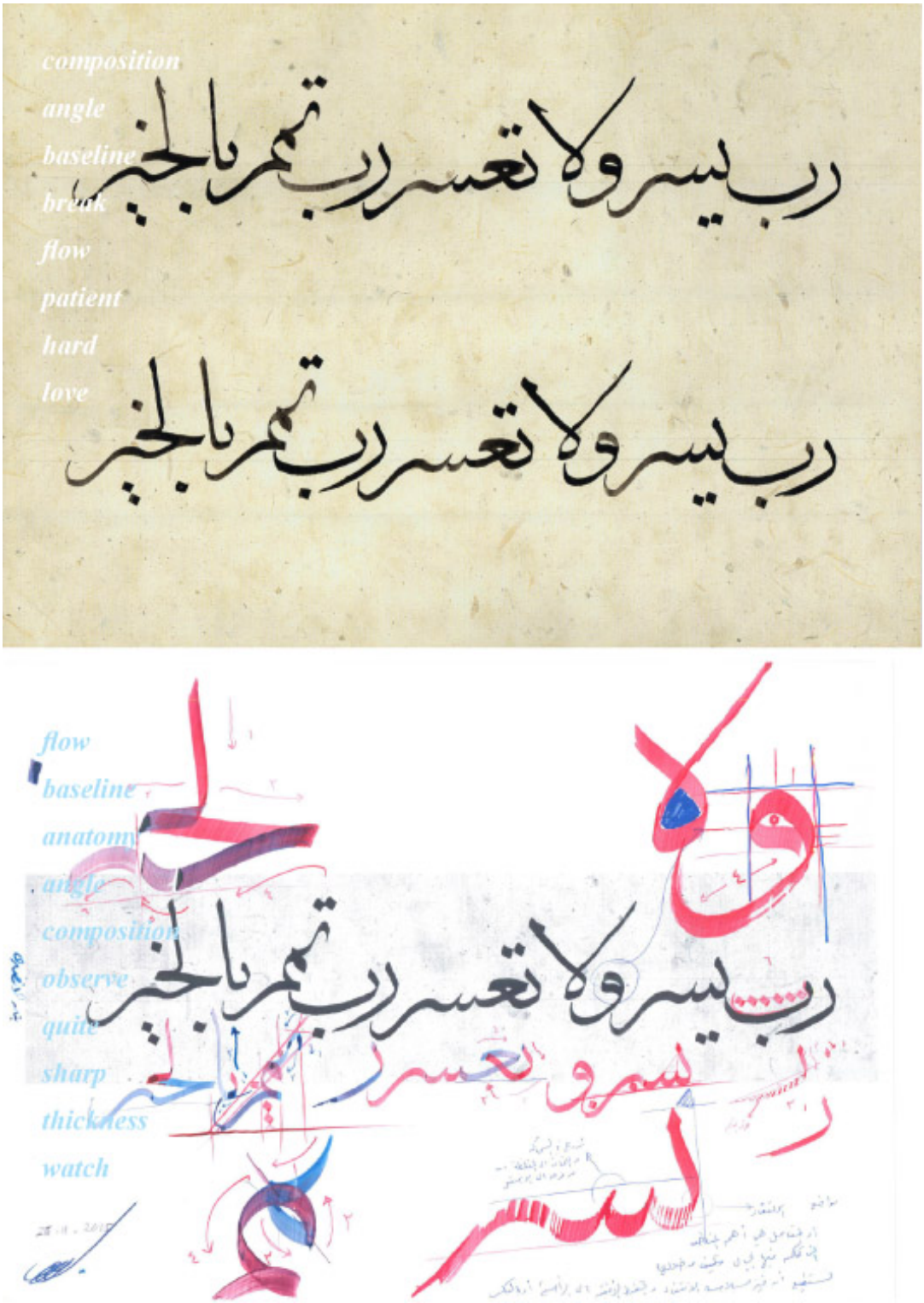

Figure C.8. Lesson three with corrections.

Figure C.9. Visual commentary diagrams.

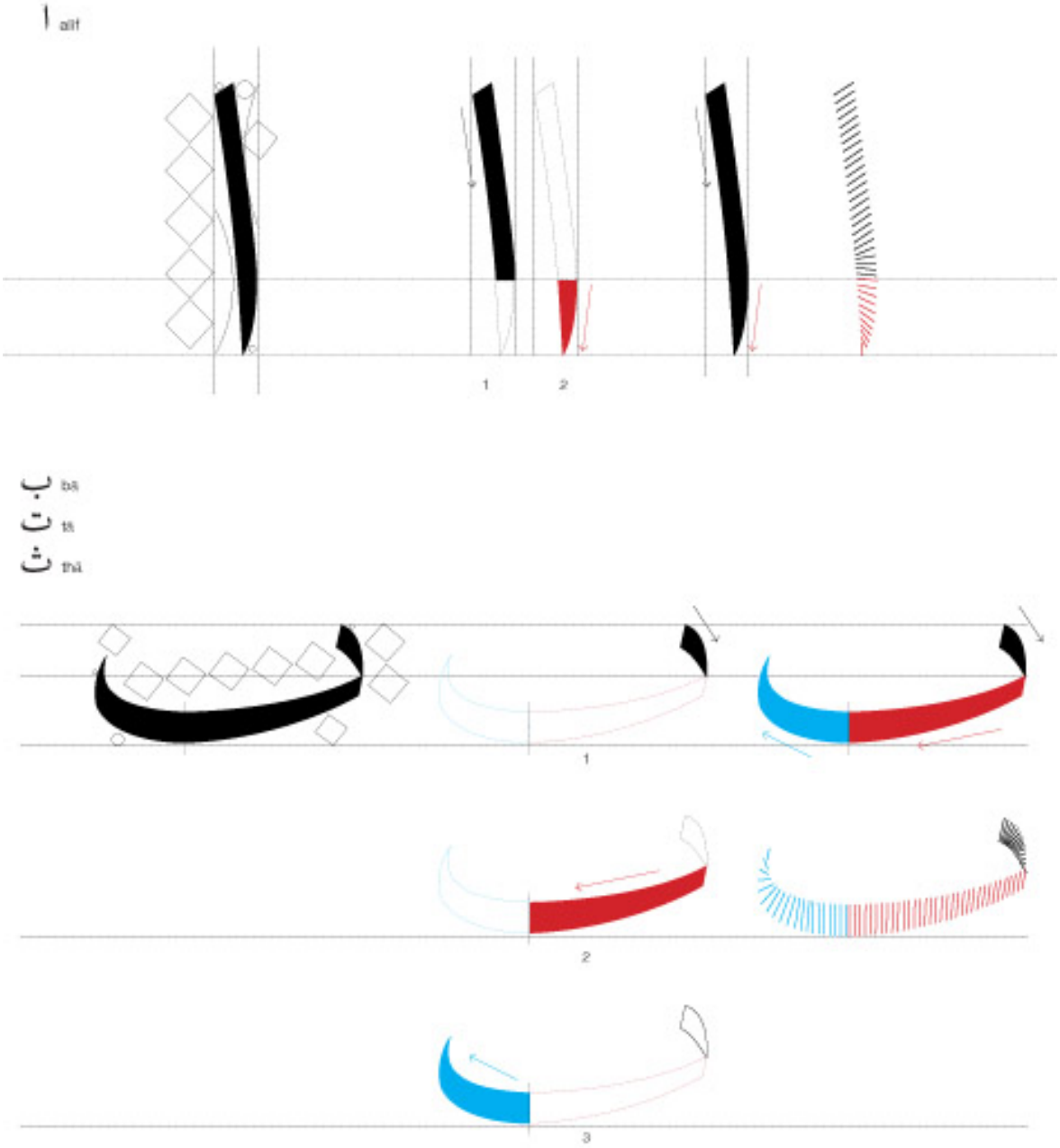

Figure C.10. Illustration of the Arabic letters *alif* and *bā,* the dot system, letter components, and stroke movement.

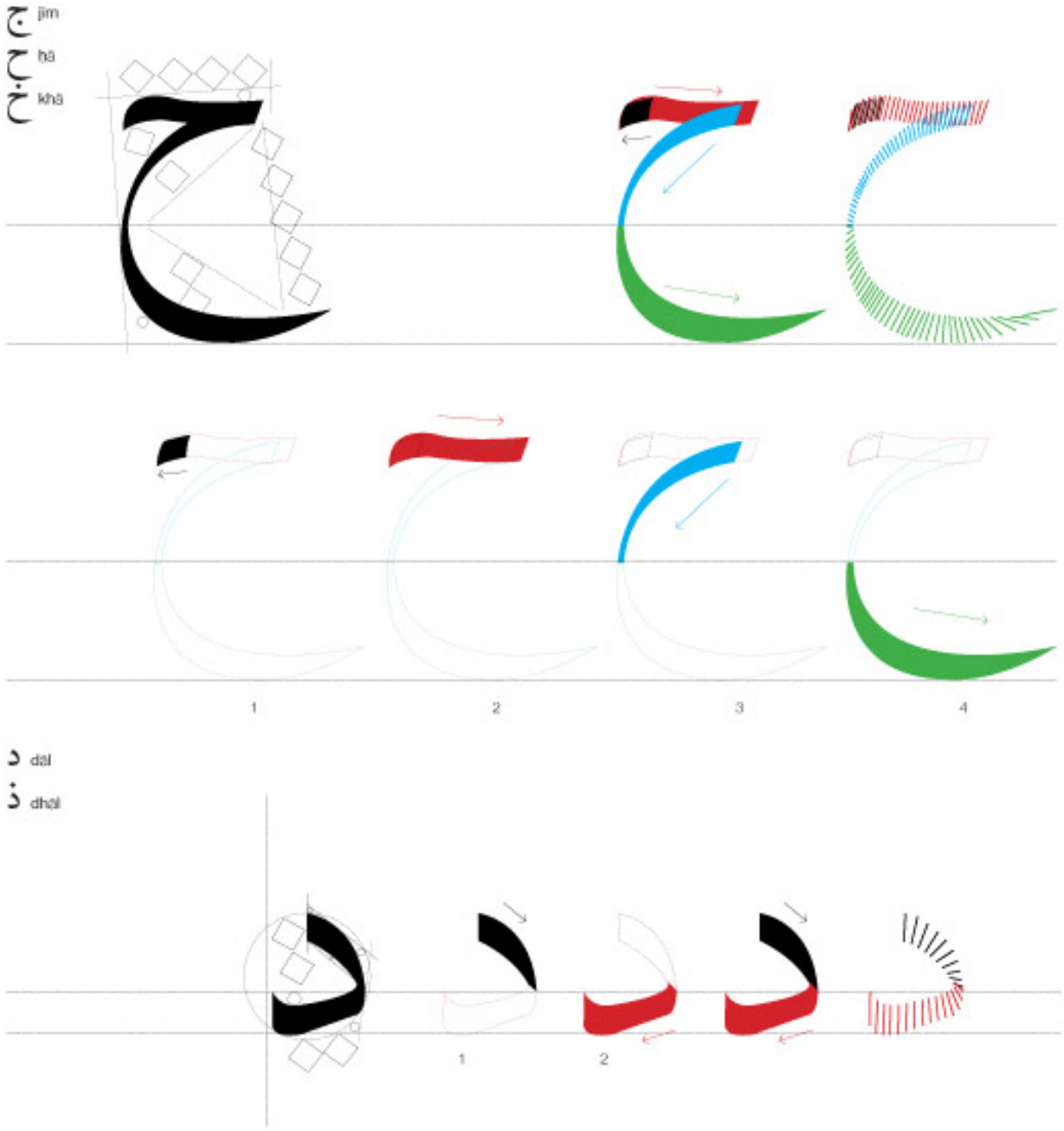

Figure C.11. Illustration of the Arabic letters *jīm* and *dāl*, the dot system, letter components, and stroke movement.

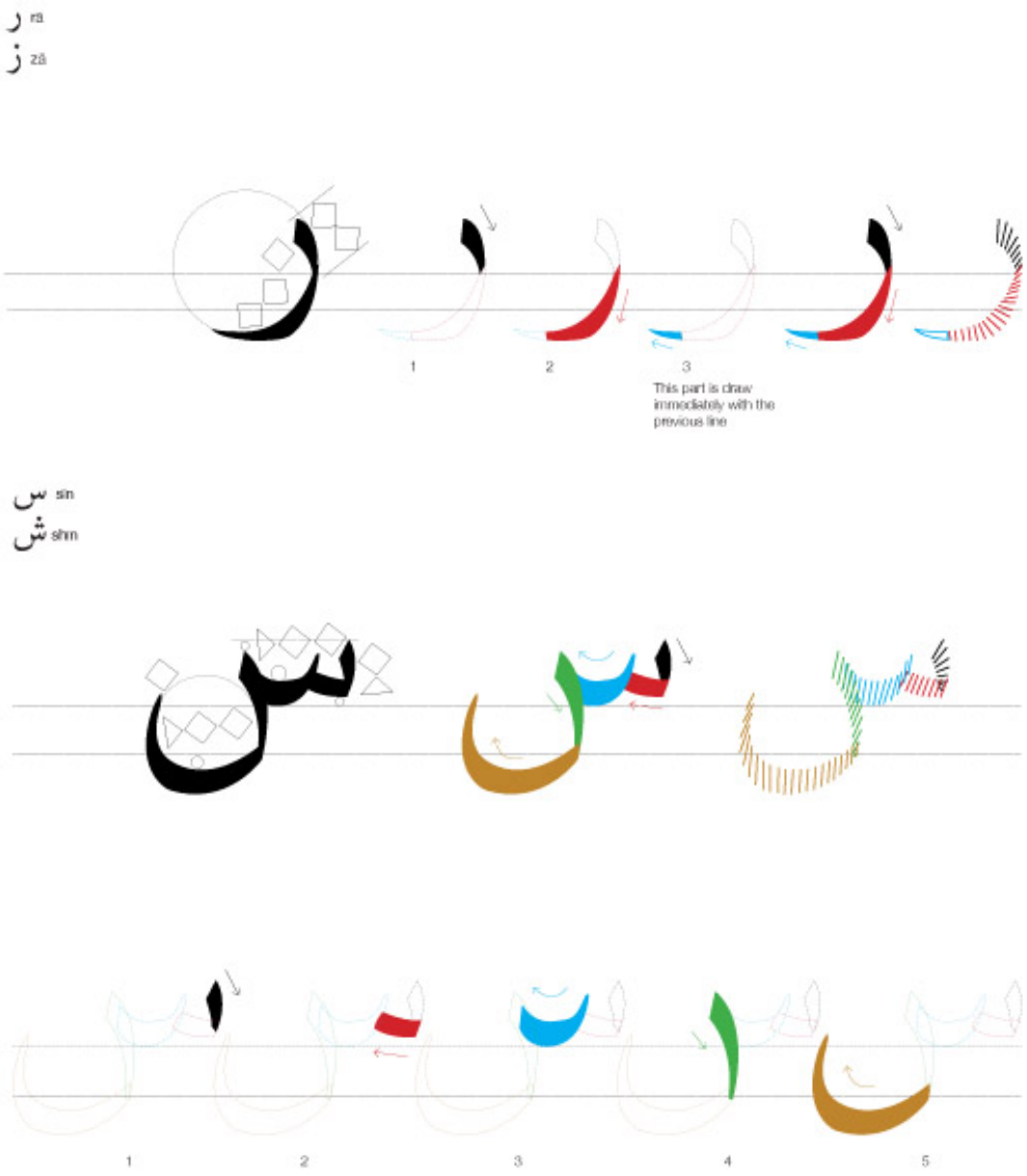

*Figure C.12.*Illustration of the Arabic letters *rā* and *sīn*, the dot system, letter components, and stroke movement.

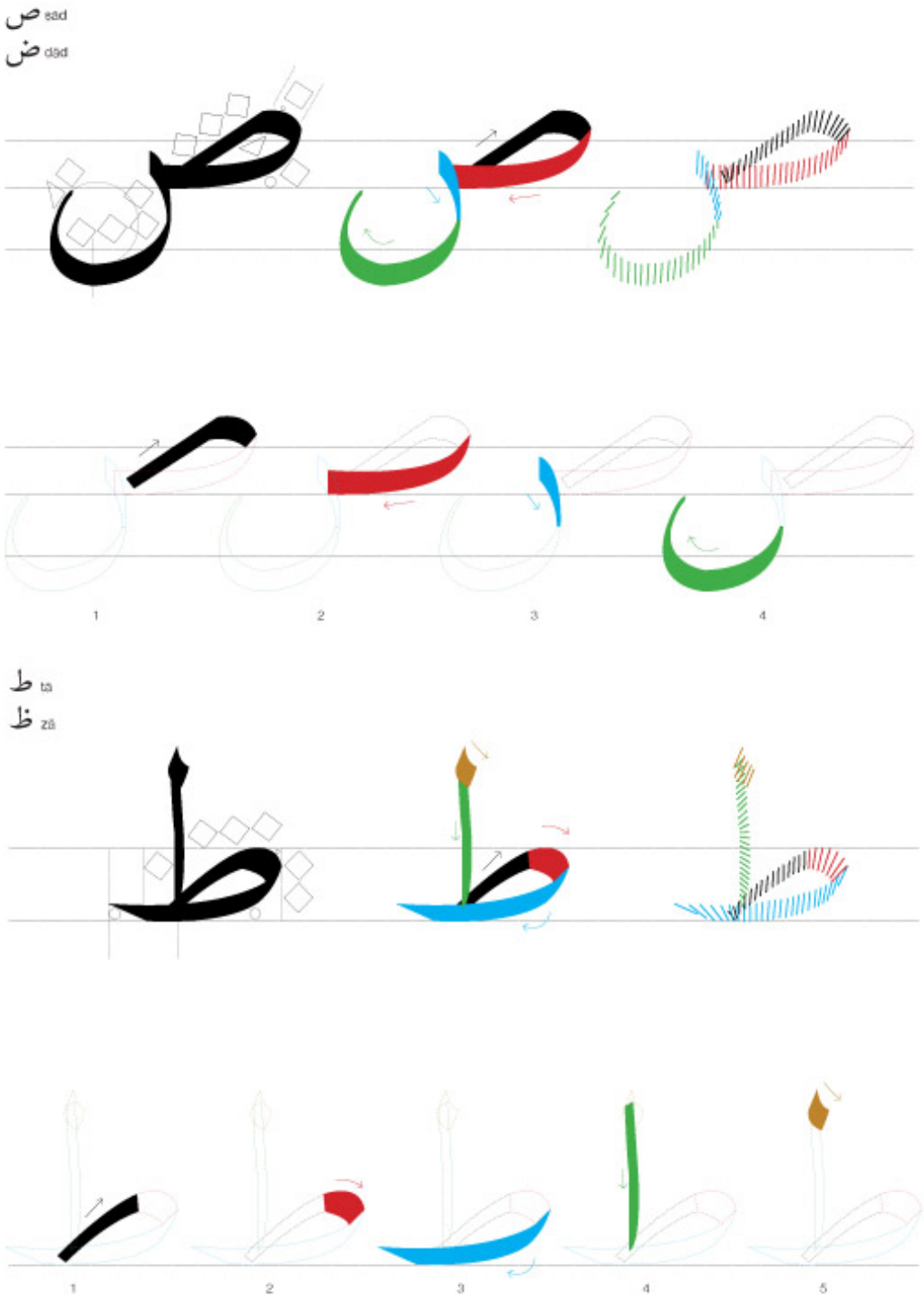

Figure C.13. Illustration of the Arabic letters sād and *tā, the dot system, letter components, and stroke movement.*

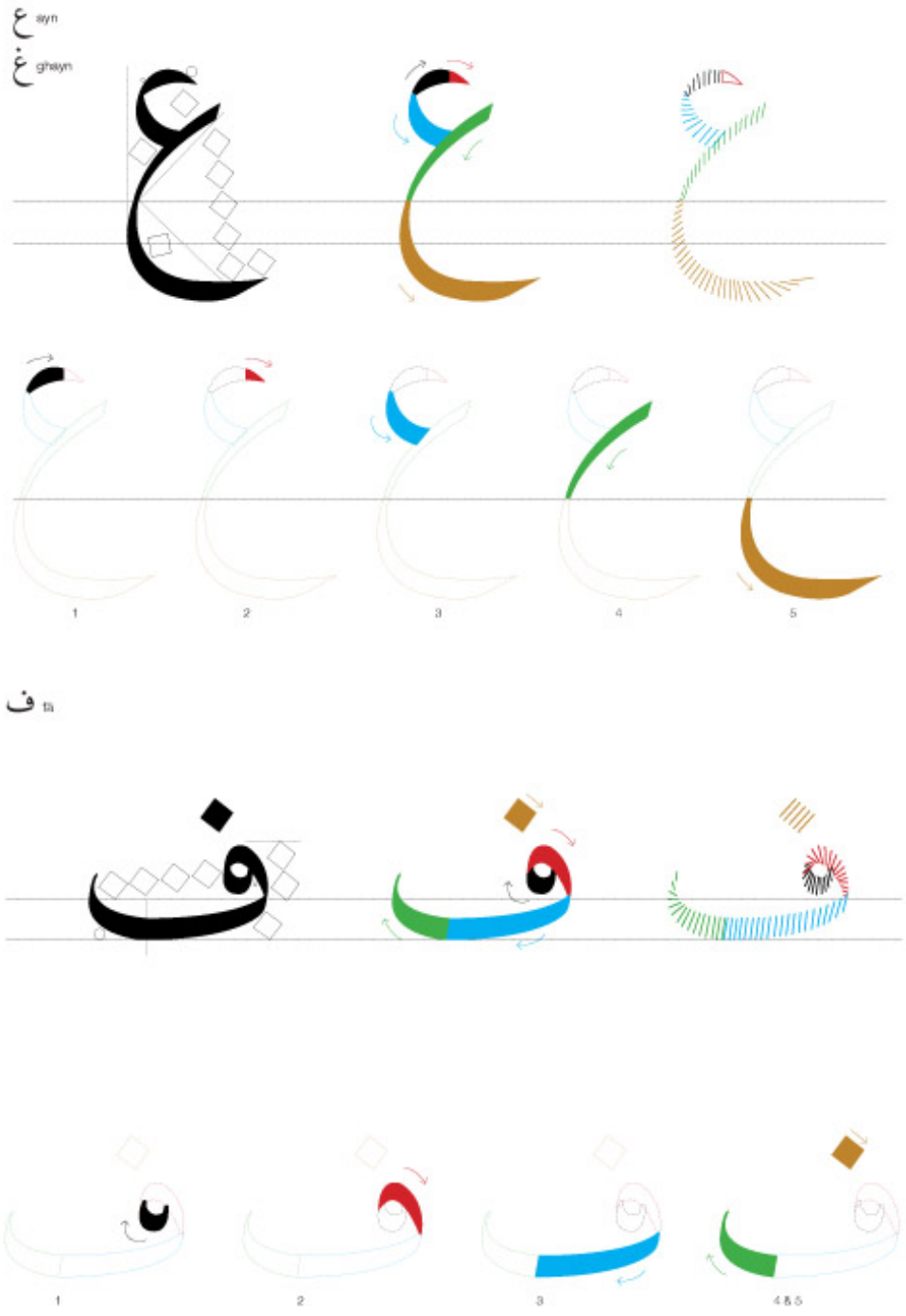

Figure C.14. Illustration of the Arabic letters *ayn* and *fā*, the dot system, letter componenets, and stroke movement.

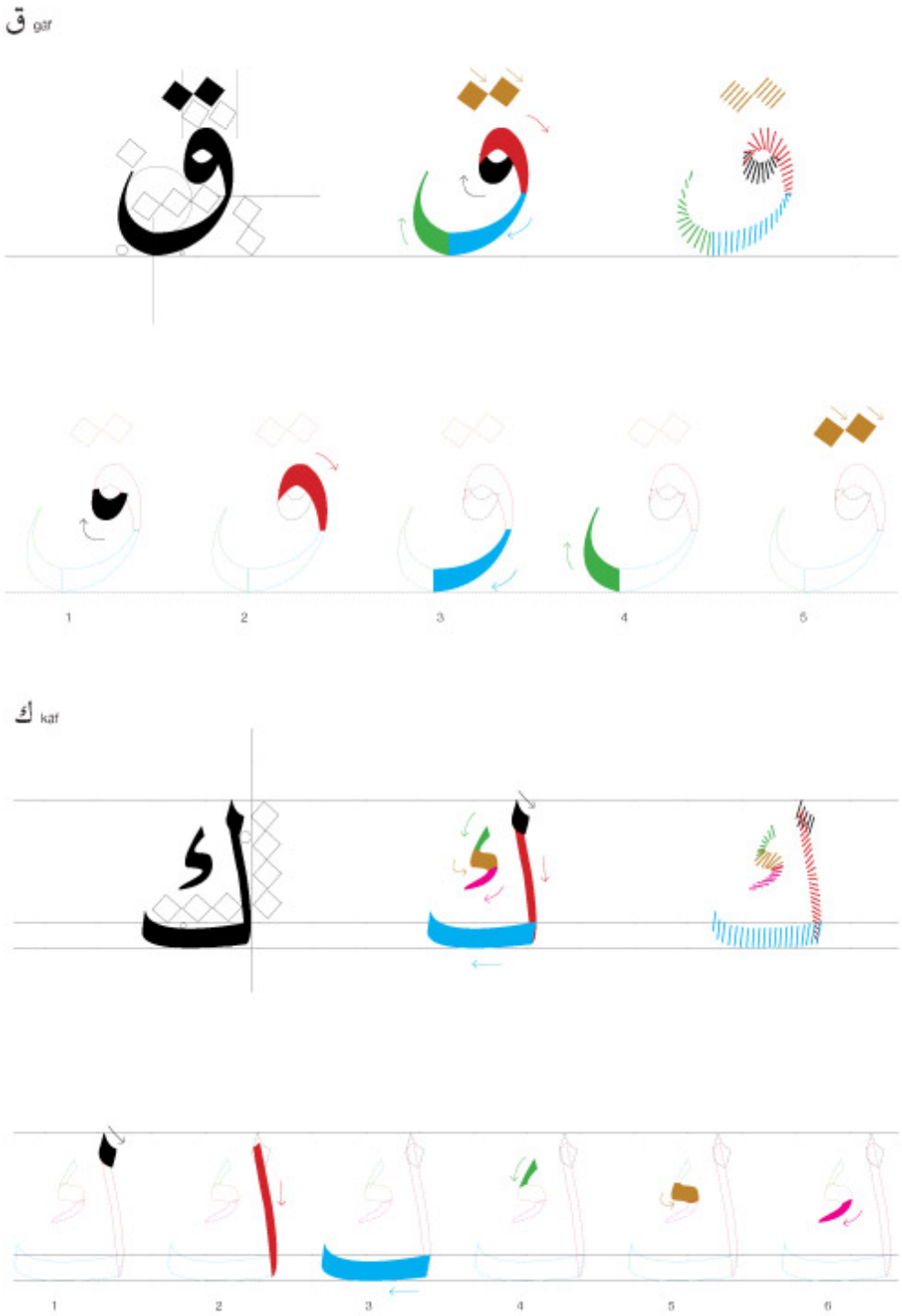

Figure C.15. Illustration of the Arabic letters *qāf* and *kāf*, the dot system, letter componenets, and stroke movement.

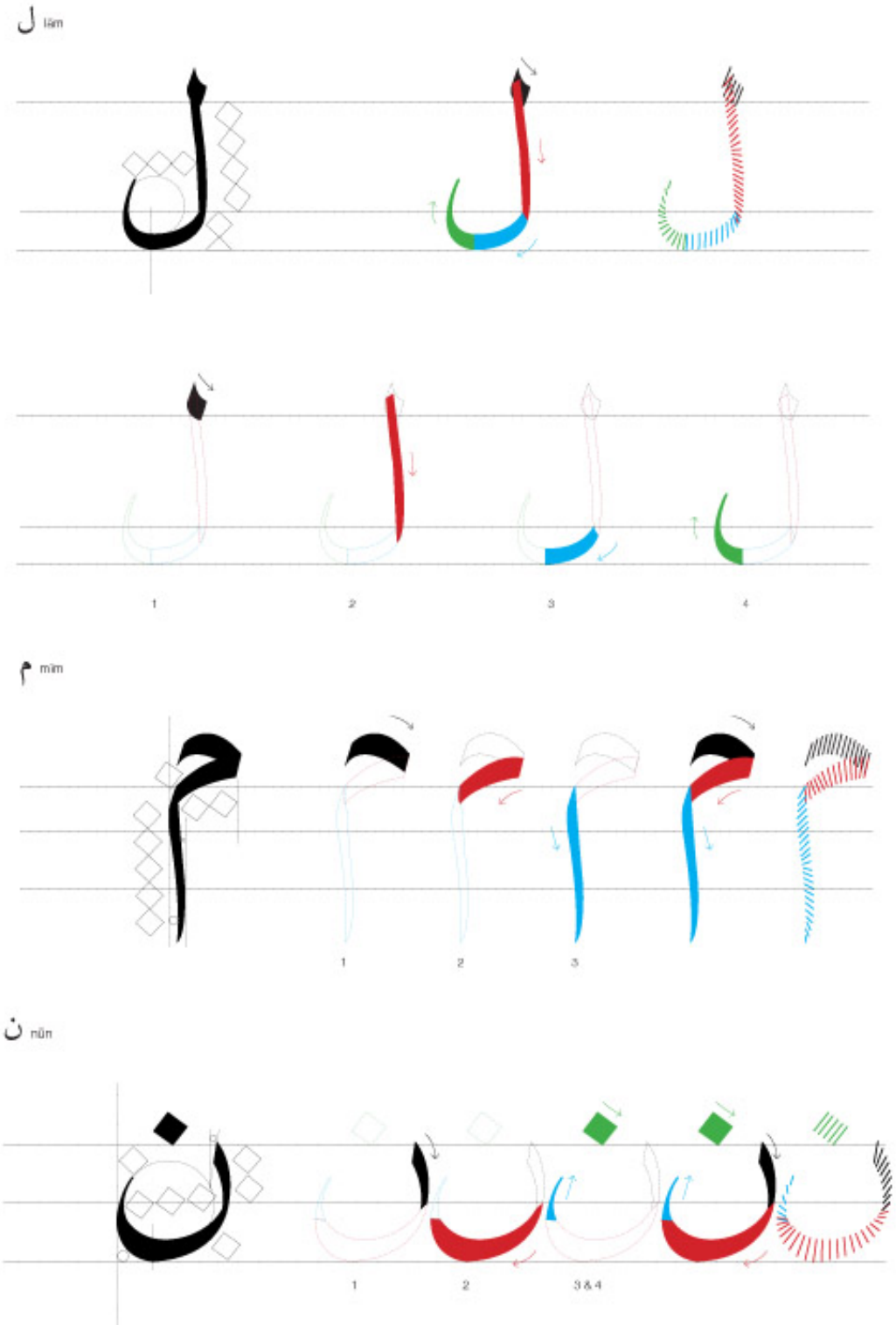

Figure C.16. Illustration of the Arabic letters *lām* and *nūn*, the dot system, letter components, and stroke movement.

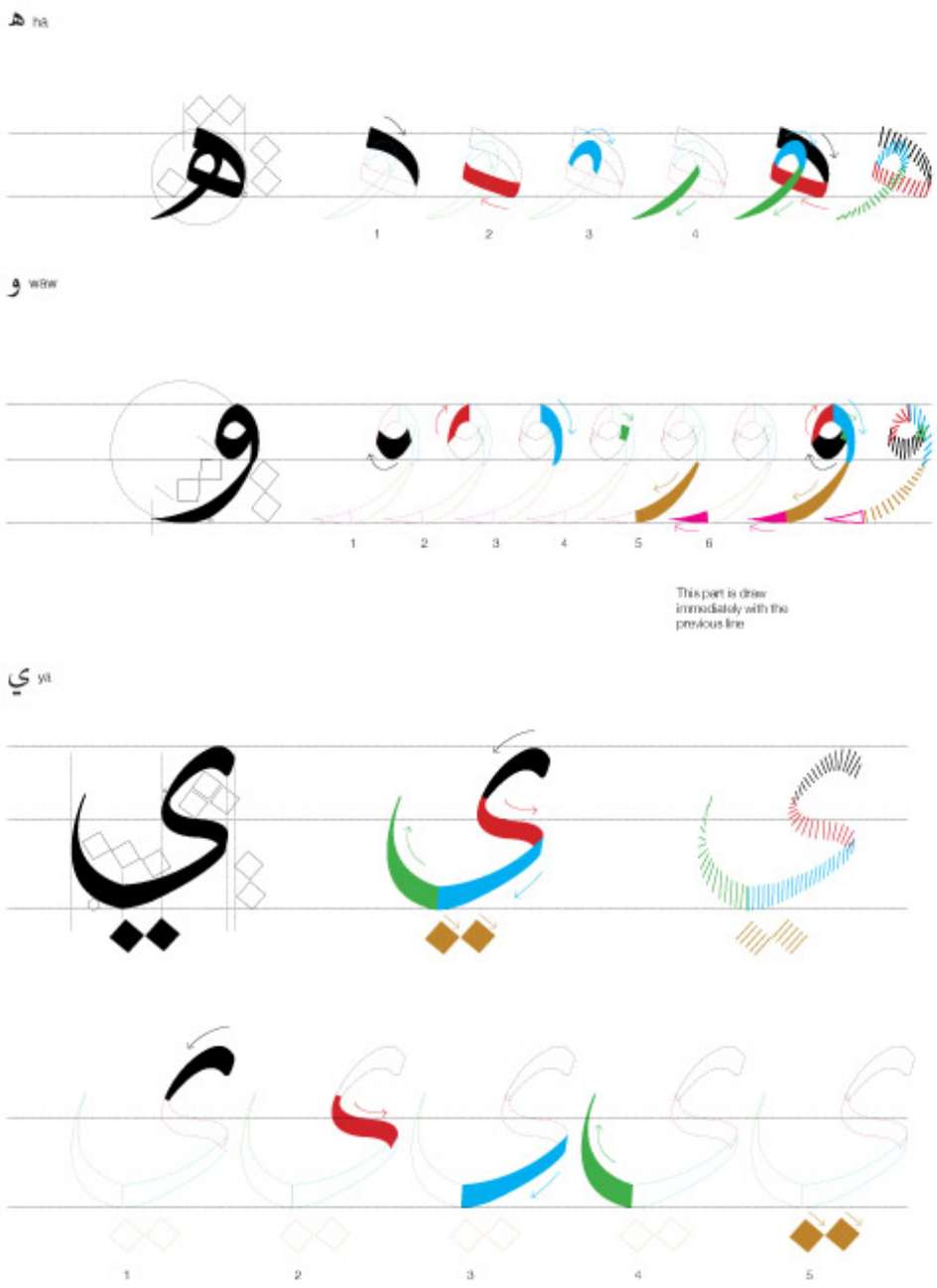

Figure C.17. Illustrations of the Arabic letters *hā, wāw,* and *yā*, the dot system, letter componenets, and stroke movement.

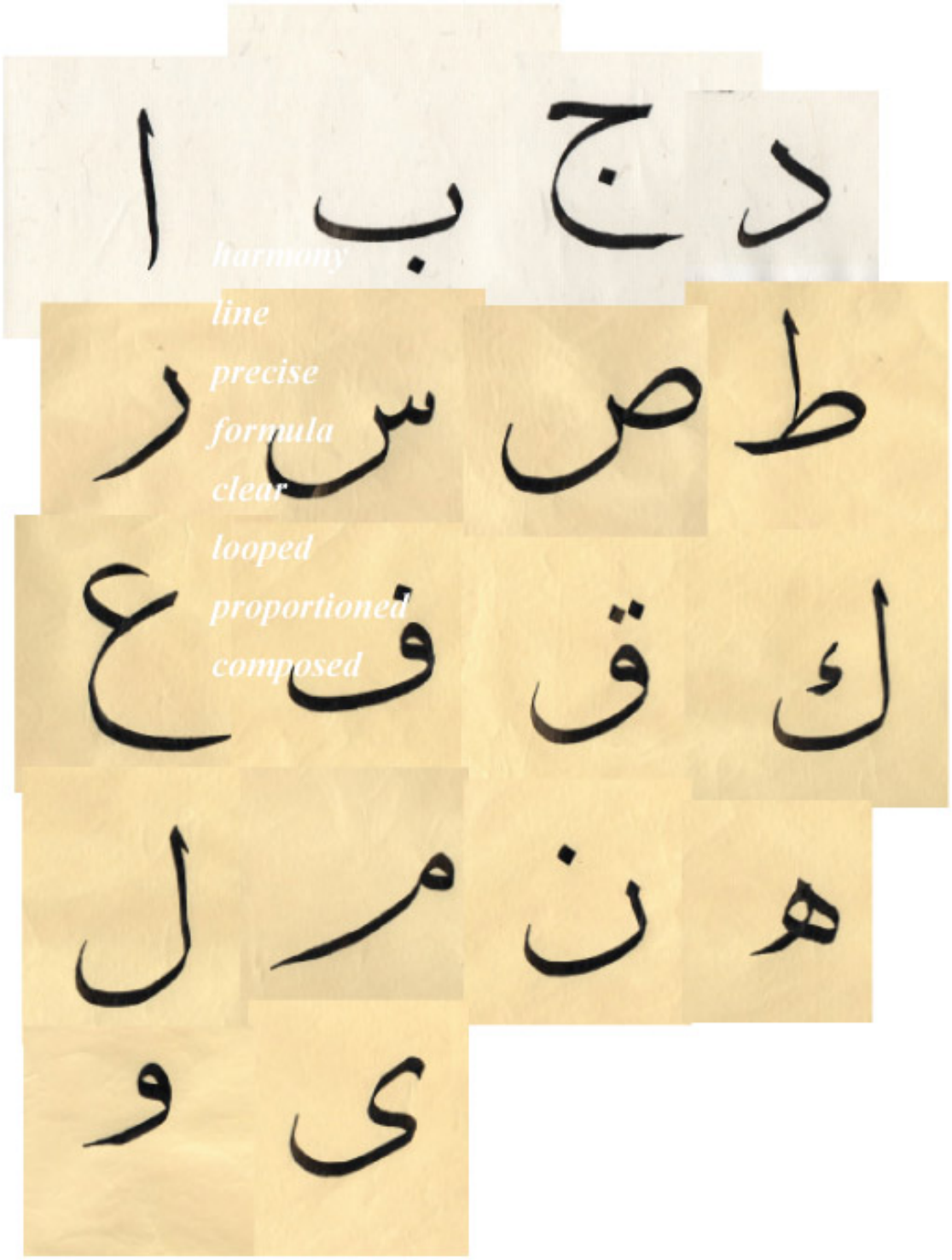

Figure C.18. The eighteen basic Arabic letterforms in thuluth style.

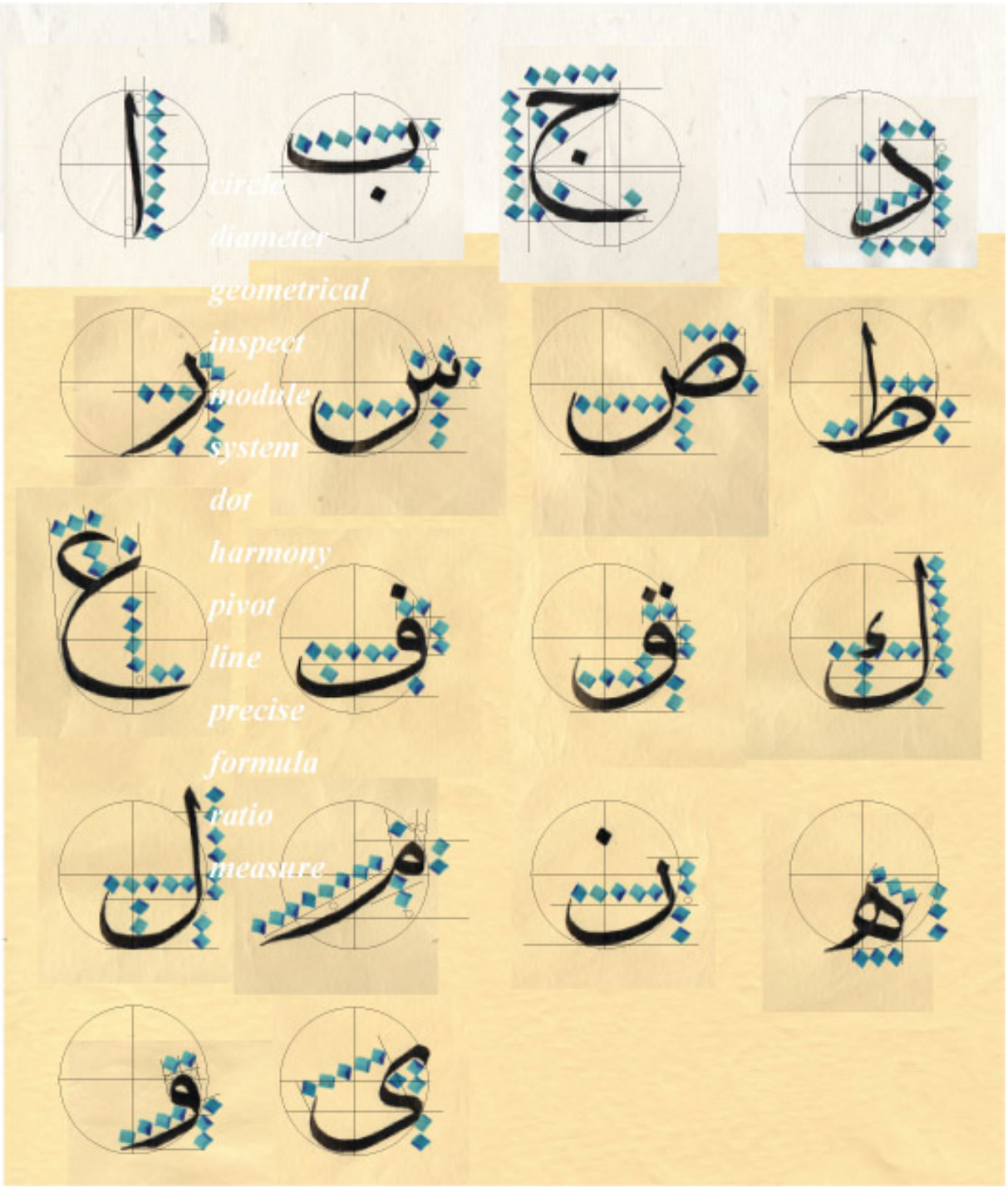

Figure C.19. The dot and circle system of the basic Arabic letterforms.

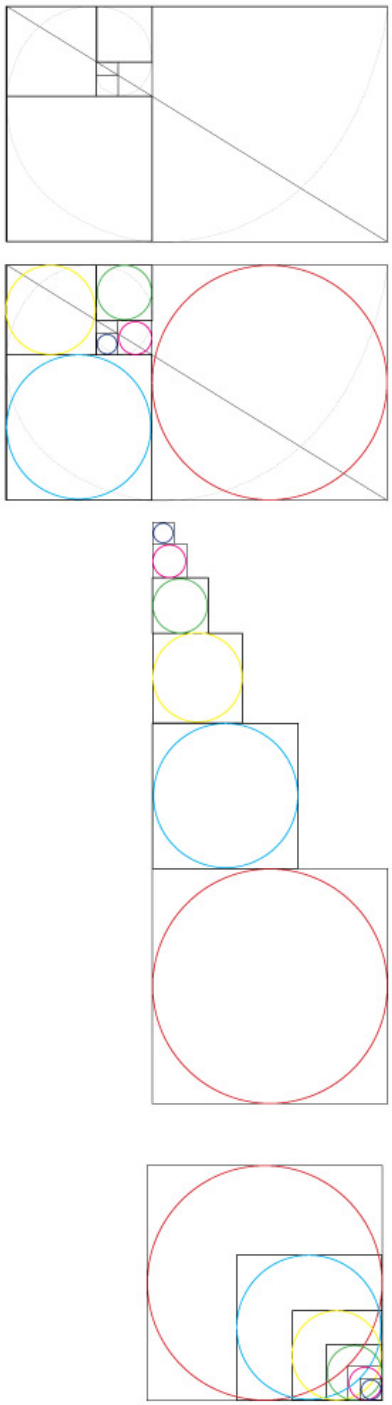

Figure C.20. Analysis of the golden ratio.

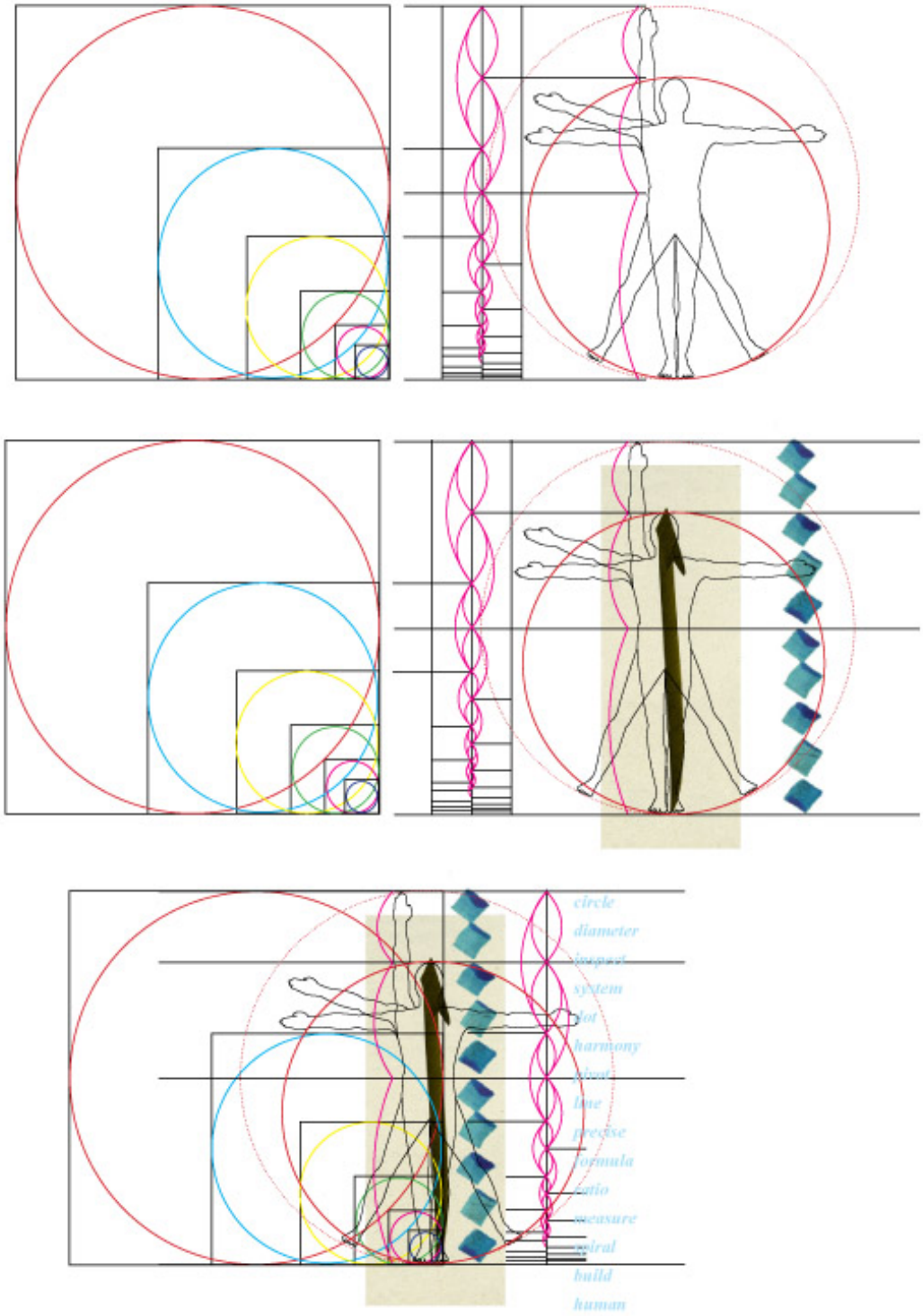

Figure C.21. Analysis of the golden ratio, virtuous proportions, human body, and the Arabic letter *alif* with its dot system.

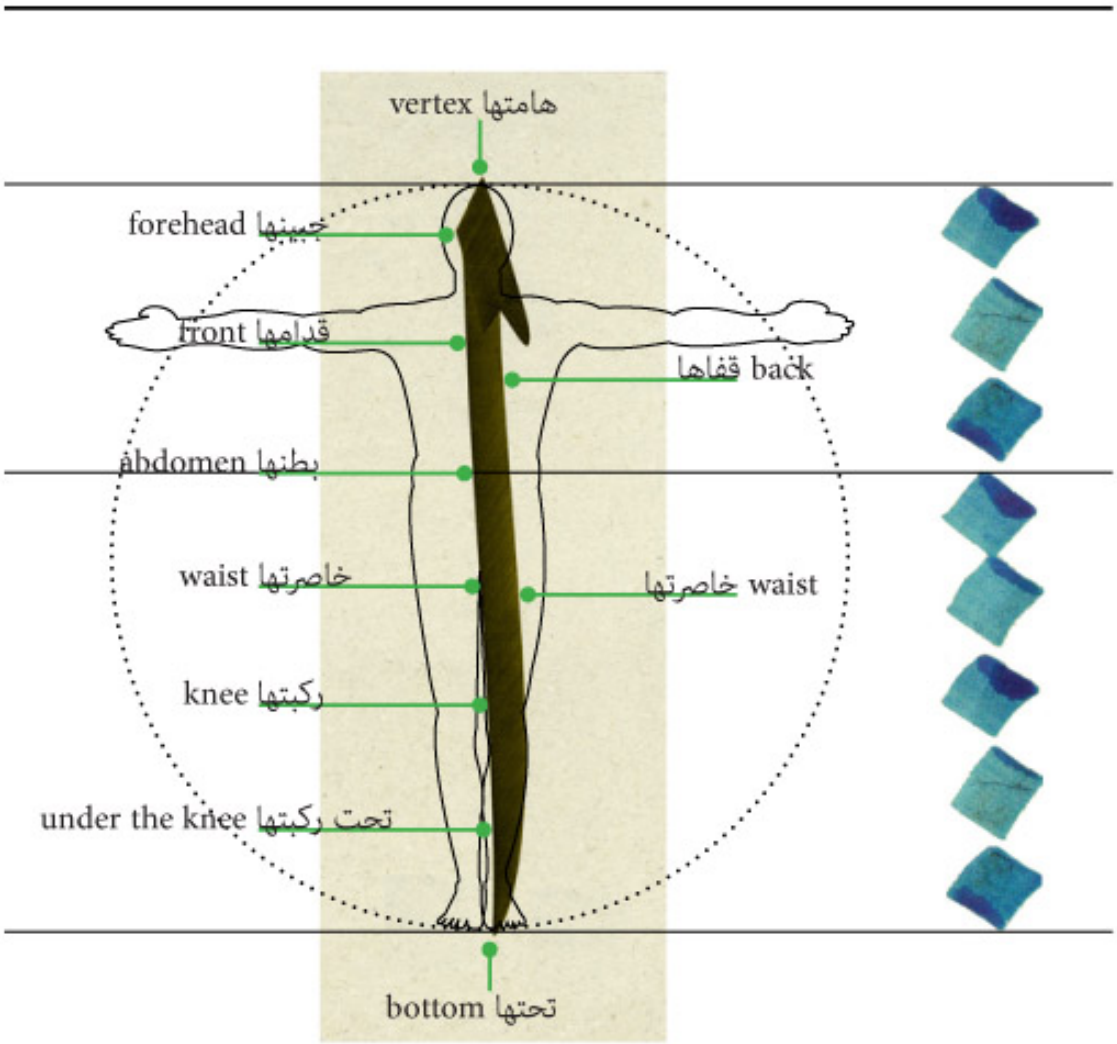

Figure C.22. The letter *alif* compared to the human body, the golden ration, and the dot system.

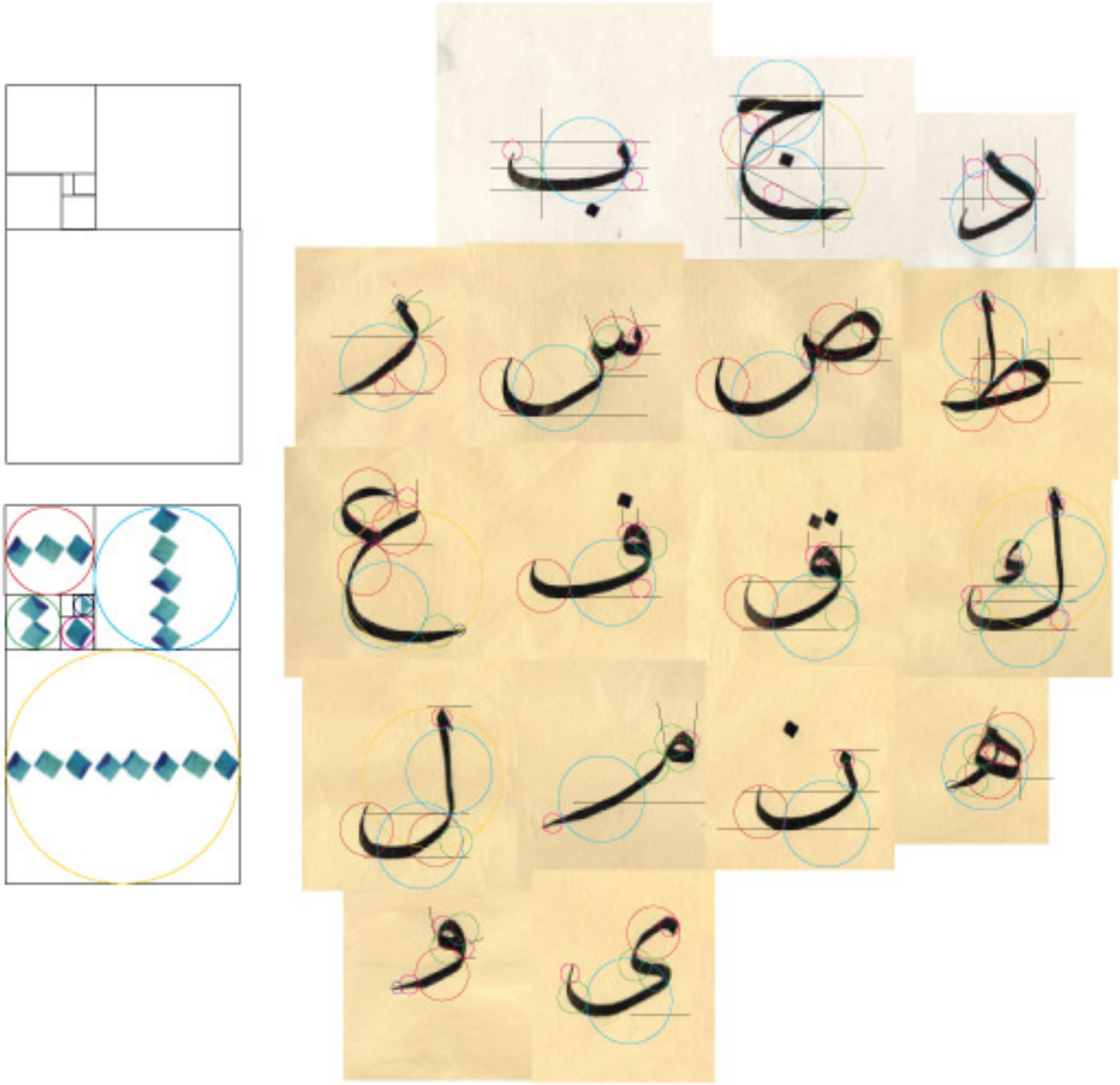

Figure C.23. The basic eighteen Arabic letters proportions and the tool of measurement.

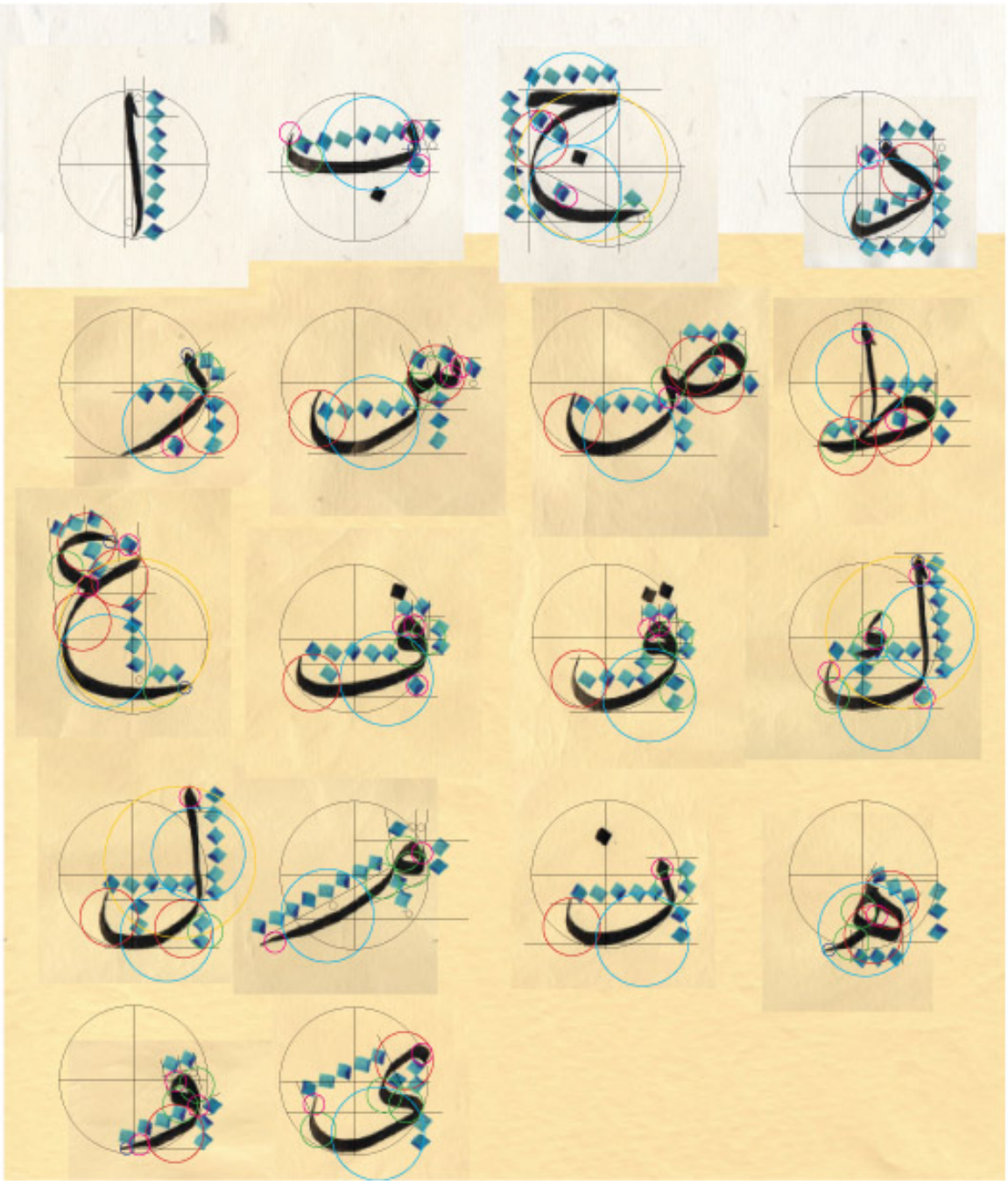

Figure C.24. All of the different concepts for measuring the eighteen Arabic letters proportions.

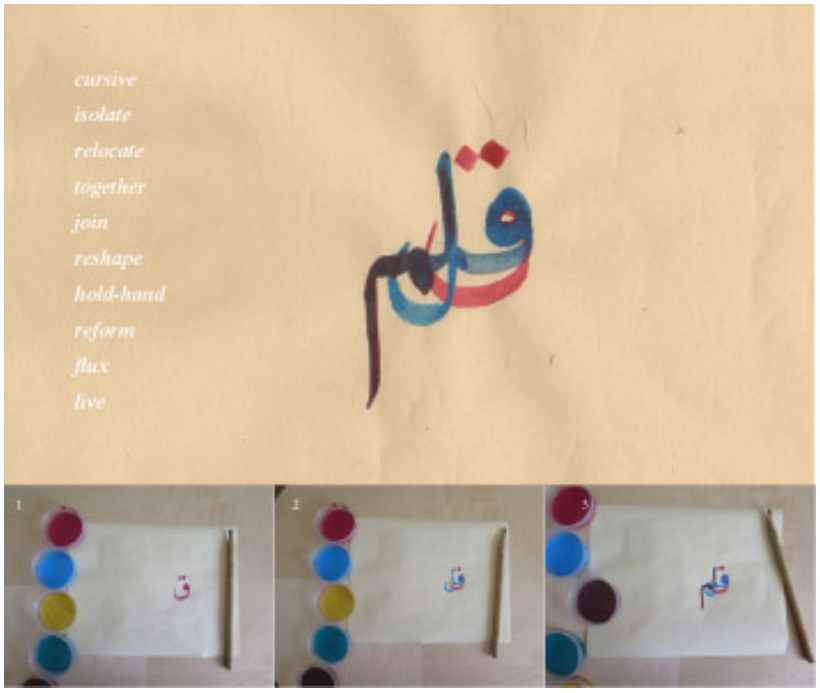

Figure C.25. Letter traces in word 1, qalam or pen.

Figure C.26. Letter traces in word 2, kalemah or word.

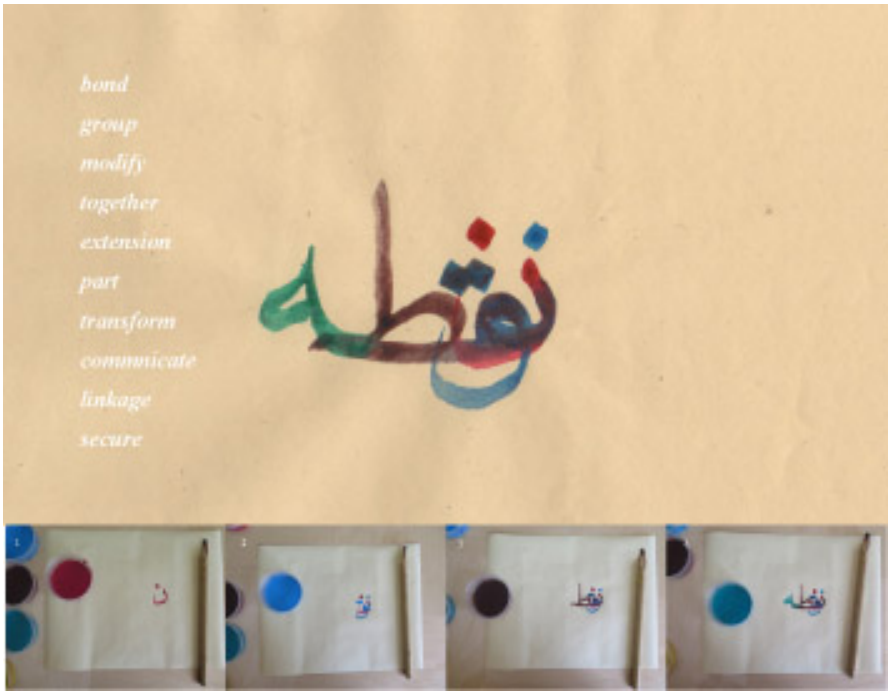

Figure C.27. Letter traces in word 3, nuqta or dot.

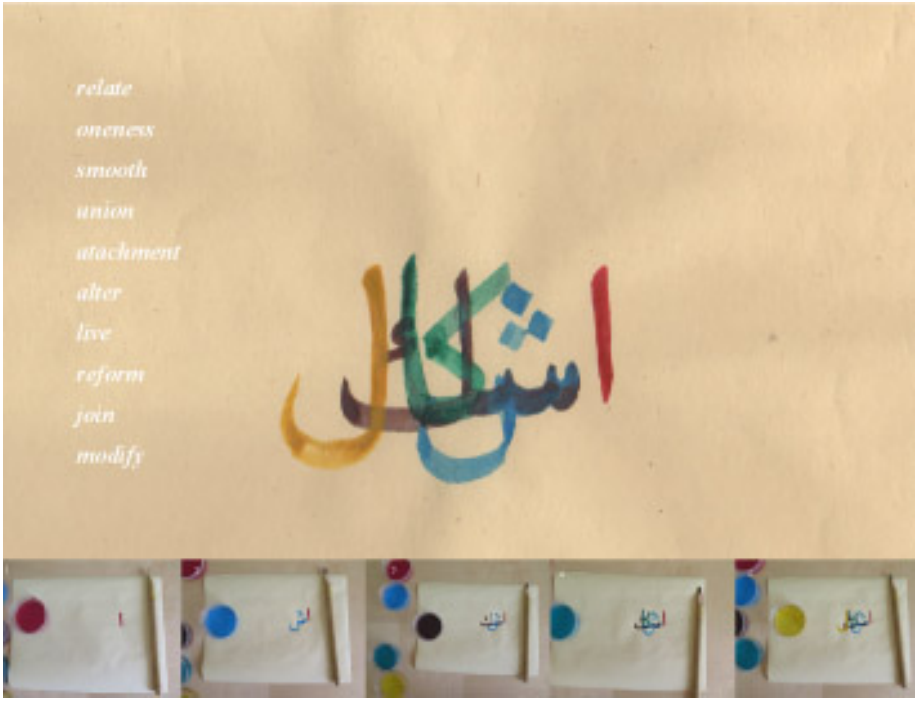

Figure C.28. Letter traces in word 4, ashkal or shapes.

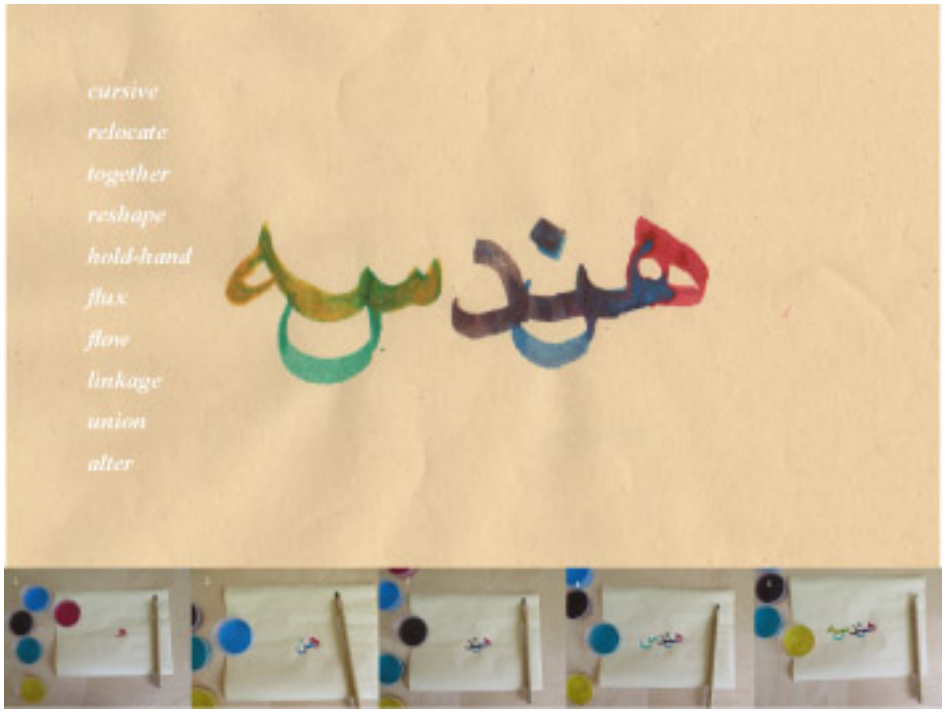

Figure C.29. Letter traces in word 5, handasah or geometry.

Figure C.30. Letter traces in a sentence.

Figure C.31. The letter *ayn* shapes accomplished with floral frame.

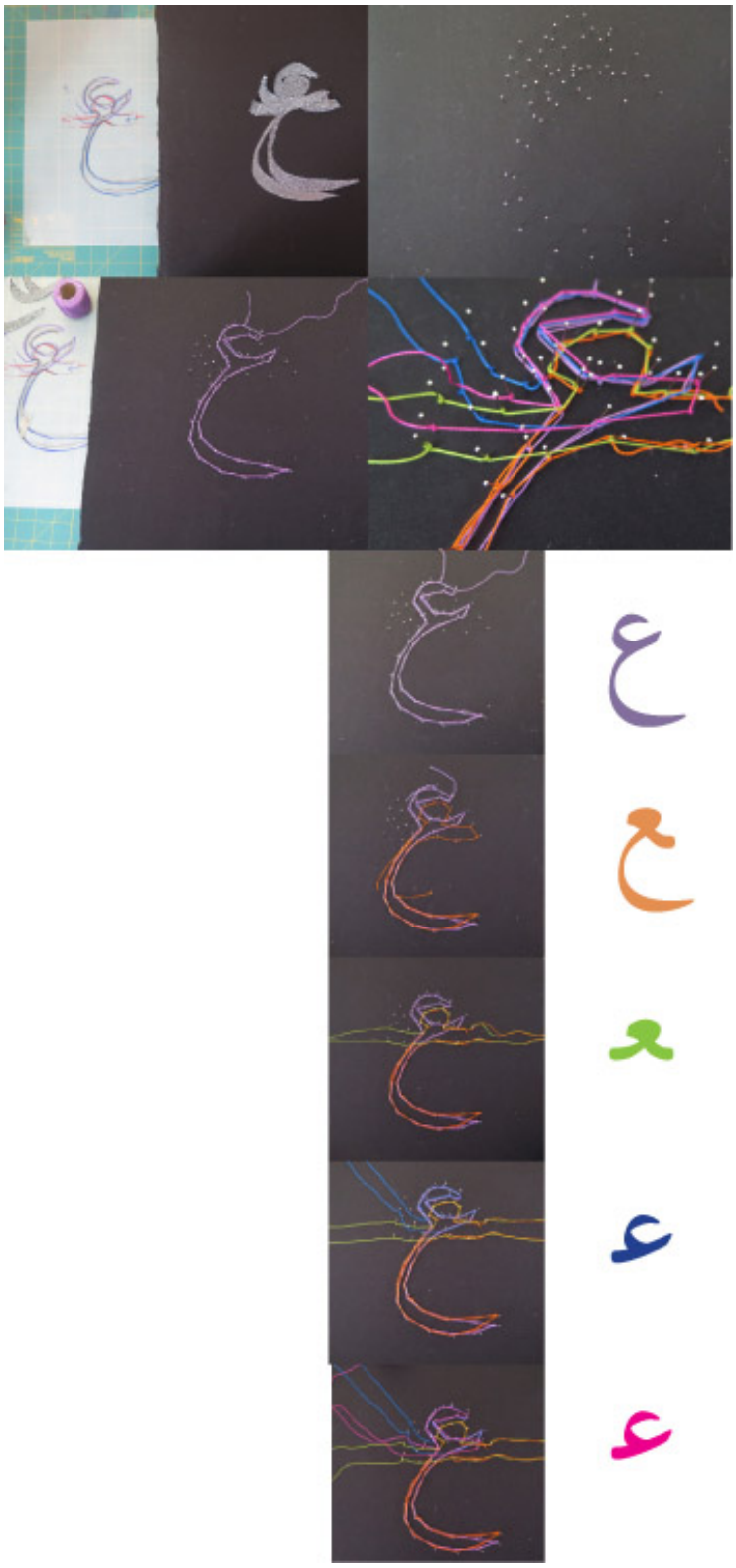

Figure C.32. The letter *ayn* accomplished with colored threads and pins.

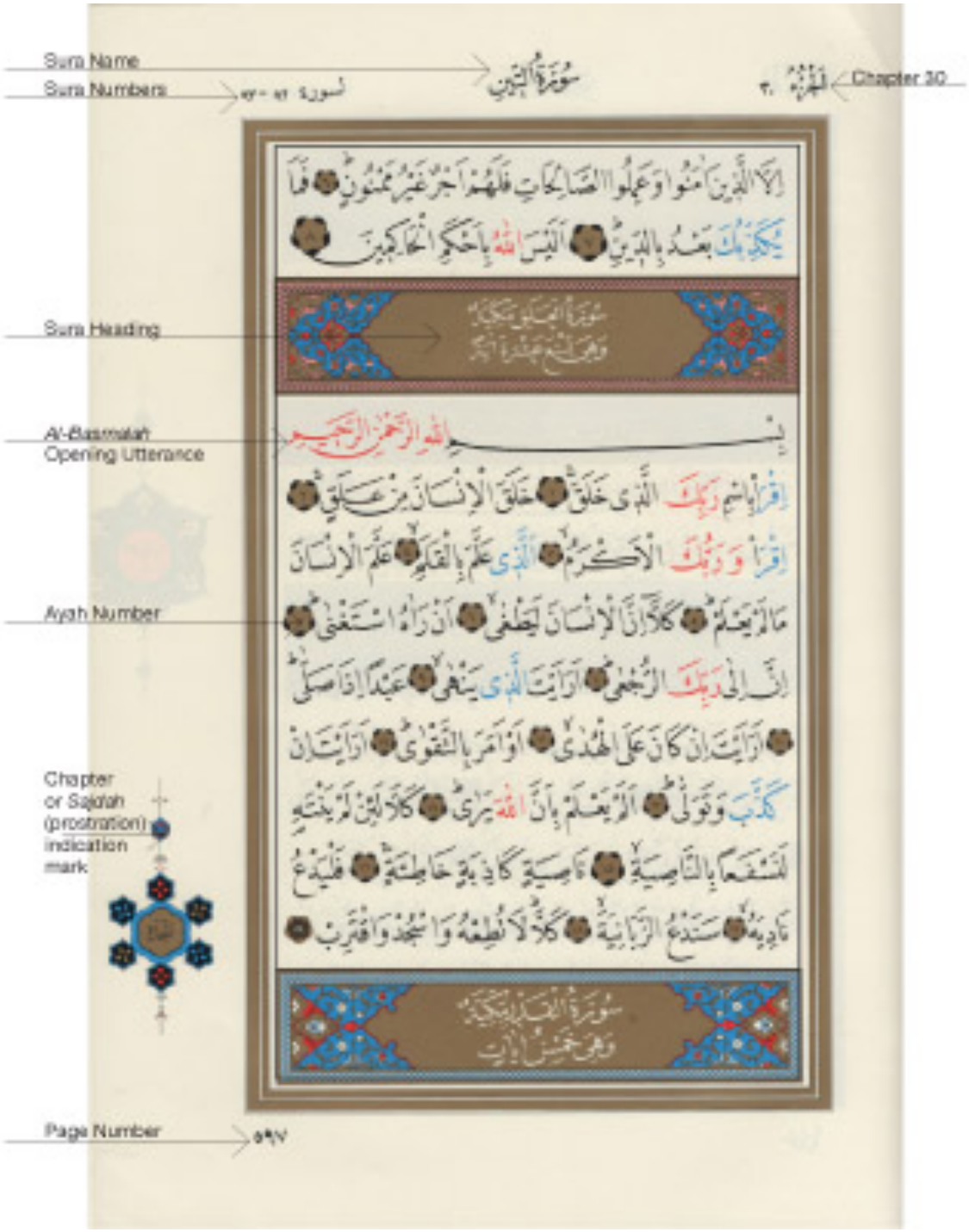

Figure C.33. The content of page 597 of the mushaf.

الجزء ٣٠ سورة التين لسورة ٩٢ - ٩٣

إِلَّا الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ فَلَهُمْ أَجْرٌ غَيْرُ مَمْنُونٍ ۝ فَمَا
يُكَذِّبُكَ بَعْدُ بِالدِّينِ ۝ أَلَيْسَ اللَّهُ بِأَحْكَمِ الْحَاكِمِينَ ۝

سورة العلق مكية
وهي تسع عشرة آية

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ
اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ ۝ خَلَقَ الْإِنسَانَ مِنْ عَلَقٍ ۝
اقْرَأْ وَرَبُّكَ الْأَكْرَمُ ۝ الَّذِي عَلَّمَ بِالْقَلَمِ ۝ عَلَّمَ الْإِنسَانَ
مَا لَمْ يَعْلَمْ ۝ كَلَّا إِنَّ الْإِنسَانَ لَيَطْغَىٰ ۝ أَن رَّآهُ اسْتَغْنَىٰ ۝
إِنَّ إِلَىٰ رَبِّكَ الرُّجْعَىٰ ۝ أَرَأَيْتَ الَّذِي يَنْهَىٰ ۝ عَبْدًا إِذَا صَلَّىٰ
۝ أَرَأَيْتَ إِن كَانَ عَلَى الْهُدَىٰ ۝ أَوْ أَمَرَ بِالتَّقْوَىٰ ۝ أَرَأَيْتَ إِن
كَذَّبَ وَتَوَلَّىٰ ۝ أَلَمْ يَعْلَم بِأَنَّ اللَّهَ يَرَىٰ ۝ كَلَّا لَئِن لَّمْ يَنتَهِ
لَنَسْفَعًا بِالنَّاصِيَةِ ۝ نَاصِيَةٍ كَاذِبَةٍ خَاطِئَةٍ ۝ فَلْيَدْعُ
نَادِيَهُ ۝ سَنَدْعُ الزَّبَانِيَةَ ۝ كَلَّا لَا تُطِعْهُ وَاسْجُدْ وَاقْتَرِب ۝

سورة القدر مكية
وهي خمس آيات

٥٩٧

Figure C.34. Chapter 96 of the mushaf, surat al-alaq.

Figure C.35. Chapter 96: Inventory of stroke shapes.

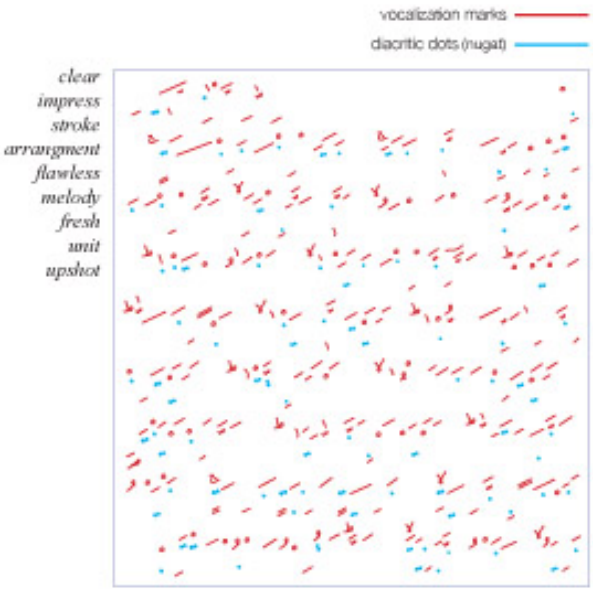

Figure C.36. Chapter 96: Inventory of the diaricitc dots and the vocalization marks.

Figure C.37. Baselines of chapter 96.

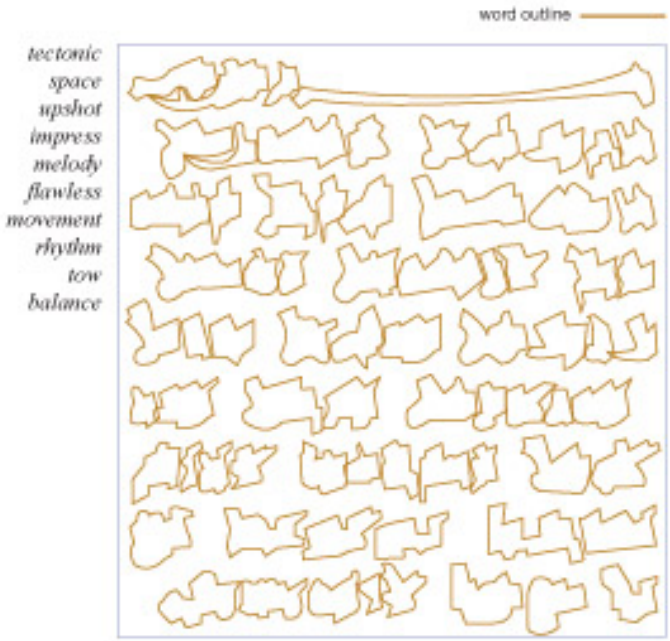

Figure C.38. Chapter 96 word outlines and space analysis.

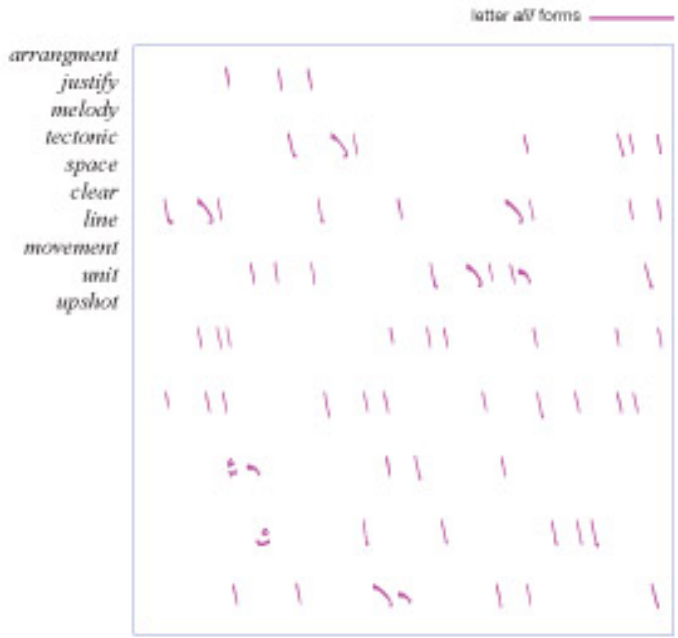

Figure C.39. Chapter 96: Inventory of the Arabic letter *alif.*

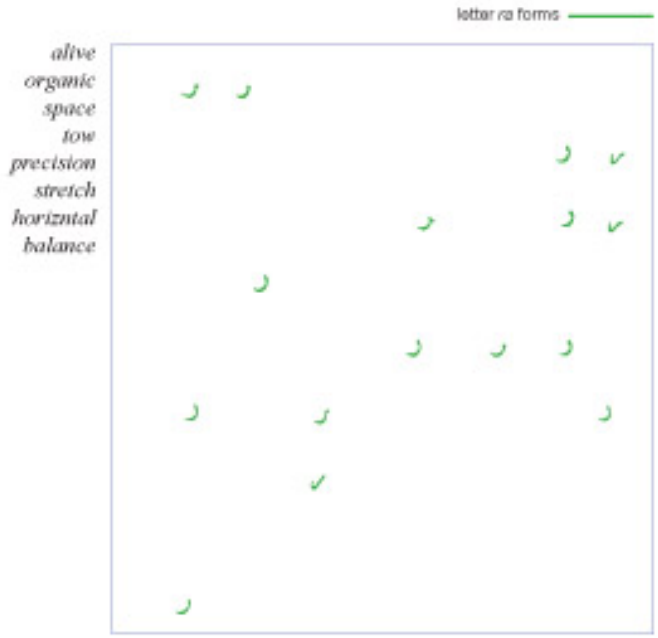

Figure C.40. Chapter 96: Inventory of the letter *rā.*

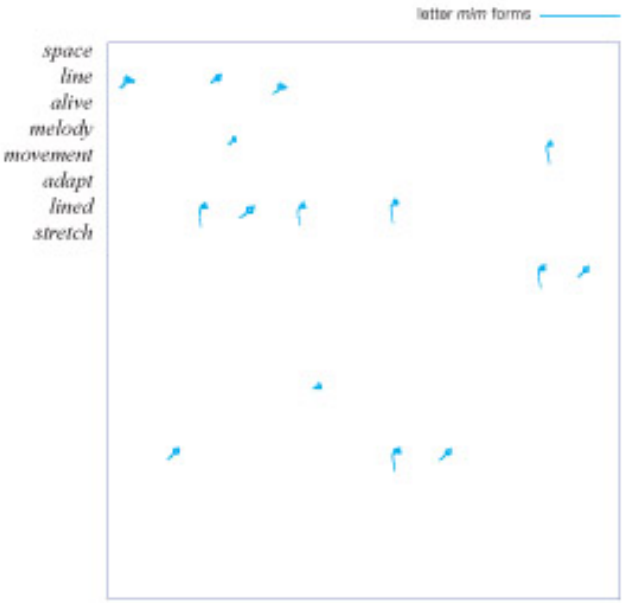

Figure C.41. Chapter 96: Inventory of the letter *mīm.*

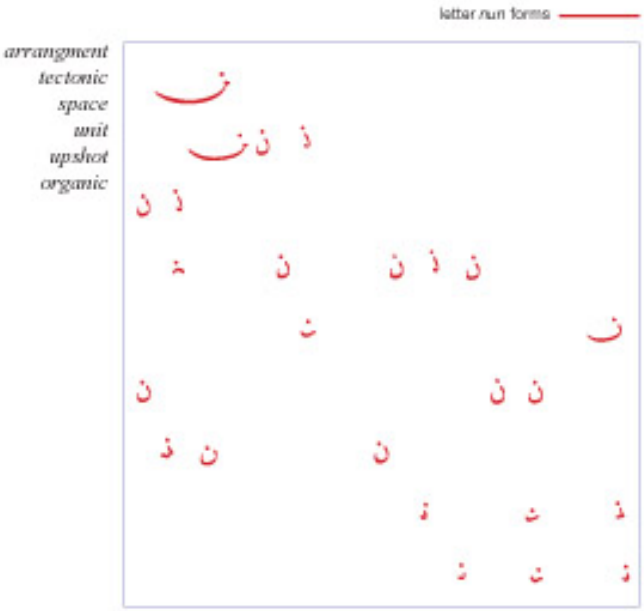

Figure C.42. Chapter 96: Inventory of the Arabic letter *nūn.*

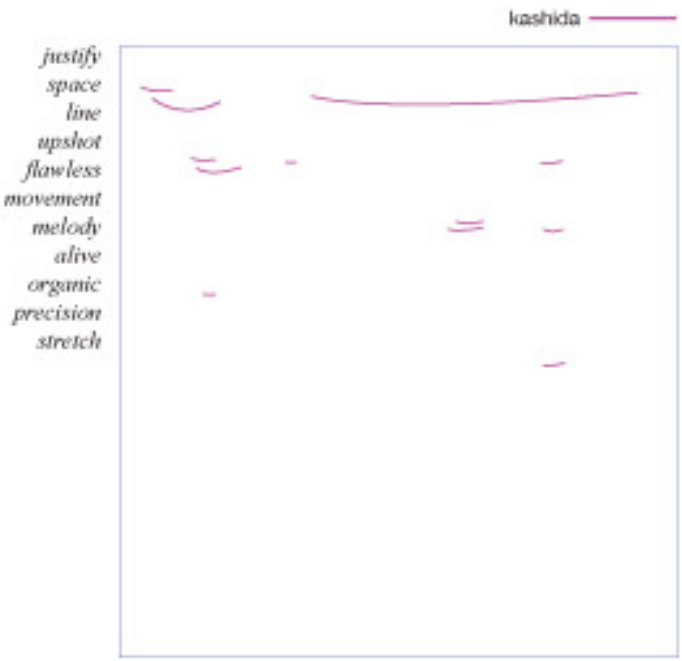

Figure C.43. Letterforms' stretching movements: Kashida preformance.

APPENDIX D

CRITS POSTCARD

Crits are ***rare*** and ***precious*** times
to talk about art.

I can be ***kind*** while also being ***critical***.

I am an ***important*** part of this **crit**.

People need to ***feel safe*** before they will
speak honestly.

No one wants to be ***embarrassed*** in front
of their peers.

Some things are better said ***privately***
than publicly.

To ***describe*** what you see and
interpret what it means is to be ***critical.***

Do not ask rhetorical questions; ***make
statements.***

Crits need not be always judgmental.

What is the ***purpose*** of this crit:
to demoralize and discourage or
to ***motivate*** and ***encourage?***

Help to quickly build a psychologically ***safe
environment.***

crits

text: Terry Barrett
coordinator: Brent Hirak
design: Banan Alansari

Figure D.1. Kind Crits postcard, front side.

Be an attentive and careful ***listener***.

Do ***not*** use sarcasm.

Decide whether the ***critique*** will be
primarily ***descriptive, interpretive,***
evaluative, theoretical,
or a combination of these.

Decide beforehand whether all ***works*** will
be ***covered*** during the critique.

If you ask a ***question***, do not answer it.
Wait for the ***participants to answer*** it.
Wait as long as it takes.

Determine the ***role*** that ***artistic intent*** will
play during the critique.

Determine the ***role*** the ***artist*** should play
in the ***critique***.

Am ***I inappropriately dominating***
the discussion?

Thank people who ***respond***.

A successful crit leaves everyone ***inspired***
to make ***more*** art.

Figure D.2. Kind Crits postcard, back side.

APPENDIX E

MAP AND TIMELINE OF THE TYPOGRAPHIC AND CALLIGRAPHIC EVOLUTION OF THE ARABIC WRITING SYSTEM

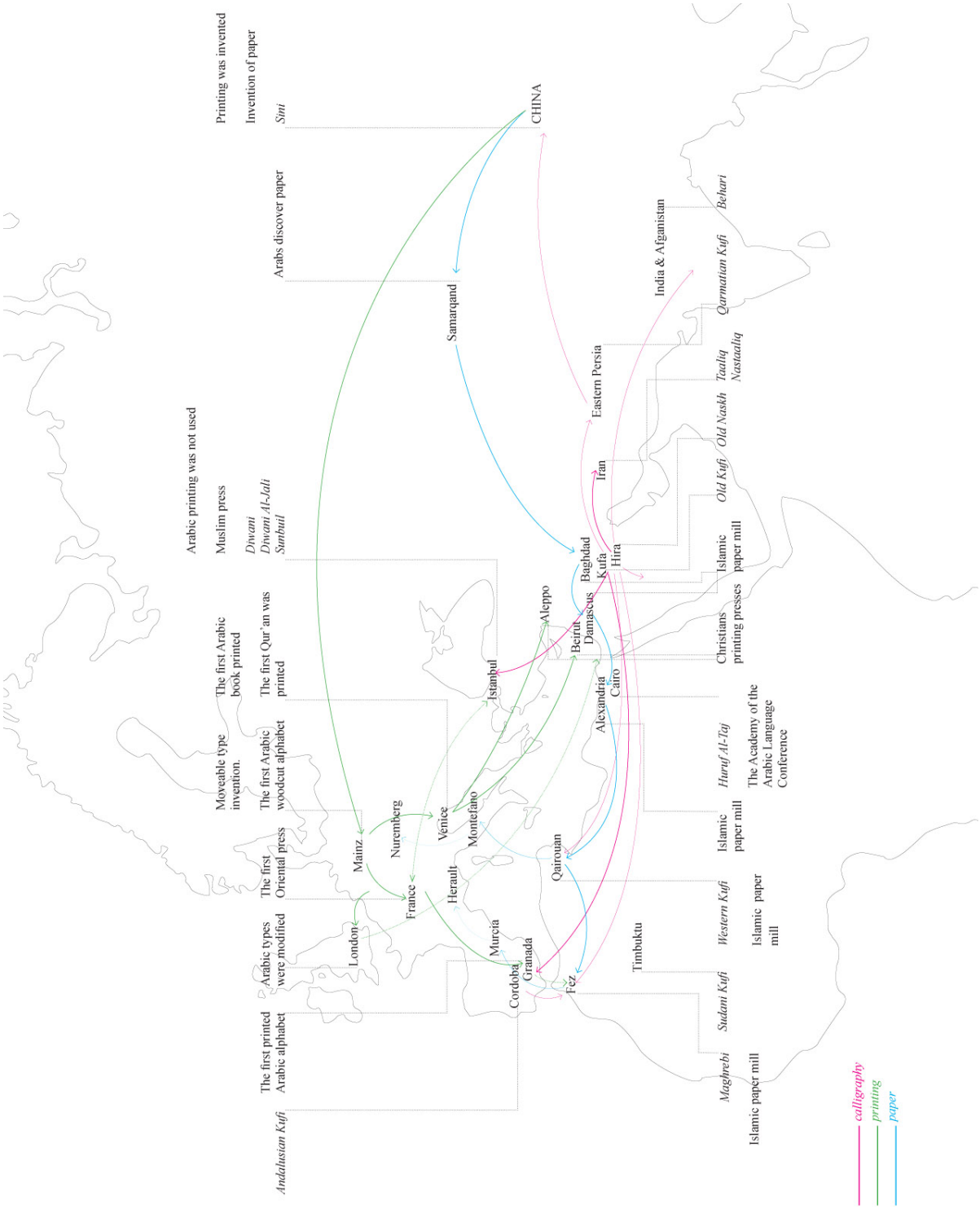

Figure E.1. Map of the calligraphic and typographic evolution of the Arabic wtiring system.

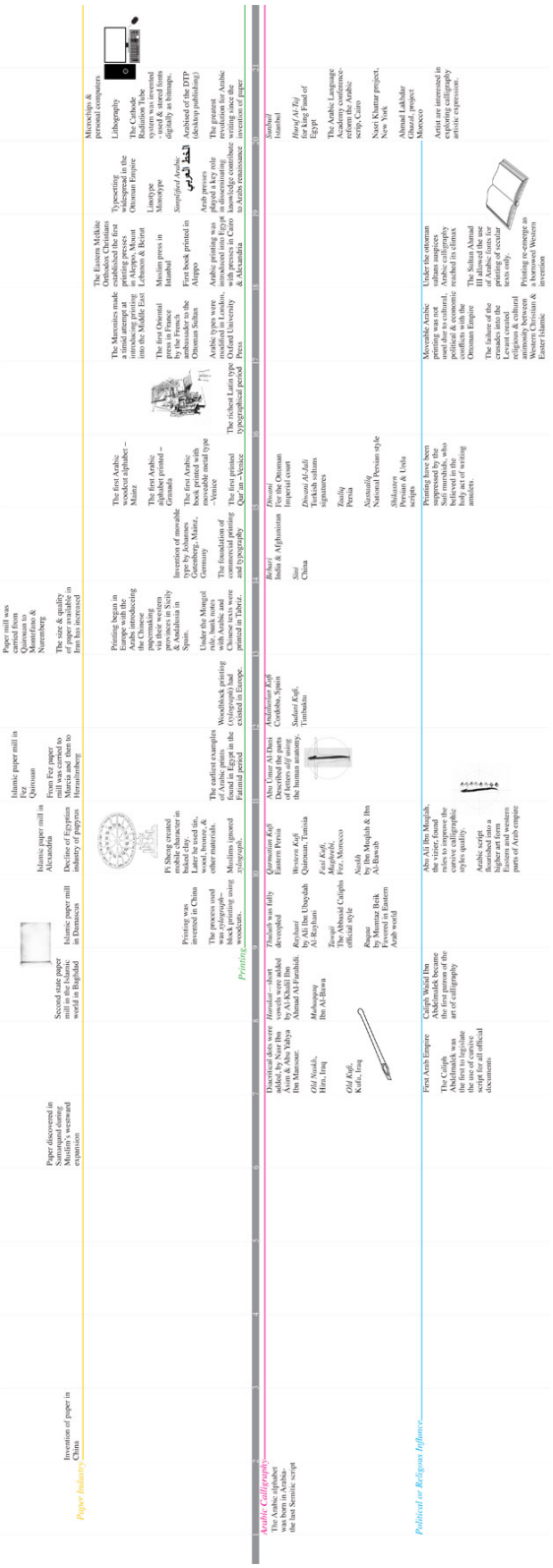

Figure E.2. Timeline of the calligraphic and typographic evolution of the Arabic writing system.

APPENDIX F

INTERVIEW QUESTIONS FOR PROFESSIONAL CALLIGRAPHER

JASSIM MI'RAJ

Banan Al-Ansari
University of North Texas

Interview questions for professional calligrapher:

Jassim Mi'raj

1. Could you talk about your experience with Arabic calligraphy? Where/how did you learn it? How long did it take from you? Who were your teachers/ masters?

2. How does your work as an Arabic calligrapher contribute to your career and livelihood? What activities and programs are you involved in that contribute to the practice of Arabic calligraphy?

3. Calligraphy workshops at the Kuwait Islamic Arts Center (KIAC) are open to the public. Who enrolls in them, and how long does it take to master each kind of Arabic calligraphy?

4. What should I do to be ready to start a Calligraphy workshop? What tools or equipment do I need to buy? What do I need to know before starting?

5. What is your Arabic calligraphy teaching philosophy? How did you come to this?

6. My project will examine rules, proportions, geometry, space, beauty, and symbols in Arabic calligraphy. I hope to use my experiences learning Arabic calligraphy to form guidelines for teaching it as a contemporary design practice. Do you think graphic designers can learn something from Arabic calligraphy? If so, what specifically?

7. In your experience, how might understanding Arabic calligraphy change one's appreciation of art and beauty?

8. In most Middle Eastern public and private schools, Arabic calligraphy is not fully integrated into the art curriculum of K-12 education, even though it commands great respect as an art form in contemporary Islamic and Arabic cultures. Do you advocate the full integration of Arabic calligraphy into the art curriculum of K-12 education? What educational impact do you think Arabic calligraphy will have on students?

9. Ibn Arabi believed that a letter is a living being, with spiritual and metaphysical significance, in addition to acting as a vehicle for language. What is your view of Ibn Arabi's work and philosophy regarding Arabic letters?

10. Do you have any final thoughts on how learning Arabic calligraphy might contribute to Arabic typography education?

Thank you!

تشابك تاريخ. ممارسات. وأشكال الإتصال: إستخدام الخط العربي في تعلم الخط العربي الطباعي.

بنان الأنصاري
جامعة شمال تكساس

أسئلة مقابلة الخطاط المحترف:
جاسم معراج

1. هل يمكن أن تتحدث عن تجربتك مع الخط العربي؟ كيف وأين تعلمته؟ كم من الوقت أخذ منك؟ من هم معلميك أو أساتذتك ؟

2. كيف ساهم عملك كخطاط عربي في حياتك المهنية وكسب رزقك؟ ما هي الأنشطة والبرامج التي تشارك فيها والتي تساهم في ممارسة الخط العربي؟

3. ورش عمل الخط العربي في مركز الفنون الإسلامية في الكويت مفتوحة للجميع. من الذي يشارك فيها؟ وكم من الوقت يستغرق لإتقان كل نوع من أنواع الخط العربي؟

4. ماذا علي أن أفعل لكي أكون مستعدة لبدء ورشة الخط العربي؟ ما هي الأدوات أو المعدات التي أحتاج شراءها؟ وما الذي أحتاج معرفته قبل البدء؟

5. ما هي فلسفتك الخاصة في تعليم فن الخط العربي؟ كيف توصلت إليها؟

6. مشروعي إطروحتي سيقوم على دراسة قواعد. ونسب. وهندسة. وأبعاد. وجماليات. ورمزية الخط العربي. آمل أن استخدام خبراتي في تعلم الخط العربي لتشكيل مبادئ أساسية تساهم في تعليم و ممارسة التصميم للإستخدامات المعاصرة. هل تعتقد أن مصممي القرافيك ممكن أن يتعلموا شيئا من الخط العربي؟ إذا كان الأمر كذلك. ما هو تحديدا؟

7. من خلال تجربتك الشخصية. كيف يمكن لفهمنا واحساسنا بالخط العربي أن يغير تقديرنا للفن والجمال؟

8. معظم المدارس الحكومية والخاصة في منطقة الشرق الأوسط. لا تدرج الخط العربي بشكل كامل في المناهج التعليمية للتربية الفنية. على الرغم من أنه يحظى باحترام كبير كشكل فني رئيسي في الثقافات الإسلامية والعربية المعاصرة. هل تؤيد الدعوة إلى إدخال الخط العربي في المناهج التربية الفنية بشكل الكامل؟ وبإعتقادك ما هو الأثر التعليمي للخط العربي على الطلاب؟

9. ابن عربي يعتقد أن الحروف هي كائنات حية. لها أهمية روحية وميتافيزيقية. بالإضافة إلى كونها وسيلة للغة والإتصال. ما هي وجهة نظرك في فلسفة ابن عربي للحروف العربية؟

10. هل لديك أية أفكار أخرى بخصوص كيفية إسهام تعلم الخط العربي في تعليم الخط الطباعي العربي؟

شكرا لك!

APPENDIX G

INTERVIEW QUESTIONS FOR PROFESSIONAL GRAPHIC DESIGNER

PASCAL ZOGHBI

Banan Al-Ansari
University of North Texas

Interview questions for professional graphic designer:

Pascal Zoghbi

1. What is your Arabic typography teaching philosophy?

2. Graphic design educators attempt to define the best way to prepare new generations of graphic designers for contemporary practices. One method is balancing technology and traditional techniques. How might graphic design educators achieve this approach? In this context, in what ways do you emphasize technology or tradition? Which is more powerful? In what contexts?

3. Design educators aim to develop educational programs in typography to improve the overall performance of graphic design graduates. How does/might your work address this goal? What types of pedagogy and curriculum do you implement?

4. How do you instill in your students passion for typography and/or calligraphy, communicating the beauty of the letterforms and conveying their power to communicate?

5. Artists and designers have been inspired by broad currents of visual culture to use Arabic letters in many striking ways that investigate their power to represent cultural, historical, and political themes. Do you have any opinions about these trends? How might graphic design educators encourage students to value the unique visual culture of their surroundings to enhance creativity and expressiveness in student work?

6. How important is it for design students to understand the historical development of Arabic typography's writing system? Why do you feel this way?

7. In what ways do you experiment with letters to enhance designers' and students' understanding and practice of typography?

8. In most Middle Eastern public and private schools, Arabic calligraphy is not fully integrated into the art curriculum of K-12 education, even though Arabic calligraphy commands great respect as an art form in contemporary Arabic and Islamic cultures. Do you support and advocate the full integration of Arabic calligraphy into the art curriculum of K-12 education? Please describe any educational impact do you think it can have on students?

9. The sufi philosopher, Ibn Arabi believed that a letter is a living being, with spiritual and metaphysical significance, in addition to acting as a vehicle for language. What is your view of Ibn Arabi's work and philosophy regarding Arabic letters?

10. Do you have any final thoughts on how learning Arabic calligraphy might contribute to Arabic typography education?

Thank you!

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