Connecting Types:

A Hybrid Approach towards Cross-Cultural Typography

Amir Lajmi

A thesis in the Department of Design and Computation Arts

Presented in partial fulfillment of the requirements

for the degree of **Master of Design**

at Concordia University

Montreal, Quebec, Canada

December 2025

© Amir Lajmi, 2025

CONCORDIA UNIVERSITY
School of Graduate Studies

This is to certify that the thesis prepared

By: Amir Lajmi

Entitled: Connecting Types: A Hybrid Approach towards Cross-Cultural Typography

and submitted in partial fulfillment of the requirements for the degree of

Master of Design

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the final examining committee:

Florian Grond_____ Chair

Florian Grond_____ Examiner

Rila Khaled_____ Examiner

Kevin Yuen-Kit Lo_____ Thesis Supervisor(s)

_____

Approved by Christopher Moore

Chair of Department or Graduate Program Director

_____

Annie Gérin Dean,

Date December 2025

Abstract

Connecting Types: A hybrid approach towards Cross-Cultural Typography

Amir Lajmi,
Concordia University, 2025

To work with Arabic and Latin on the same surface is to enter a space that is never singular, where more than one rhythm, more than one reading direction, and more than one history insist on being seen. This research creation begins from that tension and from my own life as a trilingual designer, moving daily between Arabic, French, and English. It asks how the graphic integration of Arabic and Latin typography can open new paths for cross cultural communication, how such work is received by Arabic speaking and Western readers, and how typographic dialogue between scripts might help navigate the frictions that mark relations between East and West.

Rather than separating thinking from making, I let them grow together. I study existing bilingual works and gather insights through secondary research, then return to the page and the screen, drawing and composing until the questions surface within the forms themselves. Across three stages, I first develop hybrid letters that merge Arabic and Latin pairs with shared phonetic sounds, then shape bilingual words that are translatable and untranslatable where balance, emphasis, and hierarchy are continually renegotiated, and animate the untranslatable words by allowing them to scatter, gather, and move through time and space. I then move to the setting of longer bilingual texts and poems, working first on the page itself through layout, alignment, spacing, and hierarchy before extending the inquiry into motion at the end of the process as a way to test how bilingual rhythm and meaning shift when carried through movement.

The outcome is not a single system, but a family of situated typographic strategies in which neither script is absorbed by the other and translation is approached as partial and porous. Letters, words, pages, and motion compositions work together to hold cultural differences in a readable tension. In this way, the thesis offers bilingual typography as both critical lens and poetic practice for meeting, speaking, and seeing across scripts and cultures.

Keywords

Cross-Cultural Design, Typography, Colonization, Arabic Aesthetics, Language Sovereignty

Research Questions

How does the graphic integration of Arabic and Latin typography contribute to cross-cultural communication? What are the implications for the perception and interpretation of such bilingual typography among Arabic-speaking and Western audiences?

Acknowledgment

I would like to express my deepest gratitude to my supervisor, Kevin Lo, who continually pushed me to go further in this research and to get the best out of myself, and who believed in my vision even when it was still taking shape. I am equally grateful to all the professors I have had the chance to work with over the past two years; their generosity, guidance, and thoughtful critiques have shaped my thinking and practice in countless ways. Without their support, I would not have grown into the designer I am today.

Dedication

I would like to dedicate this thesis to my wife, Mariem. She has always believed in me, trusted me, and gently reminded me of what I am capable of when doubt crept in. Her presence fills this work with a warmth and meaning it would otherwise lack, and every page carries a trace of her patience, love, and unwavering support.

To my father, my mother, and my two beloved sisters, the long and difficult distance between us is nothing compared to the bond we share. I carry you with me in every step of this journey. I hope that my work will reach you wherever you are, and that the Arabic letters in this research will travel across borders to connect me back to you.

To the people of Palestine and Sudan, and to the memory of all those who have lost their lives to violence and injustice, I dedicate this work as a small gesture of solidarity. May these bilingual letters, words and text stand, in their own modest way, for dignity, resilience, and the hope of a more just world.

Table of Contents

Introduction
Literature Review **1**
3
1. Why Define Key Typographic Terms? 3
2. Defining Key Typographic Terms 3
Script 3
Letter 3
Typeface 4
Font 4
3. Historical Background of Latin and Arabic Scripts 4
4. Visual Aspects and Cultural Values of Latin and Arabic Scripts 6
4.1 Latin script: modularity, hierarchy, and systems of order 7
4.2 Arabic script: connection, contextuality, and proportional design 7
4.3 Bilingual typography: respecting asymmetry, enabling dialogue 8
5. Typography in Cross-Cultural Design (Arabic–Latin) 8
5.1 Directionality and spatial organisation 9
5.2 Baselines, proportions, and optical alignment 9
5.3 Spacing and justification 9
5.4 Pairing strategies and harmonisation 9
5.5 Technical standards as cultural choices 10
6. Language, hybridity, and social semiotics in postcolonial space 10
6.1 Language, colonization, and the politics of visibility 11
6.2 Hybridity and negotiated space 11
6.3 Semiotics of form 12
7. The psychology behind Typography 13
Research Methodology: **15**
1. Visual Typographic Surveys 16
Rationale 16
Objectives 16
2. Field Research 21
3. Expert Interviews and Case Studies 25
3.1 Samar Maakaroun 25
3.2 Neji El Mir 31
3.3 Wael Marcos 36
3.4 True bilingualism in type 40
4. Typographic Experimentation 41
4.1 Stage 1: Hybrid Letterform Development 42
4.2 Stage 2: Bilingual Words 49
4.2.1 Translatable Words 50
Shift to a Thuluth brush 57
4.2.2 Untranslatable Words 63

4.3 Stage 3: Bilingual Text 76
4.3.1 Selection of Text 77
4.3.2 Selection of Typeface 78
4.3.3 Format 81
4.3.4 Layout 81
The In-Between 90
4.3.5 Towards Motion: Bilingual Text in Movement 91
Discussion 93
Conclusion 97
References 99
Appendix 103

List of Figures

Figure 1 – *Field research photographs of public typographic signage in Tunis.*

Figure 2 – First iteration of bilingual letters

Figure 3 – Ruqʿah brush tests for thickness, smoothing, and pen angle

Figure 4 – (ك / k) hybrid drawn as a single unit with the Ruqʿah brush

Figure 5 – All fourteen hybrid letter pairs drawn with the Ruqʿah brush

Figure 6 – *Arabic specimen set in KSA Heading (Naskh)*

Figure 7 – *Latin specimen set in Ogg Text*

Figure 8 – (Justice – عدالة). Alif (ا) and (t) share a vertical axis to stage balance

Figure 9 – (Equality – مساواة). Two scripts set to identical metrics form a single block

Figure 10 – (Freedom – حرية). Latin compressed and Arabic extended to make tension legible

Figure 11 – حرية / Freedom, integrated composition

Figure 12 – Ten word compositions, overview plate

Figure 13 – Detail plate at reading scale from three word compositions in the set

Figure 14 – Twirl sequence, 0–4 s – جَفْجَفَة (Jafjafa)

Figure 15 – Particle formation sequence, 0–5 s – مَكتُوب (Maktub)

Figure 16 – Circular pressure sequence, 0–6 s – يَقِين (Yaqin)

Figure 17 – Coffee-wave sequence, 0–6 s – صُبْحِيَّة (Sobhiya)

Figure 18 – Sculptural build sequence, 0–4 s – سَمْت (Samt)

Figure 19 – Lateral pressure sequence, 0–4 s – صُمُود (Sumud)

Figure 20 – Dislocation sequence, 0–4 s – غُرْبَة (Ghurba)

Figure 21 – Downward tear sequence, 0–8 s – شَجَن (Shajan)

Figure 22 – Flowing blur sequence, 0–8 s – سَمْح (Samh)

Figure 23 – Rapid pulse sequence, 0–9 s – نَوْق (Tawk)

Figure 24 – Bilingual poem set using stacked pairing layout

Figure 25 – Bilingual poem set using mirrored pairing layout

Figures 26, 27 – Bilingual poem set using code switching layout

Figure 28 – Bilingual poem set using visual poetry layout

Figure 29 – Bilingual sentence in motion

Glossary and Abbreviations

Naskh – A classical Arabic script characterized by its clarity and legibility, commonly used in print, digital typesetting, and Qur’anic calligraphy.

Ruqʿah – A cursive Arabic script used primarily for handwriting and informal settings, known for its compact, fast-to-write letterforms.

Kashida (Elongation – A typographic extension technique used in Arabic script to stretch characters and create visual alignment, especially in justified text.

Diacritic – A small mark added to letters to indicate vowels, emphasis, or pronunciation, especially significant in Arabic for phonetic clarity.

Thuluth – A decorative and monumental Arabic script used in architectural inscriptions, banners, and headings, characterized by large, curved, and interlaced forms.

UAX #9 – Unicode Bidirectional Algorithm governing the visual ordering of mixed left-to-right and right-to-left scripts on screen.

IPA – International Phonetic Alphabet – a standardized system of phonetic notation used to represent the sounds of spoken language across scripts.

MSA – Modern Standard Arabic – the standardized and literary variety of Arabic used in formal speech, writing, and media across the Arab world.

Iʿjām (إِعْجَام) – The system of dotting Arabic letters to distinguish otherwise identical base forms (rasm), developed to reduce ambiguity in written Arabic.

Rasm (رَسْم) – The undotted, skeletal form of Arabic script, used in early Qur'anic manuscripts before the development of diacritical marks (iʿjām).

Nuqṭa (نُقْطَة) – A dot or mark added to letters to define their phonetic value in the Arabic script; also used as a unit of measurement in calligraphy.

Al-khatt al-mansūb (الخط المنسوب) – The proportional or measured script tradition in Arabic calligraphy, based on geometric rules and the use of the dot (nuqṭa) for modularity and balance.

Introduction

To design bilingually means entering a space shaped not only by multiple rhythms and scripts but by layered histories, politics, and ways of seeing. It is to ask not how Arabic and Latin can simply coexist on a page, but how they can speak together, sometimes in harmony and sometimes in tension, without one folding into the habits of the other. In a world marked by growing intercultural exchange and, at times, deep misunderstanding, bilingual typography becomes more than a visual challenge. It becomes a site of cultural negotiation, a place where difference can be made visible without being reduced or resolved, and where typographic form participates in the politics of representation and legibility.

My way into these questions runs through a personal place. As a trilingual designer shaped by Arabic, French, and English, I do not come to bilingualism from the outside; I live within it. The interplay of languages is not only part of my professional practice but part of my daily thinking, speaking, and being. I know the intimacy of translation and the estrangement it sometimes brings. I know how a script can carry the weight of a people, how a letterform can feel like home or like distance. These experiences are not incidental. They are the ground of my practice. They guide the questions I bring to design and the care with which I approach its decisions, especially when the visual treatment of language risks simplifying or misrepresenting cultures that are already unevenly seen.

From this position, I ask: how can the graphic integration of Arabic and Latin typography contribute to cross cultural communication? How do Arabic speaking and Western audiences perceive and interpret such bilingual compositions? Can typographic design become a space where scripts meet not only formally but meaningfully, where language becomes a way of seeing the other rather than erasing the other? What happens when this dialogue is activated during moments of cultural tension, such as periods of political conflict or social rupture? And how might such a practice deepen our understanding of how visual language shapes the perception of unfamiliar cultures, in conversation with philosophical debates around translation, untranslatability, and the ethics of representing other languages and worldviews (Cassin, 2014), where language is not a neutral vehicle but a force that shapes thought.

In order to address these questions, I move between theory, visual research, and typographic experimentation. I begin by tracing the historical and theoretical terrain of Arabic and Latin scripts and the politics of their encounter, drawing on work that follows the development and

dissemination of writing systems and their relation to spoken languages (Daniels and Bright, 1996) and on typographic theory that foregrounds the cultural and functional dimensions of typographic form (Lupton, 2010). I then look closely at my own position as a designer and at a set of existing bilingual typography, reading how other practitioners negotiate hierarchy, visibility, and address. Building on this ground, I develop a body of typographic work that moves from letters to bilingual words and texts to pieces shaped around untranslatable words through static and motion. Within this body of work I treat each composition as a testing ground for relation. Rather than focusing only on whether text can be read, I attend to how presence, rhythm, and emphasis are distributed between Arabic and Latin, and to how different arrangements reposition the reader in relation to both scripts. I am less interested in a single method or system than in how these pieces sketch a field of nuanced and situated approaches to bilingual typography.

What unfolds is not a search for balance understood as perfect symmetry or equal halves, but a search for conversation, for the possibility of being different together without collapsing difference into sameness. Through this research, I hope to contribute to a more attentive, critical, and poetic understanding of what bilingual typography can be, not only as a visual strategy but as a way of being present in a multilingual world.

Literature Review

1. Why Define Key Typographic Terms?

Working across writing systems such as Arabic and Latin involves more than simply matching forms; it demands navigating entire visual and cultural frameworks. The terminology used to discuss typography must be as precise as the design itself. Terms like font, typeface, and script are often used interchangeably, yet they refer to different concepts. Without clear distinctions, analysis becomes unfocused and design decisions risk losing coherence.

This is particularly important in bilingual or cross-script contexts, where each typographic decision reflects underlying assumptions about structure, legibility, and cultural logic. The following definitions clarify key terms that inform the discussions and creative explorations throughout the research.

2. Defining Key Typographic Terms

Script

A script is a writing system, a systematic visual means of representing language (Daniels & Bright, 1996). To elaborate on this notion, Daniels defines writing as “a system of more or less permanent marks used to represent an utterance in such a way that it can be recovered more or less exactly without the intervention of the utterer” (Daniels & Bright, 1996, p. 3). Furthermore, writing systems function through different mechanisms (logosyllabary, syllabary, abjad, alphabet, abugida, or featural) depending on how they map sounds or meanings (Daniels & Bright, 1996). Importantly, Daniels explains that “purely logographic writing is not possible,” since any adequate system must also represent foreign names and words by sound (Daniels & Bright, 1996, p. 4).

Letter

In an alphabetic system, a letter is a grapheme that typically corresponds to a phoneme, though the mapping is conventional and not always one-to-one. While early letterforms emerged from the hand, “words originated as gestures of the body,” and early typefaces “were directly modeled on the forms of calligraphy” (Lupton, 2010, p. 13). Bringhurst emphasizes the

ontological value of the letter: “Letters are microscopic works of art as well as useful symbols. They mean what they are as well as what they say” (Bringhurst, 2004, p. 23).

Type

Type refers to the stylized visual forms of letters used for printing or digital reproduction. It is the transformation of writing into a repeatable, mechanical image. Type consists of “manufactured images designed for infinite repetition,” distinct from handwriting or calligraphy (Lupton, 2010, p. 13). Type thus straddles the space between individual expression and systemic reproduction.

Typeface

A typeface is a family of letterforms that share common visual characteristics and design logic, serving as the artistic and structural foundation from which fonts are derived. A well designed typeface should “honor and elucidate what humans see and say” (Bringhurst, 2004, p. 18). Designers often choose among many typefaces, “combining them in response to a particular audience or situation” (Lupton, 2010, p. 13).

Font

A font is the technical realization of a typeface: the specific weight, size, and style used in rendering the type. Though the terms are often conflated, knowing “when to say ‘typeface’ instead of ‘font’” is part of typographic literacy (Lupton, 2010, p. 7). A font is the delivery mechanism, while the typeface is the design.

Typography

Typography is the craft and practice of shaping language through visual form, playing both functional and expressive roles in how meaning is conveyed. It is “the craft of endowing human language with a durable visual form, and thus with an independent existence” (Bringhurst, 2004, p. 11). More broadly, typography can be understood as the visual appearance of language (Lupton, 2010).

3. Historical Background of Latin and Arabic Scripts

Writing systems arise from the specific cultural, technological, and communicative needs of the societies that develop them. They are not neutral tools, but historically and materially situated practices. As Daniels and Bright emphasize in *The World’s Writing Systems*, scripts are deeply

embedded in the social and historical contexts from which they emerge, shaped by religious, administrative, and technological forces that influence both their structural features and their conceptual underpinnings (Daniels & Bright, 1996, pp. xxxv–xxxvi).

The Latin script developed within the Roman imperial context, particularly through its use in stone inscriptions. These early inscriptions demanded durability and clarity, giving rise to geometric and highly legible letterforms. According to Knight, monumental capitals (*capitalis monumentalis*) emerged as a highly refined style by the first century CE, with letterforms that exhibited deliberate proportions and contrast, likely planned with an edged pen or brush before carving (Knight, 1996, p. 312). Over time, Latin script evolved into a range of styles. Rustic capitals were used for deluxe manuscripts, while Old Roman Cursive allowed faster writing for everyday use, though at the cost of legibility (Knight, 1996, pp. 314–315). From the fourth century onward, Uncial and Half-Uncial scripts developed, spreading through religious and scholarly networks, particularly during the Christianization of Europe (Knight, 1996, pp. 314–316). The Carolingian Minuscule, introduced in the 8th–9th centuries, marked a significant turning point. It emphasized clarity, rhythm, and standardization, and it became the foundation for the later development of Humanist scripts and ultimately the modern Latin alphabet (Knight, 1996, p. 319).

The invention of the printing press in 15th-century Europe further solidified the modular nature of the Latin script. Typefaces modeled on Humanist minuscule and Roman capitals were characterized by consistent proportions, baselines, spacing, and letterform separation which are ideal for mechanical reproduction (Knight, 1996, pp. 323–326). This evolution toward modularity, regularity, and typographic standardization reflects the Latin script's close entwinement with inscriptional logic, administrative expansion, and printing technology.

In contrast, the Arabic script developed from the Nabataean branch of Aramaic and took shape in the early Islamic period. As Bauer notes, Arabic script was cursive from its inception, with letters that change form depending on their position in a word whether initial, medial, final, or isolated (Bauer, 1996, pp. 559–560). Unlike Latin script, Arabic script emphasizes continuity and fluidity, achieved through a dynamic joining system and the use of elongation (*kashida*) to create visual balance across a line of text. It evolved primarily through manuscript culture, and its development was closely linked to religious needs, particularly the preservation and recitation of the Qur'an (Bauer, 1996, p. 559).

To aid proper pronunciation in religious contexts, diacritical marks and vowel indicators were gradually introduced, though they remain largely optional in everyday writing (Bauer, 1996, pp. 560–561). The script also developed numerous calligraphic styles, such as Naskh and Thuluth, which are not merely ornamental but central to the visual and spiritual culture of Islamic art (Bauer, 1996, p. 559). Arabic calligraphy, more than a utilitarian writing system, became an aesthetic and devotional practice, integral to architecture, textiles, and books.

The transition of Arabic script to print was delayed and more technically challenging than for Latin script. The contextual nature of its letterforms, the frequency of ligatures, and the high number of glyph variations made it less compatible with early movable type systems (Bauer, 1996, p. 562). As a result, Arabic print culture emerged more slowly and retained many characteristics of its manuscript origins even in typographic form.

These divergent developmental paths produced fundamentally different visual and structural logics. Latin script, shaped by epigraphic precision and typographic modularity, privileges uniformity and separability. Arabic script, rooted in cursive transmission and calligraphic traditions, prioritizes flow, rhythm, and visual unity.

For contemporary designers working in bilingual Arabic–Latin contexts, these histories are not just academic, they are foundational. Typography is never culturally detached; it embodies the values, aesthetics, and media histories of its respective traditions. A meaningful bilingual typographic practice must navigate not only structural differences in form and rhythm, but also distinct historical expectations about what writing should look like and how it should function across public, religious, and technological domains.

4. Visual Aspects and Cultural Values of Latin and Arabic Scripts

Typography sits where visual form and cultural meaning meet. Bringhurst famously defines it as “the craft of endowing human language with a durable visual form” (Bringhurst, 2004, p. 11), and argues that typography exists to honor content. In practical terms, typographic choices do more than set text; they encode priorities, habits, and histories. Blankenship makes this explicit, noting that typography is more than a legibility problem; it carries the “underlying ideas” of the cultures that shaped it (Blankenship, 2003, p. 60).

4.1 Latin script: modularity, hierarchy, and systems of order

Across the modern period, Latin typography was shaped by printing technologies and design pedagogy that reward segmentation and repeatability. In this context, Lupton presents the discipline in terms of alignment, hierarchy, and grid systems as tools for organizing text into consistent, scalable structures (Lupton, 2010). She also distinguishes writing from print: writing is gestural and flexible, while print “locks words into position” (Lupton, 2010, p. 91). This emphasis on controlling space dovetails with modular organization.

Historical narratives of Latin typography and type design further emphasize clarity, durability, and order. Bringhurst links good typography to “statuesque transparency” and durability over fashion, a set of ideals that supported the modernist pursuit of clean, systematic layouts (Bringhurst, 2004, p. 17). Blankenship situates this in a broader Western “worldview” that valorized objectivity, standardization, and the rational organization of information. This trend was intensified by the Industrial Revolution and the rise of print capitalism (Blankenship, 2003).

4.2 Arabic script: connection, contextuality, and proportional design

Arabic script operates on a different visual logic. It is inherently cursive and contextual: letter forms change according to position and neighbors, and writing unfolds as connected strokes rather than discrete boxes. Osborn shows how the classical proportional system (al-khatt al-mansūb) established durable rules for shaping letters via the nuqṭa (dot) and related measures, producing styles (notably naskh) that remain legible across centuries (Osborn, 2017). He also details the script’s layered architecture: rasm (skeleton), iʿjām (consonant pointing), and optional vocalization and recitational layers, which give Arabic its visual depth (Osborn, 2017).

When Arabic encountered movable type, its cursive logic ran into the limits of metal sorts. The widely taught “four-form model” (isolated, initial, medial, final) helped typesetters, but it’s a simplification of handwritten reality: the “table of four variants was a printer’s aid,” not a faithful model of the script’s contextual behavior (Osborn, 2017, p. 24). That shift from fluid strokes to segmented sorts marks more than a technical change; it reframes a script whose meaning and beauty have historically been entwined through calligraphic practice, where form and spiritual/aesthetic values are inseparable (Blankenship, 2003).

In digital typography, some of the old compromises have softened. Unicode encodes base Arabic letters and relies on shaping engines to choose the right contextual forms at render time, aligning software with the script's connective logic (Osborn, 2017). At the same time, decisions such as combining rasm and iʿjām into single encoded characters can flatten historical practices (like undotted manuscripts), reminding designers that technical standards carry cultural consequences (Osborn, 2017).

4.3 Bilingual typography: respecting asymmetry, enabling dialogue

Because Latin and Arabic scripts arise from different visual grammars and cultural histories, treating them as symmetric systems is risky. Blankenship cautions that forcing Latin typographic standards onto Arabic (whether for alignment, or spacing) often yields poor results; attempts to match typographies across systems can be unproductive if they ignore each system's structure (Blankenship, 2003). Bringhurst makes a parallel, general point: each writing tradition constitutes a culture with its own typographic history, and the excitement (and duty) of multilingual typography lies in acknowledging those differences (Bringhurst, 2004).

Thoughtful bilingual work doesn't erase difference; it stages a conversation. Osborn's account of the Khatt Foundation's Typographic Matchmaking project shows one viable tactic: pairing teams to create Arabic companions for established Latin typefaces, not by cloning shapes but by negotiating rhythm, contrast, and proportion across systems (Osborn, 2017). In other words: aim for harmony without homogenization. Or, to return to Bringhurst, let typography honor content and the systems in which that content lives (Bringhurst, 2004).

From here, the conversation moves from principles to the page: how to seat right to left with left to right, let a baseline meet a cursive line, balance weight and contrast, pace spacing and justification, and handle numerals, punctuation, and diacritics without putting Latin in charge. The goal is workable patterns: separation where it helps, mirroring where it clarifies, tiered hierarchies, and paired typefaces that share rhythm rather than shape.

5. Typography in Cross-Cultural Design (Arabic–Latin)

Bilingual typography is not merely mechanical; it frames cultural values in public space. As Blankenship puts it, typography is "the embodiment of a culture's identity" (Blankenship, 2003, p. 60). This is the lens through which choices about layout, scale, and rhythm should be read.

5.1 Directionality and spatial organisation

Directionality is foundational; effective multiscript layouts let each system keep its native flow rather than forcing one directional logic. In practice, designers “have configured layouts to allow the languages to operate individually while juxtaposed” (Blankenship, 2003, p. 60). At the encoding level, this is codified: Middle Eastern scripts are stored in logical order, and “Unicode assigns all characters an inherent directionality, and the Unicode Bidirectional Algorithm (UAX #9) defines how to handle characters in multidirectional strings” (Osborn, 2017, pp. 177–178).

5.2 Baselines, proportions, and optical alignment

Structure shapes what counts as alignment: Arabic’s connected, contextual forms create multiple active alignment zones and a line texture distinct from Latin’s baseline and x-height system; in mixed settings, designers balance perceived size, weight, and page color rather than enforcing identical metrics (Osborn, 2017). History shows why: when Arabic type strayed too far from manuscript convention, it “was not only perceived to be ugly, it also constituted an obstacle to successful communication” (Nemeth, 2022, p. 51). Thus, optical balance anchored in script logic is not a nicety; it is a precondition for acceptance (Nemeth, 2022).

5.3 Spacing and justification

Rhythm on the line is scripted differently. For Latin, protect texture: “frequent hyphens are better than sloppy spacing, and ragged setting is better yet” (Bringhurst, 2004, p. 27). For Arabic, spacing is continuity-first. Here, *kashida* refers to the horizontal extension used between glyphs to keep widths aligned (Abdel-Baki, 2013). Field evidence from Beirut signage shows how misused *kashida* weakens form: “the inadequate insertion of the Arabic ‘kashida’… makes the Arabic logotype weaker in form and identity” (Abdel-Baki, 2013, n.p.). The working rule is simple: keep spacing methods script-specific, then harmonize overall page color optically (Bringhurst, 2004; Abdel-Baki, 2013).

5.4 Pairing strategies and harmonisation

In paired typefaces, parameters commonly adjusted include weight, contrast logic, counter openness, x height and extenders on the Latin side; baseline “bounce,” stroke terminals, and connections on the Arabic side so both scripts move at the same pace. The design aim is to keep the two systems distinct while matching key features in a way that does not compromise either one (Abdel Baki, 2013).

The consequences are evident in public signage: many bilingual signs overlook coordinated choices of weight, size, and form across the pair, resulting in combinations that read as haphazard and unbalanced (Abdel-Baki, 2013). In editorial and branding work, the antidote is measured calibration so the pair reads as one system without flattening Arabic's connective logic (Osborn, 2017).

5.5 Technical standards as cultural choices

Technical standards inevitably encode value judgments. In Arabic, for example, Unicode encodes the base skeleton (rasm) and dotting (iʿjām) as a single character, which simplifies modern composition but prevents faithful reproduction of older, undotted texts (Osborn, 2017). Arabic also follows distinct typesetting practices: justification is achieved through kashida rather than hyphenation, ragged alignment is uncommon, and spacing remains consistent after punctuation. These conventions reflect the script's cursive structure and manuscript heritage (Nemeth, 2022). Yet most digital composition tools are built around Latin typographic assumptions. As Bringhurst (2004) notes, Latin-based defaults like hyphenation and ragged-right text are treated as standard, even though they are not universally applicable.

These choices show directly that the standard is a cultural choice: it privileges Latin-oriented composition settings and a dotted Arabic character model while making undotted historical usage harder to represent (Osborn, 2017). Parity is therefore not guaranteed by the standard itself; it has to be rebuilt in practice through alignment, spacing, and hierarchy. Following Blankenship, mixed script work should be an "encounter without judgment," not the quiet dominance of one script's habits over the other (Blankenship, 2003, p. 60). Recognizing that standards embed cultural preferences means bilingual (Arabic–Latin) typography must make those preferences explicit and compensate for them so each script reads on its own terms while the pair functions as one system.

6. Language, hybridity, and social semiotics in postcolonial space

Typography sits within histories of language policy and cultural hierarchy. What seems standard often reflects how schools, publishing, and media kept linguistic dominance moving long after empire ended (Phillipson, 1992). In today's practice, the systems that carry text from code to page were built with Latin as the reference case; without careful adjustment, work that combines scripts tends to inherit those habits (Osborn, 2017).

6.1 Language, colonization, and the politics of visibility

Colonial rule did not simply draw new borders; it organized language into hierarchies that made some codes feel proper to schooling, administration, science, and public culture while others were pushed to the edges. The effects outlasted empire and settled into institutions, so access, status, and mobility continued to track the languages privileged by power. Phillipson describes this endurance as linguistic imperialism, a system in which dominance travels with political and economic force and keeps shaping who is addressed first and on what terms (Phillipson, 1992).

Across North Africa and the Levant the general pattern took local contours: in the Maghreb French was entrenched through schools and bureaucracy and became a channel of prestige, while after independence arguments for Arabization indexed struggles over identity and legitimacy; in much of the Eastern Arab world Arabic retained its central role even as it faced pressure from European languages and regional powers. In both settings the language functions not only as a medium of communication but also as a symbol of shared belonging, so policy and everyday practice continually negotiate between what binds citizens at home and what opens doors beyond (Suleiman, 2003).

Today the imbalance is sustained less by decree than by infrastructure. Composition engines, publishing pipelines, and interface conventions assume separated letter shapes, left to right precedence, Latin punctuation classes, and widely available families across weights and widths, so bilingual work often begins inside platforms already leaning toward one set of reading habits unless designers intervene. Unicode and shaping engines correct part of this by separating characters from glyphs and selecting contextual forms at render time, yet the larger lesson remains that standards and production workflows can naturalize one model of writing as the norm and carry that preference into the materials people see every day (Osborn, 2017).

6.2 Hybridity and negotiated space

If conditions are unequal, the goal is not to erase differences but to arrange a workable relation. Postcolonial accounts of hybridity describe an in-between where forms are negotiated rather than absorbed into a single model; Bhabha’s notion of a “third space” shifts the task from matching to relating and values the productive ambiguity that lets more than one tradition speak without collapse (Bhabha, 2012/1994).

Translated to typography, two shortcuts are worth resisting: forcing Arabic into Latin metrics, or dressing Latin in Arabic like outlines. Both tend to confound readers. A more reliable criterion is reader parity: can Arabic dominant and Latin dominant readers inhabit the same layout without one set of habits becoming the default? That criterion moves attention to correspondences of effect (tempo, contrast, rhythm, and reading path) rather than to the replication of outlines. Historical reception supports this approach: when Arabic type departed from established conventions, readers judged it less acceptable, whereas designs aligned with learned expectations gained broader trust (Nemeth, 2017; Nemeth, 2020). And because technical standards and production systems do not, on their own, guarantee such parity, the relation has to be composed at the level of typographic choices (Osborn, 2017).

6.3 Semiotics of form

In a social-semiotic perspective, typography participates in meaning-making: it can point to kinds of things and actions, shape the relationship between writer and reader, and knit dispersed elements into a coherent whole (van Leeuwen, 2006). Readers learn these potentials through use, so typographic choices become cues for attitude and emphasis and for what should stand out or recede; meaning is thus carried in form as well as in words (van Leeuwen, 2006). “Typography can also enact interactions and express attitudes to what is being represented. It can ‘interpret’, or, you might say, ‘perform’ texts, or parts of texts, as ‘modern’, or ‘traditional’, ‘capricious’ or ‘serious’, ‘exciting’ or ‘dull’ …” (van Leeuwen, 2006, p. 143).

Osborn’s history of Arabic script turns this principle into lived practice by showing how styles operate as a conventional code for genre, audience, and authority (Osborn, 2017). A calligraphic hand or a typeface style frames reception before any lexical content is processed, which is why sacred, legal, scholarly, and everyday texts have long been distinguished by stable stylistic differences, and why moments of technological change trigger fresh reflection on what a style communicates (Osborn, 2017). “Differences of proportion, size, and appearance indicate the genre, audience, or function of a text” (Osborn, 2017, p. 16).

Applied to Arabic–Latin settings, keeping meaning at the center means composing relations that let the ideational content travel clearly across scripts, that maintain an interpersonal stance which addresses different readerships without subordinating one to the other (Osborn, 2017), and provide textual organization readers can follow to locate emphasis and follow the argument (van Leeuwen, 2006). The salient question is whether choices of style and register can invite

comparable interpretations of what the message is, whom it addresses, and how its parts cohere, while each script retains its own construction.

7. The psychology behind Typography

Typography is not merely a visual aspect of design; it is closely connected to psychological factors that influence how text is perceived and interpreted. The typeface chosen for any given text can evoke specific emotions, shape perceptions, and influence the effectiveness of communication. This point is illustrated in a study by Juni and Gross (2008) at New York University, which examined how different typefaces affect emotional responses. Participants were presented with satirical articles from The New York Times in two fonts, Times New Roman, a serif typeface, and Arial, a sans-serif typeface. The results showed that Times New Roman elicited stronger emotional reactions, both in terms of humor and frustration, compared to Arial. The study indicates that font selection can shape reader engagement and interpretation, underscoring typography's role in communication and design.

The findings from Juni and Gross suggest that typography does more than convey information; it can shape the reader's emotional experience. Serif fonts like Times New Roman are often associated with authority, tradition, and formality, which may have contributed to the stronger emotional responses observed in the study (Brumberger, 2003). These characteristics can make serif fonts effective when a text is intended to carry weight and seriousness, enhancing its emotional impact. In contrast, Arial's sans-serif design, associated with simplicity and modernity, produced a more muted emotional response, reflecting its perceived straightforwardness and clarity. The study points to the value of considering psychological effects in written communication, particularly when the goal is to evoke a specific response.

Beyond individual perception, typography also matters in political communication and social movements, where it can shape public perception and influence behavior. The use of typography in political propaganda illustrates how typefaces are selected for communicative force as well as aesthetics. During the Russian Revolution, for example, the Bolsheviks employed bold, geometric sans-serif forms in propaganda materials to signal a break from the past and the emergence of a new proletarian society (Kinross, 1992). These typefaces were intended to project strength, modernity, and defiance, qualities central to the revolutionary message. This example shows how typography can operate as an ideological instrument, reinforcing messages through visual means and shaping psychological impact.

In social movements, typography has consistently been used to unify and mobilize supporters by reinforcing the emotional and psychological character of messages. A contemporary example is the Black Lives Matter movement, which has used typography to build a clear visual identity that resonates on visual and psychological levels. The design and use of bold, sans-serif fonts across platforms help establish a visual identity that is modern, assertive, and inclusive. This approach is evident in typefaces inspired by protest placards, such as TopicType BLM, designed to capture the emotion and energy of physical protests in digital space (Design Week, 2020).

The TopicType BLM typeface, developed by the design studio Vitamin London, was created to bring the emotional energy of Black Lives Matter protests into the digital realm. According to the designers, the typeface drew from diverse, handmade letterforms seen on protest placards during demonstrations. The intention was to maintain the authenticity and intensity of physical protests while adapting them for online communication. This example shows how typography can be used to evoke a specific emotional response and reinforce the message of a social movement. Its resonance lies not only in its visual form but also in how it connects digital representation to the movement's physical and emotional roots, bridging online and offline activism.

The strategic use of typography in Black Lives Matter highlights how typeface selection can reinforce the themes and aims of social movements. By choosing a typeface that is bold, clear, and affectively engaging, the movement established a visual identity that is recognizable and cohesive for supporters. This choice helps unify messaging so that calls for justice and equality are communicated with clarity and emotional force across media. The psychological impact of such typographic choices is significant because it contributes to a movement's capacity to engage, motivate, and mobilize its audience.

Arabic political typography shows a closely related psychological approach. In *Strikethrough!*, Munro discusses Ganzeer's series *Of Course the Army Protected the Revolution* (2020). Each poster layers a portrait with the statement "When injustice becomes law, rebellion becomes duty," rendered bilingually: a custom Arabic stencil that draws on kufic and naskh conventions, and a geometric, modular English treatment. The partial occlusion of the face and the tight stacking intensify urgency and responsibility, translating protest speech into a bilingual typographic voice that addresses overlapping publics (Munro, 2022, pp. 82–83).

Munro's interview helps explain why these choices read so forcefully at scale. He describes curating across time and media to fill archival gaps and keep marginalized practices visible, and he stresses affect as a design driver: "typography is about expressing a sentiment, a feeling, a mood, an emotion, an idea," linking formal decisions to collective resolve (Ten Brink, 2024, pp. 43).

Viewed across these examples, Arabic and Latin typography play an important role in shaping both the aesthetics and the psychological reception of communication. Typeface choice can influence how a message is perceived, how it resonates emotionally, and how it aligns with the cultural and ideological context. For designers, activists, and communicators, attending to these psychological dimensions is part of crafting messages that are visually coherent and affectively appropriate. Typography functions here as a bridge between message and audience, with the capacity to shape perception and action.

Carrying this thread forward, the scholarship shows that typography carries affect and meaning, and that Arabic and Latin scripts cue those responses differently. What remains underdeveloped is a practice-grounded account that translates these psychological and semiotic insights into script-aware design heuristics for Arabic–Latin work, especially at the level of micro-typography (weight, contrast, rhythm, spacing, diacritics) and in real communicative settings. I aim to articulate culturally responsible, affect-sensitive strategies that let both scripts speak with integrity while sustaining clarity and emotional resonance.

Research Methodology:

My creative project is anchored in research-creation and draws on a Research through Design (RtD) methodology, where typographic composing (Arabic–Latin) and thinking proceed together and understanding is carried by the typographies and the reasoning they make possible. In this frame, typographic composition is not an illustration of prior conclusions; it is where claims are posed and answered inside the relation of Arabic and Latin, how emphasis is distributed, how rhythm travels, and how two readerships can meet the same message without one being absorbed into the habits of the other. Because the questions are inseparable from practice, what needs to be known emerges through making (Chapman & Sawchuk, 2012). I then read the relation from both sides and state in plain terms why a choice holds or where it fails. The knowing here is qualitative and argumentative; it rests on reasoned demonstration inside the composition rather than on counts or metrics.

An ethical orientation comes first, with neither script absorbed by the other. And since typographic defaults carry inherited histories, my task is to notice where habit tilts composition and to redesign the relation so both scripts keep their voice while speaking as one message.

I keep the working rhythm modest and cyclical, asking a focused question, composing toward it, reading the result from each side, then writing what that work has made clear and what it leaves open. Reading sharpens attention, composing tests whether insights withstand bilingual scrutiny, and writing keeps decisions accountable rather than intuitive. Progress is measured by coherence, by how tightly choices serve the question, not by novelty.

To steady judgment across iterations, I hold three touchstones in view: clarity, so a fluent reader of either script does not need to guess; rhythm parity, so contrast, spacing, and tempo feel comparably intentional across scripts; and cultural integrity, so no solution reduces one script to the unexamined habits of the other.

Accordingly, structure follows from the framework rather than leading it. I move across scales as needed, at times concentrating on letter relations, at times extending to words and to longer utterances, and what is learned at one scale returns to inform the next. The aim is simple and exacting: allow Arabic and Latin to share typographic composition with dignity and state clearly what that sharing teaches, so the compositions and the reasoning that underwrite them can be judged on the same ground.

1. Visual Typographic Surveys

Rationale

As a first move, I begin with visual typographic surveys of how Arabic and Latin meet in everyday communication. Looking across many examples at once helps me see where relations between scripts feel fair or tilted, how emphasis is distributed, and how readers are addressed. The purpose is orientation and calibration. By attending to existing practice before composing new work, I keep my questions proportionate to the problems readers actually meet.

Objectives

- Map common arrangements that bring Arabic and Latin into the same field of reading.
- Observe how directionality is managed when messages mix scripts.
- Study how hierarchy and emphasis are allocated across languages.

- Examine rhythm, proportion, and spacing where the scripts meet.
- Note recurring strengths and pitfalls that can inform the composing stages that follow.

The following presents a collection of bilingual Arabic–Latin typographies from public, commercial, and institutional contexts. Taken collectively, the compositions allow assessment of hierarchy, directionality, rhythm, and emphasis in the visual and cultural relation between Arabic and English.

Figure A1

Collection of bilingual Arabic–Latin fonts



Note. Composite assembled from publicly available images gathered online for scholarly critique. **Sources listed in Appendix.**

Figure A2

Collection of bilingual Arabic–Latin posters



(a) (b) (c)

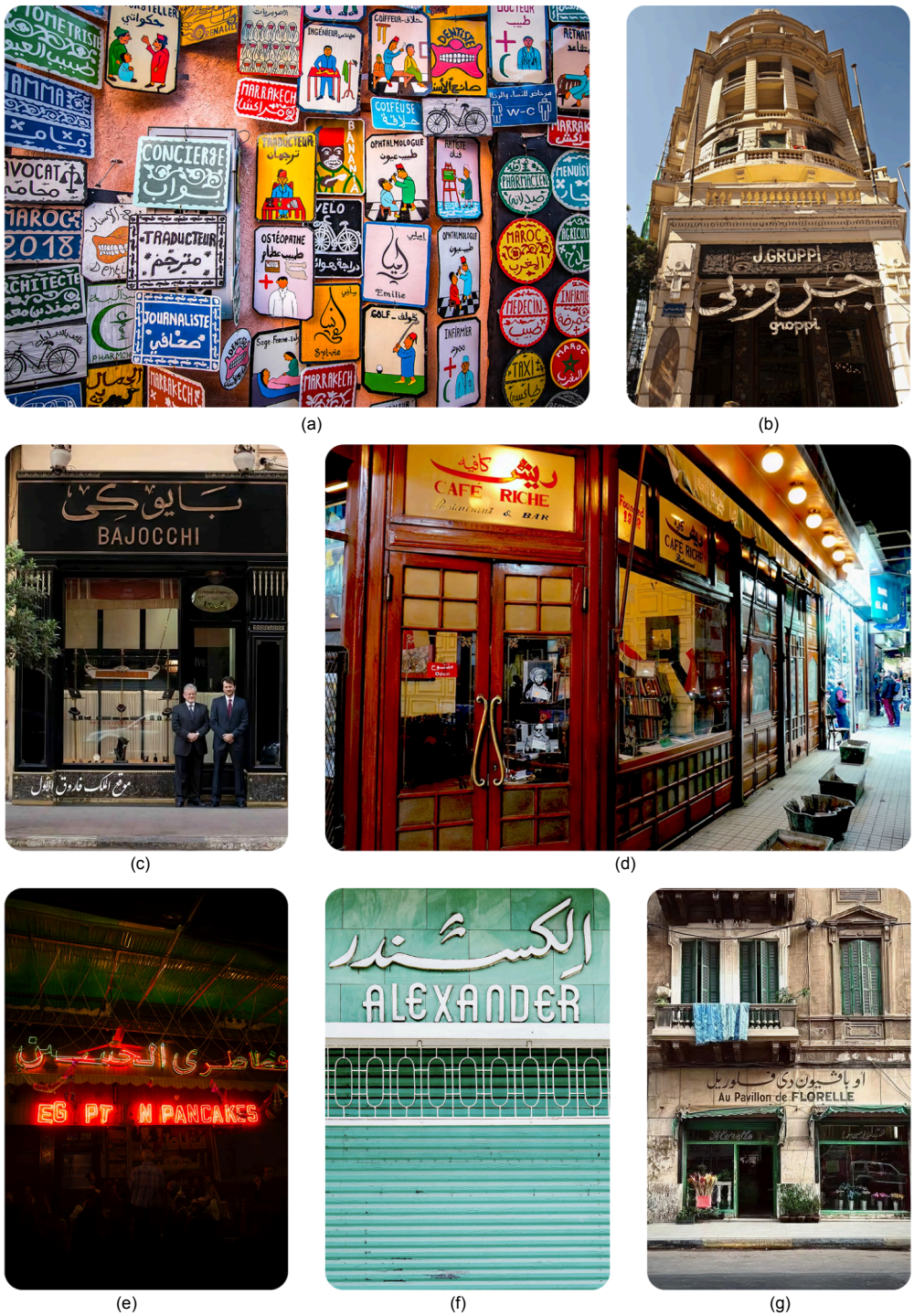
(d) (e) (f)

(g) (h) (i)

Note. Composite assembled from publicly available images gathered online for scholarly critique. **Sources listed in Appendix.**

Figure A3

Collection of bilingual Arabic–Latin street and shop signs in Cairo and Beirut.



(a) (b)

(c) (d)

(e) (f) (g)

Note. Composite assembled from publicly available images gathered online for scholarly critique. **Sources listed in Appendix.**

In the first and second collections (Figure A1, Figure A2) the work appears shaped by professional design cultures that prize seamless pairing. In the third (Figure A3), everyday signage takes the lead from local reading habits and lets Arabic set the tone while English accompanies.

Across Figure A1 and Figure A2, the emphasis falls on blending. Fonts are selected and tuned so they look perfectly aligned as a pair, and the layouts are composed to showcase that fit. The Arabic companion to Helvetica in Figure A1 exemplifies this goal. Its forms are simplified toward geometry in order to harmonize with the Latin; the result achieves an impressive optical match, yet the price is visible. The simplification flattens distinctive Arabic rhythms, and the script begins to read as a Latinized silhouette rather than as Arabic with its own internal logic. Visual balance is gained, but some of the script's character is traded away. I read this as a caution: equivalence of outline can mask inequity of rhythm, and optical parity is not the same as cultural integrity.

The posters and designs in Figure A2 tell a slightly different story. Many examples preserve recognizably Arabic features, sometimes through calligraphic or neo-calligraphic choices, while the Latin typically appears in clean, contemporary forms, with spacing and rhythm that reinforce that register. By "neo-calligraphic," I mean work that draws on calligraphic form while operating in modern media contexts, where the novelty lies in the technological and institutional setting rather than in calligraphy itself (Clarke, 2010). Even so, the overall treatment often carries the imprint of the International Typographic Style, with modular layout and modernist pacing shaping the result (Hollis, 2006). Grid, hierarchy, color, and typographic pacing place the Latin solution at the center of decision-making, and the Arabic is asked to fit within that frame. I notice my own eye following those defaults, which reminds me how strong they are. The lesson I carry forward is that keeping Arabic characteristics at the letter level is not sufficient if the compositional decisions around them still assign secondary status.

By contrast, the street and shop signs in Figure A3 from Beirut and Cairo appear more anchored in Arabic reading practice. These pieces were likely produced outside formal branding contexts, and the solutions feel closer to craft traditions. Arabic leads; English is present for indication, orientation, or hospitality. Even where spacing or alignment is not polished, the sense of Arabic rhythm is intact. I do not treat this as a model to copy, since the aims and settings differ from designed posters or corporate marks, but it is a useful counterweight. It shows that

bilingual presence does not require Arabic to be bent toward Latin habits, and that legibility and welcome can be achieved while letting Arabic remain itself.

2. Field Research

The visual typographic surveys introduced how Arabic and Latin scripts are brought together in curated or professional contexts, and in the vernacular signage of Beirut and Cairo. The field trip I took in January 2025 to Tunisia extends this inquiry by catching the scripts in their own lived environment: on walls, storefronts, and street corners. If surveys allowed me to assemble broad comparisons, walking the streets let me see how these arrangements breathe in real time, shaped by daily use and by histories of language contact.

Figure 1

Field research photographs of public typographic signage in Tunis (January 2025).



Figure 1 (Continued)



Note. All photographs by the author, captured in public streets and other publicly accessible locations in Tunis, Tunisia (January 2025). Images document Arabic–Latin script co-presence and layout conventions in everyday contexts; minor adjustments were limited to cropping and tonal balance.

The scenery in Tunis felt quite different from Cairo and Beirut, even though the European colonial presence is a thread they share. In Cairo and Beirut, traditional signs often celebrate Arabic calligraphy with bold strokes, placing Arabic at the center of visual identity even when Latin is present. In Tunisian streets I also encountered Arabic calligraphy, but it was not as pronounced. What I noticed was not the absence of Arabic, but rather its softened weight compared with the exuberance of Beirut's street calligraphy or Cairo's layered sign traditions. Nothing I saw reached the level of crafted pairings found in professional design studios; the

vernacular is plainer, but also more telling. Seen through the lens of the “linguistic landscape”, understood as the way public display of languages indexes symbolic power and vitality (Landry & Bourhis, 1997), the visibility and salience of codes on public and commercial signage help explain why Latin practices can appear to set the frame in some districts in Tunis while Arabic asserts itself more forcefully in others.

This dynamic surfaces in bilingual typography whenever one script’s measurements and alignments are taken as the measure of the other. Because printing grew in a Latin environment, “other scripts still tend to be treated as a complement to Latin script and their measurements normalized accordingly” (Milo, 2011, p. 239). Designers have at times tried to “universalize Arabic script by squeezing it into cells that cannot even accommodate Latin letters with diacritics,” which compresses Arabic rhythm and proportion (Milo, 2011, p. 245). In parallel settings, attempts at balance can misfire. At equal nominal sizes, Arabic typically presents as smaller than English, and readability declines when Arabic is keyed to Latin measurement systems (Milo, 2011, p. 246)

Because I stand inside these practices, my perspective is shaped by them and in turn shapes how I weigh emphasis, rhythm, and address; I move daily between Arabic and English, and my training inclines me to notice when Latin conventions quietly set the terms of a composition. Holding both impulses in view is the discipline. Phillipson reminds us that such defaults are bound up with wider cultural and communicative hierarchies that advantage some audiences and disadvantage others, even in settings that claim diversity (Phillipson, 2009). The photographs I took during the field trip also show this variety (see Figure 1). They teach me to distinguish between harmony that is achieved by reducing one script to the habits of the other and harmony that emerges from parity of emphasis and rhythm. Milo proposes seeking “the right equivalence with Latin typefaces without sacrificing internal and external proportions and aesthetics on either the Arabic or the Latin side of the equation,” which preserves Arabic rhythm while keeping English fully legible (Milo, 2011, p. 245).

Reflecting on the typographic surveys and the field trip in Tunisia, professional work can produce elegant pairings that risk cultural loss when they are executed at the expense of rhythm, while vernacular work often preserves script integrity yet still speaks to mixed readerships. The path forward is to compose relations in which Arabic and English meet as peers rather than as mirror images and to judge each outcome by how well it sustains that relation in reading. If linguistic hierarchies are reproduced in visual settings, then design has an

ethical responsibility to interrupt them by refusing defaults that treat one script's measurements and pacing as universal, and by calibrating relations so each script remains legible on its own terms (Milo, 2011). That is one way to resist what Phillipson terms linguistic imperialism in typography and public lettering, where layout choices can either sustain or recalibrate the ordinary distribution of visibility and power (Phillipson, 2009).

3. Expert Interviews and Case Studies

While surveys and the walk through Tunis opened a view onto how Arabic and Latin inhabit both curated settings and the street, following the work of bilingual type designers would bring that view into contact with the routines of making, where audiences, tools, and briefs shape what is possible. In attending to their interviews and to specific pieces, the analysis turns to the principles by which balance is achieved and to the limits within which that balance must hold.

I treat the published interviews as secondary qualitative sources, following guidance that expert interviews are knowledge-producing encounters rather than mere descriptive reports and therefore demand explicit methodological reflection (Bogner & Menz, 2009). I read each transcript in full and conduct a thematic analysis following Braun and Clarke's six-phase approach: familiarising with the data; generating initial codes; searching for themes; reviewing themes; defining and naming themes; and producing the report (Braun & Clarke, 2006). I then check the themes against close readings of selected projects so that stated principles and demonstrable outcomes remain in conversation (Braun & Clarke, 2006).

3.1 Samar Maakaroun

Samar Maakaroun is an Arab British designer and creative director whose multilingual practice has grown between Beirut and London; over more than two decades she has worked across branding, digital storytelling, scenography, and typography, bringing together aesthetics, context, and heritage with brand voice and purpose, and treating the meeting of languages and cultures as a source of creative and narrative strength (Maakaroun, n.d.n).

In the interview "How to design multilingual scripts and avoid lazy visual stereotypes," delivered at Nicer Tuesdays on January 30, 2024, she describes arriving in the United Kingdom fluent in English yet discovering that fluency did not immediately unlock humour, the weight of silence, or the unspoken cues that shape reception across publics (Maakaroun, 2024).

She recounts that years of work in performance made reactions visible in the room and taught her to navigate misreadings, accommodation, and adjustment as live conditions rather than as abstractions. Her account of process begins with a protected span of exploration in which options are generated without fear of error, after which work tightens into craft and refinement once promising relations have been found (Maakaroun, 2024).

She invites collaborators to try possibilities even when they do not read Arabic so that relations can be discovered through iterative making rather than asserted by rule. For my experiments this justifies early cycles in which Arabic lines are tested for their own cadence before any alignment to Latin measurements is attempted, followed by comparative trials that ask whether both scripts remain comfortable in reading once brought together. When she turns to mechanics she rejects workflows that complete one language and retrofit the other, since Arabic does not rely on case distinction and moves through connected forms along the line in ways that do not behave like Latin capitals (Maakaroun, 2024). She notes that distortions follow when a Latin template is allowed to set proportions and alignment for Arabic, which is why decisions need to be established in relation to both scripts from the outset. I pair this with the typographic argument that equivalence is achieved when each script keeps its internal proportions rather than being keyed to Latin as a universal measure (Milo, 2011). As Milo puts it, “find the right equivalence with Latin typefaces without sacrificing internal and external proportions and aesthetics” (Milo, 2011, p. 245).

Her experience in identity work supplies a systemic lesson, since she values arriving at a single visible presence that can hold both scripts when the brief allows it, not to erase difference but to prevent a proliferation of disconnected faces and to keep the system coherent across touchpoints (Maakaroun, 2024). She also acknowledges the practical frictions of large programmes where legibility is policed by stakeholders and promising paths can be lost in mediation, which I treat as a reminder to separate concept strength from organisational constraint in my evaluations. She is alert to the ease with which surface shorthand is substituted for understanding, and she resists stock treatments that stand in for cultural knowledge by directing attention back to the resources of the script and to the variety of contexts in which it is used across regions (Maakaroun, 2024). In my analysis I will therefore mark options that rely on shorthand as weak and privilege relations that are built from text, proportion, and audience.

The interview closes some of the distance between principle and practice by returning to language itself, since she discusses work that stages words that do not carry neatly across

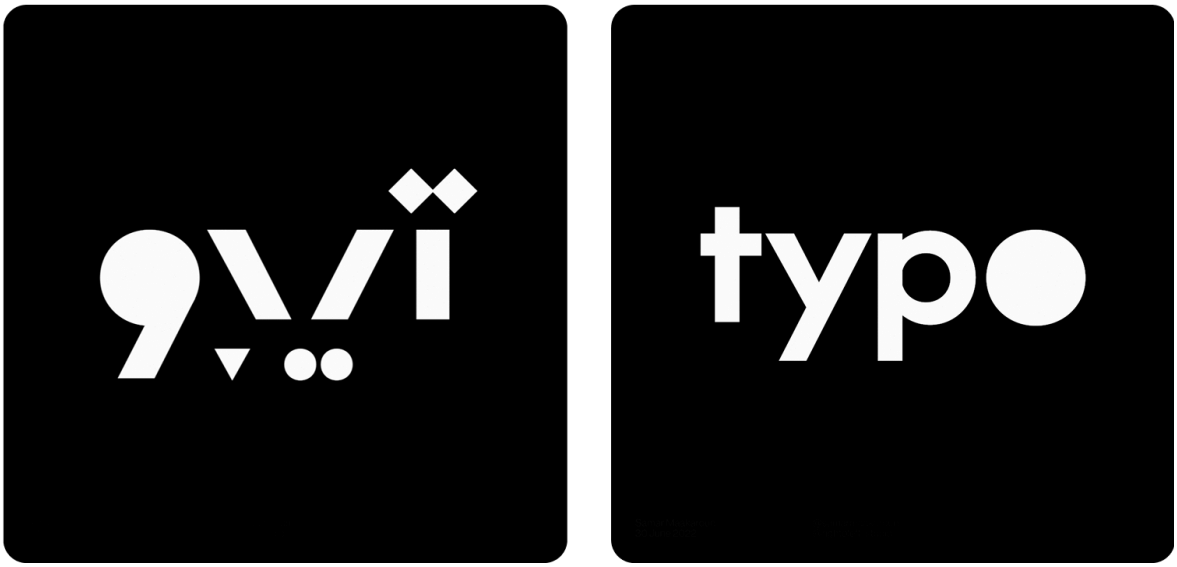
languages and treats those frictions as material for design rather than as obstacles to be hidden (Maakaroun, 2024). On this basis, trials can begin from features of Arabic writing and from the way words carry sense across languages, and outcomes can be judged by whether Arabic rhythm is preserved while English remains fully legible, with an additional check that size and spacing relations are derived from reading rather than from the convenience of equal nominal sizes (Milo, 2011).

29 Words for 29 Letters

The interview makes clear that bilingual typography is a question of address in context before it is a question of outline. 29 Words for 29 Letters stages that conviction as a working glossary of lived language, turning words that circulate between Arabic and English into typographic experiments that ask how meaning travels and where it resists translation (Maakaroun, 2024). The project is introduced as “an experimental index” of working with two languages, where each letter of Arabic anchors a word from daily life in London and the outcomes appear as a sequence of shapes, sometimes still and sometimes in motion (Maakaroun, 2023).

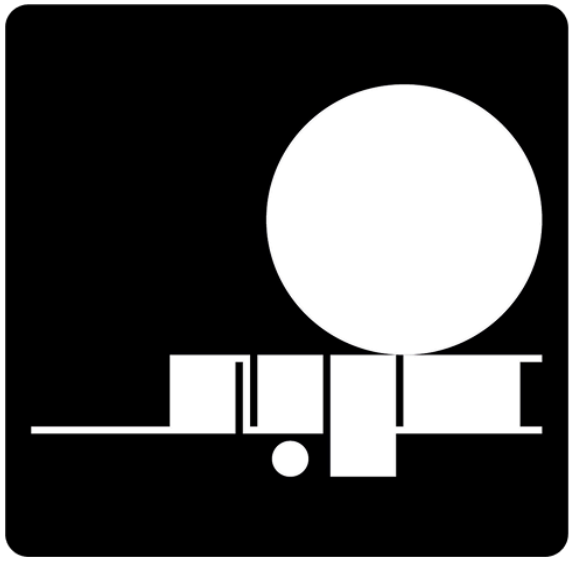
Figure A4

29 Words for 29 Letters: Selected entries

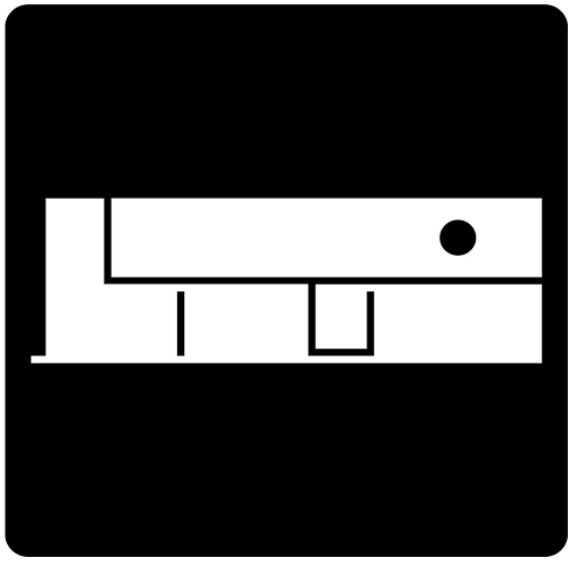


(a) (b)

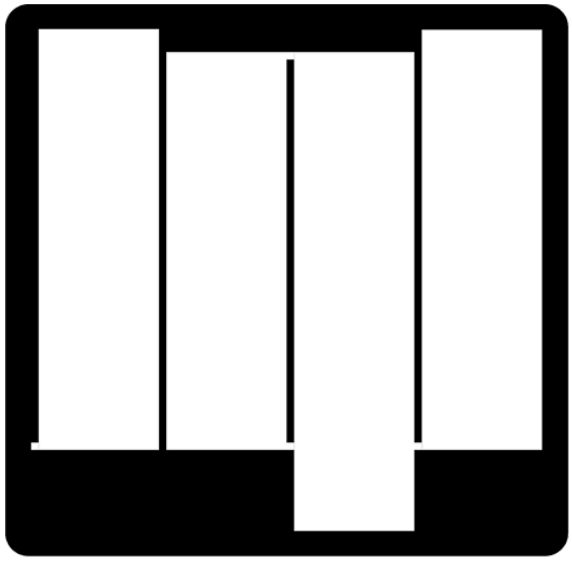
Figure A4 (Continued)



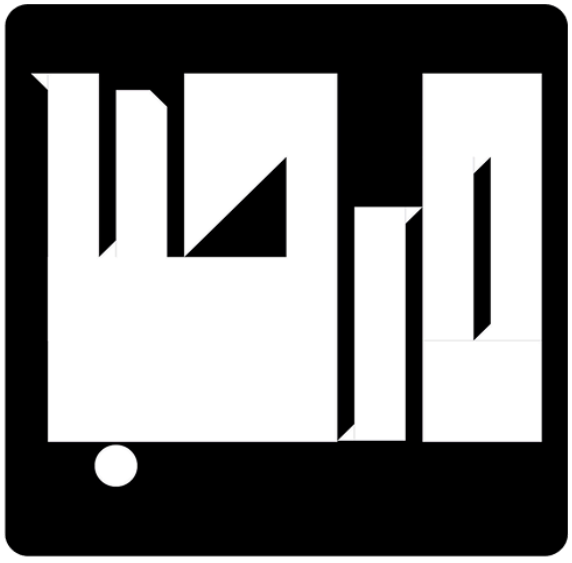
(c)



(d)

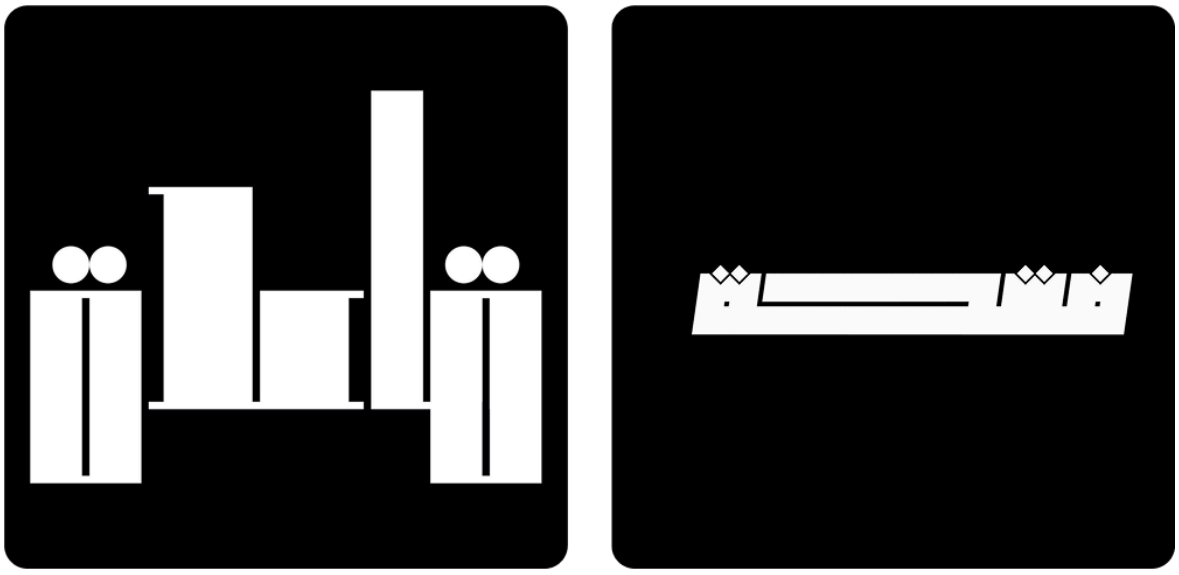


(e)

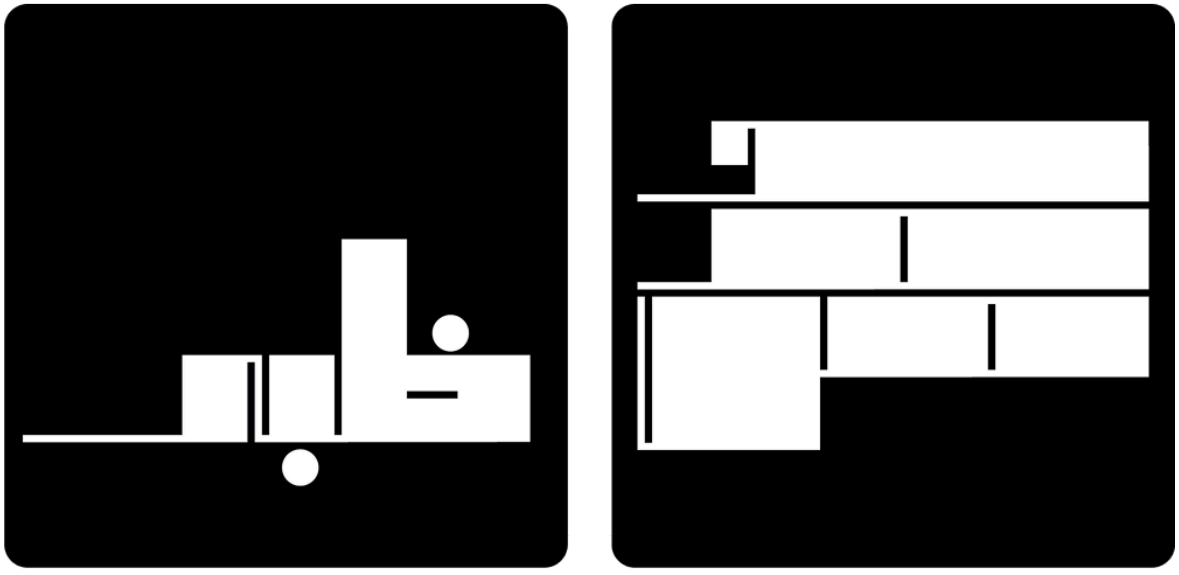


(f)

Figure A4 (Continued)



(g) (h)



(i) (j)

Note. Panels show selected entries from Samar Maakaroun's *29 Words for 29 Letters* (2023): (a–b) **Typo – تيبو**; (c) **Expat/foreign – غربي**; (d) **Typography and Calligraphy — خط**; (e) **lol — لول**; (f) **Hello – مرحبا**; (g) **Base – قاعدة**; (h) **Opening (short vowel) – فتحة**; (i) **Gazelle – ظبي**; (j) **Hummus – حمص**. Stills are captured from animations where applicable. Reproduced under fair dealing for the purposes of research and criticism. Source: S. Maakaroun, *29 Words for 29 Letters* (2023).

The collection is presented as an experimental index that follows the process of working across two languages and of bridging very different typographic worlds, with one word chosen for each letter and the outcomes presented as a river of shapes and forms in stills and animations (Maakaroun, 2023).

Across the selection reproduced as Figure A4, many entries ask the reader to spend longer than usual to identify the Arabic word. The degree varies, yet a clear pattern appears. Geometric simplification and stacking make the forms look orderly and contemporary while slowing recognition. Reading research explains why this delay occurs. Quick access rests on intact joining behaviour, stable counters, and a baseline rhythm that supports continuous parsing rather than reconstruction piece by piece (Nemeth, 2022).

This effect becomes clearest where one modular scheme is applied to both scripts. Typo – تيبو (Figure A4, a–b; Maakaroun, 2023) appears as a bilingual pairing built from the same primitives, with the English construction disassembled to yield the Arabic. The conceptual rhyme is evident, yet if the English element is removed the Arabic counterpart becomes difficult to read at ordinary sizes. The eye leans on the presence of the English word to decode its Arabic partner. The dependence reveals a deeper issue. A shared geometric kit tends to normalise Arabic to a Latin-oriented measurement logic (proportions, spacing, modular units), reducing joins to stackable blocks and compressing the movement along the line (Milo, 2011). The extensive use of such primitives also draws the Arabic toward a Western modernist visual economy, which westernises the presentation of the words and moves them away from the script's native stroke logic (Milo, 2005; Nemeth, 2022).

Related pressures are visible elsewhere in the selection: Opening – فتحة (Figure A4, h; Maakaroun, 2023) represents the short vowel as an opening and communicates the idea with clarity, yet at text size the letters resolve into compact stacks and the vowel sign reads more readily than the word that bears it.

Several items remain comparatively accessible for Arabic-dominant readers, even if they are not instant reads. Expat or foreign – غربي (Figure A4, c; Maakaroun, 2023) retains a structural cue that carries meaning in practice; the iʿjām (dot) on the initial غ shifts identity, and the design lets that mark do its work without overhauling the word's structure. Hello – مرحبا (Figure A4, f; Maakaroun, 2023) and Rule or base – قاعدة (Figure A4, g; Maakaroun, 2023) can be read once the eye settles, since enough joining behaviour is preserved to support recognition.

Gazelle – ظبي (Figure A4, i; Maakaroun, 2023) also reads with effort but within a reasonable span for continuous reading rather than letter-by-letter reconstruction. By contrast, Typography and Calligraphy – خط (Figure A4, d; Maakaroun, 2023) and lol – لول (Figure A4, e; Maakaroun, 2023) are among the least legible in this set; the extensive geometric treatment displaces the script's distinctive flow, and the words are likely to be decoded as constructions rather than read as words by Arabic-dominant audiences.

Within the frames reproduced here, Typo – تيبو (Figure A4, a–b; Maakaroun, 2023) leans on transformation to express its concept, Opening – فتحة (Figure A4, h; Maakaroun, 2023) uses animation to mirror the motion of the vowel itself, while Hummus – حمص (Figure A4, j; Maakaroun, 2023) remains still. These choices raise a central question: does movement serve reading? When motion grows from a script's own typographic behavior, meaning and legibility move together. But when it merely showcases formal play, reading risks falling away.

The collection's reliance on geometric primitives makes it instantly legible to viewers shaped by Latin modularity and modernist clarity. But that familiarity introduces a cost for Arabic-dominant readers, who must rebuild joins and counters before reading becomes possible. Both reading research and practice-based critique point to a steadier approach: begin with the features that carry meaning in Arabic, secure legibility at the sizes where reading actually happens, and let any shared geometry follow only once cadence and proportion are held intact (Milo, 2011; Nemeth, 2022).

3.2 Neji El Mir

Naji El Mir is a Lebanese type and graphic designer based in Paris. He studied graphic design at the Lebanese American University in Beirut and later pursued animation and multimedia in France (El Mir, 2023). He locates authorship in the act of drawing letters, keeping Arabic lettering at the center of practice, and develops typographic relations through drawing that are then tested in circulation, where public use becomes the measure of whether form and address hold beyond the studio (El Mir, 2023).

In the interview "Khatt Chronicles in conversation with Naji El Mir," recorded in 2023 for Khatt Chronicles, he presents the Mudawana podcast identity to show how drawing sets the voice (El Mir, 2023). The same hand shapes lettering and illustration so words and images share one cadence, and the forms are tuned to a conversational register that must stay legible at small sizes and in motion-based contexts without losing character. Illustration functions as a

companion voice grown from letter drawing, which keeps tone, rhythm, and emphasis coherent across uses (El Mir, 2023). He also discusses work with Visualizing Palestine, where typographic choices are calibrated to reveal structures rather than decorate events. Lettering, composition, and image-making are arranged to direct attention to relations that matter for interpretation, and the use of handmade lettering signals situated authorship while resisting stock treatments that reduce Arabic to a stereotype. Audience and setting are specified first, then the typographic voice is shaped to meet that situation without relinquishing the internal logics of Arabic drawing, including proportion, rhythm along the line, and points of emphasis (El Mir, 2023). Later in the conversation, El Mir turns to Typographic Matchmaking in the City as research carried out through public applications. Workshops and critique create time to test Arabic–Latin relations in real settings. The lesson he draws is practical: proportion and rhythm are established with reference to both scripts; clarity of address is maintained across readerships; and Arabic preserves connected movement along the line and stroke logic at reading size instead of being retrofitted to Latin measures (El Mir, 2023).

Posters for Palestine

From the criteria just established, the focus turns to a long-running sequence of posters on Palestine by Naji El Mir. Over more than a decade, this body of work addresses different facets of Palestinian experience, from systematic starvation and the international silence that shadows it to the vitality of festivals and screenings. Many of the posters are bilingual, composed to address Arabic readers and international publics within a single frame.

Figure A5

Posters for Palestine: Selected entries



(a) (b) (c)

(d) (e) (f)

Figure A5 (Continued)



(g)



(h)



(i)



(j)

Note. Panels show selected posters by Naji El Mir: (a) In my head I travel wherever I want to (2017); (b) Your Agony is your Triumph (2023); (c) Systematic Starvation (2023); (d) International Silence (2024); (e) Gaza's Fire (2024); (f) What Peace? (2024); (g) Festival Ciné-Palestine (2024); (h) Festival Ciné-Palestine (2024); (i) Red Zone Festival (2021); (j) Festival Ciné-Palestine (2024). Reproduced under fair dealing for the purposes of research and criticism. Source: N. El Mir, Posters (2017–2024).

The series reads as a sustained argument for bilingual address without reducing Arabic to a decorative sign. Where Samar Maakaroun sometimes pursues high compression that risks legibility at reading speed, El Mir keeps the weight of Arabic present as writing rather than as a motif. Latin is granted the same authority. Its presence rises or recedes according to the situation, but it is never treated as a measuring stick for Arabic. In *What Peace? (Figure A5, f; El Mir, 2024)* the Latin title takes the foreground to speak directly to Western publics and institutions. In *Gaza's Fire* (Figure A5, e; El Mir, 2024) Arabic holds the line while English remains fully legible as a secondary voice. In many instances the two scripts meet at parity.

Across the set the letterforms are drawn for each poster rather than selected from existing fonts. This matters for balance. Drawing allows Arabic to keep its internal rhythm and joining while Latin is shaped to sit with it as a peer. The approach is visible in the more geometric posters such as *Your Agony is your Triumph* (Figure A5, b; El Mir, 2023), *Systematic Starvation* (Figure A5, c; El Mir, 2023), *International Silence* (Figure 6, d; El Mir, 2024), and *What Peace?* (Figure A5, f; El Mir, 2024). El Mir used geometry here as a discipline rather than an erasure. Strokes are sharpened and sometimes fractured to register pressure, grief, and resolve, yet the Arabic remains recognisably Arabic in its movement along the line and in the way letters meet. Where the brief calls for a more calligraphic inflection, as in *In my head I travel wherever I want to* (Figure A5, a; El Mir, 2017) and *Gaza's Fire* (Figure A5, e; El Mir, 2024), curvature, ductus, and counter rhythm are allowed to lead so that affect comes from writing, not from ornament.

Across the sequence the hierarchy between scripts shifts with intent, and those shifts are articulated through scale, weight, spacing, and tonal contrast. When Latin is dominant, as in *What Peace?* (Figure A5, f; El Mir, 2024), the poster addresses Western audiences and governments in their own reading habits while keeping Arabic present as the originating voice of the appeal. When Arabic carries more weight, as in *Gaza's Fire* (Figure A5, e; El Mir, 2024), the work speaks first to Arabic-reading publics and communities, with Latin placed to widen the circle without taking control of pacing or emphasis. Between these poles are works where the two scripts share scale, weight, and spacing so that neither quietly sets the norm. This equal footing is not achieved by forcing nominal equality of sizes. It is achieved by calibrating stroke density, word spacing, and the relation of black to white so that both scripts read comfortably at poster distance.

The cultural posters deepen the range rather than soften the politics. *Festival Ciné-Palestine* (Figure A5, g; El Mir, 2024), (Figure A5, H; El Mir, 2024), (Figure A5, g; El Mir, 2024), and *Red*

Zone Festival (Figure A5, j; El Mir, 2024) make room for cinema and performance within the same bilingual discipline. The festival wordmarks are tuned to operate on posters, screens, and tickets. They read as public invitations and as small acts of preservation, since the Arabic lettering carries local cadence while the Latin gives non-Arabic readers an immediate point of entry.

The balance in these works emerges from a designer shaped by the Lebanese Arabic type scene and equally at home in Parisian design culture, who treats audience as a concrete design problem. His bilingual compositions honour Arabic as a written system while giving Latin equal rhetorical weight, adjusting the hierarchy to the poster's aim. The premise is that harmony begins by preserving the character of each script and then choosing a relation and layout appropriate to purpose and readership. Under that description, El Mir's practice reads as the careful construction of relations between Arabic and Latin rather than the application of a single fixed scheme (Abdel Baki, 2024).

3.3 Wael Marcos

Wael Morcos is a Lebanese graphic and type designer based in New York. He studied in Beirut and later went to the Rhode Island School of Design, and he cofounded the design studio Morcos Key so he could choose who to work with and shape the brief from the start rather than receive it ready made (Morcos, 2022). In his account, "multicultural" is not a stylistic layer added late but the condition of practice itself, with Arabic and Latin bilinguality and the studio's intertwined identities shaping authorship before any layout exists, and later it is judged by how well the typographic voice holds in circulation (Morcos, 2022).

In the interview Design in Multicultural Contexts (April 2022), Morcos outlines his own typographic approach: it starts from a clear idea and then builds outward into letterforms, type families, and page structure. When a project calls for a wordmark or a title, he builds it as typography rather than as a decorative emblem. Families are drawn to carry hierarchy, pace, and tone. Modular shapes are derived from letterforms and reintroduced as glyphs in the font. Color tunes emphasis rather than compensating for weak structure. Reading is treated as the interface, with indices, running heads, and footers acting as navigational devices that echo hyperlink logic in print, so access patterns shape layout rather than the other way around (Morcos, 2022). This approach leads directly to the bilingual layout decisions that follow. Consistently, he treats each script on its own terms. Morcos rejects what he calls Frankenstein

Arabic, where Latin shapes are cut and stitched into Arabic, and instead derives forms from Arabic's own logics of stroke rhythm, counters, diacritics, and baseline connection. When developing Arabic companions for Latin families, the aim is parity of function rather than mimicry, so an upright and a slanted Arabic can echo the natural slant and flowing rhythm associated with the Nastaliq tradition rather than an artificial slant. Nastaliq is a cursive calligraphic style used widely for Persian and Urdu (Smithsonian National Museum of Asian Art, 2014–2015). He keeps this orientation open through Arabic lettering workshops that fold critique and community back into practice, and by returning to historical models such as Kufic and Naskh (The Metropolitan Museum of Art, Department of Islamic Art, n.d.) and Nastaliq not as quotation but to find durable solutions for contemporary production (Morcos, 2022).

These principles carry into bilingual layout, where reading order is designed rather than assumed. Books can resolve directionality with mirrored editions or dual front structures, and continuous Arabic texts can integrate Latin callouts and footnotes without breaking flow by using families that clarify hierarchy while respecting right to left pacing. The same logic guides wordmarks, where the task is not to translate a logo but to compose it so legibility and parity hold across scripts. Stacking can unify reading order and elevate short vowels as visible design elements, and those elements are built into the font as glyphs so the system can be set directly in type (Morcos, 2022). The same layout system extends the baseline and raises the masthead to create repeatable layouts that remain lively and coherent.

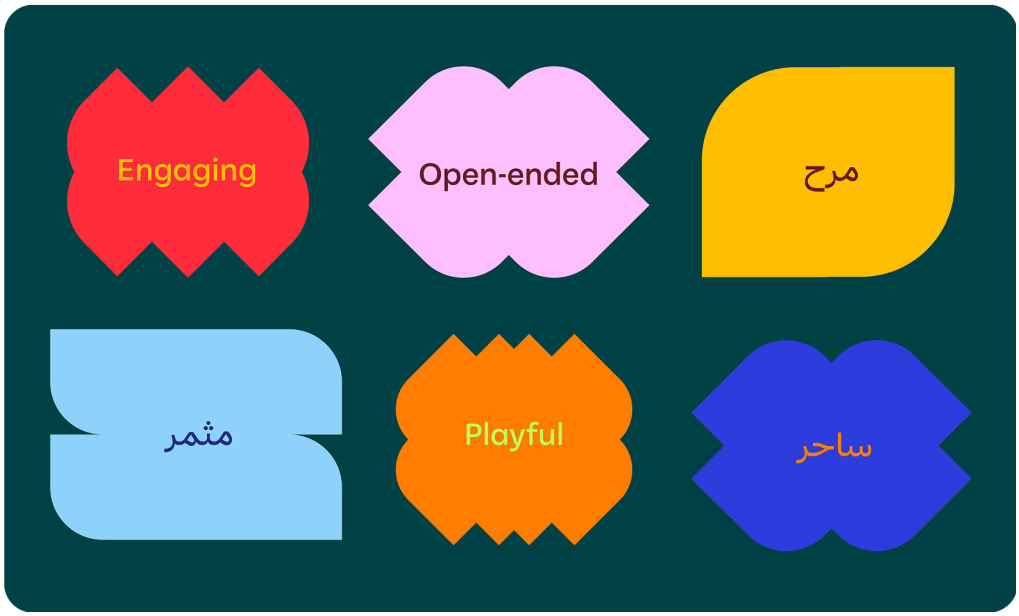
Morcos also keeps typography accountable to its public setting, treating regulation and institutional context as part of the material of type design. Across Gulf contexts, where Arabic storefront signatures are required by law and cultural investment has widened the field of bilingual publication and display, the need for multiscript systems is an everyday condition rather than an exception; the task is to compose relations between Arabic and Latin that meet these obligations while letting each script speak on its own terms, so parity rather than symmetry organizes the pairing and the voice holds as work moves across formats. Within that frame, authorship belongs to the shared making of the brief and to type design that is true to the script, while stacking, pacing, and diacritic handling are set for reading rather than visual rhyme, and fonts are delivered as systems that preserve tone as the work circulates in public (Morcos, 2022).

Dadu

Children's Museum of Qatar features a bright bilingual identity and custom type system by Morcos Key, developed with a 2x4 New York based agency and Qatar Museums. The brand is playful and built on a clear graphic framework that scales across media (Morcos Key, n.d.; 2x4, n.d.). The museum building is designed by UNStudio, and the brand aligns with a spirit of openness and discovery (2x4, n.d.; Visit Qatar, n.d.). In Arabic, dadu means play and relates to words for fun and to the marks children make in motion; this meaning informs the visual language (Morcos Key, n.d.; Visit Qatar, n.d.).

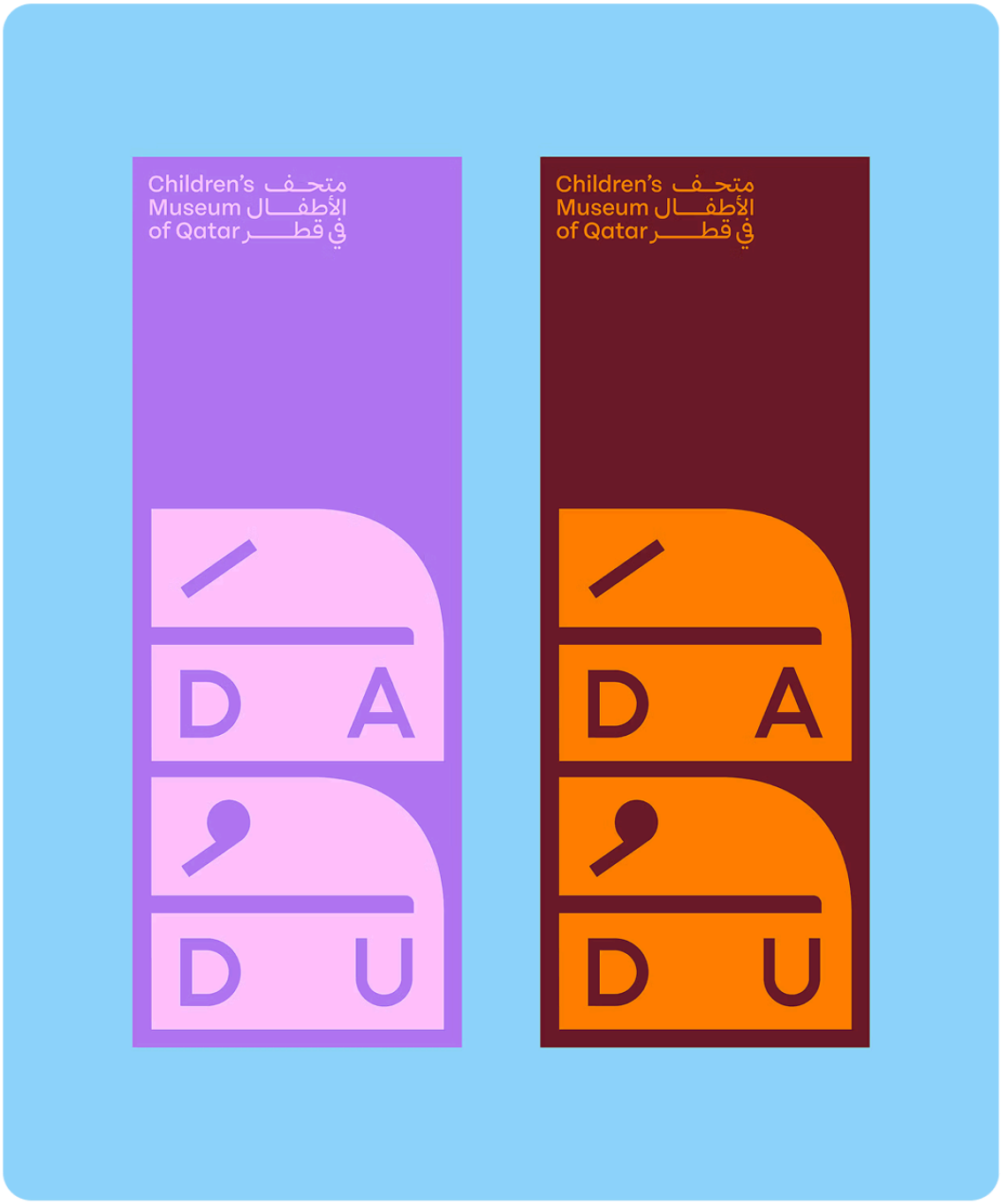
Figure A6

Dadu: Selected panels



(a)

Figure A6 (Continued)



(b)

Note. Panels show selected compositions from Wael Morcos's Dadu identity for Qatar Museums: (a) side by side bilingual text composition where Arabic and English share one visual band; (b) name set across four parts in an Arabic led modular structure with a compact bilingual title. Reproduced under fair dealing for the purposes of research and criticism. Source: W. Morcos, Dadu identity and type design (n.d.).

In the first composition (Figure A6, a; Wael Morcos, n.d.), Arabic and English share the same visual weight. A clean, project specific sans serif shapes both lines. The Arabic is modernized yet keeps its natural flow, and the Latin matches it closely in scale, stroke, counter size, and spacing, so the two scripts feel immediately balanced.

In the second system (Figure A6, b; Wael Morcos, n.d.), the Latin name Dadu sits within an Arabic led modular construction. The shared sound of D and د becomes a design hinge, inviting Arabic and English speakers to pronounce the name alike and turning the mark into a small cultural bridge where sound and structure meet.

Placed between El Mir and Maakaroun, Morcos's typography occupies a middle interval, neither driven by calligraphic proportion systems nor reduced to geometric abstraction. Arabic keeps joined flow and cursive rhythm, supporting fluent reading, while Latin adapts by matching scale, spacing, and counter size to the Arabic line. Alignment occurs through calibrated measurement rather than mimicry. The result is a poised clarity that keeps Arabic legible as Arabic while giving Latin equal footing, an effect reinforced by the shared initial sound in D and د.

3.4 True bilingualism in type

Across the three bilingual type designers, proportion, rhythm, and measured alignment emerge as reliable ways to hold Arabic and Latin together. Maakaroun shows how geometry can give order and recognizability, while reminding us how easily overreduction can thin the living flow of Arabic. El Mir keeps parity by protecting the internal logics of Arabic and asking Latin to meet it with care. Morcos demonstrates how shared metrics and phonetic cues can achieve balance without imitation. These are strong outcomes, and they establish a vocabulary of scale, spacing, counters, and pacing that reads before it declares itself.

What they do not yet attempt is a bilingualism that happens inside the letter and inside the line. In each case, Latin and Arabic stay side by side at letter, word, and sentence level, aligning by rules instead of building forms together. Arabic does not continue into Latin as a single shape, and Latin does not accept Arabic's calligraphic skeleton as a generative structure. The encounter is parallel rather than fused. That is the gap I intend to explore.

The contribution I am seeking is a bilingual typography where Arabic calligraphy can continue to generate Latin, so a reader can meet one letter and recognize two literacies. Letters become bilingual letters that remain legible as Arabic and as Latin, not as a trick but as a workable

system grounded in proportion and stroke logic. Words become bilingual words that hold a single rhythm while allowing two readings to resolve. Lines of text find ways to merge so that a passage can be read in either language without one being decoration for the other. Phonetic correspondences such as D and د offer footholds, but the work is structural: map counters to counters, stems to stems, joins to joins, and test whether recognition arrives quickly for both readers and whether meaning stays intact.

The experiments that follow use the work we've seen from these bilingual type designers as constraints and as permission, aiming to prove that true bilingual clarity is possible when form is built from shared measurements and from the live flow of Arabic, rather than from approximation or overlay.

4. Typographic Experimentation

My typographic experimentation proceeds in three connected stages that move from the smallest unit to sustained reading. It begins with letters, where forms are constructed to be readable as Arabic and as Latin within a single structural logic, then advances to words, where meaning, spacing, joining behaviour, and diacritic timing are tuned so one cadence can support two readings, and culminates in short passages that test pace, hierarchy, line length, leading, directionality, numerals, punctuation, and emphasis.

Each stage prepares the ground for the next and sends feedback back when needed, so the system is proved by iteration rather than by display. The aim is not only visual bilingualism but cultural bilingualism, since typography mediates meaning and social practice, not just information (Kress & van Leeuwen, 2006). Arabic is kept as Arabic in its flow and proportional habit, which sets the generative logic for construction and spacing, while Latin meets it through measured alignment rather than mimicry, drawing on proportion, stroke, counter, and rhythm documented in Arabic typographic scholarship (Milo, 2005). Where overlap in sound helps, it is used as an entry point, but structure remains primary. Evaluation stays practical and evidence based: speed of recognition in both literacies, comfort in continuous reading, balance of emphasis across scripts, and stability across sizes and contexts.

The working hypothesis is that a true bilingual clarity can emerge when form is built from shared measurements and from the live flow of Arabic, and when the encounter is treated as hybrid

construction rather than parallel layout, an approach consistent with theories of negotiated cultural form rather than simple addition of styles (Bhabha, 1994).

To sustain this staging and keep exploration open, I will test a wide range of Arabic and Latin typefaces, including geometric families, manual constructions developed through digital drawing, and selections by bilingual designers, to probe multiple routes to parity and bilingual reading.

4.1 Stage 1: Hybrid Letterform Development

I selected the first set of hybrid letters on a phonetic basis: each Arabic consonant is paired with a Latin grapheme that denotes the same consonant sound. This keeps pronunciation stable for readers of both scripts and reduces guesswork, so the form supports reading rather than teaching.

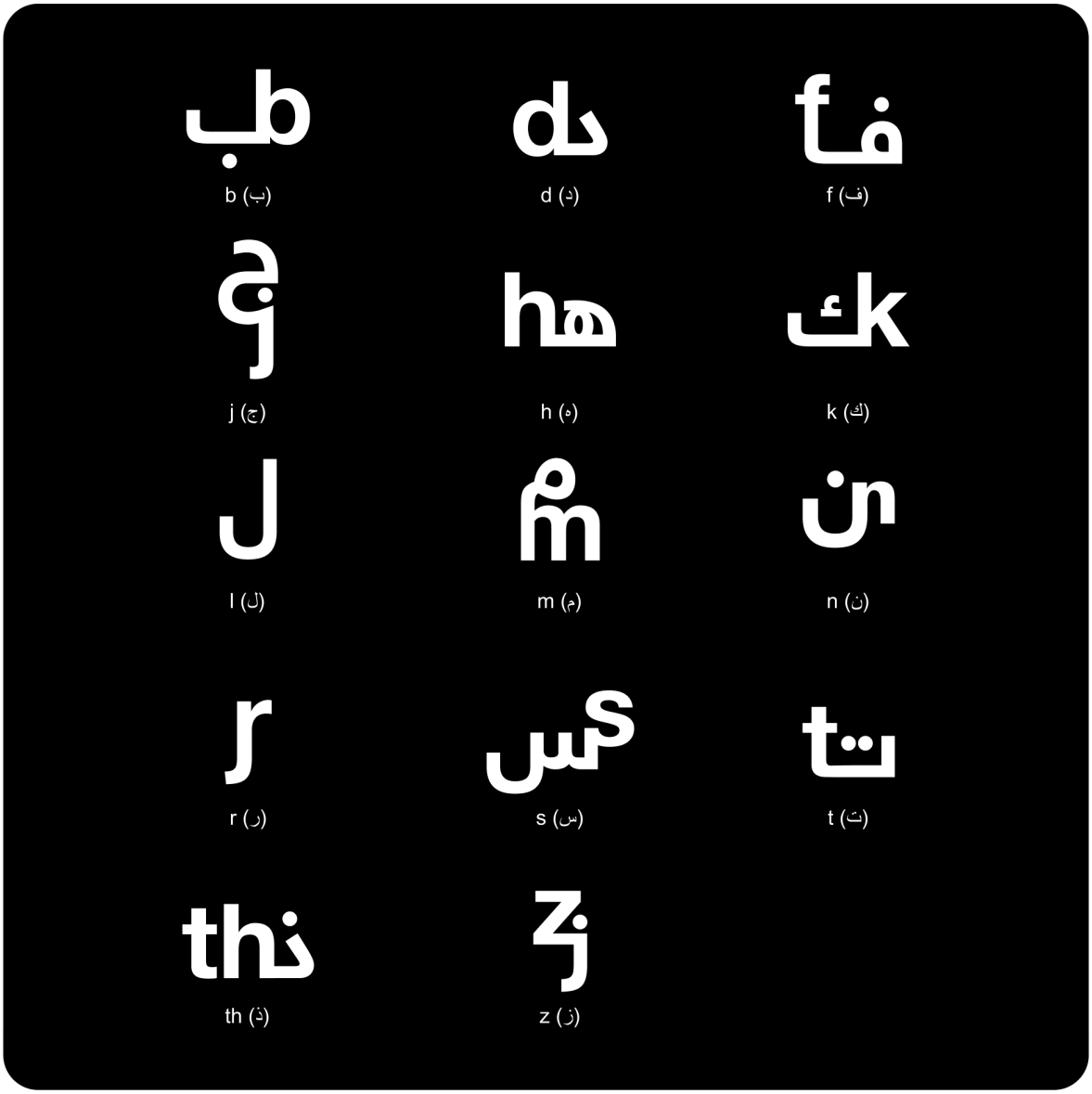
I specify the target consonants with the International Phonetic Alphabet (IPA), a standardized system for representing speech sounds that allows unambiguous comparison across languages (International Phonetic Association, 1999). By MSA I mean Modern Standard Arabic, the widely taught formal variety used in writing and formal speech. In this stage I align consonant targets to MSA for consistency, while noting the Handbook's Arabic "Illustration" indicates that aspects of spoken MSA such as stress are still under investigation and often follow the speaker's colloquial background (International Phonetic Association, 1999).

The 14 phonetic pairs (Arabic ↔ Latin; IPA):
ب ↔ B (/b/) ; ت ↔ T (/t/) ; ج ↔ J (/dʒ/) ; د ↔ D (/d/) ; ر ↔ R (/r ~ ɾ/) ; ز ↔ Z (/z/) ; س ↔ S (/s/) ; ف ↔ F (/f/) ; ك ↔ K (/k/) ; ل ↔ L (/l/) ; م ↔ M (/m/) ; ن ↔ N (/n/) ; ه ↔ H (/h/) ; ذ ↔ TH (/ð/) (International Phonetic Association, 1999).

In the first iteration (Figure 2), I selected Neue Helvetica and Neue Helvetica Arabic to construct the bilingual letters. I have argued elsewhere against relying on geometric regularity for Arabic, but I am keeping the exploration open to see how these hybrids read and what they feel like when examined closely (Monotype, n.d.; Linotype, 2012). Neue Helvetica Arabic was designed by Nadine Chahine at Linotype (Reynolds, 2017).)

Figure 2

First iteration of bilingual letters



Note. All bilingual glyph designs by the author. Typeface pairing: Neue Helvetica (Latin) and Neue Helvetica Arabic (Arabic). Minor layout adjustments were limited to spacing and scale for page presentation. The figure documents a measurement study of parity and joining behavior rather than a stylistic recommendation.

The combined letters read as very geometric. The uniform strokes and fixed circles make the set feel clean, but they also limit how the two scripts can grow into one shape. Even with simple geometry in both Arabic and Latin, it was difficult to form a perfect pair that reads as one unit.

At several points the geometry forced a compromise that erased one letter. The clearest case is (ل / l). When I merged the Arabic loop with the Latin vertical, the Latin (l) in miniscule disappeared and the glyph read almost only as (ل). The rigid angles and fixed radii did not leave enough room for the Latin corner to survive.

Some pairs succeed in visibility but still feel imposed on each other. (ه / h), and (ب / b) read clearly, yet the forms sit on top of one another rather than growing from a common structure. The angles of the geometry create hard joins and block the soft inflection that Arabic needs for flow. The result is legible but not natural.

It is now clear that geometry alone is not enough to carry bilingual clarity. Geometry gives a structural scaffold for measurement, but it cannot provide the movement, joining, and rhythm that belong to each script. As a result, several hybrids remain legible as letters yet feel imposed, because script-level behaviour has been flattened. This gap is not just visual; it is procedural in the sense of stroke order, pressure, and pacing that scripts rely on to feel alive to readers.

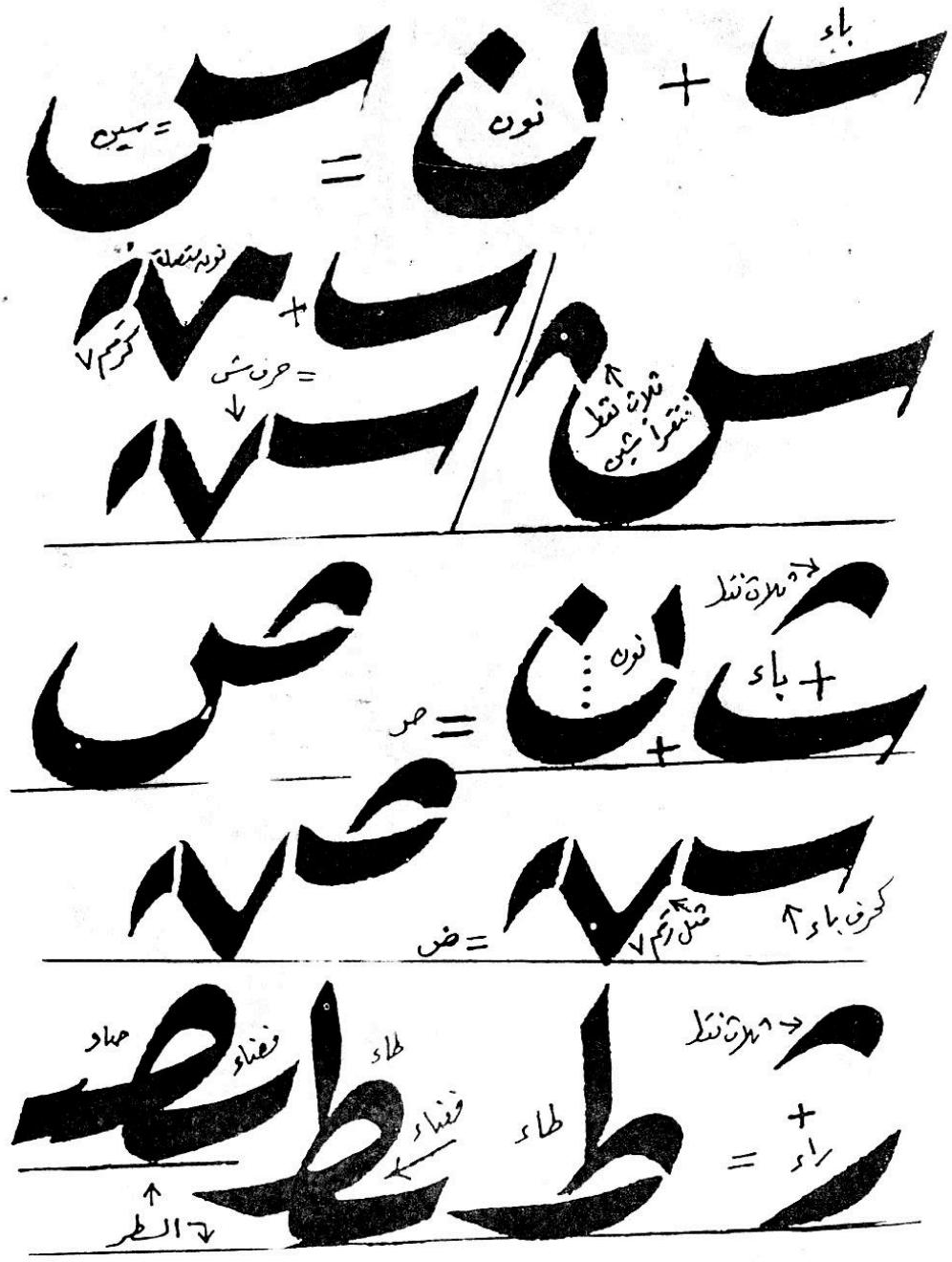
Shift in method: brush-led construction

To restore that movement, I asked a practical question. Instead of forcing letters to join, what if I let them grow from one continuous stroke system. I will test whether Arabic and Latin can feel natural as a single unit if I draw both with the same brush, letting stroke sequence and pen angle guide the form. The goal is to let script behaviour lead, and then measure the result, not to overlay two shapes.

For this stage, I chose a Ruqʿah Arabic calligraphy brush as the main digital tool. Ruqʿah (also written Riqʿah) is a long-established cursive system within the classical Arabic calligraphic tradition, identified among the primary scripts codified and refined by master calligraphers (Salhi, 2021). Standardized in the late Ottoman administration for speed and uniform writing, Ruqʿah favors compact forms, reduced elongation, short verticals, simple curves, and quick legibility (Osborn, 2017; Salhi, 2021; Figure A7). I chose this brush to test whether Arabic and Latin could be drawn as a single unit rather than two shapes forced to join.

Figure A7

Ruqʿah teaching plate from Hutût-ı Osmâniyye by Mehmed İzzet Efendi



Note. Lithographed model-page showing stroke construction and combinations in Ruqʿah (late Ottoman). Reproduced here for scholarship and commentary. **Source listed in Appendix.**

In this experiment I draw the forms myself with a digital Ruqʿah brush. The intent is not to imitate a historical hand as a style, but to use its stroke logic to generate the bilingual letters. I started by running a short series of brush tests to set thickness, pressure smoothing, and pen angle, and tried a few letters to see which settings kept counters open and diacritic zones clear (see Figure 3). With those settings set, I begin with ك / k using the Ruqʿah brush on a fixed grid that sets baseline, main body height, overshoot, and diacritic zones. Without switching tools or introducing a separate Latin skeleton, I continue with the same brush to complete the k. The Arabic strokes lead, and the Latin diagonal and leg are finished within the same stroke system. The result reads as one unit that contains two letters rather than two shapes forced to join (see Figure 4).

Figure 3

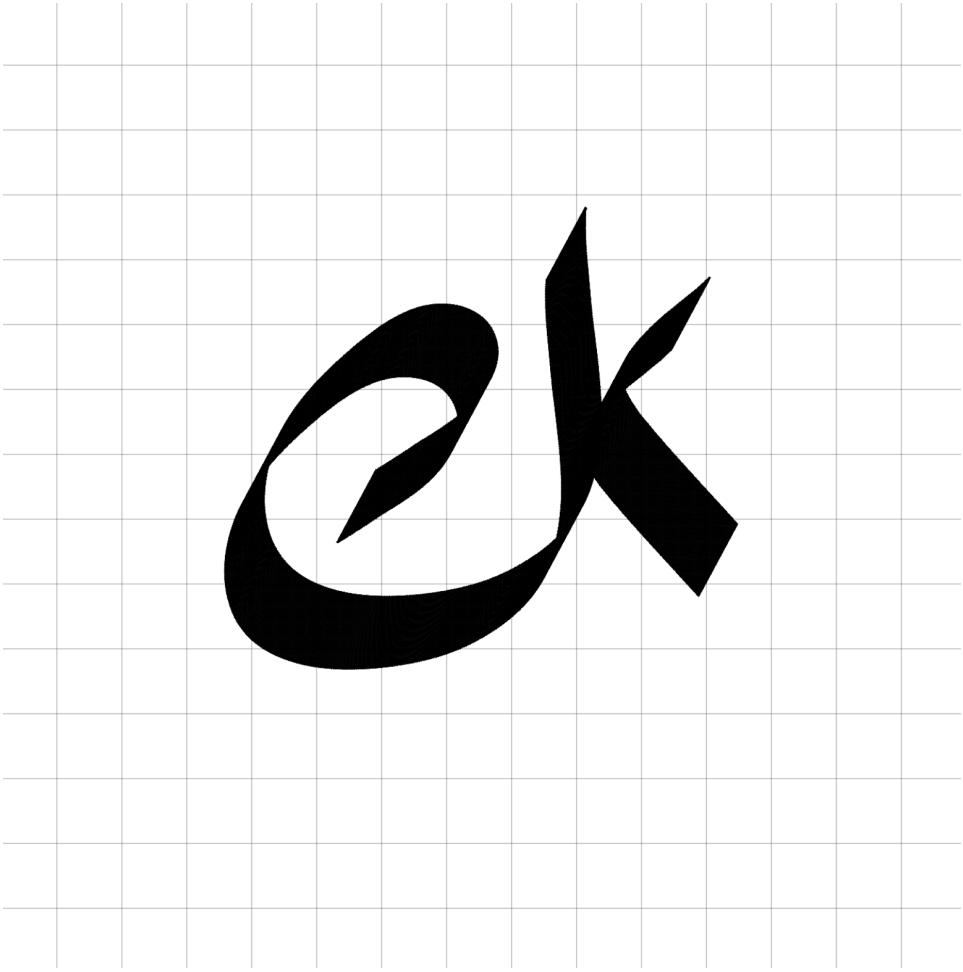
Ruqʿah brush tests for thickness, smoothing, and pen angle Brief trials of strokes and a few letters to choose settings that keep counters open and diacritic zones clear at text sizes. The grid shows baseline, body height, overshoot, and dot zones.



Note. Author's tests with one digital Ruqʿah brush on a fixed grid. Criteria were open counters, clear dot offsets, and stable joins. The chosen settings are used in later figures.

Figure 4

(ك / k) hybrid drawn as a single unit with the Ruqʿah brush

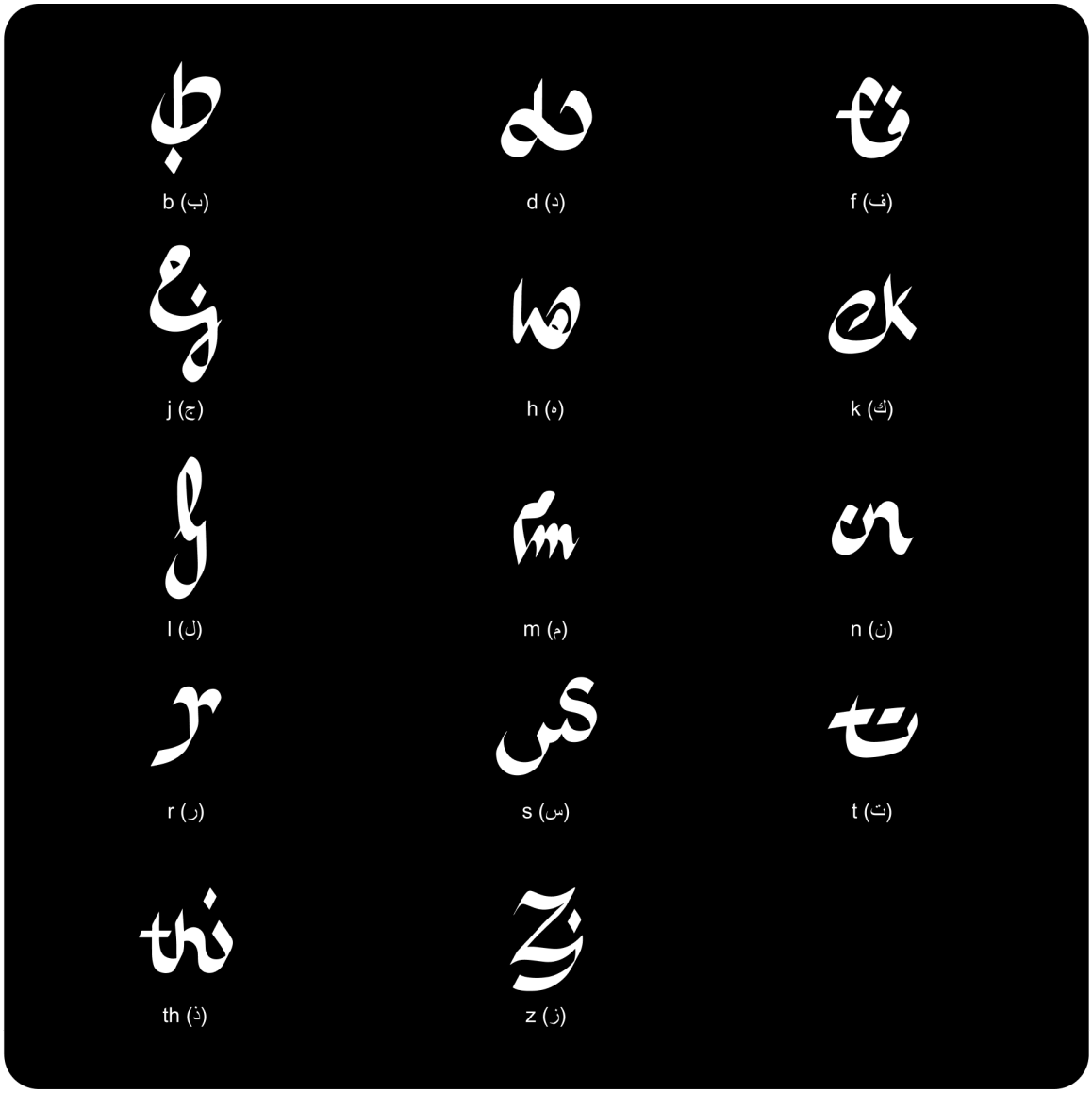


Note. Author's drawing on a fixed grid with constant brush angle. The figure shows the (ك) start, the continuous stroke that completes (k), and the resulting hybrid. Layout adjustments were limited to spacing and scale for page presentation.

The hybrid reads as a single unit rather than two overlays. The (ك) turn remains intact and the (k) diagonal stays open within the same stroke sequence, so both scripts are retrieved without prompting. Counters remain open and dot and joining zones are clear at text sizes. This confirms that a brush-led rule can generate one form that carries both readings. I will keep the same grid and brush settings for the next pairs to test how the system handles curved rhythm and internal counters and terminals.

Figure 5

All fourteen hybrid letter pairs drawn with the Ruqʿah brush



Note. All glyph designs by the author. The Arabic strokes lead and continue to complete the Latin forms within the same stroke system.

Looking across the full set in Figure 5, the line reads more smoothly than in the geometric iteration. Starting each form with Arabic movement and staying in the same brush gives the words a steadier cadence, so less time is spent negotiating joints and more time reading. At the glyph scale, most counters stay open and the dot zones are clear; where things slip it is usually at a tight Arabic turn that must also host a Latin diagonal. Those are local problems I can solve

with small aperture and spacing changes rather than by changing the method. The forms feel grown from one rule rather than stacked, which is the first sign that the approach works.

What matters to me here is that the result does not just look bilingual but behaves like it. Treating Ruqʿah as a system of stroke order, proportion, and joining lets Arabic remain recognizably Arabic while giving Latin a measured way to meet it, closer to script practice than to surface styling, and consistent with the view that present design choices should be grounded in prior scribal practice (Osborn, 2017).

The phonetic pairing fixes what the hybrid should say; the shared brush gives both audiences a similar way to feel how it says it. In that sense the bilingual letterform becomes a negotiated space (Bhabha, 1994) rather than a compromise, where meaning is produced in the encounter.

I remain cautious about two constraints: the Ruq'ah brush can pull Latin toward a calligraphic color some readers will not expect, and it can compress Arabic turns if I protect Latin apertures too aggressively. These are acceptable tradeoffs if naming accuracy remains high and continuous reading stays comfortable. These observations remain provisional at the scale of a single glyph. What matters next is whether cadence, spacing, joining, and diacritic timing still hold when letters begin to carry meaning together.

4.2 Stage 2: Bilingual Words

At the level of words the question becomes whether the system can carry meaning as well as form, and I read these trials through a semantic lens in the sense set out by Lyons, where meaning is described in terms of relations among word senses and the ways those senses compose in context (Lyons, 1995). Arabic offers an unusually rich lexical reservoir, not only because of the productivity of its root–and–pattern morphology but also because of the documented scope of its historical lexica; *Lisān al-ʿArab* alone records on the order of eighty thousand entries across its twenty volumes, which signals how much material is available for nuance and selection (Versteegh, 2014). In Latin, the *Oxford Latin Dictionary* documents roughly forty thousand headwords and about one hundred thousand senses, indicating the breadth of the lexicon (Oxford University Press, 2012).

Within that richness I proceed from words that admit close equivalence, through items whose denotations align while their cultural resonance diverges, to cases that resist translation altogether. I allow the words to set the problem, and I tune spacing, joining behaviour, diacritic

timing, and emphasis so that both readings remain viable, the cadence supports continuous reading, and meaning is carried rather than merely displayed.

4.2.1 Translatable Words

For this first set I selected ten words that are translatable in the ordinary lexical sense, yet still carry cultural weight. I chose items whose core denotation is stable in Modern Standard Arabic and in contemporary English so that a conventional one word equivalent exists, but whose resonance varies across use, register, and social context. The point is to let typography work where meanings can meet without collapsing differences. I avoided idiomatic expressions and culture bound compounds that require paraphrases, and I privileged words whose senses remain identifiable outside a long sentence, since the test here is whether a short word can hold together as language rather than as display.

Within these boundaries the set covers different semantic fields and parts of speech and spans common to moderately specialized usage, and each item is culturally grounded in the sense that it participates in lived practice and carries evaluative or affective associations that are not identical across the two linguistic communities. In selecting them I treated equivalence as a working hypothesis rather than a fixed fact, following Nida's account of translation as the search for the closest natural equivalent in meaning oriented to the receptor language and culture, which makes equivalence context bound and tested by use rather than guaranteed by dictionary pairing (Nida, 1964).

In practical terms this means each pair is prepared to the same measurement system so that spacing, joining behaviour, and diacritic timing can be compared cleanly, and each is read for two outcomes at once. First, whether recognition is effortless in both scripts at text sizes. Second, whether the cadence of the word supports its sense in a way that does not favor one readership over the other. My aim in this part is to see whether bilingual clarity can hold as I move from single letters into short words and onward to culturally resonant items of increasing complexity. Some will align closely, some will overlap while feeling different in use, and some will show the limits of lexical equivalence even when a translation exists. I will try, in my layouts and notes, to account for those differences without substituting explanation for reading, and to let the design show where the system succeeds and where it needs adjustment.

Word set

1. Freedom – حرية
2. Unity – وحدة
3. Justice – عدالة
4. Diversity – تنوع
5. Culture – ثقافة
6. Equality – مساواة
7. Dignity – كرامة
8. Integrity – نزاهة
9. Inclusivity – شموليّة
10. Security – أمان

I begin the typographic experimentation of these words by selecting two typefaces that can meet on rhythm and weight without forcing mimicry. For Arabic I use KSA Heading (Figure 6), a contemporary headline face rooted in Naskh whose stroke modulation, joining behaviour, and diacritic timing preserve a calligraphic logic and avoid geometric simplification. For Latin I use Ogg Text (Figure 7), in Black or Heavy after several rounds of selection, because its written contrast, compact proportions, and steady colour allow it to meet that Arabic flow on its own terms.

Figure 6

Arabic specimen set in KSA Heading (Naskh)



Note. Author's composition using KSA Heading at display and text sizes on a fixed grid. The specimen establishes stroke colour, joining rhythm, and diacritic timing to be used in the translatable word tests; adjustments were limited to scale and spacing for page presentation.

Figure 7

Latin specimen set in Ogg Text



Note. Author's composition using Ogg Text Black at display and text sizes on a fixed grid. The specimen sets the reference for weight, contrast, aperture, and spacing used in the translatable word tests; adjustments were limited to scale and overall spacing for page presentation.

I then set three compositions from the word set, Justice, Equality, and Freedom, to test how far type can carry meaning while both readings remain clear. Each composition begins from the same measurements and uses alignment, weight, spacing, and rhythm to stage the idea without privileging one script. The aim is to let form do the work rather than explanation: the typographic system bears the argument in view.

Justice – عدالة

In the word (Justice – عدالة) I stage balance as the governing principle. The Arabic and Latin words share a central axis, and the vertical of alif aligns with the stem of t so the two scripts meet on a single upright; weight and counter size are matched, and spacing is tuned so neither script moves into the foreground, while the join between alif and t acts as a visible fulcrum that suggests parity rather than dominance (see Figure 8).

Figure 8

(Justice – عدالة) . Alif (ا) and (t) share a vertical axis to stage balance.



Equality – مساواة

From balance in (Justice – عدالة) I turn the exploration to explicit parity in the word (Equality – مساواة). I set the Arabic and Latin words to identical size, weight, letterfit, and typographic tone so the reader encounters one unit rather than a pair in competition; one line sits directly above the other and together they form a rectangular block with equal margins and equal interline space. Dot zones and ascender heights are normalized so a shift between scripts does not alter emphasis or rhythm, and the spacing is tuned until both readings settle at the same visual level without drift or hierarchy (see Figure 9).

Figure 9

(Equality – مساواة). Two scripts set to identical metrics form a single block.

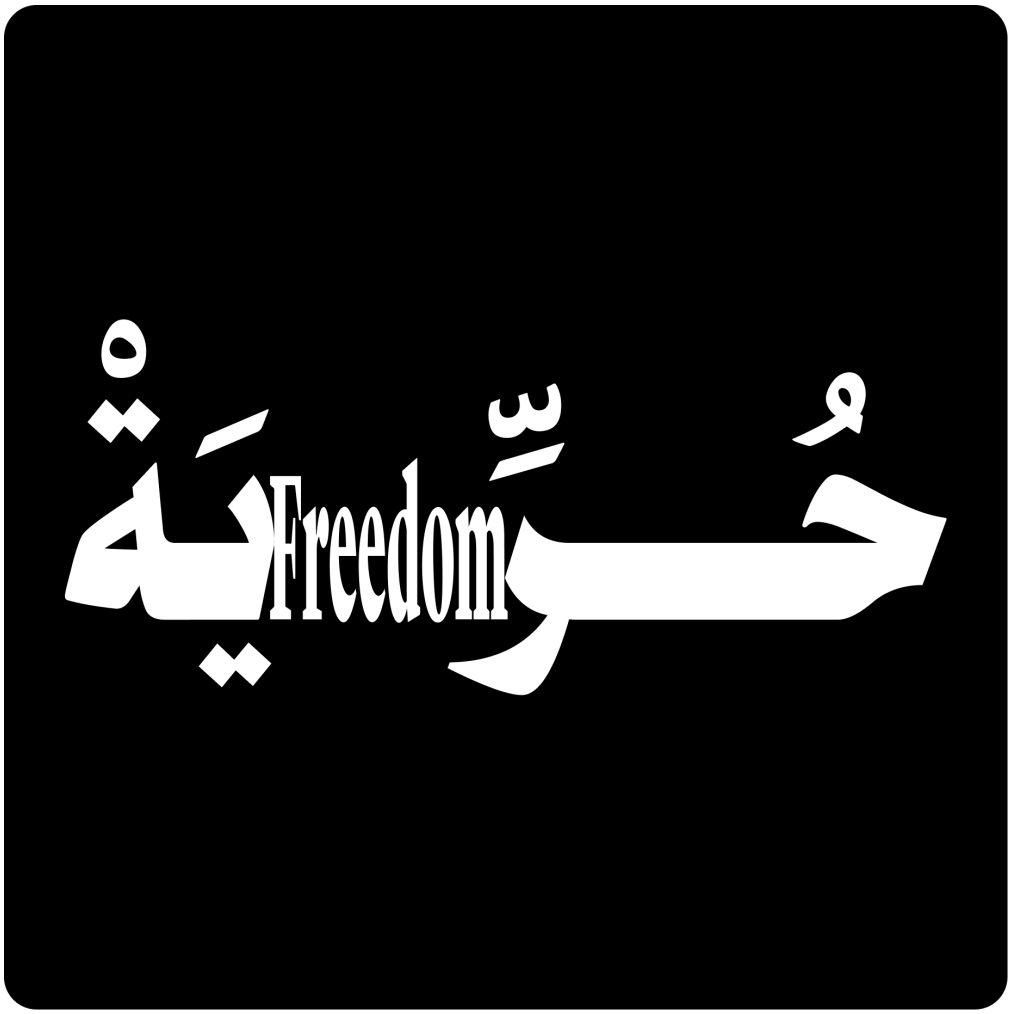


Freedom – حرية

Moving from parity to tension, the word (Freedom – حرية) is treated as a test of how form can register difference while preserving clarity. In basic meaning the equivalence holds, yet the connotations of freedom vary across communities and contexts, so I hold legibility constant and vary proportion to make that pressure visible. The Latin word is compressed horizontally and the Arabic word is extended through measured elongation and slightly looser tracking; the result is a field in which the same denotation carries uneven pressure without losing readability, and the reader is invited to feel the difference rather than have it explained (see Figure 10).

Figure 10

(Freedom – حرية). Latin compressed and Arabic extended to make tension legible.



Note for Figures 8–10. All compositions by the author set in KSA Heading for Arabic and Ogg Text for Latin. Adjustments are limited to size, weight, tracking, and alignment.

Across Figures 8–10 a balanced baseline emerges, because pairing KSA Heading with Ogg Text yields comparable weight, width, and spacing, so recognition at text sizes is immediate. At the same time the first read still feels basic, a first layer of bilingualism rather than a true pairing, since co-presence and metric parity are achieved while the two scripts behave more like neighbours than a single constructed unit. In work on Latin and Arabic layouts this marks a known threshold: harmonised bilingual typography requires more than matching weights and sizes, because alignment alone does not reconcile differences in stroke logic, modulation, and spacing regimes (Abdel Baki, 2024).

Where the compositions succeed, they do so on legibility grounds. Counters remain open, dot zones are clear, and the joining rhythm in Arabic is preserved rather than sacrificed to Latin spacing, yet the result remains a parallel arrangement. A true pairing would ask the two scripts to share deeper structure: stress direction and stroke density mapped across scripts, relations between baseline and mean line negotiated rather than copied, and diacritic timing treated as part of an interscript rhythm rather than as an afterthought. Empirical work supports pushing decisions to this structural level, since features such as stroke weight, spacing, and contrast interact with legibility in ways that are measurable and script specific (Bigelow, 2019). For Arabic in particular, experimental studies on signage indicate that spacing decisions, word shape integrity, and stroke clarity condition ease of uptake, which reinforces the need to calibrate joining and diacritics as first order variables rather than cosmetic layers (Lataifeh, Ahmed, Elbardawil, & Gordani, 2024).

The three word pieces make these stakes visible. (Justice – عدالة) resolves convincingly at the axis, yet that equilibrium remains an alignment solution. (Equality – مساواة) demonstrates metric parity cleanly, though its block form risks treating the scripts as stacked equivalents rather than as a coupled system with a shared cadence. (Freedom – حرية) stages tension legibly, while also showing how proportion changes can alter reading behaviour differently across scripts. Eye tracking in Arabic reading points to distinctive fixation patterns and reduced word skipping relative to Latin based scripts, which cautions against assuming symmetrical perception of proportion shifts by different readerships (AlJassmi, Warrington, McGowan, White, & Paterson, 2022).

These results encourage a different frame for achieving a true pairing. The clearest gains appear when forms are generated with a preset calligraphic brush, so movement and joining

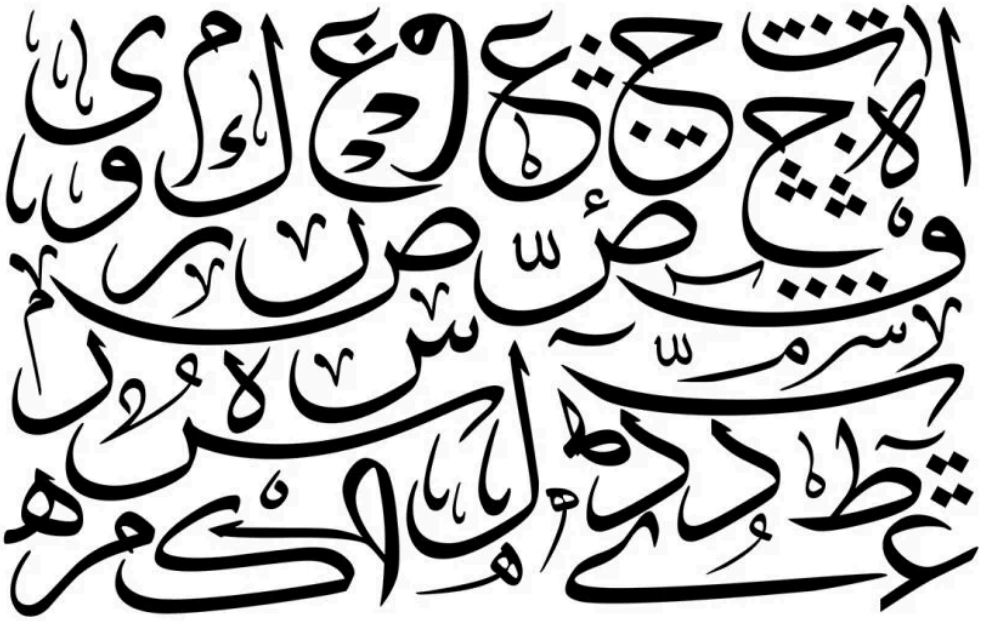
arise from a single stroke logic rather than from parallel blocks. The challenge is to integrate the two words within one brushed cadence while safeguarding constraints supported by legibility research, namely open counters, stable diacritic spacing, and dependable joining rhythm in Arabic, together with clear apertures, consistent stress, and recoverable word shape in Latin (Bigelow, 2019). A result counts as paired when readers of each script can name the word instantly at text sizes, the cadence remains comfortable in continuous reading, and emphasis does not drift toward one script.

Shift to a Thuluth brush

To retain Arabic movement while testing a different cadence, I worked with a preset digital brush modeled on Thuluth. In the classical proportional tradition of *al-khatt al-mansub*, Thuluth is one of the established styles, its name referring to the pen proportion relative to the large *tūmār* pen, and it sits within the Ottoman–Abbasid lineage of formal script design (See Figure A8). Using it preserves regulated stroke order, joining, and layered diacritics that define Arabic as a writing system rather than a surface style (Osborn, 2017).

Figure A8

Thuluth brush specimen



Note. Thuluth model sheet with sample letters, ligatures, and diacritics. **Source listed in Appendix.**

For each word set I first draw the Arabic word on a fixed grid with the Thuluth brush, then set the Latin word in Ogg Text and adjust size, tracking, and placement so it can enter the same motion field without forced mimicry. On the Arabic side I protect joining logic, dot placement, and diacritic timing as structural features of the script. On the Latin side I maintain recoverable word shape, stable stress, and open apertures, which are among the variables most consistently associated with legibility outcomes (Bigelow, 2019).

I start with Freedom as a focused case, so the mechanics of timing, spacing, and joining are visible (see Figure 11). In this composition the Latin word does not occupy an independent baseline; instead it follows the brushed Arabic flow. The final loop of taa marbuta (ة) in (حرية) is extended to the left and becomes the initial (f), so the first Latin stroke grows out of the last Arabic stroke. The upper aperture of e is aligned with the Arabic diacritic lane so the dots and the e head do not collide, and the (r) shoulder is timed to fall into the pause after raa (ر). The (d) takes a firm vertical that coincides with a strong Arabic turn so the two structures can share a load-bearing moment rather than compete for space. The (o) sits in a wide Arabic bowl where counter space is already open, and the (m) completes on the broad exit of the Arabic curve, so the end weight resolves into a single tail rather than two separate closures. The diacritics mostly hold their standard offsets and act as rhythm markers; in two places I deliberately let a diacritic touch the Latin line, where one extends to feed the head of (e) on the right and another meets the (d) on the left, so the scripts bind without losing the diacritic count or position.

Why this works: the two words share stroke logic and timing. The Arabic brush gives movement and join order, while the Latin letters keep their own skeleton and stress but follow that cadence. The result reads as a single drawn unit while still permitting immediate naming in both scripts, in line with legibility findings that emphasize the roles of spacing, stress, and clear apertures (Bigelow, 2019).

Figure 11

حرية / *Freedom, integrated composition*



Note. Arabic drawn with a Thuluth brush and Latin set in Ogg Text, adjusted for size, tracking, and alignment. The Latin word follows the Arabic motion path; the initial f grows from the extended loop of taa marbuta.

Having established the method with Freedom, I apply the same brushed cadence and placement logic to the remaining nine words in the set. Each composition is prepared to the same measurement system so comparisons of spacing, joins, and diacritic timing remain meaningful (see Figure 12).

Figure 12

Ten word compositions, overview plate.

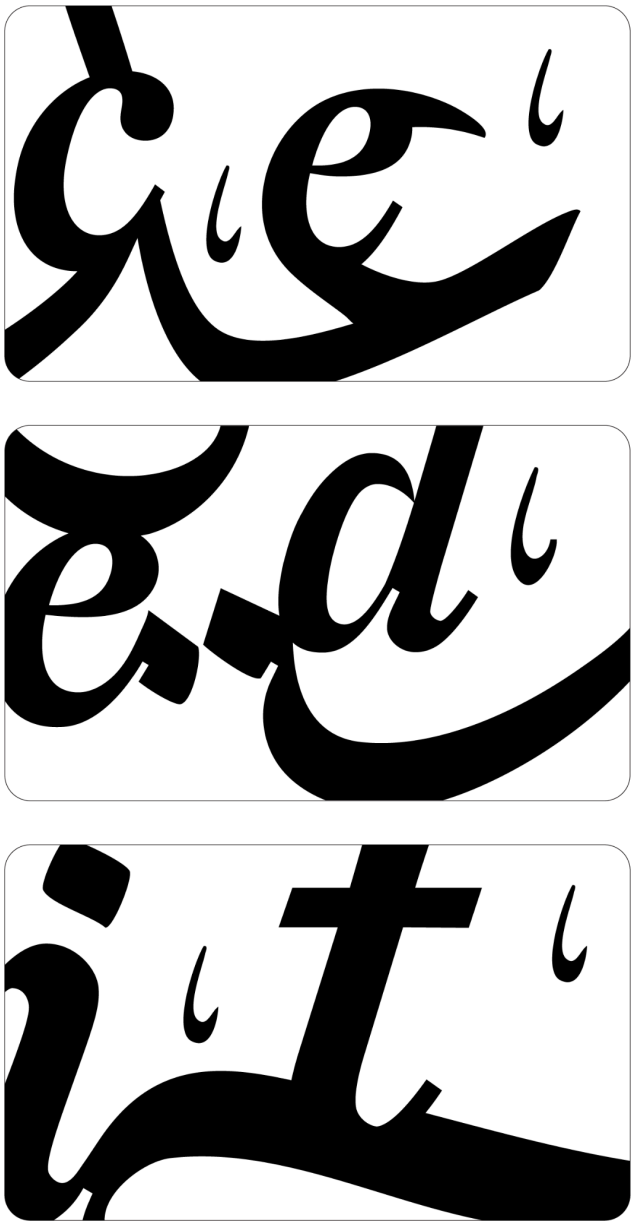


Note. Arabic drawn with a Thuluth brush and Latin set in Ogg Text. All items prepared to the same grid; adjustments limited to size, tracking, and placement.

From the set shown in Figure 12, I move to a closer scale to show how the Latin letters enter the brushed Arabic line. The detail views focus on intersection, overlap, and carried continuity so that joins, pauses, and handoffs are legible at reading magnification. All crops are set to the same scale for direct comparison (see Figure 13).

Figure 13

Detail plate at reading scale from three word compositions in the set



Note. Three crops from different compositions at the same scale: top (c) to (e) on an Arabic stroke, middle (e) to (d) with diacritic contact, bottom i to t aligning with an Arabic turn. Cropped and scaled only.

Grounded in a Thuluth brush that governs stroke order, joining, and proportion, the compositions can be read first typographically and also culturally, since the Latin words enter an Arabic structural logic rather than sit beside it, and script is treated as a historical practice that carries authority rather than a generic format to be filled (Osborn, 2017). This structural choice sets the terms for how meaning can travel between the scripts.

Meaning is not assumed to pass intact from one script to the other; each word is set up as an encounter in which sense takes shape through relation, and the composition becomes the place where that relation is negotiated in view, with the aim of parity that keeps difference present so neither script is asked to mimic the other or serve as ornament (Bhabha, 1994).

Within that frame, equivalence is treated as a working hypothesis: denotation is held steady to keep naming clear, while connotation and salience are allowed to vary with context and with the reader, which aligns with an account of lexical equivalence as contextual rather than fixed one to one (Baker, 1992).

In practice, this orientation also addresses a familiar asymmetry in bilingual design, since Latin often sets baseline, spacing, and hierarchy while other scripts adapt around it. Part of my intent was to recentre attention on Arabic practice, so the Latin letters follow the Arabic calligraphic line and meet its cadence through measured alignment, a choice that acknowledges and challenges how language and writing have operated within colonial and postcolonial regimes of power (Phillipson, 2010).

For that shift to remain readable, I keep boundaries tied to uptake in the literature. On the Latin side I preserve recoverable word shape, clear apertures, and stable stress to support rapid reading (Bigelow, 2019). On the Arabic side I maintain dependable joining and predictable diacritic placement and spacing so the result reads as language rather than display while remaining anchored in calligraphic practice (Osborn, 2017).

Having established parity with clearly translatable pairs, I now turn to terms without exact equivalents. Can words that resist translation yet carry shared feeling and sense still act as carriers of bilingualism between Arabic and English? Put differently, can they be bilingual even when they do not translate well or at all?

4.2.2 Untranslatable Words

Bilingualism is not always about translation. Sometimes it exists in a more intricate space where two languages meet not to mirror each other but to hold difference, to reveal what cannot be perfectly carried across. Arabic, in particular, resists easy translation. Its richness lies not only in meaning but also in rhythm, gesture, and form; its words carry centuries of cultural sediment—poetic, spiritual, and communal. When placed beside English, these words do not always yield equivalence. They hold a depth shaped by place, emotion, and inherited sensibility, and scholarship on Arabic script and typography underlines how that depth is embedded in long-developed systems of proportion, joining, and stylistic variation that structure the written word (Milo, 2005). That is where the challenge lies: how can I make these untranslatables bilingual when the language I pair them with (English) cannot fully contain their resonance?

I began by selecting entries tied to feeling, culture, and place. To broaden the field, I consulted Eunoia, a searchable directory of words that do not translate, used it as a preliminary catalogue, and then refined the list through my own lived experience of Arabic, in terms of how these terms surface in conversation, memory, and everyday use (Eunoia, n.d.). The result is a focused group suited to time based exploration, presented in Arabic with transliteration only. Meanings will be pursued through motion rather than prose definitions:

جَفْجَفَة (Jafjafa)

مَكْتُوب (Maktub)

يَقِين (Yaqin)

صُبْحِيَّة (Sobhiya)

سَمْت (Samt)

صُمُود (Sumud)

غُرْبَة (Ghurba)

شَجَن (Shajan)

سَمْح (Samh)

تَوْق (Tawk)

Because these entries are charged with emotion and cultural memory, simply naming them in another language would not be enough. The problem is how to let their tone, weight, and inner movement be felt. Roman Jakobson's account of intersemiotic translation offers a way to think about this shift, since he describes translation as the transfer of verbal signs into other sign systems such as image and movement (Jakobson, 1959/2000). In motion, timing acts as emphasis, scale reads as intonation, and spacing allows for breath; the eye learns to read duration as part of sense. Motion becomes the means through which the essence of each word can register, so viewers can feel its contour rather than receive a paraphrase.

There is also an ethical stake in these motion experiments, following Walter Benjamin's claim that translation should accompany an original so it can continue to live, rather than overwrite it (Benjamin, 2000). Keeping Arabic fully visible while using animation to open access through sensation and structure is meant to help attain parity rather than dilute it. It invites attention to the word's field of meaning instead of replacing it with explanation.

My font choice to animate these words is KSA Heading Naskh (see Figure 6). Its bold weight and stable counters hold together under acceleration and pause, which lets the animations carry affect without losing clarity. Because KSA Heading draws on the Naskh tradition, a script system articulated through rule-governed joining and established schools across regions, the letterforms connect expressive motion to a documented calligraphic lineage (Milo, 2005). The cultural stability of Naskh deepens the emotional register that these untranslatable words call for, while the firmness of the forms supports moments of emphasis, hush, and release.

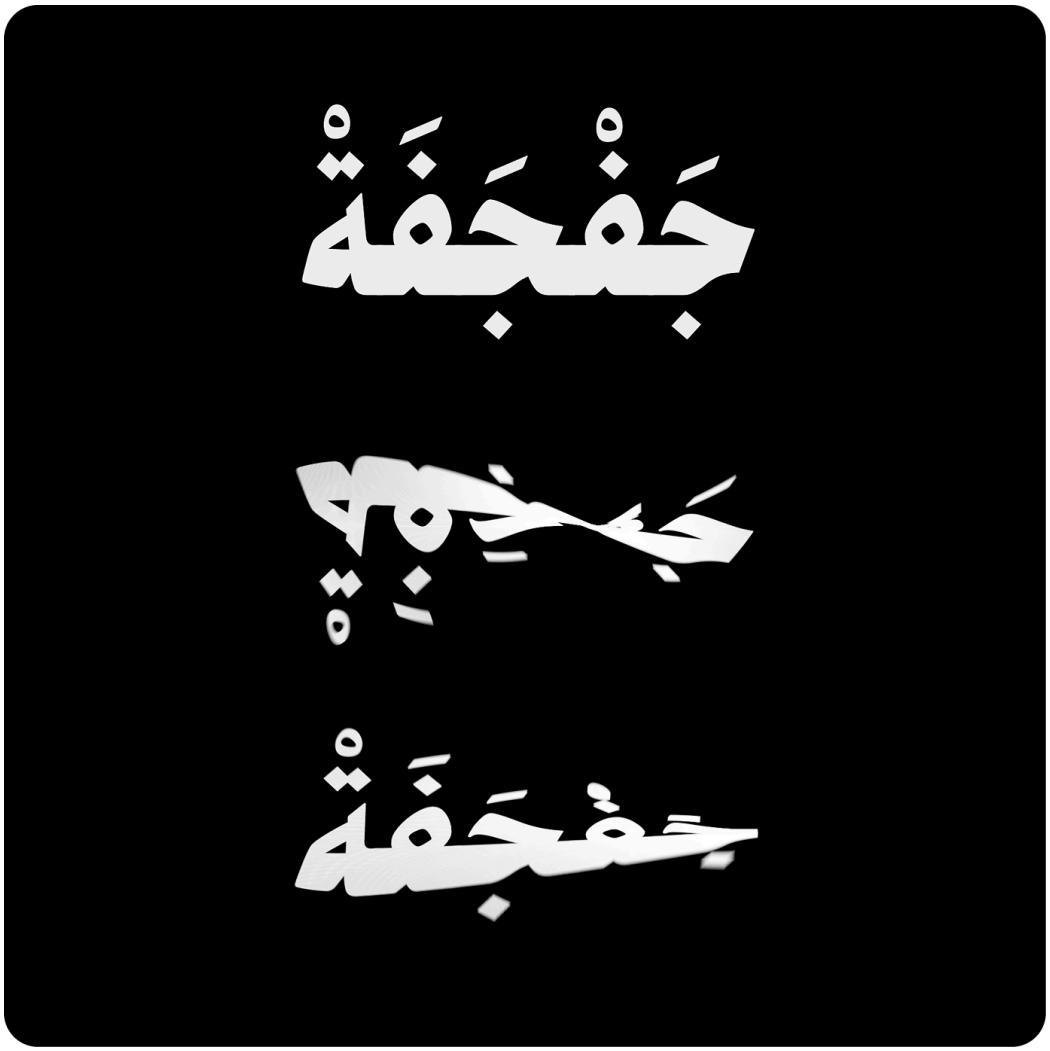
جَفْجَفَةْ (Jafjafa):

The unique sound of rustling new clothes, evoking sensory experiences.

Visual Concept: A twirl effect embodies the sensory experience of rustling new clothes. The twisting motion mimics the pliability and rhythm of fabric, visually translating the tactile and auditory essence of the word. This dynamic representation bridges sound and sight, making the cultural nuance of Jafjafa both tangible and broadly accessible (see Figure 14).

Figure 14

Twirl sequence, 0–4 s – جَفْجَفَةْ (Jafjafa)



Note. This figure reproduces three key stills from a looping animation and is intended to be read sequentially to suggest the full motion.

مَكتُوب (Maktub):

The philosophical concept that everything is predestined and written.

Visual Concept: Scattered particles delicately form the outline of the word. Gradually, they coalesce, moving in a unified direction to solidify the bold form of مَكتُوب (Maktub). This convergence embodies destiny: dispersed elements inevitably coming together to fulfill what is already written (see Figure 15).

Figure 15

Particle formation sequence 0 to 5 s – مَكتُوب (Maktub)



Note *Three stills from a 5-second animation interpreting مَكتُوب (Maktub), "that which is written," through a gradual formation effect. Frames show particles beginning to gather, converging into partial legibility, and resolving into the fully formed word.*

يَقِين (Yaqin):

A state of certitude and freedom from doubt, reflecting deep faith.

Visual Concept: An imposing circular form presses against and attempts to tear through the word, symbolizing doubt and external pressures testing one's certainty. It briefly distorts the letters, but the word remains bold and intact. As the form exits without breaking it, the loop affirms the steadfast strength and unshaken confidence inherent in يَقِين (Yaqin) (see Figure 16).

Figure 16

Circular pressure sequence, 0 to 6 s – يَقِين (Yaqin)



Note. This figure reproduces three key stills from a 5-second animation, designed to be viewed as a continuous loop to fully convey the motion.

صُبحِيّة (Sobhiya):

The morning social ritual of coffee, gossip, and neighbourly chat.

Visual Concept: A soft wave-like motion travels through the word صُبحِيّة (Sobhiya), lifting and lowering the letters in a gentle rhythm. As the word breathes with this pulse, the diacritics begin to rise, drifting upward like steam before fading into the air. The motion evokes the quiet warmth of a morning shared over coffee, calm and intimate and quietly energizing, while the form of the word remains intact, steady within its flow (see Figure 17).

Figure 17

Coffee-wave sequence, 0 to 6 s – صُبحِيّة (Sobhiya)



Note. *Three stills from a 6-second animation interpreting صُبحِيّة (Sobhiya) through a gentle wave effect that mimics the motion of coffee. Frames show the word at rest (0 s), mid-wave with diacritics lifting and softening (3 s), and as the marks fade while the form settles into calm stability (6 s).*

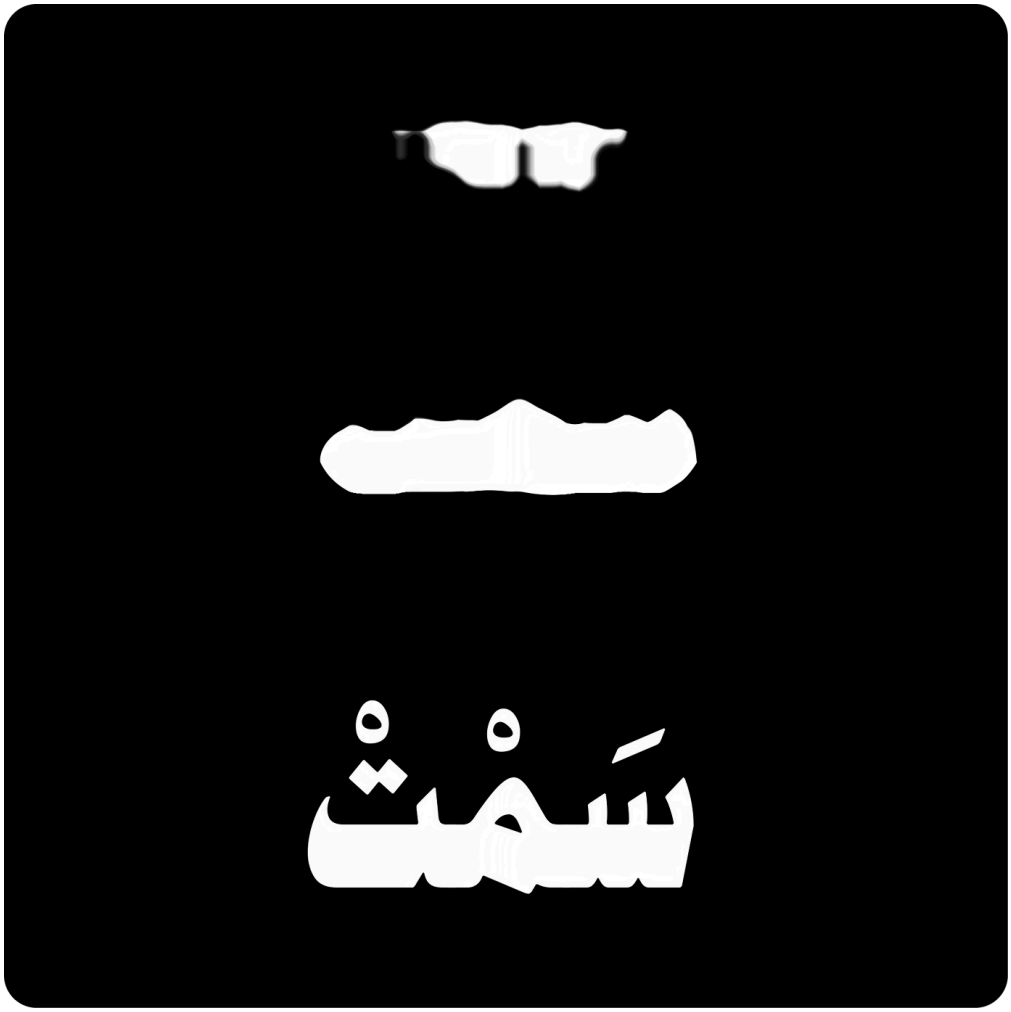
سَمْت (Samt):

The way an individual's physical demeanor reflects their inner character.

Visual Concept: Letters are built as if sculpted into a precise, bold form, symbolizing how physical demeanor is carefully shaped and aligned with inner character. The slow, deliberate construction highlights intention, discipline, and the composed presence embodied in سَمْت (Samt) (see Figure 18).

Figure 18

Sculptural build sequence, 0 to 4 s – سَمْت (Samt)



Note. *Three stills from a 4-second animation interpreting سَمْت (Samt) through a sculptural build-up effect. Frames show the word beginning to form (0 s), taking shape with deliberate precision (2 s), and standing complete as a composed, balanced structure (4 s).*

صُمُود (Sumud):

The principle of steadfastness and the struggle to persist against odds.

Visual Concept: A dynamic structure of the letters in صُمُود (Sumud), where one corner of each letter is enlarged while the opposite corner is reduced in size, creating a sense of tension and balance that reflects the idea of steadfastness (see Figure 19).

Figure 19

Lateral pressure sequence, 0 to 4 s – صُمُود (Sumud),



Note. *Three stills from a 4-second animation interpreting صُمُود (Sumud) through shifting letter proportions responding to alternating lateral pressure. Frames show the word upright (0 s), distorted under pressure from the left (2 s), and distorted under pressure from the right (4 s).*

غُرْبَة (Ghurba)

The profound sense of estrangement felt in a foreign land, transcending mere homesickness. **Visual Concept**: Distortion and displacement of the letters: pulled apart, misaligned, and never fully returning to their original order, evoking estrangement, dislocation, and the unsettled feeling of being away from home. (see Figure 20).

Figure 20

Dislocation sequence, 0 to 4 s – غُربة (Ghurba)



Note. *Three stills from a 4-second animation interpreting Ghurba through distortion and displacement of the letters. Frames show the word intact (0 s), stretched and fragmented to suggest separation (2 s), and fully distorted as the sense of dislocation intensifies (4 s).*

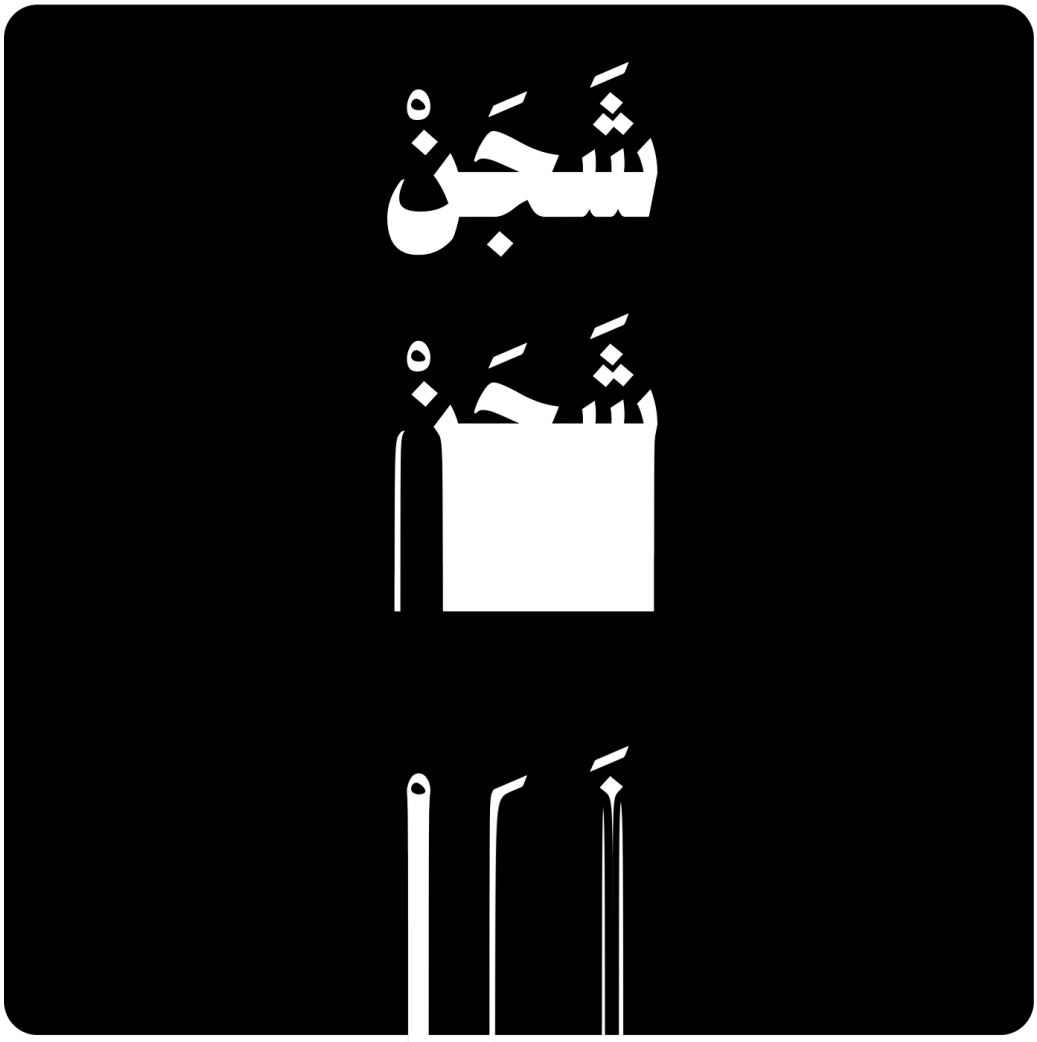
شَجَن (Shajan)

A deep, often unarticulated sadness, longing for something indefinable.

Visual Concept: Slow, fluid downward motion reminiscent of tears, pulling the word into gentle vertical stretches. The forms seem to soften and melt as they descend, evoking the quiet weight of sadness and an elusive yearning that remains unspoken. (see Figure 21).

Figure 21

Downward tear sequence, 0 to 8 s – شَجَن (Shajan)



Note. *Three stills from an 8-second animation interpreting شَجَن (Shajan) through slow, fluid downward motion reminiscent of tears. Frames show the word at rest (0 s), gently stretching downward (4 s), and fully elongated as the forms soften and fade (8 s).*

سَمْح (Samh)

The act of forgiving with a heart free of any grudge or resentment.

Visual Concept: Forgiveness is often seen as a release, a letting go of burdens. The blur effect mirrors this act by visually "smoothing over" the letters, creating a sense of ease and grace. (see Figure 22).

Figure 22

Flowing blur sequence, 0 to 8 s – سَمْح (Samh)



Note. *Three stills from an 8-second animation interpreting سَمْح (Samh) through a smooth blur effect that moves fluidly across the letters. Frames show the word in sharp clarity (0 s), softening into motion as the blur expands (4 s), and returning to focus with a sense of calm resolution (8 s).*

تَوْق (Tawk)

A strong desire or anticipation for something, often with energy and anticipation.

Visual Concept: The word appears rapidly, letters pulsing gently as if vibrating with energy and anticipation (see Figure 23).

Figure 23

Rapid pulse sequence, 0 to 9 s – تَوْق (Tawk)



Note. *Three stills from a 9-second animation interpreting تَوْق (Tawk) through rapid appearance and gentle pulsing of the letters. Frames show the word snapping into view (0 s), at peak pulse (4.5 s), and holding a subtle residual vibration (9 s).*

The animated words in this series are not simply moving forms; they are temporal expressions of meaning. In working with Arabic untranslatable words such as جَفْجَفَة (Jafjafa), مَكْتُوبْ (Maktub), and شَجَنْ (Shajan), the design process sought to move beyond literal translation and instead use motion itself as a mode of communication. Animation becomes a kind of performance for each word: its rhythm, pressure, release, and return are all carefully tuned to reflect not just linguistic meaning, but emotional and cultural resonance.

Once animation is understood as performance, movement is no longer decorative. It is intentional, crafted to embody what the words cannot say in translation. In pieces such as صُمُودْ (Sumud) and غُرْبَةْ (Ghurba), the way the letters bend, strain, and fail to fully settle becomes a metaphor for perseverance, distance, and the feeling of never quite coming home. What cannot be easily explained in Latin becomes visible through time based form.

When the words begin to move in this way, bilingualism shifts from a simple toggle between Arabic and English to a way of inhabiting the charged space that opens between them. Translation often implies a fixed equivalence, but as Cassin (2014) argues, untranslatable words resist such neat correspondence. They call for a kind of careful carrying, a sensitivity to context, nuance, and philosophical depth. The looping animations offer that space. They do not resolve a word into something simpler, but instead dwell in its complexity, letting motion suggest what language cannot fully capture.

Looping, in this sense, becomes central rather than incidental. When the words in motion repeat, like the wave of صُبْحِيّة (Sobhiya) or the recurring pulse of تَوْق (Tawk), they begin to behave more like lived experience than static definition. They echo emotional cycles, social rituals, and internal states. The repetition of motion allows the viewer to enter into the feeling of the word, to sit with it, rather than move past it.

Following the animations back into stillness, images taken as single frames from each sequence offer another layer of insight. They are frozen instants of semantic charge. To capture a frame of شجن (Shajan) or the moment of distortion in يَقِين (Yaqin) is to distill an emotion in mid motion. Such images do not merely document movement; they become a form of interpretation in themselves, an attempt to catch something fleeting and hold it, briefly, in visual form.

As the sequences accumulate, motion also begins to reorient the reader's relationship to text. Words do not simply appear; they are built, blurred, stretched, and released. In سَمْت (Samt), for instance, the gradual construction of the letters reads as a kind of inner discipline, while in سَمْح

(Samh) the brief passage of blur hints at the fleeting generosity of forgiveness. In each case, motion performs what the words evoke rather than merely illustrating it.

Seen across the whole series, the explorations suggest motion as a bridge, not just between languages, but between the seen and the felt. It allows Arabic to remain fully visible while also opening itself to other forms of understanding. In that sense, the animations enact Jakobson's (1959/2000) notion of intersemiotic translation: they do not replace the Arabic words with English counterparts, but translate them into time, rhythm, and gesture. Each word becomes more than a word; it becomes a temporal event, an embodied idea. What remains untranslatable in English is not left behind, but carried forward through motion, through form, through time.

If the animated words offered glimpses into emotional resonance and cultural specificity, they also pointed toward a broader terrain. Meaning does not reside in isolated letters or even in single words, but gathers force through composition, syntax, and sequence. In this sense, my typographic experiments extend from bilingual forms at the scale of the letter and the word toward the more layered, expressive space of the text. At this stage, I consider how longer structures (poetic, reflective, and dialogic) allow Arabic and Latin (English) to move together, sometimes in harmony, sometimes in tension, but always in relation.

4.3 Stage 3: Bilingual Text

If words carry weight, sentences shape flow. The shift from individual letters and isolated words to full-length bilingual texts introduces new challenges, both conceptual and formal. Unlike the immediacy of animated motion, textual composition unfolds across the page and calls attention to structure, sequence, and spatial negotiation. At this level, bilingualism is no longer about the resonance of a single term, but about how Arabic and Latin scripts coexist across longer stretches of language.

At this scale, the page itself becomes a site of relation. Layout is no longer a passive backdrop; it becomes an active field where directionality, alignment, hierarchy, and spacing must all be rethought. Arabic’s right-to-left flow and Latin’s left-to-right orientation require more than mirroring; they demand careful choreography. Line breaks, paragraph structures, margins, and visual rhythm take on new importance, especially when scripts with different proportions and typographic traditions attempt to share the same space.

How can a sentence hold two voices without one overshadowing the other? How does alignment signal power, or parity? What does hierarchy mean when two reading directions compete for attention? These are not merely technical questions, but typographic and cultural ones, embedded in every decision about spacing, emphasis, and placement. The page becomes the medium through which balance, or tension, is made visible.

4.3.1 Selection of Text

The selection of text for this stage of the research needed to be relevant not only thematically but also linguistically and culturally. Because I now explore how bilingual typography functions across longer structures, beyond the scale of letters and isolated words, the text itself had to carry the weight of that complexity. It needed to speak across languages, hold nuance, and invite typographic interpretation.

For these reasons, I turned to *The Prophet* by Gibran Khalil Gibran (Kahlil Gibran). This choice was neither incidental nor nostalgic, but rooted in the richness of Gibran's own multilingual life and practice. Born in Lebanon in 1883, Gibran spent much of his life between cultures, eventually settling in New York, where he wrote, painted, and published until his death in 1931 (Bushrui & Jenkins, 1998). Fluent in Arabic, French, and English, he inhabited linguistic plurality not just as a technical matter of translation, but as a way of thinking and expressing himself. He did not simply transfer his thoughts from one language to another; he rewrote them, adjusting meaning, tone, and rhythm for each linguistic frame. This makes his work especially resonant for my project, which is concerned with bilingualism not as equivalence, but as interaction.

The Prophet, first published in English in 1923, later appeared in Arabic in versions that do not simply replicate the English text line by line, but rework it in relation to Arabic literary and spiritual traditions (Bushrui & Jenkins, 1998). This distinction matters for my purposes. It suggests that meaning, when carried across languages, must sometimes bend, soften, or deepen in order to remain alive. That fluidity makes *The Prophet* an ideal text for exploring bilingual typographic structures. It is a work that already lives in more than one language and, in doing so, exposes the tensions and harmonies that bilingualism entails.

The passages I selected from *The Prophet* each explore a universal theme: freedom, children, giving, friendship, and the duality of joy and sorrow (Gibran, 1923). Each passage is reflective and layered, offering more than narrative content. Their poetic form invites typographic exploration through rhythm, spacing, alignment, and visual dialogue between Arabic and

English. In my hands, these texts become more than content; they are material for shaping relations, holding two voices on the same page without collapsing one into the other**.**

4.3.2 Selection of Typeface

After carefully selecting the text, I now turn to the second foundational decision: the choice of typeface. In keeping with the broader ethos of this research, bilingualism is not simply the theme but the method, embedded in every layer of the process, including the typographic systems themselves. The typefaces I selected had to meet specific criteria. They needed to be culturally rooted in both Arabic and Latin traditions, and they had to perform well at the level of continuous text, offering clarity, rhythm, and legibility across passages rather than isolated words or headlines.

This requirement ruled out many expressive display fonts that might suit titles or single words but lose stability in dense paragraphs. I needed a type system conceived from the outset for bilingual settings and able to handle extended reading with balance and nuance. After extensive research and testing, my choice narrowed to a single family: 29LT Idris, a contemporary Naskh type system developed by 29Letters Type Foundry (29Letters Type Foundry, 2024).

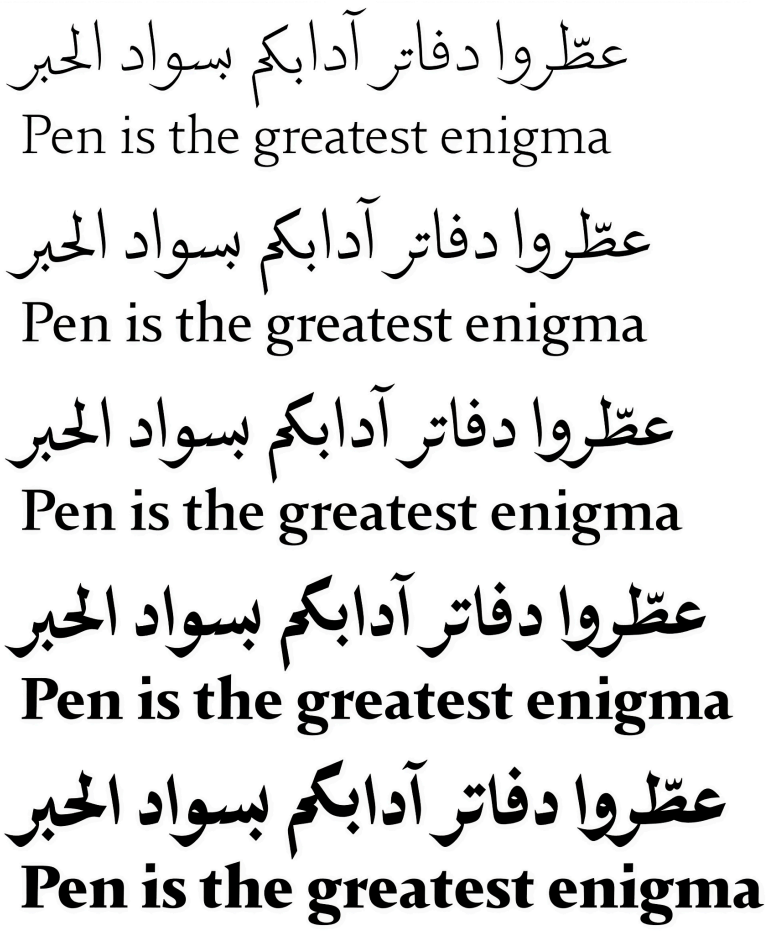
29LT Idris is particularly relevant to this project for both aesthetic and conceptual reasons. It is grounded in the Naskh calligraphic tradition, which is associated with legibility, fluid movement, and a long history of use in literary and scholarly Arabic texts. At the same time Idris is not a historical facsimile but a designed dialogue. The system blends Arabic Naskh structures with Latin serif and sans serif styles to create a bi script family that can move between more formal and more informal registers while maintaining coherence across scripts (29Letters Type Foundry, 2024).

The development of Idris was a collaborative process between Lebanese type designer Pascal Zoghbi, who drew the Arabic, and German type designer Linda Hintz, who drew the Latin. Zoghbi, founder of 29Letters, has focused his practice on contemporary Arabic and multiscript typefaces informed by a multilingual and cross cultural context (29Letters Type Foundry, n.d.-a). Hintz brings training from European type and media programs and works across custom and retail type families, often engaging with multiple scripts and collaborative projects (29Letters Type Foundry, n.d.-b). Their joint authorship means that neither script is treated as a secondary translation of the other. Instead, the visual voice is negotiated between Arabic and Latin, which aligns closely with the kind of parity I seek in my own bilingual compositions.

To understand how Idris behaves in long reading situations, I returned to the foundry's specimen booklet and studied the bilingual paragraph spreads, where Arabic and Latin text are set in Idris Sharp at different weights and sizes on the "Paragraphs" and "Short Paragraphs" sections. These samples allowed me to examine texture, spacing, and contrast in extended passages and to calibrate my own typographic settings for the Gibran excerpts (see Figures A9 and A10).

Figure A9

Arabic and English phrases



Note. This figure adapts a specimen from the 29LT Idris Sharp booklet to examine how the type system handles short bilingual statements at different weights and how stress, contrast, and proportional relationships remain coherent across Arabic and Latin scripts (29Letters Type Foundry, 2024).

Figure A10

Multilingual paragraph specimen

القلم ينطـق عن الساكت، ويخبر عن الباهت، ويترجم عن القلوب، ويُشافِهُ على بُعد الدار وتنائي المزار؛ لا تنقطع أخباره، ولا تَدرُس آثاره؛ ناطق، ساكت، مقيم، مسافر، شاهد، غائب، ناء، حاضر؛ إن استُنـهِضَ بادر، وإن وَعَى أحضر؛ كَتوم السر، مأمون الشر. إبراهيم بن العباس. معنى دلالة اللفظ أن يكون إذا ارتسم في الخيال المسموع، ارتسم في النفس معناه، فتعرف النفس أنّ هذا المسموع لهذا المفهوم، فكلما أَوْرَدَه الحس على النفس التفتت النفس إلى معناه، وهو معنى

On fait remonter cet alphabet à l'araméen dans sa variante nabatéenne ou syriaque, lui-même descendant du phénicien (alphabet qui, entre autres, donne naissance à l'alphabet hébreu, à l'alphabet grec et, partant, au cyrillique, aux lettres latines, etc.). La première attestation d'un texte en alphabet arabe remonte à 512. C'est au viie siècle qu'on a ajouté des points sur ou sous certaines lettres afin de

القلم ينطـق عن الساكت، ويخبر عن الباهت، ويترجم عن القلوب، ويُشافِهُ على بُعد الدار وتنائي المزار؛ لا تنقطع أخباره، ولا تَدرُس آثاره؛ ناطق، ساكت، مقيم، مسافر، شاهد، غائب، ناء، حاضر؛ إن استُنـهِضَ بادر، وإن وَعَى أحضر؛ كَتوم السر، مأمون الشر. إبراهيم بن العباس. معنى دلالة اللفظ أن يكون إذا ارتسم في الخيال المسموع، ارتسم في النفس معناه، فتعرف النفس أنّ هذا المسموع لهذا المفهوم، فكلما أَوْرَدَه الحس على النفس التفتت النفس إلى معناه، وهو معنى

El alfabeto árabe puede remontarse al alfabeto nabateo usado para escribir el dialecto de los nabateos de las lenguas arameas. Los fenicios crearon hace más de 3.000 años en la región de Canaán el alfabeto fenicio, que rápidamente se extendió y dio lugar a la mayoria de los sistemas de escritura que se usan hoy en el mundo. Una rama de ese alfabeto evolucionó en el alfabeto

Note. A short multilingual paragraph specimen from the 29LT Idris Sharp booklet to study alignment, spacing, and column structure when Arabic text is set alongside French and Spanish on the same page (29Letters Type Foundry, 2024).

In selecting this type system, I am not merely choosing a technical tool. I am aligning the research with a methodology that treats Arabic and Latin as equal partners in meaning, form, and rhythm. Through Idris, the poetic texts of Gibran begin to take shape on the bilingual page, supported by a typeface whose own structure is already the result of a cross cultural conversation.

4.3.3 Format

Another important parameter that I needed to consider was the format. Since I am working with long bilingual texts and poetic structures, setting the format became essential to shaping the overall composition. Unlike isolated words or short phrases, these texts require space, both in form and in meaning. Their rhythm, silence, and structure cannot be forced into generic layouts, so they demand a format that allows the interaction between Arabic and English to unfold naturally and thoughtfully.

I chose a 5 by 8 inch format, a size that balances intimacy and clarity. It is small enough to invite close reading, yet wide enough to accommodate the spatial complexity of two languages with distinct typographic flows. This decision also anticipates the final form, a booklet that holds the selected poems as typographic compositions. Each spread becomes a field for navigating directionality, alignment, pacing, and relation between scripts. The goal is not to impose symmetry but to find balance.

The booklet format gives the work a physical presence and encourages a reflective reading experience, where the bilingual layout can be explored slowly, one page at a time. More than just a container, the page becomes an active space of meaning, where the choices of margin, spacing, and alignment shape how the reader experiences both languages together. In this way, the format supports not only legibility but also a deeper cultural and poetic interaction between Arabic and English.

4.3.4 Layout

Once the format was set, the next decision concerned layout. If the page gives the work its physical frame, layout determines how Arabic and English move within that frame. Working with long bilingual texts and poems meant thinking not only about where words sit on the page, but how they respond to each other over time. Line length, alignment, spacing between lines, and the treatment of margins all become part of the reading experience.

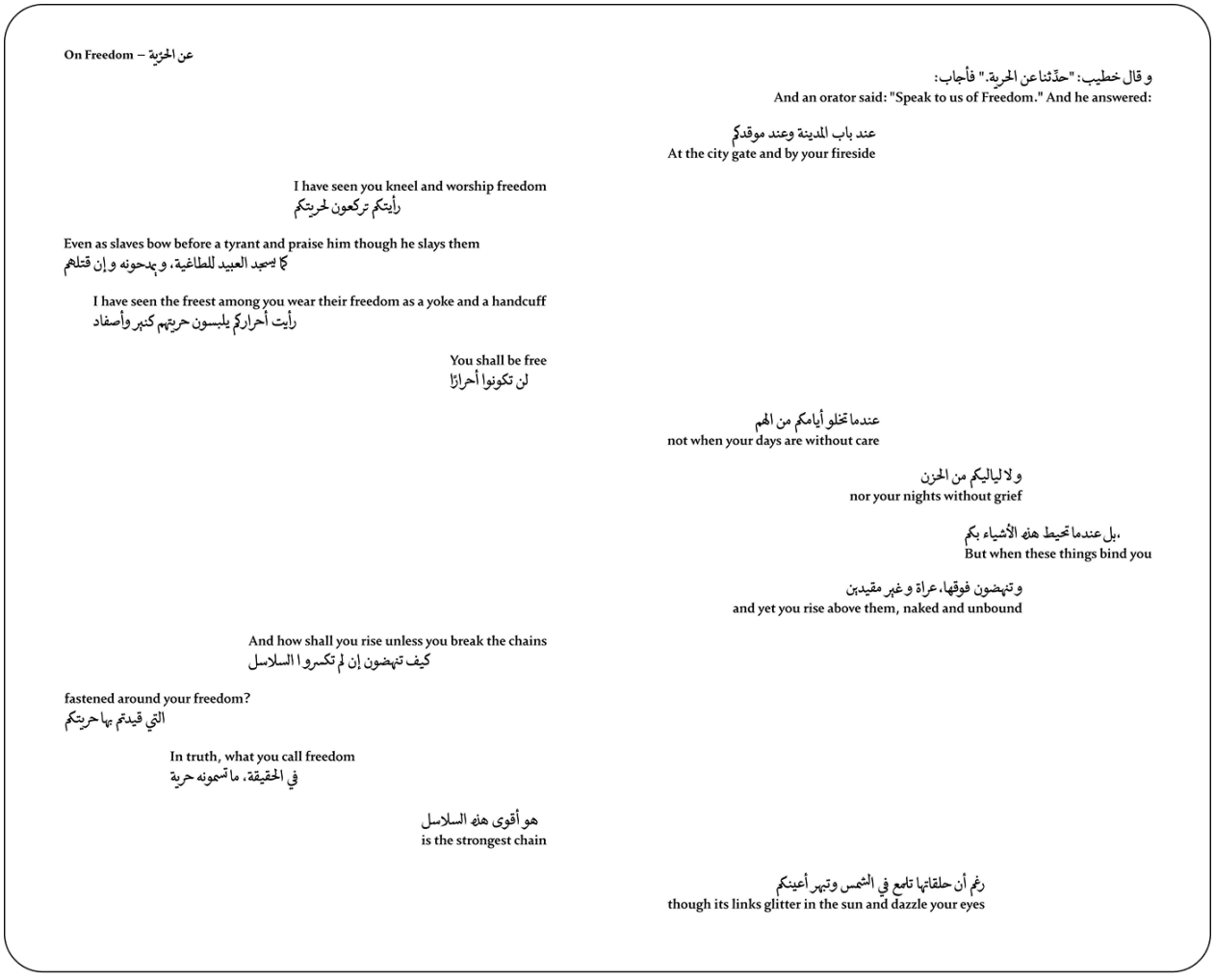
The question is how to let both voices inhabit the same page without collapsing their differences or placing one in a permanent position of priority. To do this, I developed a set of recurring layout strategies that could be adapted to different poems and passages while still feeling coherent as a sequence.

Stacked pairing

Stacked pairing is the most grounded of the layout strategies I developed, and it became the starting point for composing the bilingual poems. In this structure, Arabic and English lines are placed one above the other, forming a vertical pair that shares a common line break whenever possible. Each thought or poetic unit appears in both languages, allowing the reader to move up and down within the pair, comparing rhythm, tone, and nuance across scripts (see Figure 24).

Figure 24

Bilingual poem set using stacked pairing layout.



Note. Layout by the author, based on an excerpt from *The Prophet* by Kahlil Gibran. Typeface: 29LT Idris Sharp.

This format offers a quiet sense of balance, allowing both Arabic and English to coexist without hierarchy. Neither language is pushed aside or placed in a secondary role. Instead, each holds its own space on the page, contributing equally to the rhythm and flow of the poem. The structure echoes the logic of poetic couplets, where the relationship between lines matters as much as the lines themselves. Visually, the repetition of bilingual pairs builds a gentle cadence across the spread, anchoring the text even when the translations diverge. The line spacing is tightened within each pair, with slightly more room between units to help the eye distinguish individual thoughts. Each script keeps its natural alignment, with Arabic aligned to the right and English to the left, while the vertical pairing holds them together as a single poetic moment.

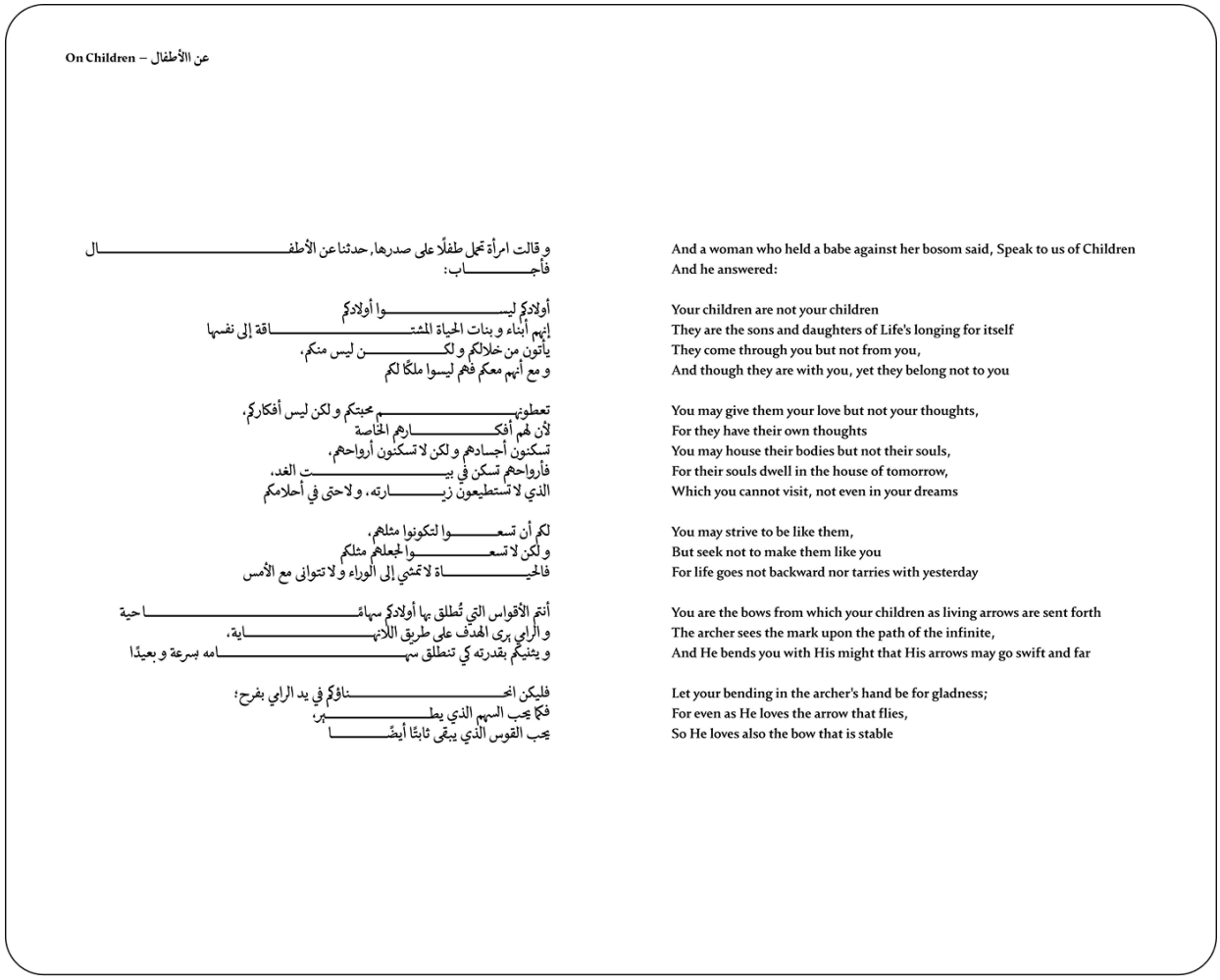
The layout not only helped create a balanced bilingual spread between Arabic and English, but also became a grounding point from which more experimental structures and compositions could emerge.

Mirrored structure

While stacked pairing invites readers to move vertically between languages, a mirrored layout shifts movement horizontally across the spread. Arabic and English sit on facing pages as parallel compositions, each occupying a full column. In this arrangement, both languages unfold independently yet remain visually and conceptually aligned across the central gutter (see Figure 25).

Figure 25

Bilingual poem set using mirrored pairing layout.



Note. Layout by the author, based on an excerpt from *The Prophet* by Kahlil Gibran. Typeface: 29LT Idris Sharp.

The layout offers a balanced encounter with both languages, allowing each to hold its own presence while still answering across the space of the page. Readers are invited to follow the text in full, not to compare but to listen as the two languages unfold together in parallel.

Code Switching

Shifting to another strategy in my experiments, one rooted in personal experience as a trilingual speaker, I turn to code switching. As someone who constantly moves between Arabic, English, and French, especially in multilingual environments, I often find myself weaving different languages into a single sentence. This practice goes beyond habit; for many bilingual or trilingual individuals, it reflects a deeper awareness of context and an effort to make others feel at ease. Code switching typically refers to the act of adjusting one's language, tone, or behavior in different social contexts. In linguistic terms, it describes the shift between two or more languages within a single conversation. As defined by McCluney et al. in Harvard Business Review, code switching involves adjusting one's style of speech, appearance, behavior, and expression in ways that optimize the comfort of others in exchange for fair treatment (McCluney et al., 2019). While the term is often used to describe social and professional navigation, it also captures the layered movement that happens when bilingual speakers switch languages in the middle of a sentence or thought.

I extend this idea of code switching by using it as a layout strategy in which Arabic and English coexist within the same typographic line. Unlike stacked pairing or mirrored structures, where each language is set apart in separate blocks, this approach blurs that separation. The scripts are interlaced at the level of the sentence, and the reader moves through them as one hybrid structure. The result is not translation followed by translation, but bilingualism as it happens in real life, in motion, in thought, and in rhythm (see Figure 26, 27).

Figure 26

Bilingual poem set using code switching layout.



Note. Layout by the author, based on an excerpt from *The Prophet* by Kahlil Gibran. Typeface: 29LT Idris Sharp.

Figure 27

Bilingual poem set using code switching layout.



Note. Layout by the author, based on an excerpt from *The Prophet* by Kahlil Gibran. Typeface: 29LT Idris Sharp.

Both Arabic and English readers naturally tend to begin with their own language, but this is not simple code switching. I designed the layout so that both readers must interrupt themselves in the middle of the sentence in order to register the presence of the other. The two languages are interwoven within the same line. What emerges is not a pure reflection but a layered presence, where Arabic and English sit side by side, often alternating word by word.

This structure creates a particular visual rhythm. The eye moves along the line and encounters shifts in script and language, asking the reader to adjust pace and direction again and again. Rather than a passive reading experience, it demands attention, flexibility, and trust. The reader is constantly crossing thresholds, not from one page to another, but within the body of the sentence itself.

Code switching as a layout is more than a bilingual flourish. It suggests how language can stretch, absorb, and adapt within a single line of text. It reveals how Arabic and English can interrupt and complete one another, not only through translation but through shared presence. In doing so, it reflects how bilingual speakers often move, not between languages, but through them.

Visual Poetry

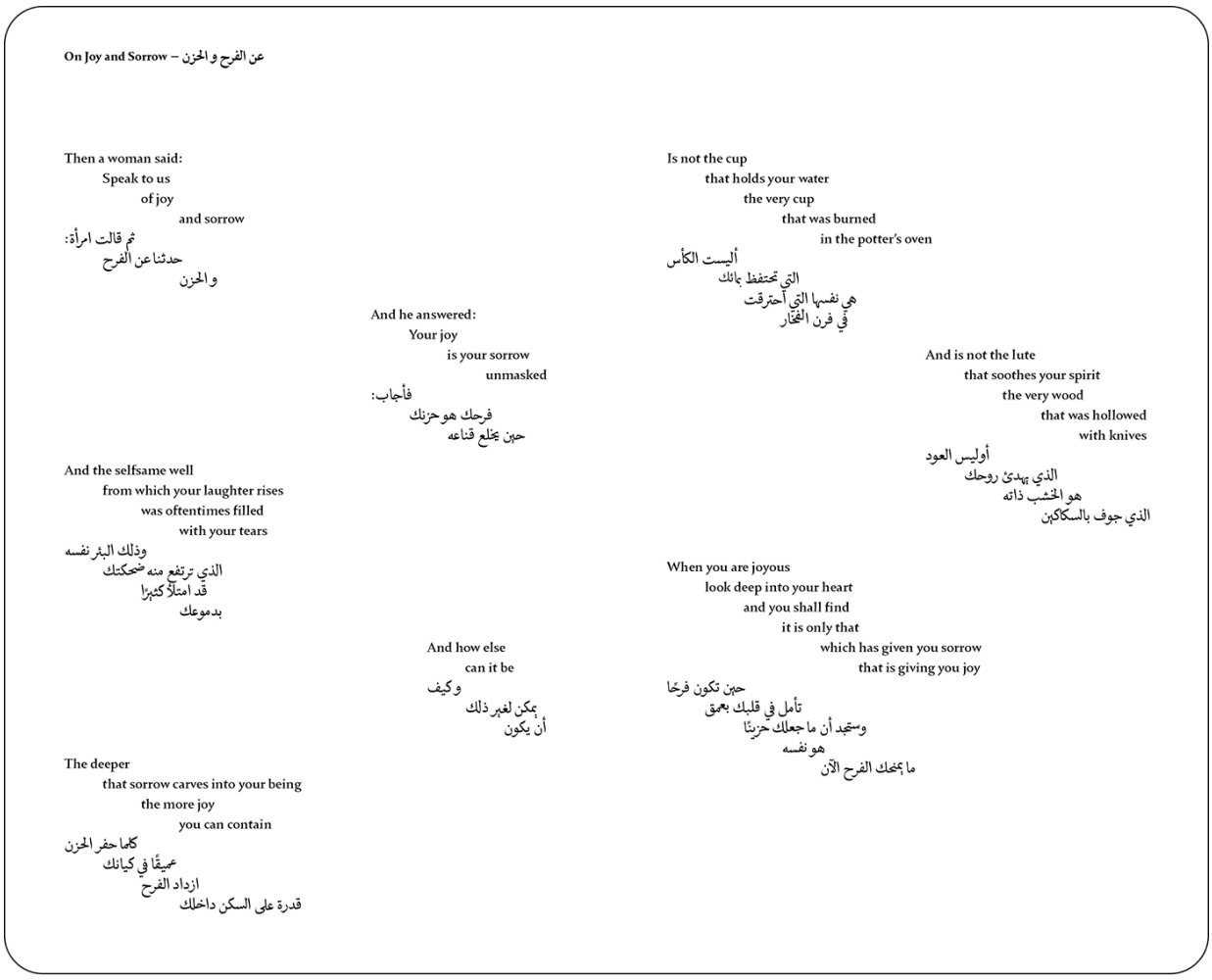
At a certain point in these experiments, the line began to feel too narrow. I wanted the poem to spill beyond its usual path, to behave less like a sentence and more like a field. Visual poetry becomes the place where this shift happens. Words still carry meaning, yet they also act as material on the page. Claus Clüver describes visual poetry as existing between poetry and painting, in a space where language is organised by movement, structure, and spatial relations instead of syntactic sequence (Dencker, 2000). In my research, that painterly dimension is taken up by typography, by the way letters, ligatures, and lines inhabit and activate the page.

This layout strategy offers the most open and expressive form within the project. Unlike stacked pairing, mirrored composition, or code switching, which still treat the line as the basic unit, this approach releases the text from the grid entirely. Arabic and English no longer follow parallel or linear arrangement. They are composed across the page as a constellation where meaning emerges through rhythm, scale, weight, orientation, and proximity.

In the layout shown in Figure 28, Arabic and English phrases float across the spread. Some lines echo each other across space, others interrupt or fragment. Texts cluster into fields or drift apart entirely. Hierarchy is established not by fixed position or alignment but by tension and flow, by the distance between phrases, the density of a section, or the gravitational pull of a central line. White space becomes structural, allowing silences to hold weight between the languages.

Figure 28

Bilingual poem set using visual poetry layout.



Note. Layout by the author, based on an excerpt from *The Prophet* by Kahlil Gibran. Typeface: 29LT Idris Sharp.

Arabic and English do not sit in symmetry. They enter into conversation, orbit, and overlap. Some words pull the eye vertically, others diagonally. The reader moves differently, not left to right or right to left, but responsively. Meaning becomes layered and delayed, sometimes incomplete. That incompleteness is part of the gesture, and the spread invites exploration rather than resolution.

Working in this mode allowed me to loosen control and let the composition unfold more intuitively. The goal was not to clarify but to evoke. Rather than anchoring Arabic and English to each other, I gave them the freedom to drift, to repeat, to rupture. What holds the poem together is not syntax but tone, atmosphere, and the rhythm of movement across the page.

The In-Between

Across the different strategies I explored in these visual experiments, bilingual text becomes more than a simple arrangement of two languages placed side by side. It turns into a matter of spatial relation, rhythm, and visual presence. Each layout, from the alignment of stacked pairing to the reflective structure of mirrored pages, the sentence level hybridity of code switching, and the expressive openness of visual poetry, tests how Arabic and English can coexist on the page without collapsing into one another. Rather than seeking a fixed formula, I treated each typographic decision as a way to explore tone, directionality, interruption, and resonance between scripts. These experiments show that bilingualism on the page does not rely on a single stable solution; it can be disciplined or fragmented, symmetrical or scattered, dense or open. What holds the work together is not an enforced balance but an insistence on presence, allowing both Arabic and English to remain visible, legible, and involved in the construction of meaning. Sometimes the two languages move in parallel, sometimes they challenge each other, yet in every case the layout becomes an active field where linguistic and cultural tensions are not resolved but given form.

It is precisely in this field of tension that something new begins to emerge, a space in between that resonates with the Third Space of enunciation that has been informing my reading of bilingual encounters, where cultural meanings remain in motion rather than fixed in place (Bhabha, 1994). These bilingual spreads open a zone of encounter, friction, and mutual transformation, not a compromise between Arabic and Latin scripts but a layered terrain where both can shift and expand. The page becomes a threshold where each script stays rooted in its own typographic and cultural traditions while encountering the other in ways that are open, unfinished, and alive.

The result is not absence but a form of presence built through relation, in which Arabic and English speak in proximity and each shapes how the other is seen, read, and felt. The typographic space becomes a shared territory, not owned equally, but held in a careful, shifting balance that the reader must continually navigate. These poems function less as translations

than as encounters, and the design choices operate as invitations in which form gives shape to difference. Through rhythm, alignment, contrast, and movement, a bilingual visual language begins to take shape, one that does not seek resolution but listens carefully to complexity.

4.3.5 Towards Motion: Bilingual Text in Movement

Having all these experiments in hand, I began to wonder what would happen if the bilingual text began to move. If letters, words, and sentences from Arabic and English could meet not only on the page but also in motion, how might that shift their relationship? Could animation reveal something that static layout could not? I chose a single sentence from the Prophet as the starting point: “Speak to us of Freedom” and its Arabic counterpart “حدّثنا عن الحرية”.

Rather than composing a fixed layout, I let the sentence itself become the structure. Arabic and English were layered in a shared space and then set in motion. Letters scaled up and down fluidly, expanding across the screen in a steady rhythm. As they grew, they passed through one another and revealed fleeting intersections, moments where Arabic and English touched, overlapped, collided, or dissolved. At times, they seemed to interrupt each other; at other times, they appeared to fuse (see Figure 29).

Figure 29

Bilingual sentence in motion.



Note. Animation and still by the author. This frame captures a moment from a typographic animation built from the sentence “Speak to us of Freedom” and its Arabic counterpart “حدّثنا عن الحرية”. As Arabic and English scale and intersect in motion, the animation explores spatial tension, overlap, and typographic presence.

The result was not meant to be legible in a traditional sense but was conceived as an atmospheric study. Motion allowed me to explore bilingual text as a durational experience, attentive not only to what these scripts say but to how they move, react, and interfere when given time and space. The animation became a surface of emergence, where the sentence did not simply illustrate freedom but enacted it. In this way, bilingual text in motion opens the door to further research and experimentation on how Arabic and English can share not only the space of the page but the unfolding of time itself, extending the questions of this research beyond static bilingualism.

Discussion

My research set out to examine how bilingual Arabic and Latin typography can be understood not merely as a technical or linguistic challenge but as a space for creative and cultural inquiry. I grounded this investigation in historical accounts of both scripts, postcolonial reflections on language and hybridity, and social semiotic theories that frame typography as a site where power and ideology are made visible. These frameworks did not remain confined to the early stages of the research; they continued to shape the ways I engaged with existing typographic work, guided my readings of bilingual compositions, and informed the choices I made throughout my own typographic experiments.

In the visual survey, I examined bilingual typographic work drawn from books, archives, foundry specimens, and digital platforms, paying close attention to how Arabic and Latin scripts are positioned, scaled, and styled when set together. I also included examples from the streets of Beirut and Cairo, where the lettering often emerges from local practices rather than institutional design systems. These signs reflected a more handmade or improvisational quality, and in many cases, Arabic assumed the leading role while English appeared primarily for reference or accessibility.

The field research trip I took to Tunisia extended this inquiry into the street, where I photographed everyday bilingual signs in public spaces, then analysed hierarchy, placement, and material conditions in those contexts. What stood out was not that Arabic was diluted, but that it carried less visual weight when compared to the expressive calligraphy found in Beirut or the dense, multi-layered signage traditions of Cairo. This confirmed that the coexistence of Arabic and Latin is rarely without tension, and depending on the context, either script may take precedence. Within this frame a central thread running through the case studies and interviews

was the recognition that bilingual typography is always entangled with questions of power, identity, and visibility rather than only with formal harmony.

Because I had already engaged with postcolonial discussions of language, hybridity, and social semiotics, I approached the work of Samar Maakaroun, Wael Morcos, and Naji El Mir with an eye to what is visible, what is legible, and what is expected to adapt. In Samar's work, Arabic often undergoes strong geometric simplification that pulls it toward Western typographic expectations, sometimes to the point where the script begins to echo Latin shapes more than its own calligraphic ancestry. Naji, by contrast, insists that the internal structures of Arabic calligraphy remain active in bilingual settings, showing how proportion systems and pen based logic can be carried into contemporary type without dissolving into ornament. Morcos positions his bilingual typography between these poles, neither following classical calligraphy in a strict way nor submitting Arabic to complete geometric reduction, but instead relying on shared metrics, rhythm, and phonetic cues to keep the two scripts in careful relation. Across these three practices I came to understand proportion, spacing, counters, and pacing as concrete tools through which hybridity is negotiated. One approach leans toward the assimilation of Arabic into Western norms, another protects the rootedness of Arabic and asks Latin to meet it, and the third consciously works in the in-between space where neither script entirely gives way to the other. This understanding fed directly into the questions I asked in my own experiments about how far fusion can go before it erases difference and how far separation can go before it blocks dialogue.

My typographic experiments unfolded in three stages that gradually expanded the scale of inquiry, from letters to words to long text, and each stage tested a different aspect of this question. The first stage focused on individual letters and on building bilingual glyphs that combined Arabic and Latin forms according to shared phonetic values. Drawing on typographic writing on legibility and readability, including authors such as Robert Bringhurst and Ellen Lupton, I treated each hybrid as a small negotiation between recognition and estrangement and asked how much of each script needed to remain for a reader to still recognise it. The resulting letters stayed readable for both Arabic and Latin readers precisely because they were anchored in common phonetic ground. The real limitation did not appear in the clarity of these letters but in their scope. This technique applies only to a subset of letters where phonetic overlap exists, which limits its application across the full range of both scripts. That constraint marked a clear boundary for this kind of formal hybridity. While it opens compelling possibilities, it cannot, on its own, produce a fully integrated bilingual system of letterforms.

The second stage turned to words, where I drew a clear distinction between those that translate easily between Arabic and English and those that resist translation, carrying dense cultural and emotional significance. For the bilingual set, which included words related to dignity, justice, and freedom, I worked with Arabic words rendered in calligraphy alongside their English translations set in a sans serif typeface. Rather than blending the two, I preserved the integrity of each script. Arabic was expressed through fluid, ornamental strokes, and English through clean, minimal forms. The interaction between these distinct visual languages created a bilingual composition built not on fusion but on the tension and dialogue between expressive calligraphy and typographic restraint. For the untranslatable set I turned to words such as سَمْح (Samh) and شَجَن (Shajan) and refused to fix them to brief English equivalents. Drawing on Roman Jakobson's notion of intersemiotic translation and Barbara Cassin's reflections on untranslatables, I treated these words as sources of affect that could move into typographic gesture, rhythm, and motion. The animations and static compositions became ways of giving visual and temporal shape to tone and inner movement rather than pinning them to a single line of text. In that shift bilingual typography began to act less as a straightforward vehicle for verbal translation and more as a medium that carries transitions in mood, atmosphere, and intensity.

The third stage moved to longer poetic texts and to the scale of the page and the spread, where questions of layout, hierarchy, and directionality became unavoidable.I tested several layout strategies: stacked pairing that aligned Arabic and English vertically, mirrored structures that placed the two languages on facing pages, interwoven lines that brought both scripts into a shared sentence level structure, and visual poetry that freed the text from regular columns. The mirrored layouts allowed me to explore kashida as a technique for balancing the horizontal rhythm of Arabic and English, extending Arabic words to match the length of their English counterparts while remaining true to the logic of the script. This gave a tangible, spatial dimension to the question of parity between languages. Experiments with code switching, informed by its social and linguistic implications, composed Arabic and English within the same utterance, where the two scripts could interrupt, echo, or complete each other. Visual poetry, informed by theories that position it between poetry and painting, allowed the text to drift, cluster, and disperse, turning the page into a space of negotiation between scripts.

When I introduced motion into this stage, as in the animation of the bilingual sentence on freedom, the exploration shifted from spatial composition to a durational experience. The sentence was no longer simply read but enacted through movement, scaling, intersection, and disappearance.

Across all three stages one of the main strengths of the research was the decision not to settle on a single bilingual system but to keep the experiments plural and responsive. Instead of designing a universal template to be applied to any content, I let each piece respond to its specific combination of text, context, and intended reader. This approach resonates with accounts of hybridity that understand the in between not as a stable compromise but as an ongoing site of negotiation. In my experiments there was no singular correct way for Arabic and Latin to meet. At times they stood apart in carefully balanced columns, at other moments they intersected inside a single line, and in some pieces one language stepped back so that the other could carry the emotional weight of a passage. This variability was not a weakness but a resource, since it allowed bilingual typography to be tuned to the cultural and affective demands of each situation rather than forcing all texts into one fixed model.

The same plurality created real challenges that became evident as I reviewed the work through my own bilingual reading experience. The desire to maintain both linguistic integrity and visual harmony often pulled in opposing directions. Certain compositions, especially the more experimental visual poems, were compelling as images yet demanding as reading experiences even for me as their author and as a bilingual viewer. Rather than treating these tensions as failures, I came to see them as markers along a spectrum that runs from expressive speculation to functional communication. Recognising this spectrum clarified that bilingual typography designed for public applications, such as wayfinding, educational materials, or institutional communication, cannot simply import the most exploratory gestures from this research without adaptation, but it can still draw on the insights they produced about hierarchy, rhythm, and the sharing of space.

From this perspective the research suggests several implications for bilingual typographic practice, particularly for type designers working with Arabic and Latin scripts in applied contexts such as editorial design, cultural institutions, and public communication. When bilingual typography is approached as more than a matter of matching fonts or filling grids it can foster nuanced cross-cultural understanding by creating reading situations in which difference is not bypassed but encountered and felt. Bilingual layouts can become relational fields where scripts, cultures, and histories meet on the page and where the negotiation of meaning is made visible, including the points at which that meaning strains, overlaps, or refuses to stabilize. In a world shaped by migration, displacement, and multilingual everyday life, typographic decisions about which language appears first, which script is scaled up, which words are allowed to stretch or blur, and which remain constrained are aesthetic and political at the same time.

For me, the most important outcome of this research is the recognition that bilingual typography is not only a field to be analysed but also a way of thinking and inquiring in its own right. Working at the edge of languages, scripts, and forms, I did not simply produce a sequence of pages and animations. I learned to think differently about bilingualism and about how language lives on the page.

The process of drawing bilingual letters, composing bilingual poems, and setting mirrored spreads shaped an understanding that was as much experiential and embodied as it was conceptual. It revealed how cultural complexity can be made visible, thinkable, and felt through typographic form. It also made clear how easily hierarchies between scripts can be reproduced if they are not questioned at every stage. In that sense, the research did not just apply theory to practice. It allowed practice to speak back to theory and at times to bend it, and it is in this ongoing movement between making and reflecting that I locate the most meaningful contribution of this research and the ground from which my future bilingual typographic work will grow.

Conclusion

This research creation process has shown that bilingual typography is not simply a technical exercise in accommodating two scripts, but a cultural and conceptual practice that asks how difference can be held without hierarchy. Through the drawing of hybrid letters, the composition of bilingual words and poems, and the animation of untranslatable words and text, I explored ways in which Arabic and Latin scripts can speak together without one being pulled into the habits of the other. What emerged is not a fixed formula or system, but a set of strategies for making bilingualism visible, legible, and felt.

As a trilingual designer who moves daily between Arabic, French, and English, this work is inseparable from lived experience. The questions posed here are not abstract. They grow from the discomfort of mistranslation, the joy of linguistic resonance, and the constant recalibration that comes from speaking more than one language. My own position shaped the research at every level, not only in the texts chosen and the forms explored, but in the ethics with which I approached each typographic composition, as an act of care, of attention, and of listening across difference.

The typographic choices I made, whether stacking, mirroring, interlacing, or animating, opened ways to rethink how Arabic and English can coexist on the same surface, not as parallel

versions but as intersecting voices. These experiments offer more than visual outcomes. They point to the potential of typography as a space for cultural negotiation, where scripts do not lose their specificity yet still engage in dialogue, and where the in between can be read as a site of encounter rather than compromise.

In this sense, what my research offers is not a solution to the challenges of bilingual typography, but a way of approaching them with care, with curiosity, and with the belief that bilingual letters, words, and text can carry more than content. They can hold tension without flattening it, speak across difference without erasing it, and give form to voices that do not always align. When approached in this way, bilingual typography becomes more than a tool for communication. It becomes a space where meaning is shaped, contested, and shared; a space where identity remains multiple, language keeps its texture, and presence is claimed without apology.

For type designers working across cultures and scripts, this is not a conclusion but an opening, an invitation to keep composing, to keep listening, and to keep finding new forms for what is still waiting to be said.

References

29LT. (n.d.-a). 29LT Idris Sharp. 29LT. https://www.29lt.com/product/29lt-idris-sharp/

29LT. (n.d.-b). Pascal Zoghbi. https://www.29lt.com/designer/pascal-zoghbi/

29LT. (n.d.-c). Linda Hintz. https://www.29lt.com/designer/linda-hintz/

2x4. (n.d.). Dadu Children's Museum of Qatar.

Abdel Baki, R. (2013). Coupling bilingual typefaces. In Typography Day 2013 conference proceedings.

Abdel Baki, R. (2024). Harmonizing bilingual layouts: A proposal of Latin–Arabic typographic classifications. Design and Culture, 16(1), 1–19.

Abdulmajed, M. (2020). The concept of harmonization between Arabic and Latin typography combination in the advertising design. IOSR Journal of Research & Method in Education, 10(1), 5–20.

AbiFarès, H. S. (2001). Arabic typography: A comprehensive sourcebook. Saqi Books.

AlJassmi, M. A., Warrington, K. L., McGowan, V. A., White, S. J., & Paterson, K. B. (2022). Effects of word predictability on eye movements during Arabic reading. Attention, Perception, & Psychophysics, 84, 10–24.

Baker, M. (1992). In other words: A coursebook on translation. Routledge.

Bauer, T. (1996). Arabic writing. In P. T. Daniels & W. Bright (Eds.), The world's writing systems (pp. 559–563). Oxford University Press.

Benjamin, W. (1923/2000). The task of the translator (H. Zohn, Trans.). In L. Venuti (Ed.), The translation studies reader (pp. 15–25). Routledge.

Bhabha, H. K. (2012). The location of culture. Routledge. (Original work published 1994)

Bigelow, C. (2019). Typeface features and legibility research. Vision Research, 165, 162–172.

Blankenship, S. (2003). Cultural considerations: Arabic calligraphy and Latin typography. Design Issues, 19(2), 60–63.

Bogner, A., & Menz, W. (2009). The theory-generating expert interview: Epistemological interest, forms of knowledge, interaction. In A. Bogner, B. Littig, & W. Menz (Eds.), Interviewing experts (pp. 43–80). Palgrave Macmillan.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Bringhurst, R. (2004). The elements of typographic style (Version 3.0). Hartley & Marks.

Brumberger, E. R. (2003). The rhetoric of typography: The persona of typeface and text. Technical Communication Quarterly, 12(4), 365–387.

Cassin, B. (Ed.). (2014). Dictionary of untranslatables: A philosophical lexicon (E. Apter, J. Lezra, & M. Wood, Eds. of the English edition; S. Rendall, Trans.). Princeton University Press.

Chapman, O., & Sawchuk, K. (2012). Research-creation: Intervention, analysis and “family resemblances.” Canadian Journal of Communication, 37(1), 5–26.

Clarke, M. (2010). Neo-calligraphy: Religious authority and media technology in contemporary Shiite Islam. Comparative Studies in Society and History, 52(2), 351–383.

Daniels, P. T., & Bright, W. (Eds.). (1996). The world’s writing systems. Oxford University Press.

Dencker, K. P. (2000). From concrete to visual poetry, with a glance into the electronic future (H. Polkinhorn, Trans.). Light and Dust Mobile Anthology of Poetry / Kaldron On-Line. http://www.thing.net/~grist/l&d/dencker/denckere.htm

Design Week. (2020). A typeface to bring the emotion of Black Lives Matter protest placards online. Design Week.

El Mir, N. (2023). Khatt Chronicles in conversation with Naji El Mir [Interview]. Interview by H. Smitshuijzen AbiFares for Khatt Chronicles.

Eunoia. (n.d.). Words that don’t translate [Online database]. Retrieved November 5, 2025, from https://eunoia.world/

Hollis, R. (2006). Swiss graphic design: The origins and growth of an international style, 1920–1965. Laurence King.

International Phonetic Association. (1999). Handbook of the International Phonetic Association: A guide to the use of the International Phonetic Alphabet. Cambridge University Press.

Jakobson, R. (1959/2000). On linguistic aspects of translation. In L. Venuti (Ed.), The translation studies reader (pp. 113–118). Routledge.

Juni, S., & Gross, J. S. (2008). Emotional response to typography: The influence of typeface on readers’ perceptions. New York University.

Kinross, R. (1992). Modern typography: An essay in critical history. Hyphen Press.

Knight, S. (1996). The Roman alphabet. In P. T. Daniels & W. Bright (Eds.), The world’s writing systems (pp. 312–326). Oxford University Press.

Kress, G., & van Leeuwen, T. (2006). Reading images: The grammar of visual design (2nd ed.). Routledge.

Landry, R., & Bourhis, R. Y. (1997). Linguistic landscape and ethnolinguistic vitality: An empirical study. Journal of Language and Social Psychology, 16(1), 23–49.

Lataifeh, M., Ahmed, N., Elbardawil, S., & Gordani, S. (2024). Assessing the legibility of Arabic road signage using eye gazing and cognitive loading metrics. Computers, 13(5), 123.

Linotype. (2012, March 19). Neue Helvetica Arabic [Font family]. Monotype. https://www.fonts.com/font/linotype/neue-helvetica-arabic

Linotype. (n.d.). Neue Helvetica [Font family]. Monotype. https://www.myfonts.com/collections/neue-helvetica-font-linotype/

Lyons, J. (1995). Linguistic semantics: An introduction. Cambridge University Press.

Lupton, E. (2010). Thinking with type: A critical guide for designers, writers, editors, & students (2nd ed.). Princeton Architectural Press.

Maakaroun, S. (2023). 29 Words for 29 Letters [Design project].

Maakaroun, S. (2024, January 30). How to design multilingual scripts and avoid lazy visual stereotypes [Talk]. Nicer Tuesdays, It's Nice That.

McCluney, C. L., Robotham, K., Lee, S., Smith, R., & Durkee, M. (2019, November 15). The costs of code-switching. Harvard Business Review. https://hbr.org/2019/11/the-costs-of-codeswitching

Milo, T. (2005). A model for handling the Arabic script. In Proceedings of the 27th Internationalization and Unicode Conference (Berlin, Germany). Unicode Consortium.

Milo, T. (2005). Review of Arabic Typography: A comprehensive sourcebook (H. S. Smitshuijzen AbiFarès). Bibliotheca Orientalis, 62(1–2), 161–164.

Milo, T. (2011). Balancing Arabic and Latin typography. Book 2.0, 1(2), 239–254.

Morcos, W. (2022, April). Design in multicultural contexts [Lecture]. School of Design event, online. Morcos Key.

Morcos Key. (n.d.). Dadu identity and type design.

Munro, S. (Ed.). (2022). Strikethrough: Typographic messages of protest. Letterform Archive.

Nida, E. A. (1964). Toward a science of translating. E. J. Brill.

Nemeth, T. (2017). Arabic type-making in the machine age: The influence of technology on the form of Arabic type, 1908–1993. Brill.

Nemeth, T. (2020). On Arabic justification. The Journal of Electronic Publishing, 23(1).

Nemeth, T. (2022). Overlooked: The role of craft in the adoption of typography in the Muslim Middle East. In S. Reese (Ed.), Manuscript and print in the Islamic tradition (pp. 21–60). De Gruyter.

Osborn, J. R. (2017). Letters of light: Arabic script in calligraphy, print, and digital design. Harvard University Press.

Oxford University Press. (2012). Oxford Latin Dictionary (2nd ed.).

Phillipson, R. (1992). Linguistic imperialism. Oxford University Press.

Phillipson, R. (2010). Linguistic imperialism continued. Routledge.

Reynolds, A. L. (2017, Summer). Reputations: Nadine Chahine. Eye, (94). https://www.eyemagazine.com/feature/article/reputations-nadine-chahine

Salhi, M. (2021, March 23). From your hand to heaven: Arabic, Persian and Ottoman calligraphy sheets at the Library of Congress – Part 1. 4 Corners of the World (Library of Congress). https://blogs.loc.gov/international-collections/2021/03/from-your-hand-to-heaven-arabic-persian-and-ottoman-calligraphy-sheets-at-the-library-of-congress/

Smitshuijzen, E. (n.d.). The big kashida secret. Khatt Foundation. https://www.khtt.net/en/page/1821/the-big-kashida-secret

Smithsonian National Museum of Asian Art. (2014–2015). Nasta'liq: The genius of Persian calligraphy [Exhibition]. Washington, DC.

Suleiman, Y. (2003). The Arabic language and national identity: A study in ideology. Edinburgh University Press.

Ten Brink, M. (2024). Interview with Silas Munro, author of Strikethrough! Typographic messages of protest. Interdisciplinary Journal of Signage and Wayfinding, 8(2), 36–43.

The Metropolitan Museum of Art, Department of Islamic Art. (n.d.). Proportional scripts. In Arabic script and the art of calligraphy (educator resource).

van Leeuwen, T. (2006). Towards a semiotics of typography. Information Design Journal, 14(2), 139–155.

Versteegh, K. (2014). The Arabic language (updated ed.). Edinburgh University Press.

Visit Qatar. (n.d.). Dadu Children's Museum of Qatar: A museum in the making.

Appendix

Sources for Figure A1

(a) ArabicTypography.com. (n.d.). *BCN Arabic Sans* [Typeface]. ArabicTypography.com. https://www.arabictypography.com/custom-type/bcn-arabic-sans-font

(b) 29LT. (n.d.). *29LT Bukra* [Typeface]. 29LT. https://www.29lt.com/product/29lt-bukra/

(c) ArabicTypography.com. (n.d.). *Kermes Arabic* [Typeface]. ArabicTypography.com. https://www.arabictypography.com/retail-fonts/kermes-arabic-font-variable-font

(d) 29LT. (n.d.). *29LT Zarid Slab* [Typeface]. 29LT. https://www.29lt.com/product/29lt-zarid-slab/

(e) Linotype. (n.d.). *Neue Helvetica Arabic* [Font family]. MyFonts. https://www.myfonts.com/collections/neue-helvetica-arabic-font-linotype/

Sources for Figure A2

(a) Studio Yukiko. (n.d.). *Mawaheb Music Festival* [Project page]. Studio Yukiko. https://y-u-k-i-k-o.com/projects/mawaheb/

(b) Hey Porter Poster. (n.d.). *END* [Poster]. Hey Porter Poster. https://www.heyporterposter.com

(c) (f) (g) (h) Gebrael, I. (2020). *Berlin Mondiale Calendar* [Calendar design]. Imad Gebrael. https://www.imadgebrayel.com/creative/mondiale-2020-calendar/

(d) Shamel, S. (2019). *PalFest 2019: Urban Futures—Colonial Space Today* [Poster]. The Palestine Festival of Literature. https://www.palfest.org/poster-gallery

(e) Morcos, W. (n.d.). *Protect Civil Liberties* [Poster]. Cargo Collective. https://cargocollective.com/waelmorcos/Protect-Civil-Liberties

(i) Ntsal; Shenouda, N. (Art Dir.). (2020, October). *Shasha Mobile Film Festival* [Identity/posters]. Fonts In Use. https://fontsinuse.com/uses/41597/shasha-mobile-film-festival

Sources for Figure A3

(a) Chris Tarango. (n.d.). *Bilingual Arabic–Latin shop signage* [Photograph]. Chris Tarango. https://www.christarango.com/0b9469jsxzveh564dzepuapaq7fldg

(b) *Local's Guide To Egypt. (n.d.). Vintage Cairo: 15 of the oldest restaurants, bars and cafes in the city [Article]. Local's Guide To Egypt. https://www.localguidetoegypt.com/post/vintage-cairo-15-of-the-oldest-restaurants-bars-and-cafes-in-the-city.*

(c) Scene Now. (n.d.). *8 century-old Egyptian shops that withstood the test of time* [Article]. Scene Now. https://www.scenenow.com/LifeStyle/8-Century-Old-Egyptian-Shops-That-Withstood-the-Test-of-Time

(d) Abdou, M. (2021, December 21). *Café Riche: Egypt's revolutionary location*. Egyptian Streets. https://egyptianstreets.com/2021/12/21/cafe-riche-egypts-revolutionary-location/

(e) Abdou, M. (2021, January 21). *In photos: Finding the Arabic letter in every Cairo corner*. *Egyptian Streets*. https://egyptianstreets.com/2021/01/21/in-photos-finding-the-arabic-letter-in-every-cairo-corner/

(f) TasmeemME. (n.d.). قصة يافطات وسط البلد في القاهرة [The story of downtown Cairo signs] [Blog post]. TasmeemME. https://www.tasmeemme.com/en/blog/346/قصة-يافطات-وسط-البلد-في-القاهرة

(g) Local's Guide To Egypt. (n.d.). *Sightseeing in Alexandria, Egypt: 15 best things to see and do* [Article]. Local's Guide To Egypt. https://www.localguidetoegypt.com/post/sightseeing-in-alexandria-egypt-15-best-things-to-see-and-do

Sources for Figure A4

All panels (a–j) reproduced from:
Maakaroun, S. (n.d.). *29 Words for 29 Letters*. *Samar Maakaroun*. Retrieved July 1, 2025, from https://samarmaakaroun.co.uk/29-words-for-29-Letters

Sources for Figure A5

All panels (a–j) reproduced from:
El Mir, N. (n.d.). Posters and projects. Naji El Mir. Retrieved September 11, 2025, from https://www.najielmir.com

Sources for Figure A6

All panels (a–b) reproduced from:

Morcos Key. (n.d.). *Dadu: Identity and type design*. Morcos Key. Retrieved August 15, 2025, from https://www.morcoskey.com/projects/dadu

Sources for Figure A7

Mehmed İzzet Efendi. (1323 AH [1905–1906 CE]). *Hutût-ı Osmâniyye* [Lithographed writing manual]. İstanbul: Osmanlı Kütüphanesi. Grolier Club digital record. Retrieved September 18, 2025, from https://grolierclub.omeka.net/items/show/2750

Sources for Figure A8

Silk Screen. (n.d.). *Thuluth calligraphy specimen* [Digital model sheet]. Salla.sa. Retrieved September 26, 2025, from https://salla.sa/silkscreen/rAPmzgd

Sources for Figure A9, A10

29LT. (2024). *29LT Idris Sharp* [Type specimen]. 29LT. Retrieved September 26, 2025 from https://www.29lt.com/product/29lt-idris-sharp/