

Copyright

by

Mohamad Karimifar

2017

**The Report Committee for Mohamad Karimifar
Certifies that this is the approved version of the following report:**

Marfa:

A culturally respectful Perso-Arabic and Latin multi-script typeface

**APPROVED BY
SUPERVISING COMMITTEE:**

Supervisor:

Carma Gorman

James Walker

Marfa:
A culturally respectful Perso-Arabic and Latin multi-script typeface

by
Mohamad Karimifar

Report

Presented to the Faculty of the Graduate School of
The University of Texas at Austin
in Partial Fulfillment
of the Requirements
for the Degree of

Master of Fine Arts

The University of Texas at Austin
August 2017

Acknowledgements

I am more than grateful for my supervisor, Dr. Carma Gorman; the completion of this undertaking could not have been possible without her support, guidance, and encouragement.

I would like to thank my professors, Kate Catterall, James Walker, and Jiwon Park, who graciously helped me by sharing their thoughts and knowledge. I extend my gratitude to the wonderful members of the UT Department of Art and Art History who have warmly and patiently shared their knowledge, support and perspective with me, including Kevin Auer, Kit Morris, Eric McMaster, José Perez, Khanh Nguyen, Jonas Hart, and kt shorb.

To my design cohort—Alija Sule, Tirza Hutagalung, and Nevena Peeva—you have provided endless encouragement and laughs. To the MFAs who came just before and just after us—Jesse Cline, Seo Joon Lee, Shrankhla Narya, Angelica Sibrian, Diana Witcher, Ajinkya Barve, Juliana Castro, Ekin Levent, Kira Street, Subodh Trivedi, Jean Yang and Eric Zimmerman—your work and your friendship have been always inspiring.

To my undergrad buddies who helped me from Iran, Germany, and Canada—Behrooz Tahanzadeh, Elnaz Moftakhari, Nariman Mortaz Hejri, Ali Naghavi, and Behnam Soltani—thanks for continuing your support and friendship after four wonderful years of studies together.

I also want to thank the College of Fine Arts and Department of Art and Art History and the International Office at the University of Texas for the generous fellowship and scholarships that have made my work possible.

Last, but certainly not least, it has been my immense privilege for faculty members across the UT campus to welcome me into their classes, including Igor Siddiqui, Michael

Benedikt, Nichole Wiedemann, and Richard Jennings. I have learned so much from all of you in just the past two years and will continue to learn. Thank you.

Abstract

Marfa:

A culturally respectful Perso-Arabic and Latin multi-script typeface

Mohamad Karimifar, M.F.A.

The University of Texas at Austin, 2017

Supervisor: Carma Gorman

Globalization and the need for cross-cultural communication have created a need for multi-script typefaces suitable for both print and digital applications. However, there are far fewer Perso-Arabic typefaces in existence than Latin ones, and even fewer Perso-Arabic/Latin multi-script typefaces. Of the Perso-Arabic/Latin multi-script typefaces in existence, very few are visually unified enough to use for multilingual typesetting. And the very few visually unified multi-script typefaces that *do* exist usually achieve that visual unity by forcing the calligraphic forms of Perso-Arabic glyphs into the norms of Latin typography. With a few exceptions, multi-script Perso-Arabic/Latin typefaces have not been very respectful to Perso-Arabic calligraphic traditions: their forms are visible artifacts of western influence, and they therefore do not strike a particularly effective tone for cross-cultural communication.

In response to the need for visually unified, less obviously “colonizing” Perso-Arabic/Latin multi-script typefaces, I have designed the Marfa type family. Marfa is a visually cohesive multi-script type family (which will eventually include eight different

weights and styles) that respects the calligraphic origins of both Perso-Arabic and Latin writing systems. Marfa not only adds to the number of available visually cohesive Perso-Arabic/Latin multi-script typefaces—therefore giving typographers new, less overbearing “tones of voice” to work with—but also, by refusing to force Perso-Arabic characters into Latin typographic norms, provides a model for how to begin “decolonizing” other multi-script typefaces.

Table of Contents

List of Figures	ix
PROBLEM STATEMENT	1
The growing need for multi-script typefaces	1
CHALLENGES OF PERSO-ARABIC TYPOGRAPHY	3
The Perso-Arabic writing system.....	3
The scarcity of Perso-Arabic/Latin type designs	8
What makes for a good multi-script Perso-Arabic/Latin typeface?.....	12
RESEARCH TRAJECTORY	16
THE EXHIBITION.....	21
CONCLUSION	24
Bibliography	25

List of Figures

Figure 1. “Latinized” Arabic type used for advertising	2
Figure 2. Latin and Arabic versions of a product name	2
Figure 3. Drawing the letterform ‘o’ using vertical stress (Latin norms, on the left) and horizontal stress (Perso-Arabic norms, on the right)	4
Figure 4. Paragon Italian shaded, Caslon & Catherwood	4
Figure 5. A reproduction in twelve different scripts of the opening statement of the Human Rights Charter: "All people are born free and equal"	5
Figure 6. Nastaliq Persian calligraphy	6
Figure 7. Shekasteh Nastaliq Persian calligraphy	6
Figure 8. Naskh calligraphy in Quran	7
Figure 9. According to Myfonts.com, there are 31736 fonts that support English language while there are only 208 fonts that support Arabic	9
Figure 10. Mitra typeface. Arabic characters by Tim Holloway, 2005, published by Linotype; paired with Hermann Zapf’s Optima, published by Linotype	10
Figure 11. Adir, Published by 29LT type foundry. An example of a Group 2 typeface	10
Figure 12. Riwaya, Published by 29LT type foundry, 2016. An example of a Group 3 typeface	11
Figure 13. An exaggerated example of Arabic letters made from Latin forms. The Arabic word ‘risala’ on the right constructed using the Latin letterforms of Helvetica bold typeface	13

Figure 14. The use of dots (stroke width) as a clue for proportions of the letterforms (image by Mtdashti at English Wikipedia)	13
Figure 15. Albrecht Durer’s modulation for blackletter script based on stroke width. (Durer 1965, 41).....	14
Figure 16. Similarity of blackletter script and Perso-Arabic calligraphy	17
Figure 17. Letterform sketches based on blackletter scripts.....	17
Figure 18. A concordance of Latin print and calligraphic alphabets. <i>Calligraphia catalogue</i> , Vol, 1, Works of Jacob Christoph, 1570.....	18
Figure 19. Blackletter script (Rotunda), <i>Calligraphia catalogue</i> , Vol1, Works of George Balth, 1591 (Harry Ransom Center)	18
Figure 20. The process of refining key Latin characters to make them more contemporary	19
Figure 21. The proposed weights and styles for the Marfa type family: one reversed- contrast display style for Latin only, and seven weights for both Latin and Perso-Arabic.....	20
Figure 22. Overview of exhibition installation.	22
Figure 23. First wall: interactive website.....	22
Figure 24. Second wall: black acrylic glyphs.	23
Figure 25. Third wall: Posters showcasing the features of Marfa.	23

PROBLEM STATEMENT

The growing need for multi-script typefaces

As Andreu Balius has argued, “Languages are usually the first barrier we encounter when we have to communicate with or relate to other cultural realities” (Balius 2014, 32). As he observes, “design can play a key role” in facilitating human relations in a global economy by “providing signage in spaces shared by people of diverse origin, labelling foodstuff before it is placed on the market, packaging cosmetics or making a drug pamphlet” (Balius 2014, 32) (figs. 1-2).

As any IKEA consumer and any multinational company knows, there is a great need for multi-script typefaces for both print and digital applications. But unfortunately, the (mostly American) computer scientists who created the first computers and programming languages did not predict the internet, and baked into their assumptions was the idea that the 128-character ASCII table designed for Latin letters would suffice for all needs. That the written languages of nearly every other country in the world require, at very least, Latin characters with diacritical marks—if not entirely different character sets—has meant that the writing systems of some of these countries became a barrier restricting many people’s access to technology. As Balius explains, computer science’s use of the basic Latin character set prevented people who did not express themselves “in English or in any other language with a Latin alphabet” from participating fully in digital technology and in global communication and commerce (Balius 2014, 32). Until the expanded Unicode character set was adopted as the global standard in 1992, the absence of characters for languages such as Arabic or Chinese was one of the main obstacles to the expansion of digital technology to other areas of the globalized world.



يوم ورا يوم

Figure 1. “Latinized” Arabic type used for advertising, compared to a calligraphic script version of the same characters used in the bottom line of the sign’s text. In the sign, the Arabic characters have lost most of their stroke contrast and their shapes changed to resemble Latin lower-case letters such as *p* and *g*.



Figure 2. Latin and Arabic versions of a product name used on candy packaging. The shapes of the Arabic characters have been geometricized to echo the shapes of the brand name as spelled in Latin characters.

CHALLENGES OF PERSO-ARABIC TYPOGRAPHY

The Perso-Arabic writing system

The Perso-Arabic writing system is used to write many different languages: Arabic, Persian, Urdu, Pashtun, Ottoman Turkish, Sindhi, Malay, Malayalam, Kurdish, etc., and has variants and additional characters for some of these languages (much like how the Latin alphabet has diacritical marks for French or Swedish to capture different sounds). The Arabic language uses 28 letters while Persian uses 32. Besides the 4 additional letters in Persian, the main difference between Persian and Arabic is the use of diacritical marks: they are used much more in Arabic writing than in Persian. All the other languages mentioned above can be supported by a full Perso-Arabic character set.

The Perso-Arabic writing system is phonetic, like the Latin, Greek, Hebrew, and Cyrillic alphabetic systems and the Japanese and Korean syllabic systems. However, there are three major differences between the Perso-Arabic and Latin writing systems. The first and most obvious difference is that all languages using the Perso-Arabic writing system have a right-to-left orientation. In addition, the letters in the Perso-Arabic writing system are usually not separate characters but rather joined (like Latin *fi*, *ff*, *&*, and *ß* ligatures), depending on where in the word they appear. These joins are very similar to the ones in Latin cursive handwriting, but in Persian and Arabic, those joins are maintained in type design as well.

The second major difference between Latin and Perso-Arabic calligraphy and type design is the contrast and stress flow of the stroke. In Perso-Arabic letters, unlike Latin letters, the horizontal strokes have always been the thickest and the vertical strokes the thinnest in all Arabic or Persian calligraphy styles throughout history (fig. 3). Although there have also been some Latin typefaces designed with horizontally-stressed strokes,

which are categorized as reversed-contrast or “Italian” styles, these have usually been used as display faces rather than as “text” typefaces for setting books (figs. 3-4)

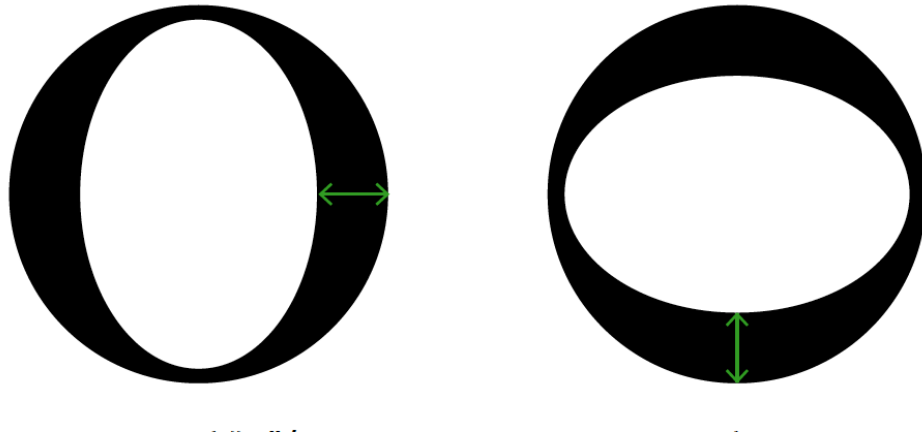


Figure 3. Drawing the letterform ‘o’ using vertical stress (Latin norms, on the left) and horizontal stress (Perso-Arabic norms, on the right)



Figure 4. Paragon Italian shaded, Caslon & Catherwood, 1830. Courtesy of David Shields, American Type Founders Library Collection, Columbia University, Butler Library

The third major difference between Latin and Perso-Arabic writing/typographic systems is that most of the calligraphic script families in Perso-Arabic writing—Diwani, Nastaliq, Roqah, Thulth—are written so that words are not constrained to a baseline: sometimes they have an ascending pattern in a line, or even letters in one word go up and down rather than staying level on what would be considered the “baseline” in Latin typography (figs. 5-8). Naskh is the only exception; because it is written on a level baseline, most Arabic typefaces are modeled on Naskh character forms. But Naskh is somewhat comparable in its formality to blackletter text in the west: it looks old-fashioned, and religious, or at least serious, because it’s what the Quran is usually set in (much as blackletter is used for proclamations, newspaper nameplates, and diplomas in the west).

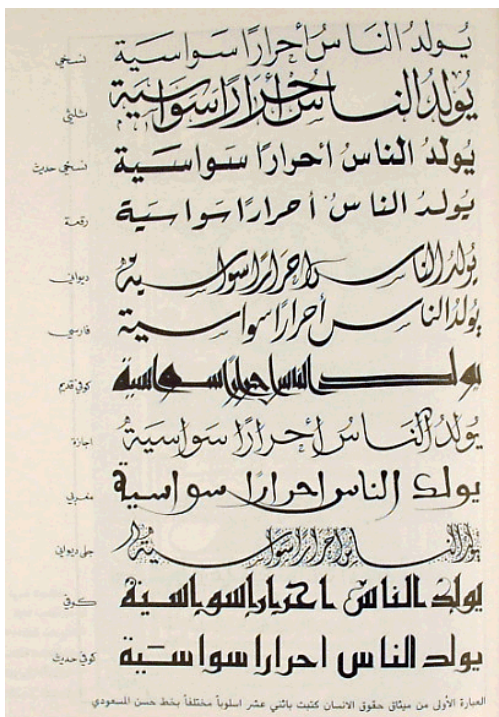


Figure 5. A reproduction in twelve different scripts of the opening statement of the Human Rights Charter: "All people are born free and equal", Yale University library, Near East Collection



Figure 6. Nasta'liq Persian calligraphy. Calligraphers using Nasta'liq script styles do not compose their words along a baseline; rather, they create a beautiful composition by allowing words to flow diagonally. From author's personal collection, calligrapher: Gholamreza.



Figure 7. Shekasteh Nasta'liq Persian calligraphy. Not only individual words, but also sometimes entire lines of text, “ascend” or run diagonally rather than on a level baseline. From author's personal collection, calligrapher: unknown.



Figure 8. Naskh calligraphy in Quran. Naskh is the only script style that tends to stay on the baseline. From author's personal collection, calligrapher: unknown.

The scarcity of Perso-Arabic/Latin type designs

Written languages that rely on Perso-Arabic writing systems (including Arabic, Persian, Central Kurdish, Luri, Urdu, Pashto, dialects of Mandinka, and others) have been poorly served not only by computer scientists, but also by recent typographers. The first Arabic book to be printed in movable type was the *Salat al-Sawa‘i bi-Hasab Taqs Kanisat al-Iskandariyah* or *Prayers of the Hours According to the Liturgy of the Church of Alexandria* produced in Fano, Italy, in 1455 (“Near East Collection,” 2009). Yet despite a long history of Arabic typesetting in metal, there are relatively few Perso-Arabic digital typefaces currently available on the market. Many of the best (at least from the standpoint of having complete character sets, if not always from an aesthetic standpoint) are derived from the earliest metal typefaces.

According to data from the Myfonts.com website (the most-used font licensing website in 2016), only 208 Arabic typefaces have been designed and made digitally available as of May, 2017 for an audience of more than 660 million writers of languages using Perso-Arabic character sets (Myfonts.com, Wikipedia) (fig. 9). In contrast, there are 31,736 Latin typefaces available for the English language as of May, 2017, for approximately 4.9 billion users of that character set. 3957 more Perso-Arabic typefaces would need to be designed in order to achieve the same ratio of “Fonts per alphabet user” as English. The relatively small number of available Perso-Arabic and multiscrypt typefaces is a problem because it limits the typographic “tones of voice” in which Perso-Arabic typographers can write, and makes it difficult to find typefaces with the right nuances for different purposes.

1 / 152.5

The ratio of Arabic fonts to Latin
(Myfonts.com)

1 / 7.4

The ratio of people using Arabic to
people using Latin writing system
(Wikipedia)

Figure 9. According to Myfonts.com, there are 31736 fonts that support English language while there are only 208 fonts that support Arabic. If we want to have the same number of “fonts per alphabet user” we need about 3900 more Arabic fonts.

There are even fewer multi-script typefaces that include both Perso-Arabic and Latin characters. These can be categorized into three different groups. The first group includes good Perso-Arabic typefaces (either ones scanned from old metal typefaces, or the few new digital faces that have been developed in the last twenty-five years that have full character sets) that have been (mis)matched to Latin characters from other typefaces. When two unrelated character sets are mashed together as one font file, the result is rarely visually cohesive enough to be used for serious typesetting (fig. 10). The second group includes multi-script typefaces that have Perso-Arabic and Latin characters that were deliberately designed to be used harmoniously together, but that achieve that visual harmony by forcing calligraphic Perso-Arabic characters into western typographic norms, often by changing the stroke contrast or including no contrast at all (fig. 11). And the third, smallest group includes only about twenty visually cohesive multiscript character sets that are respectful of the aesthetics and calligraphic origins of both Perso-Arabic and Latin writing systems (fig. 12).

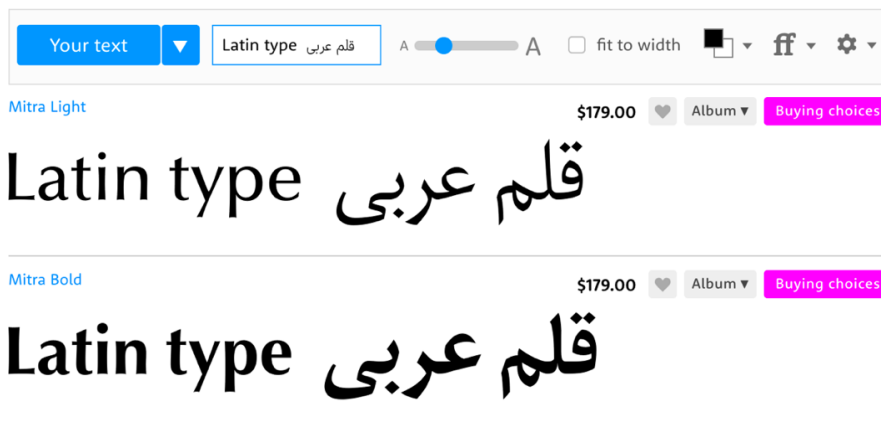


Figure 10. Mitra typeface. Arabic characters by Tim Holloway, 2005, published by Linotype; paired with Hermann Zapf's Optima, published by Linotype, 1958. An example of a Group 1 typeface: Holloway's Arabic fonts are well designed; so, too, are Zapf's Latin ones. However, they are not well matched because the modulations and the stroke thicknesses are different.



Figure 11. Adir, Published by 29LT type foundry. An example of a Group 2 typeface: the Perso-Arabic and Latin glyphs are visually harmonious, but that is because the Arabic type has been stripped of its stroke contrast and calligraphic forms in order to match the aesthetics of a modern geometric Latin sans-serif face.



Figure 12. Riwaya, Published by 29LT type foundry, 2016. An example of a Group 3 typeface: both the Arabic and Latin letterforms have calligraphic modulation, and neither Latin nor Perso-Arabic aesthetics is clearly dominating.

What makes for a good multi-script Perso-Arabic/Latin typeface?

As J.R. Osborn explains, “The histories and practices of Arabic calligraphy and Arabic font design are richly intertwined.” The beauty of Arabic calligraphic forms has always been appreciated in the Arab world and beyond. However, it is important to make a clear distinction between Arabic calligraphy and typography, even though Arabic letterforms maintain their script nature in type. As Osborn contends, “Arabic type design continues to be haunted by the suggestion that typographic characters cannot match the harmony or subtlety of calligraphic compositions” (Osborn 2009, 290). And this was certainly true of digital fonts prior to the mid-1990s.

But over the past two decades, software developers have offered great opportunities to type designers around the world by creating a new standard for digital fonts called OpenType (1996), which allows for up to 65,536 glyphs or symbols in a single font archive. Arabic type designers therefore now have more flexibility to closely mimic a wide range of calligraphic forms in a digital font file. That said, there is no reason why the letterforms of the Perso-Arabic alphabet must *always* emulate calligraphy, any more than the Latin typographic alphabet must imitate handwriting. Even so, most contemporary Arabic typeface designs “do not represent a radical break from calligraphic and scribal traditions” (Osborn 2009, 290). To construct a contemporary Arabic font that is not exotic to its culture, Arabic type designers do still need to be familiar with calligraphic scripts and norms.

For example, Arabic typefaces do not fit into Latin type classifications like Serif and San-serif, and similarly, “modernizing” Perso-Arabic characters does not mean that they should be made to follow Latin stroke modulation (fig. 13). In all styles of Arabic calligraphy, stroke width is very important, because it determines the height and width of

characters (rather like Durer's diagrams showing how stroke width determines the proportions of blackletter Latin characters) (figs. 14-15)



Figure 13. An exaggerated example of Arabic letters made from Latin forms. The Arabic word 'risala' on the right constructed using the Latin letterforms of Helvetica bold typeface. From right to left, the word is constructed from the isolated tail of a lowercase g (for the Arabic letter ra), an upside down lowercase m (for the Arabic sin), a capital L (for the Arabic alit), the mirror-image of a capital L (for the Arabic lam) and the loop of a lowercase a topped with two periods (for the Arabic ta'marbuta). Although this image does not show an *actual* design for a Perso-Arabic typeface, it does suggest how some Group 2 typefaces come to look the way they do (Osborn 2009, 298).

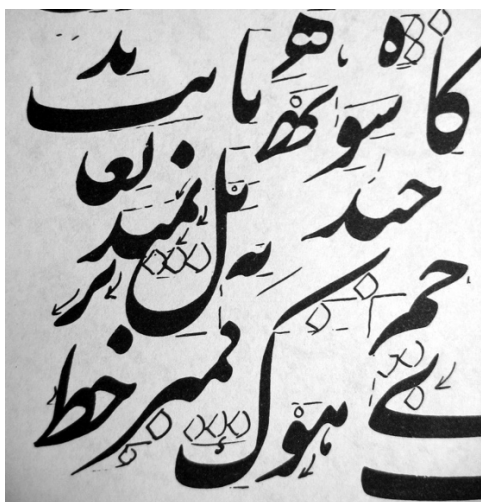


Figure 14. The use of dots (stroke width) as a clue for proportions of the letterforms (image by Mtdashti at English Wikipedia)



Figure 15. Albrecht Durer's modulation for blackletter script based on stroke width.
(Durer 1965, 41)

A perpetual challenge in designing Perso-Arabic/Latin multi-script typefaces is that if you use the same stroke width for Perso-Arabic and Latin characters, the Perso-Arabic characters inevitably end up looking relatively very small and short. So either multi-script typeface designers have to use heavier strokes for the Perso-Arabic characters to make them bigger, or they have to break with traditional calligraphic proportions and make the characters thinner, taller, and wider to make them the same relative size as the Latin characters. There's ultimately no way to perfectly mesh the two systems of writing: they are too different. So compromises have to be made. And especially in Group 2 typefaces that are used primarily for advertising and packaging rather than for setting long passages of text, the Perso-Arabic characters end up doing most of the compromising. (see figs. 1–2)

Although Perso-Arabic graphic designers typically don't use group two typefaces for "serious" typesetting, indigenous readers/writers have had no choice but to accept these exotic and arguably colonizing group two typefaces as display faces on product packages and in advertisements, even though they distort traditional forms of writing. Sometimes these typefaces have been part of global corporations' and foreign governments' arguably colonizing attempts to communicate and sell products in these regions. But not always. Both native Latin and native Perso-Arabic typographers have designed Latinized Group 2 Perso-Arabic typefaces. Sometimes Group 2 typefaces are the result of native designers trying to emulate Latin type modulation. Just as western modernism affected eastern people in other aspects of their life, such as their clothing, their architecture, their furniture, etc., it also affected type design. Some indigenous designers accepted modernism without critically questioning whether it was appropriate for their culture or not. And some probably started emulating western aesthetics (and technology) simply because they thought anything "western-looking" was somehow cooler and better.

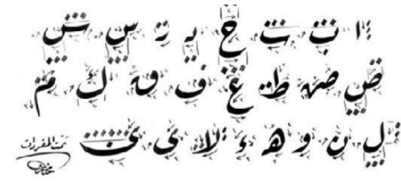
RESEARCH TRAJECTORY: THE PROCESS OF MAKING CONTEMPORARY CALLIGRAPHIC LATIN LETTERFORMS

Because so few multi-script Perso-Arabic/Latin typefaces are available—and because even fewer have full character sets, a contemporary feel, *and* are respectful of both Perso-Arabic and Latin writing and printing traditions—I decided to design one. I started the process by doing visual research on different Latin calligraphic styles. I found blackletter scripts to be the forms of Latin calligraphy most comparable to Arabic calligraphy. Arabic and blackletter calligraphy use a similar pen, which makes the stroke contrast of both scripts similar (fig. 16). Next, I printed type samples of a nineteenth-century blackletter or “German” wood type in the Rob Roy Kelly Collection of American Wood Type at UT, and started sketching some ideas for what the Latin letterforms of the typeface (which I decided to call Marfa) would look like (fig. 17).

The archival resources at the Harry Ransom Center (HRC) inspired me a lot. I found at the HRC the eleven-volume *Calligraphia Catalogue*, which reproduced the works of the most celebrated writing masters, English and foreign, from 1539 to 1840, and provided a thorough documentation of the history of Latin calligraphy (figs. 18-19).



Blackletter scripts
RRK



Ruqah script



Nastaliq script

Figure 16. Similarity of blackletter script and Perso-Arabic calligraphy. Left: blackletter wood type printed at the Rob Roy Kelly Collection, Upper right: Ruqah script, Lower right: Nastaliq script



Figure 17. Letterform sketches based on blackletter scripts.

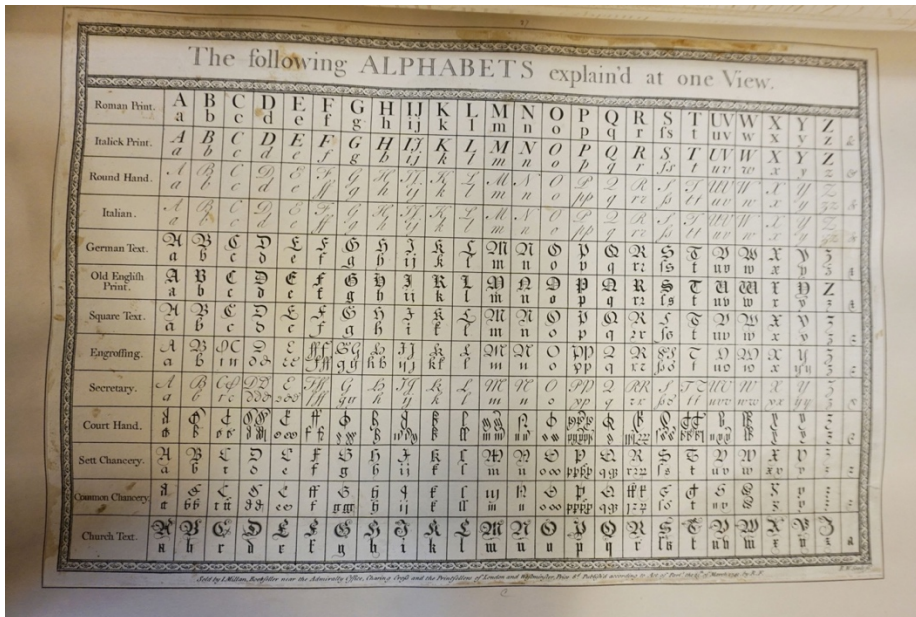


Figure 18. A concordance of Latin print and calligraphic alphabets. *Calligraphia catalogue*, Vol. 1, Works of Jacob Christoph, 1570 (Harry Ransom Center).

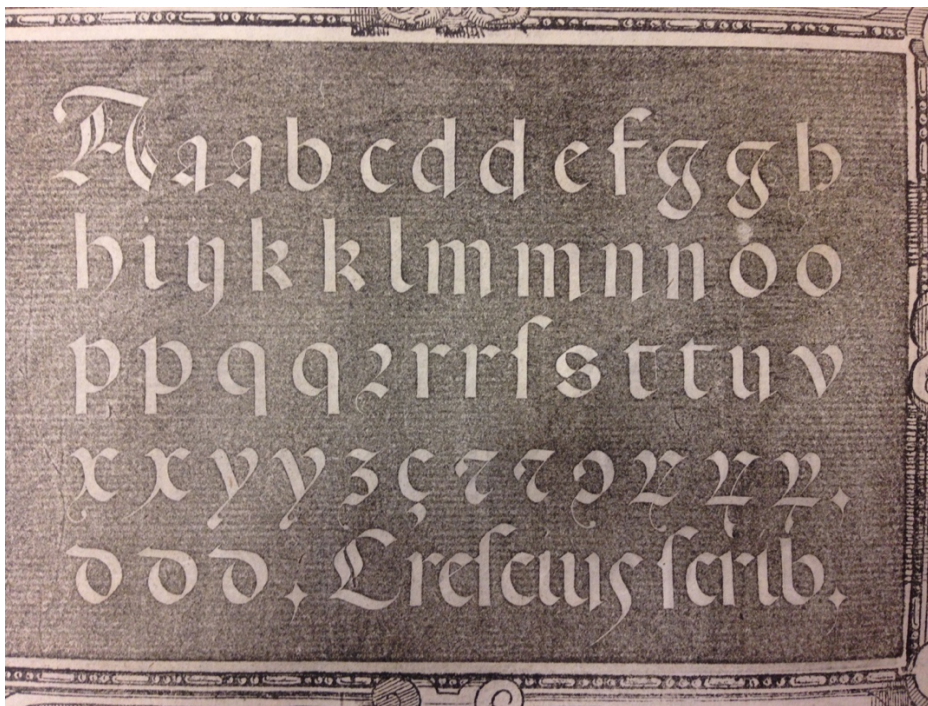


Figure 19. Blackletter script (Rotunda), *Calligraphia catalogue*, Vol. 1, Works of George Balth, 1591 (Harry Ransom Center).

Although my goal was to make a contemporary-looking typeface, the first drafts of Marfa Latin started to look very traditional and fraktur-like. During a months-long iterative process, I refined the key characters that I started with (the letters that spell the word *adhesion*), so that they didn't look so traditional, but still retained their calligraphic feel (fig. 20)

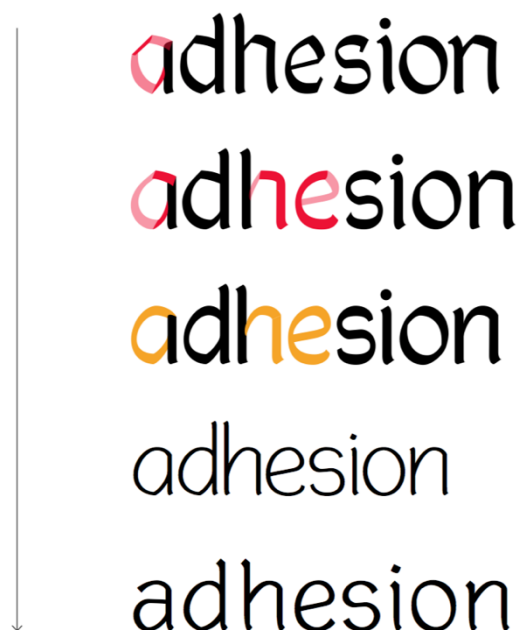


Figure 20. The process of refining key Latin characters to make them more contemporary

My plan is to expand the Marfa type family to include eight different weights and styles, with a character set that fully supports both Latin and Perso-Arabic writing systems (fig. 21). The family will include one reversed-contrast display style for Latin and 7 weights, from thin to black, for both Latin and Perso-Arabic. Thus far, the regular weight

and the Latin reverse-contrast display style have been designed and developed, though the glyph table for the regular-weight font is still incomplete. The missing glyphs, as well as other weights, will be added once the overall forms of the Latin characters have been retouched and finalized to make them more functional and less decorative.

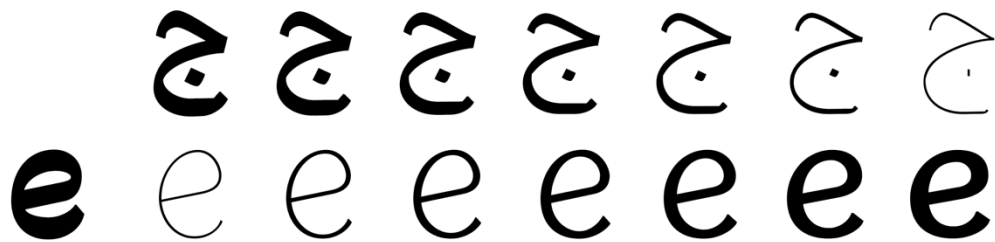


Figure 21. The proposed weights and styles for the Marfa type family: one reversed-contrast display style for Latin only, and seven weights for both Latin and Perso-Arabic.

THE EXHIBITION

Exhibiting a typeface is tough. A typeface is a tool rather than an artwork, and it is challenging to exhibit in a gallery space what a tool like a typeface can *do*, rather than just what it looks like. On the other hand, its appearance was important to showcase, too.

I ultimately decided to divide my exhibition area into three sections (fig. 22). First, I projected an interactive web page onto the wall that allowed people to test the typeface using a keyboard that was provided (fig. 23). Second, I cut out of black acrylic plastic all of the characters I'd designed, and glued them on the wall, arranged on a grid (fig. 24). The approximately 200 characters created a pleasant pattern from a distance and as the viewer got closer, he/she could examine the form of each glyph at a relatively large size. This part of the installation made the point that a full character set has hundreds of glyphs, and reminded the viewer that each one had to be precisely designed. The third wall displayed three posters that provided a concise explanation of the project (fig. 25).



Figure 22. Overview of exhibition installation.



Figure 23. First wall: interactive website.

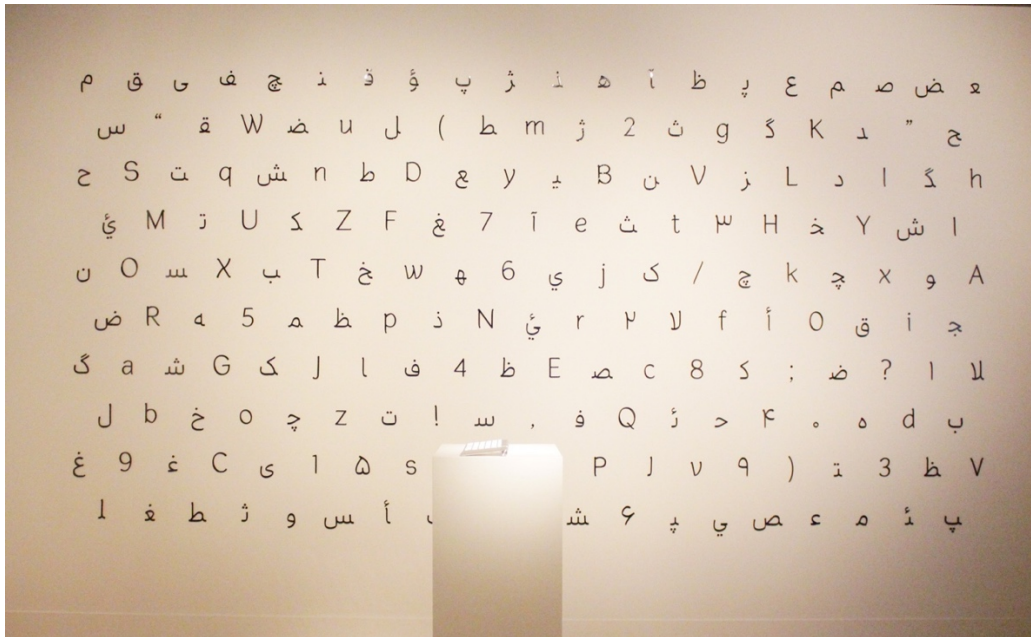


Figure 24. Second wall: black acrylic glyphs.



Figure 25. Third wall: Posters showcasing the features of Marfa.

CONCLUSION

I'm not the first person to call attention to the need for more multi-script digital typefaces, or to articulate the challenges of designing good multi-script Perso-Arabic/Latin typefaces. Nor am I the first to emphasize the desirability of designing digital multi-script typefaces in ways that are respectful to both cultures' writing/typographic traditions. Nonetheless, by laying out a method of designing a multi-script typeface that draws on historical precedent, I hope I will have contributed not only a useful typeface to the world (once it's published!), but also perhaps a useful model or process that other people who want to design multi-script typefaces could follow in order to be respectful of the aesthetics of both linguistic traditions.

Every single person who can read/write is a daily consumer of typefaces. However, type design has not been recognized well among designers, let alone non-designers. My mission, as a type designer, is to open up the discussion about typefaces in design and non-design communities. I will try to complete the Marfa project and publish it for the public use. I consider this project a contribution to the discourse on "decolonizing design" and hope to continue this research (or method) in my career as a designer/design educator.

Bibliography

- AbiFarès, Huda Smitshuijzen. 2001. *Arabic Typography: a comprehensive sourcebook*. London: Saqi.
- AbiFarès, Huda Smitshuijzen. 2003. *Multi-lingual Design for a Global Culture*. Barcelona: University of Barcelona
- Balius, Andreu. 2013. *The Value of Typography in a Global Multilingual World*. *Temes de disseny*, Issue 29, page 31.
- Bilak, Peter. "Why It's So Hard to Design Arabic Typefaces" *wired.com*. <http://www.wired.com/2015/10/why-its-so-hard-to-design-arabic-typefaces/> (accessed Jul 18 2016)
- Coles, Stephen. 2012. *The Anatomy of Type: A Graphic Guide to 100 Typefaces*. New York: Harper Design.
- Durer, Albrecht. 1965. *Of the Just Shaping of Letters*. Translated by R.T. Nichol. New York: Dover.
- Fussel, Stephen. 2005. *Gutenberg and The Impact of Printing*. Translated by Douglas Martin. Aldershot: Ashgate.
- Hudson, John. 2002. 'Unicode from text to type'. *Language Culture Type* edited by John D. Berry. *International Type Design in the age of Unicode*, New York: Association Typographique Internationale / Graphis.
- Kinross, Robin. 2004. *Modern Typography: An Essay in Critical History*. London: Hyphen Press.
- Mannix, Jason. 2010. *Rediscovering an Old Typeface*, Germany in view
- "Near East Collection: Early Arabic Printing | Yale University Library", [yale.edu. https://www.library.yale.edu/neareast/exhibitions/earlyprinting1.html](https://www.library.yale.edu/neareast/exhibitions/earlyprinting1.html) (accessed May 17, 2017).
- Noordzij, Gerrit. 2005. *The Stroke Theory of Writing*. Translated by Peter Enneson. London: Hyphen Press.
- Osborn, J.R. 2009. *Narratives of Arabic Script: Calligraphic Design and Modern Spaces*, Design and Culture, Vol.1 Issue. 3.
- Ross, David Jonathan. "Backasswards!" *djr.com*. <https://djr.com/backasswards/> (accessed Jul 18 2016)
- Salen, Katie. 2000. "Surrogate Multiplicities" from *Graphic Design & Reading*. Edited by Gunnar Swanson. New York: Allworth Press. 77–89.

Sarkis, Kristyan. "Arabic Calligraphy and Type Design" typotheque.com.
https://www.typotheque.com/articles/arabic_calligraphy_and_type_design
(accessed Jul 18 2016)