
THE REALM OF MANUSCRIPTS

A Universe where Dust Remembers,
Ink Becomes Art,
and Margins Whisper



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“Whenever we enter a library, we are in conversation with the past. And like any new setting in which we are strangers, we must listen carefully if we wish to learn from those already present. In the case of libraries, and especially manuscript libraries, we must “listen” to what our teachers wrote as well as how they wrote: which pens did they use, which paper, which styles of script. I was honored by Tarık Tüten’s invitation to contribute to the current “Conversation,” which connects scholars of the past, present, and future. And I hope that my essay extends the visual appreciation of the Hafız Ahmed Ağa Library collection. Every manuscript speaks in a unique “voice,” and styles of script act like dialects: each style “speaks” with a distinct accent and tone. Throughout history, Arabic script has adopted different styles on different media for different audiences. Such diversity invites us to appreciate the communicative role of scribal and visual variety. It inspires a retrofuturology in which the exploration of past techniques suggests future possibilities.”

J.R. Osborn

“LETTERS OF LIGHT: ARABIC SCRIPT IN CALLIGRAPHY, PRINT, AND DIGITAL DESIGN
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Ottoman Script Design*

Written communication is never simply a transcription of spoken word to paper; it is always the *design* of a message. Like modern designers, Turkish scribes had a toolbox of styles from which to choose. The chosen style aligned with the audience, genre, and intended use of a document. Ottoman textual design began with the notational differences of writing systems. Characters of Arabic, Greek, Hebrew, Armenian, and Latin circulated side by side. Notational differences communicated alongside linguistic content. A courier need not read Arabic or Greek in order to know the destination of a message. Nor did these scripts imply a specific language. Ottoman design was multi-scripted, multilinguistic, and stylistically diverse. Arabic script was the most common, but far from the only, representation of Ottoman Turkish. Turkish was also transcribed using Greek, Hebrew, Armenian, and even Latin letters. In 1851, Vartan Pasha published *Akabi Hikayesi* (Akabi’s Story), which stakes a claim as one of the earliest Turkish novels. The novel consists of Ottoman Turkish prose transcribed in Armenian characters.

Today, spoken languages and written scripts typically are paired in hermetic union. This was not the case in Ottoman Turkey. Spoken vernaculars were not tied to a particular script. Arabic script transcribed texts for Ottoman Muslims. Greek and Armenian characters transcribed texts for different Christian communities. And Hebrew characters transcribed texts for Ottoman Jews. Each of these groups was semiautonomous. Ottoman scripts demarcated legal and religious jurisdictions, rather than linguistic divisions. A particular script did not signify a particular language. Hebrew script did not imply Hebrew language, nor did the Greek alphabet indicate that a text was written in Greek. Ottoman Jews who spoke Arabic wrote the Arabic language using Hebrew characters, and immigrant Jews from Spain used Hebrew script for Ladino (Judeo-Spanish). Greek script, which signified an Orthodox Christian audience, often transcribed Greek. But it was also used for Ottoman Turkish and, on rare occasions, Arabic. Greek-speaking Muslims, in contrast, might employ Arabic script, even when writing in Greek. Ottoman languages changed dress according to the circles in which they moved.

The multivalent relationship between script and language worked in both directions. Spoken languages (such as Ottoman Turkish) were transcribed in multiple scripts, and a single script (such as Arabic) transcribed multiple languages. Arabic script served the Ottoman Muslim community. And Muslim texts came in many languages. These included Albanian-, Bosnian-, and Greek-language texts, among others. But the most common by far were Arabic-, Persian-, and Turkish-language writings. Educated audiences expected familiarity with all three languages. Arabic was the language of the Qur’an, religious law, and classical scholarship; Persian recorded epic poetry, histories, and spiritual treatises; and Ottoman Turkish was the official register of the state. *Naskh* varieties of Arabic script transcribed multiple languages. But subtle proportional differences and stylistic variety shaped content for specific audiences and uses. The classical styles of *al-aqlam al-sittah* implied Arabic content as well as general knowledge. The hanging style of *nasta’liq* indicated texts of Persian influence. And the regal uniform of the imperial *diwani* style was exclusive to Ottoman Turkish.

This chapter opens the toolbox of Ottoman stylistic variety. It begins by reframing the term *khatt*, which is often translated as “calligraphy,” as a practice of design. It examines two master Ottoman scribes—Şeyh Hamdullah and Hafız Osman—in light of how and what they designed with *naskh*. Dominant styles are then listed and compared alongside distinguishing features and suggested uses. A final section analyzes the application of theses styles as a practice of scribal

“typography.” In Ottoman practice, scribal styles offered technical choices of design. Visual and aesthetic cues demarcated communities of readers and writers. The presence of Arabic, Greek, or Armenian letters encoded useful information regarding textual origin and target audience. Within the particular system of Arabic script, stylistic choices further specified genre and function. Styles such as *thuluth*, *naskh* proper, *muhaqqaq*, *nasta’liq*, and *diwani* had distinct uses and implications. Styles of script, like current menus of multiple fonts, offered a plethora of design options. And Ottoman scribes, much like contemporary designers, employed these options in the connection of text and audience.

The Question of Calligraphy

Scribal beauty and clarity travel hand in hand, much as beautiful typography clarifies the printed word. The sweeping designation of scribal practices as “calligraphy” occludes their operational and communicative role. Ottoman scribes certainly created beautiful artistic imagery. But they also designed beautifully functional texts. Stylistic variety played a useful communicative function. Recasting “Arabic calligraphy” as a practice of textual and graphic design downplays qualitative considerations of artistic value. As calligraphic associations of classicism, beauty, and propriety recede, design concepts of utility, arrangement, and effectiveness move to the fore. Design analysis asks how the visual appearance of a text serves its message. How and why was a text designed? How does its appearance and design reflect its role? How do styles of script employ script grammar for communicative effect? Stylistic variety, visual composition, and aesthetic balance shape content. The diverse styles of Arabic script are not simply calligraphic drawings of art for art’s sake; they are beautiful and well-designed examples of textual content.

The Arabic word *khatt* (Turkish: *hat*) carries little connection to qualitative judgments of art and classical beauty. Rather, the word indicates the process of tracing a line, marking out, and outlining. The semantic field of *khatt* encompasses ideas of sketching, measurement (as in the lines of a classroom ruler), spaces (as in boundary lines), and precise description (as in delineation). *Khatt* merges linguistic practice, in which speech takes visual form (that is, “writing”), with aesthetic practice, in which the hand traces lines and shapes (that is, “drawing”). The hand-drawn lines of *khatt*, the gestural traces of writing, produce the concrete visual form of Arabic language. *Khatt* organizes the visual, linear, and textual space of writing. Both reading and writing follow a line of *khatt*. Laura Marks usefully describes *khatt* as a regulated vector: “a line of writing and a line of communication, as in airline, telephone line, and railroad line.” *Khatt* is not simply the line of written characters; it is also a line of communication and language. Much like railway and telephone lines, *khatt* traces networks of connection, communication, and practice. Vectors of *khatt* draw both words and boundaries.

The lines of *khatt* standardized Arabic writing across time and space. Ibn Muqlah’s proportional systems connected the increasingly large territory of Abbasid administration. And the regulated consistency of Ibn al-Bawwab’s tenth-century *khatt* remains legible more than a thousand years later. *Al-khatt al-mansub* fuels a powerful and enduring system of scribal design. It formalizes styles in the proportional relation of point, line, and plane—three of the foundational elements of contemporary graphic design. Modern design often begins with the placement of discrete forms in a predetermined space (for example, the arrangement of movable type in a preexisting grid). Points create lines in a plane, and space is filled with written characters and forms. *Khatt*, in contrast, begins with tracing a line. The point (*nuqta*) grows into a line (*alif*), and space emerges via the act of writing. Practices of *khatt* are both aesthetic and linguistic, technical and expressive: “For writers of the past, a feeling or observation would be described in the movement of a gesture and inscribed in the trace it yields. What mattered was not the choice of semantic content of the words themselves but the quality of the line itself.” Scribes draw linguistic expression as a visual form. Expression arises from the shapes being drawn and the way in which they are drawn: the style, movement, and appearance of the line. *Khatt* is this way, this line. The regulated vectors of *khatt* outline language, image, and meaning.

The tradition of Ottoman *khatt* begins in Amasya, the shared hometown of Yaqut al-Musta’simi and Şeyh Hamdullah (1436–1520). Yaqut continued to practice his *naskh* even as Abbasid Baghdad fell around him. Two hundred and fifty years later, Yaqut’s line of communication was received by a young scribe in his hometown. Hamdullah takes up the pen, refines *naskh*, and outlines the foundation of Ottoman scribal tradition. Amasya provides a geographic linchpin that sutures Ottoman and Abbasid tradition. During his formative years, Sultan Bayezid II studied *khatt* under Şeyh Hamdullah in Amasya. Bayezid so loved his teacher that he would hold the master’s inkwell, watching in admiration as Hamdullah traced his lines. One day, the sultan-to-be humbly inquired about the perfection of Yaqut’s handwriting. He innocently asked if Yaqut’s styles could be improved. Hamdullah responded by secluding himself for forty days. He collected every available sample of Yaqut’s work, and he immersed himself in studying their design. Hamdullah pored over the details: the weight of the line, the depth of the curves, the inclination of verticals, the size of the counters, the placement of *nuqta*, the dance of *tashkil*, and the variety of forms. He analyzed letters in isolation and letters in combination. He found the edge of every shape and practiced every possible cursive connection. He drew parts of letters and letters in full. As Hamdullah became familiar with the styles and forms, he began to subtly refine them: a twist of the pen to polish a letter, a horizontal extension to balance a word. Through iterative experimentation and incremental improvement, Hamdullah redesigned the lines of *khatt*. When he emerged from his study, he brought a new harmony to styles of *naskh*.



FIGURE 1: Şeyh Hamdullah, Basmala

The Islamic invocation *basmala* (“In the name of God, whose mercy is comprehensive, whose mercy is specific”) drawn in the style of Şeyh Hamdullah (1436-1520). Note how the layers of Arabic script interweave vertically. This is particularly apparent on the left side of the phrase, where the *rasm* (layer 1) of *nūn* in *al-rahman* sweeps below the *tashkil* and *muhmal* (layers 3-5) of the final word *al-rahim*. (Illustration courtesy of Mohamed Zakariya.)

FIGURE 1 displays a *basmala* drawn in Hamdullah’s style. The tall verticals pitch slightly toward the left, which guides the eye in the direction of reading. Extended horizontals and sweeping bowls emphasize the effect. *Tashkil* markings, which also angle from top right to bottom left, frame the primary line of *rasm*. The austere extension of the opening word *bism* draws the viewer into the text. The letters *bā’* and *sīn* ripple on the far right, flowing like a wave and breaking into a spray of letters on the left. The final *nūn* of *al-rahman* sweeps below the line and cradles the final word *al-rahim*. The *nūn* of *al-rahman* points to the final *mīm* of *al-rahim*, uniting the two adjectives as a visual gestalt. The line does not march along a straight and narrow path; it dances among the layers and shapes of Arabic script, from letter block to *tashkil* and into the next letter block.

Hamdullah’s primary refinements addressed the complementary styles of *thuluth* and *naskh* (referring here to a specific proportional style rather than a general category). These proportional styles, which visually balance each other, became the dominant styles of Ottoman practice. The prevalence of *naskh*, in particular, displaced other styles. Balancing legibility and compactness, it became the de facto style for works of science, knowledge, and education, as well as the primary style for copying the Qur’an. *Naskh* operated as the Times New Roman of the Ottoman era. *Naskh*’s sister style, *thuluth*, which is larger and more ornate, provided decoration and display. Titles written in

decorative *thuluth* organize bodies of text written in workmanlike *naskh*. Hamdullah demonstrated this interaction in Qur’anic *masahif*. His example, which pairs *thuluth* headings with *naskh* text, served as a design template for subsequent scribes. Later Ottoman *masahif* copied Hamdullah’s scripts, his method of illumination, and even his bindings.

Şeyh Hamdullah’s *khatt* was celebrated, feted, and praised. He obtained a level of fame comparable to that of modern celebrities, and he inspired generations of scribes. As his fame rose, Hamdullah’s legendary exploits grew larger than life, both on and off the page. He excelled in archery, falconry, and swimming, and he impressively swam the width of the Bosphorus while holding his reed writing pens between his teeth. Hamdullah became known as the *qibla*, or direction, of *khatt*. He provided the model and example to which Ottoman scribes should turn their attention. By the seventeenth century, Hamdullah’s influence had all but erased competing schools of *khatt*. Later scribes meticulously studied, emulated, and redrew Hamdullah’s examples—much as the master himself had immersed himself in the style of Yaqut. Ottoman scribal tradition therefore re-created both the *khatt* of Hamdullah’s practice (the vector of his study) and the *khatt* of his letters (the vector of his visual lines).

Two hundred years later, Hafiz Osman (1642–1698) followed this vector to comparable fame. Osman diligently studied, copied, and recreated Hamdullah’s examples. His mastery of *khatt* and his prodigious output eventually earned him the epithet “second Şeyh.” Osman celebrated Hamdullah’s styles in beautiful compositions, and he penned more than twenty-five complete Qur’ans, most of which replicate Hamdullah’s template. If Hamdullah was a master “font” designer who refined the proportions of canonical styles, Osman was a layout artist. He beautifully arranged pre-designed styles and raised their application to new heights of design. Near the end of the seventeenth century, Osman designed a layout masterpiece in the form of the Ottoman *hilye* (see **FIGURE 2**). The *hilye* template is both a wonderful example of textual design and a beautiful form of calligraphic art. It gracefully juxtaposes a variety of classical scripts to celebrate the moral and spiritual character of the Prophet Muhammad. When asked how he wished to be remembered, Muhammad responded: “Write my *hilye* so the ones who will see it will be as if they saw me after I pass away.” Decorative *hilye* answer the call. The proportional layout and beautifully written words convey a calligraphic portrait of the Prophet’s qualities.

FIGURE 2: Hafiz Osman’s *Hilye* Template

The *hilye* template beautifully combines multiple styles of script as an aesthetic composition and visual gestalt. The content of *hilye* celebrate the moral and spiritual qualities of the Prophet Muhammad. Hafiz Osman (1642–1698) formalized the template in the seventeenth century. The displayed scripts include *muhaqqaq*, *thuluth*, and *naskh*. (Image courtesy of Mohamed Zakariya.)



Osman’s design organizes a variety of classical styles in harmony, grandeur, and aesthetic balance. The textual content presents Qur’anic passages and *hadith* that describe the Prophet and his mission. Although the writing is meticulously produced and easily legible, the text does not need to be read in order to be appreciated. Viewing a *hilye* provides various successive experiences, “one of which *may* have included the experience of reading.” Alongside reading and comprehension, *hilye* inspire aesthetic viewing and spiritual contemplation. The eye navigates visual and textual elements as if they were a chessboard: jumping from text block to text block, comparing shapes, considering their relative movement, finding connections, and, occasionally, capturing words. The character of the Prophet can be read in the text, but it can also be discovered between the lines. The constituent components of the *hilye* template are shown in **FIGURE 3**.

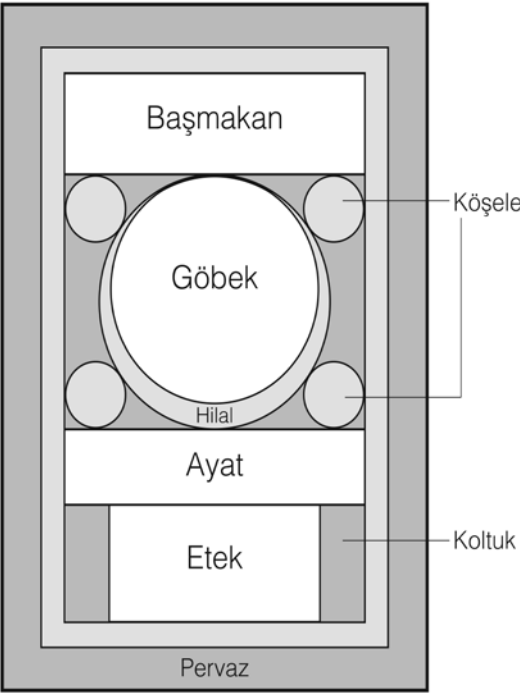


FIGURE 3: Hilye Template Diagram
The constituent components of Hafiz Osman’s *hilye* template (Based on a design by M. Şinasi Acar; see Acar 1999, *Türk Hat Sanatı*, 154).

1. **Başmakan** (Prelude): A rectangular block on top of the composition presents the *basmala* in stately *muhaqqaq* style.
2. **Göbek** (Navel/belly): A circular block is centered below the *başmakan*. The circle typically holds nine lines written in the dominant style of Ottoman *naskh*. These lines begin the *hadith* that describe the appearance and character of Muhammad.
3. **Hilal** (Crescent): An ornamental crescent holds the *göbek*. Often gilded and heavily decorated, the visual symbol of Islam cradles the textual description of the Prophet.
4. **Köşeler** (Corners): Four roundels display the large style of *jali-thuluth*. The roundels hold the names of the four righteous caliphs of Ottoman Sunni orthodoxy: Abu Bakr, Umar, Uthman, and Ali. They are positioned around the large circular *göbek*.
5. **Ayat** (Verse): The rectangular block below the *göbek* contains a single line written in the celebrated style of *thuluth*. The *ayat* presents a Qur’anic verse related to the Prophet and his mission.
6. **Etek** (Foot): A rectangular text box containing additional lines of *naskh*, which are identical with the style used for the *göbek*. The text continues the *hadith* of the *göbek* and, sometimes, the *ayat*. The width of the *etek* is slightly narrower than the box of the *ayat*.
7. **Koltuklar** (Alleys): Two ornamental rectangles, free of text, bracket the indented *etek*. These boxes, like other non-textual spaces, are filled with floral, geometric, and decorative motifs.

8. **Pervaz** (Frame): An illuminated frame borders the entire composition. The design often contains both an inner frame and a larger outer frame.

The result is an aesthetic construction, balanced both visually and textually, with a devotional quality arising through the designed interplay of decoration, wording, and penmanship. The organization and styles of script champion the classical proportions of *al-khatt al-mansub* and metaphorically extend that balance to the ethical, spiritual, and mental poise of the Prophet

Muhammad. Practices of *khatt* demarcate lines of text, as well as the larger meaningful space that the text inhabits. Two lines of *khatt*—one in *muhaqqaq* style and another in *thuluth* style—are balanced by two blocks of *khatt* in the smaller *naskh* style. The roundels display the decorative style of *jali-thuluth*, which further extend the range of stylistic sizes and variations. And the illuminated borders and alleys hold the component texts in colorful and spatial relation. The *hilye* template exemplifies the multiple meanings of *khatt*: the visual expression of language, the linear organization of script, the drawing of forms, and the design of meaningful space. The lines of *khatt* trace textual content, stylistic variety, and spatial arrangement.

Hafiz Osman, like Hamdullah before him, was a master craftsman, master artist, master calligrapher, and master designer. Both scribes beautified the textual content on which they operated. Both practiced *khatt*. When placed side by side, moreover, they illustrate complementary aspects of graphic design. Şeyh Hamdullah parallels a type designer and classical typesetter. He perfected classical fonts and demonstrated their proper use. Today, type designers recover classic metal typefaces and reconstruct their proportions in digital environments. The digital toolbox is filled with fonts that emulate the examples, and hold the names, of past masters: Bodoni, Didot, Baskerville, Garamond, Granjon. Hamdullah similarly “modernized” the classical designs of Yaqut. He redesigned the proportions of *naskh* for a new era. Hafiz Osman, in contrast, applied Hamdullah’s “fonts” to design a lasting layout. He created a style sheet, which was repeated, utilized, and performed by a host of subsequent designers. After Osman formalized the template, Ottoman scribes produced a wide variety of *hilye*, from small versions to large wall hangings. The layout and content remain consistent from piece to piece, and beauty arose in the artistic execution of a recognizable form. *Hilye* artists were performers, rather than font or layout creators. Şeyh Hamdullah designed the styles with which they wrote, and Hafiz Osman designed the form. If *al-khatt al-mansub* established musical keys for the composition and enjoyment of harmonious *naskh*, Şeyh Hamdullah perfectly tuned the instruments, and Hafiz Osman composed a musical standard.

The Ottoman System of Scripts

Designers work with a toolbox of instruments, standards, styles, and forms. In modern practices, the toolbox includes a wide variety of fonts as well as predesigned templates and style sheets. Most designers do not construct fonts and letters from scratch; they utilize existing tools to effectively shape written messages. Most Ottoman scribes worked similarly. They rarely designed new styles of script or new templates. They too had a toolbox of styles and templates from which to choose. And they applied styles appropriate to the message at hand. Religious, literary, scientific, and administrative documents are not the same. They request visual difference of style and formal differences of layout. Aesthetic variations—in contemporary and scribal design—are neither idiosyncratic nor simply subjective expressions. They are repeatable “types” (as in the movable type of typography). Ottoman styles of script were visually identifiable and recognizably distinct.

The following entries describe the styles available to Ottoman designers. If Ottoman scribes could access a drop-down menu of “fonts,” these are the choices that would appear. The list begins with the classic styles of *al-aqlam al-sittah* (the six pens). These six classical styles of *naskh* were formalized during Yaqut’s era and reinvigorated by the school of Şeyh Hamdullah. *Al-aqlam al-sittah* subdivided into three pairs, each of which partnered a larger display script with a smaller body script of complementary proportions (**FIGURE 4**). The most popular pairing linked *thuluth*, the predominant Ottoman display style, and *naskh*, the canonical style of general textual copy. The other pairings, *muhaqqaq-rayhan* and *tawqi’-riqa’*, were expected of trained scribes (and familiar to learned readers), but less common in practice. Their connotations were more specific and limited. The scribal toolbox was further bolstered by a variety of non-*naskh* styles, such as the Persian-derived

style of *ta'liq* and the Ottoman chancery style of *diwani*, both of which connoted particular types of content. The list ends with notes on the Ottoman *tughra* signature, a typographic form reminiscent of modern logotypes. Ottoman scribal variety was incredibly vast, and the following list is far from exhaustive. It contains only the most common styles, with descriptions of their recognizable features and proper usage. Stylistic differences are demonstrated in figures for visual comparison. The illustrations were written and drawn by master calligrapher Mohamed Zakariya, and they all transcribe the same passage from the Egyptian Sufi ethicist Ibn Ata'Allah As-Sikandari (d. 1309 C.E.): “Thought is the movement of the heart in the arena of all that is other than it.”



FIGURE 4: Al-aqlam Al-sittah

This figure shows all six styles of *al-aqlam al-sittah* and their relative proportions. The styles are divided into three pairings of larger and smaller styles. From top: *thuluth* and *naskh*, *muhaqqaq* and *rayhan*, and *tawqi'* and *rika'*. All the displayed styles transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

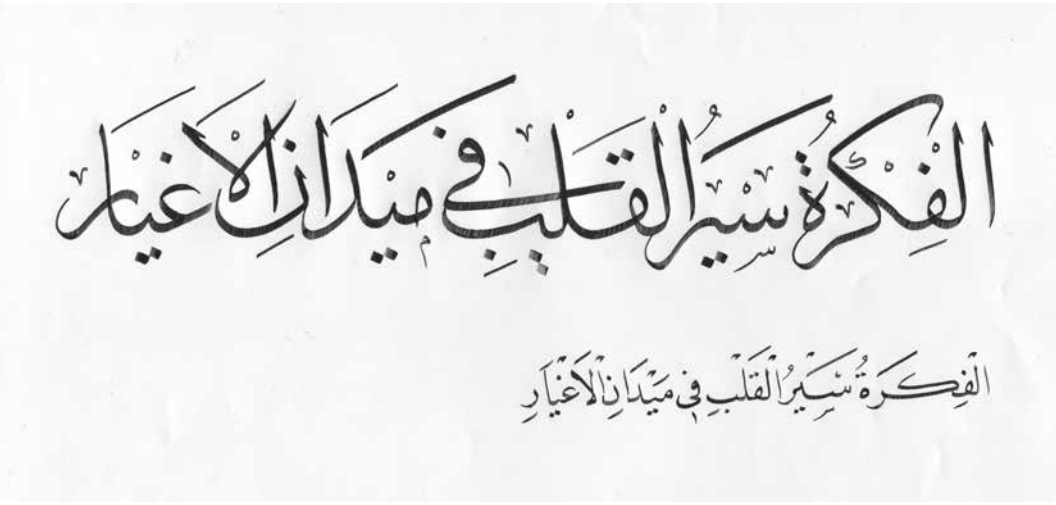


FIGURE 5: Thuluth and Naskh

This pairing of styles consists of the larger *thuluth* (Turkish *sülüs*) and the smaller *naskh* (Turkish *nesih*). These are the most common styles of Ottoman practice. All the displayed styles of script transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Thuluth (Turkish: *sülüs*), which means “one-third,” is the most famous of Ottoman styles. The name derives from its relationship to *tumar*, the grand signature script of the Umayyad. Early versions of *thuluth* measured one-third the height of *tumar*. Ottoman scribes utilized *thuluth* as a display script for heading, titles, and grand statements. It was rarely used for copying the body of text. *Thuluth* is the sister script of *naskh*, and Qur’anic *masahif* in the style of Şeyh Hamdullah pair *thuluth* headings with *naskh* text. Elsewhere, Ottoman artists celebrated *thuluth*’s compositional possibilities in display panels (*levha*) and architectural inscriptions. *Thuluth* inscriptions decorate mosques, monuments, gates, wall hanging, and tombstones. The style’s association with decorative headings and display conveys artistic and regal connotations.

Visually, *thuluth* appears highly fluid, with a balance of straight verticals and curved horizontals (see FIGURE 5). The *alif* measures seven *nuqta* tall. It sports a top serif that points down and toward the right, and its bottom curves slightly to the left. Ottoman scribes described the shape of the *thuluth alif* as “a man looking at his feet.” Bowls and final curves display a wide degree of visual bounce, and letter blocks frequently stack above one another. Occasionally, letter terminals sweep up in fine hairlines to touch the bottom of subsequent blocks. These finial connections guide the eye in the direction of reading and bring separate letter blocks into visual harmony. Since *thuluth* is a large display style, *tashkil* markings are drawn with a finer pen. This establishes a formal hierarchy of script layers. *Rasm* and *i’jaam* (layers 1 and 2) are distinguished by bolder strokes, while *tashkil* and higher layers (layers 3–7) appear much lighter. The higher layers assist legibility, fill spatial gaps, and aesthetically balance the composition. This contrasts with *naskh*, in which all layers are drawn with the same-sized pen.

Naskh (Turkish: *nesih*) is the preferred bookhand for running text and the most common of all the Ottoman styles. It emphasizes legibility and operates as the Times New Roman of Ottoman practice. *Naskh* transcribes a wide range of educational, scientific, legal, popular, devotional, and literary content. Şeyh Hamdullah established *naskh* as the preferred style for copying the Qur’an,

and its durable popularity earned it the epithet *khadim al-Qur'an* (servant of the Qur'an). *Naskh* also lends its name as the general term for all rounded, or cursive, styles of Arabic script (in contrast to the geometric, or *Kufic*, styles). Some commentators note that the name is a synonym of “cancel” and thereby suggest that *naskh's* popularity abolished other styles. *Naskh's* presentation champions clarity, and it later provided the visual model for printed Ottoman typefaces.

The *naskh alif* measures five *nuqta* tall and displays very little curvature (see **FIGURE 5**). Although the *alif* has no serif, the *naskh lām* is distinguished by a small serif on the top right. *Naskh's* small size reduces horizontal sweep, and a consistent baseline is rigidly enforced. Final flourishes rarely extend below subsequent letter blocks. The horizontal compactness and reduced curvature accentuate clarity, even at small sizes. And Ottoman *naskh* inclines slightly to the left, a stylistic variation introduced by Şeyh Hamdullah. Compared to *thuluth*, *naskh's* vertical strokes are shorter, its horizontals are straighter, and its counters appear larger. *Naskh* plays the straight man to the dancing curves of the larger display style. Its bowls appear flatter than the bowls of *thuluth*, and blocks of text display more regular vertical arrangement. *Tashkil* are written with a similar-size pen as those used with *rasm* and *i'jaam*. But the layers of *tashkil* display more separation from the letters they modify. This guides the reading eye, much like the serifs of printed Latin.

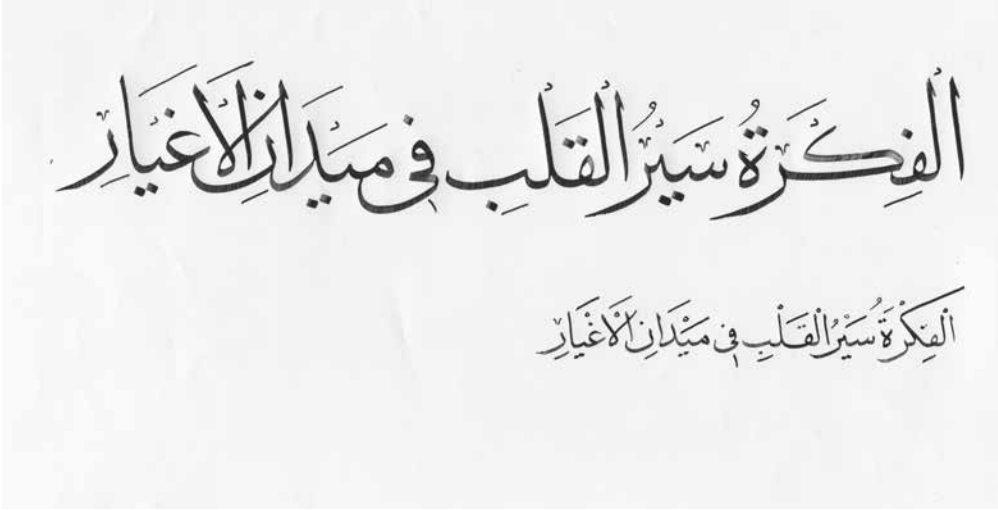


FIGURE 6: *Muhaqqaq* and *Rayhan*

This pairing of styles consists of the larger *muhaqqaq* (Turkish *muhakkak*) and the smaller *rayhan* (Turkish *reyhani*). Distinctive features include the straight verticals and the sharp points of the terminals. All the displayed styles of script transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Muhaqqaq (Turkish: *muhakkak*), which means “meticulously produced” is the most hieratic style of *al-aqlam al-sittah*. It was one of the first proportional styles employed for Qur’anic masahif, and it has very strong religious and sacred connotations. Ottoman scribes employed *muhaqqaq* for displays of religious significance and as a framing device for grand *masahif* and Qur’anic passages. It was rarely, if ever, used as a copyist style for nonreligious material. *Muhaqqaq* is the sister style of the smaller *rayhan*, but it also operates in counterpoint to the flowing curves of *thuluth*. This can be seen in Osman’s *hilye* template, where the sharpness of *muhaqqaq* contrasts with the more fluid pairing of *thuluth* and *naskh* (see **FIGURE 2** and **3**). The *muhaqqaq basmala* frames the *hilye* with an aura of sacredness, stateliness, and deeply classical religiosity.

Muhaqqaq's defining features are its grandness, the straightness of its lines, the flatness of its bowls, the openness of its counters, and the sharpness of its terminals (see **FIGURE 6**). It is the tallest of *al-aqlam al-sittah*, with an *alif* measuring nine *nuqta* tall. It is also the most angular, with letters tapering to knifelike points. The *muhaqqaq alif* is tall and straight, with a rightward-facing barbed serif and a pointed base, and the *rā'* class of letters ends in sharp leftward-facing terminals. These arrowlike forms direct the eye along the baseline axis of reading. The stark contrasts of tall verticals, flat horizontals, and open counters invoke a sense of exactitude and clarity. The *tashkil* of *muhaqqaq*—like those of *thuluth*—are drawn with a finer pen. This further emphasizes the sharpness of the primary *rasm*, contrasting bold and stately letters with more delicate *tashkil*.

Rayhan (Turkish: *reyhani*) appears as a smaller, more delicate version of *muhaqqaq*. *Rayhan* letters resemble those of its larger, statelier cousin, but they are traced in a finer pen (see **FIGURE 6**). As a result, terminals appear less sharp and display less contrast between thick and thin. Despite its small size, and unlike *naskh*, the *rayhan alif* retains a small serif on the top right. Due to a linguistic similarity with the Arabic word for “basil,” *rayhan* is sometimes described as the visual and written equivalent of finely pointed basil leaves. *Tashkil* and the primary text are traced with the same pen, and *rayhan* may therefore be described as *muhaqqaq* lines drawn with a *tashkil* pen. Ottoman scribes employed *rayhan* infrequently, and usage declined noticeably alongside the rising popularity of *naskh*. It occasionally appears as a decorative style for small passages or in contrast with the sister style of *muhaqqaq*. In the later Ottoman period, the term sometimes referred to a larger variant, which more closely resembles *muhaqqaq*.

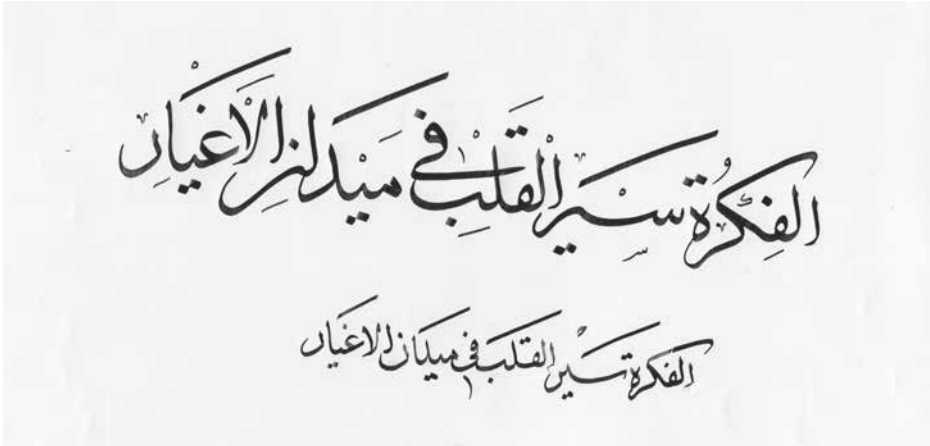


FIGURE 7: *Tawqi'* and *Riqa'*

This pairing of styles consists of the larger *tawqi'* (Turkish *tevki*) and the smaller *riqa'* (Turkish *rika*). Note how the baseline of these styles rises slightly from right to left. All the displayed styles of script transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Tawqi' (Turkish: *tevki*) is the rarest of *al-aqlam al-sittah* in Ottoman practice. It began as an Abbasid chancery style, and its name relates to the Arabic word for “signature.” In Abbasid decrees, a *tawqi'* signature authenticated texts written in the smaller sister style of *riqa'*. The fluidity of *tawqi'* and its occasional unorthodox connections served to distinguish these decrees from earlier Umayyad protocols, which were penned in the grand style of *tumar*. *Tawqi'* is slightly smaller than *thuluth*, and the line of writing rises to the left (see **FIGURE 7**). The style exaggerates curvature, and the *tawqi'-riqa'* pair is the most rounded of all *al-aqlam al-sittah*. Ottoman scribes employed *tawqi'* as a display

style where its exaggerated roundness stood opposite *muhaqqaq*'s rigid straightness. In relation to *thuluth*, *muhaqqaq* is taller and straighter while *tawqi*' is shorter and smoother. Identifying traits also include overlapping and vertically stacked letter blocks. A distinctive feature of *tawqi*' is the occasional unorthodox connection. In later Ottoman *tawqi*', for example, the combination of *alif* followed by *lām* may resemble a strong horizontal crossbar. In proper Arabic script grammar, *alif* does not connect with the letter that follows it.

Riqa' (Turkish: *rika*) is the smaller sister style of *tawqi*'. Its vertical shortness emphasizes curvature, and the writing displays a wide degree of visual bounce in relation to the thickness of the pen (see **FIGURE 7**). Like *tawqi*', the line of letters rises as it moves to the left. The Ottomans also referred to *riqa*' as the *ijazah* (Turkish: *icaza*) style. It played a particular role in the drafting of *ijazah*, a diploma or certificate of transmission. An *ijazah* certified a scribe's ability to write in a particular style of script. The process of obtaining an *ijazah* was time intensive, and apprentice scribes would devote years to studying and copying historical examples. Once ready, the student would copy an exemplar in the chosen style (for example, *thuluth*, *muhaqqaq*, *tawqi*', etc.). The copy should accurately represent the style and proportions of the original. If an authorized teacher approved the student copy, that is, the teacher perceived the *khatt* and form of the student's work as identical to the exemplar, the student received an *ijazah*. The formal certificate would display the student's passage in the chosen style, followed by the teacher's acceptance written in *riqa*'. With certificate in hand, the student could practice the style, copy texts that required it, teach it to others, and sign her or his name on decorative pieces. The dedication and precision required to obtain an *ijazah* preserved the various scribal styles as visually distinct and recognizable types.

Other Scripts and Forms

The Ottoman script of *ta'liq* (Turkish: *talik*) is known in Persia as *nasta'liq*, which is itself a combination of *naskh* and *ta'liq*. It developed as a Persian chancery style, and the name refers to its distinctive “hanging” appearance. *Ta'liq* has particularly strong connotations of Persian influence, and it is occasionally referred to as *al-khatt al-Farisi* (Persian script) in the Arab world. The hanging structure and sweeping curves align with Persian orthography, and *nasta'liq* remains the dominant handwritten style of Iran, Pakistan, and much of Central Asia. In Ottoman circles, the popularity of *ta'liq* grew over time. By the end of the Ottoman era, *ta'liq* even rivaled *thuluth* as the dominant style of decorative panels. Usage spread from the copying of Persian poetry to prose works, popular religious materials, and educational texts. In the religious realm, *ta'liq* presented devotional and mystical commentaries, and it eventually came to represent official pronouncements of the grand mufti, the *Şeyhülislam*. But *ta'liq*'s religious role was supportive and devotional rather than hieratic. It was rarely, if ever, utilized for the transcription of Ottoman *masahif*. *Ta'liq* was used for interlinear Persian translations of Qur'anic Arabic passages, but it was never applied to the primary Arabic text.



FIGURE 8: *Ta'liq*

The display style of *ta'liq* (Turkish: *talik*). Note how the baseline sweeps down from the right. The *ta'liq* style originated in Persia and signified texts of Persian origin or influence. All the displayed styles of script transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

The line of *ta'liq* slopes from top right to bottom left, and letter blocks descend as if hanging from a clothesline (see **FIGURE 8**). Blocks often stack vertically with the first letter of a block located directly above the final letter of the previous block. The *alif* is very short relative to the *nuqta*, and it does not sport a serif. Vertical motion arises from the angled line rather than the height of individual letters. A number of visual differences distinguish *ta'liq* / *nasta'liq* from *naskh*. These include the pronounced slant of the line, the comparative shortness of the verticals, the elongation of horizontal letters, and the stacking of final forms. The counters of the *mīm*, medial *'ayn*, and *fā*' are often filled solid, or blind, and the vertical teeth of the *bā*'-class letters appear minimal. The teeth of the *sīn* class may disappear altogether, transforming the *rasm* into a long, sweeping horizontal. The overall effect conveys a sense of fluid, almost dancelike diagonal movement. This contrasts sharply with the solidity of *naskh* in particular, and *al-aqlam al-sittah* more generally, in which the perpendicular interplay of horizontal and vertical remains dominant.

Diwani (Turkish: *divani*) served as the official style of the Ottoman chancery and takes its name from the imperial council. It recorded Ottoman *fermans* (permissions), *vakifs* (endowments), *berat* (title grants), statements of honor, appointments, and patents. The imperial court maintained proprietary control, and the style was not to be used for unsanctioned communications. It was never used for Qur'anic *masahif*, nor was it used for quotidian texts. In contrast to *al-aqlam al-sittah*, which represent classical Arabic—and the particular trio of *thuluth*, *naskh*, and *muhaqqaq* that transcribed the eternal Qur'an—*diwani* signified the temporal order of the Ottoman state. Umayyad decrees employed the early *tumar* style, Abbasid decrees employed the signature *tawqi*' style, and Ottoman decrees employed *diwani*. In each case, secular authority was encoded and enforced through a distinctive style of script.



FIGURE 9: *Diwani*

The complicated style of *diwani* (Turkish: *divani*) was the exclusive style of the Ottoman royal chancery. All the displayed styles transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Diwani resembles an excessively cursive and super-structured version of *ta'liq* (see **FIGURE 9**). Its bowls are deep and rounded with exaggerated final loops. Both *alif* and *lam* display a distinctive half-moon shape and sport a pronounced left-hand serif. Like *ta'liq*, the *mīm* is blind, and the teeth of *bā*' and *sīn* are underplayed. And the *nūn* may adopt a near-circular shape with its *nuqta* in the center. The earliest *diwani* styles were written without *tashkil*, but complexity developed over time. The addition of *tashkil* and the higher layers of Arabic script evolved into a dense pattern of decorative elements. The density of forms approximates solid shapes when viewed from a distance, and the line rises on the left to resemble the prow of a ship. The excessive curvature and density sharply contrasted with the horizontal emphasis of more prosaic *naskh* texts.

The style's visual complexity reinforced its functional role. *Diwani* preserved precise legal wording as drawn and linear structure. Excessive decoration and intense curves distinguished *diwani* from other Ottoman styles, especially *al-aqlam al-sittah*. And *diwani*'s distinctive shape protected content from forgery and fraudulent additions. *Diwani* was difficult to write, and it was drawn only by specifically trained scribes of the Ottoman chancery. It was difficult to read, and it was typically deciphered only by official bureaucrats. The requisite precision, combined with expensive materials such as gold-flecked inks and an illuminated *tughra* signature, visually certified a document of royal origin. Extended sheets of paper recorded the entirety of the proclamation without page breaks, and *diwani* scrolls were often displayed as vibrant visual markers of royal permission.

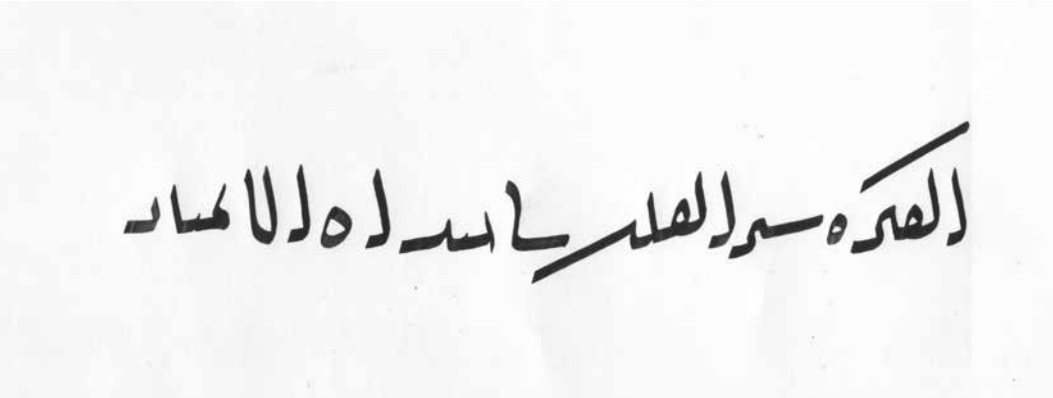


FIGURE 10: *Siyaqah*

The unorthodox style of *siyaqah* (Turkish: *siyakat*) recorded financial transactions. Note the lack of *nokta* (i'jaam). All the displayed styles transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Siyaqah (Turkish: *siyakat*) recorded Ottoman financial documents and land registers. Although the textual content of such registers strove for directness and clarity, the visual presentation is highly ambiguous and difficult to decipher. *Siyaqah* is also known by the name *qirmah* (broken), which adequately describes its appearance (see FIGURE 10). The style deliberately breaks common rules of orthography and script grammar. It consists only of *rasm* (layer 1), without any *nuqta* or *tashkil*, and words were written with a great deal of alphabetic abbreviation. *Siyaqah*'s purposeful ambiguity protected financial documents from false additions, and it limited readership to certified officials with the requisite specialized literacy. When a trained reader recited a *siyaqah* text, the clearly worded legal content was shared with listening audiences. The style played a purely bureaucratic role, and it was never used for artistic, decorative, or religious purposes.

Ruq'ah (Turkish: *rik'a*) labels the style of daily memos and personal correspondence, and it continues to be used for everyday handwriting across much of the Arabic world. The name is often confused with *riqa'* due to lexical similarity. The names of both styles derive from the common root word for a sheet of paper. Visually, however, the styles are quite distinct. *Riqa'* is a smaller version of the highly curved *tawqi'*. *Ruq'ah*, in contrast, resembles a flatter version of *ta'liq*. As the style of daily penmanship, *ruq'ah* aids quick transcription and conveys an aura of informality. This distinguishes *ruq'ah* texts from formal publications copied in *al-aqlam al-sittah*, *diwani*, and other styles. The distinction continued into the era of print. Most Arabic typefaces mimicked the publishable and clearly formed style of *naskh*, while unpublished handwriting remains *ruq'ah*.

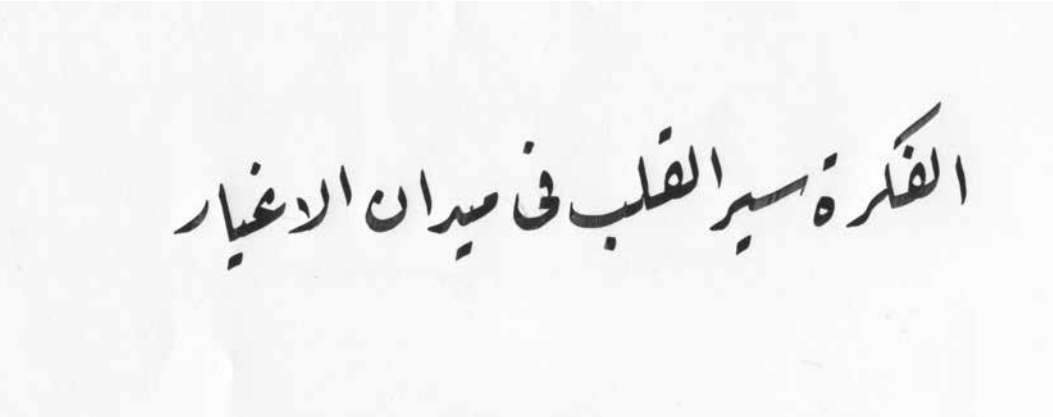


FIGURE 11: *Ruq'ah*

Ruq'ah (Turkish: *rik'a*) was the style of everyday penmanship and correspondence. All the displayed styles of script transcribe the same line of text. All the displayed styles transcribe the same line of text. (Illustration courtesy of Mohamed Zakariya.)

Ruq'ah letters are vertically short with thick strokes relative to their height (see FIGURE 11). The *alif* has no serif. As with *ta'liq* and *diwani*, letter blocks begin above the baseline and slope downward to the left. The final letter of each block rests on a common baseline. Despite its informality, *ruq'ah* follows clearly delineated rules of penmanship that minimize the number of required strokes. This facilitates quick transcription. *Nuqta*, for example, are marked in shorthand: dual *nuqta* merge as a horizontal dash, and triple *nuqta* take the form of a carat (with the right-side ascent noticeably thicker than the left-side descent). *Tashkil* typically is unmarked but may appear sporadically in order to clarify an ambiguous term, highlight a particular vocalization, or specify a foreign name.

The term *jali* (Turkish: *celi*) identifies larger and more decorative versions of other styles. It is not a unique style in its own right. As a style becomes larger, its character is emphasized and its proportional relations become more noticeable. *Jali* transformations adapt stylistic proportions for larger-size pens and larger displays. They preserve the proportions of smaller scripts at larger sizes. The most common *jali* varieties are *thuluth jali*, *ta'liq jali*, and *diwani jali*. *Thuluth jali* was used for architectural inscriptions, wall hangings, and decorative display pieces. *Ta'liq jali* was used for decorative display of Persianate poetry and religious aphorisms. And *diwani jali*, although not necessarily larger than other *diwani* writings, appears excessively decorated.

Jali thuluth (Turkish: *celi süliüs*) affords artists and designers great flexibility. *Jali* designs are composed as spatial constructions rather than singular lines of writing. Principles of balance, rhythm, unity, and architecture guide the placement of forms. Letter blocks arrange vertically and horizontally, with phrases beginning on the bottom right. Completed compositions adopt a wide range of shapes and forms, from medallions to cones to fruit and birds (see FIGURE 12). The *alif* of *jali-thuluth* pitches slightly to the left and displays a prominent wedge-shaped serif, which points downward and to the right. The terminals of final letters often end in thin curves that point upward. All seven layers of script are common, with *tashkil* and decorative marks standing in aesthetic and compositional counterpoint to the dominant *rasm* forms. The *tashkil* marks are drawn with a smaller pen, often one-third or one-fourth the size of the *rasm* pen. They aesthetically balance the composition by filling spatial holes between letters.



FIGURE 12: *Jali Thuluth* Composition

This calligraphy is composed in *jali thuluth* (Turkish *celî sülûs*) style. The highly structured image displays all seven layers of Arabic script. The transcribed text is that same passage that appears in illustrations of the various styles. (FIGURES 4-11) (Illustration courtesy of Mohamed Zakariya.)

As letters increase or decrease in size, the relational system governing positive and negative space must adjust accordingly. In typographic design, larger point sizes require typesetters to minimize and alter the kerning (spacing) between characters. Similar problems plagued *jali thuluth* until Mustafa Rakim (1757–1826 C.E.) proposed a solution in the eighteenth century. Rakim applied a system of squares that geometrically enlarged small-scale compositions for large-scale applications. Using this method, Kazasker Mustafa Izzet Effendi (1801–1877 C.E.) designed the large *thuluth* roundels in Hagia Sophia. The roundels accurately recreate the relationships of *thuluth*, and although they appear handwritten, they were geometrically enlarged. Drafting them by hand would have required a pen measuring thirty-five centimeters in diameter.

As a measure of size, *ghubar* stands opposite the large decorative varieties of *jali*. *Ghubar* labels diminutive varieties, and the name derives from the Arabic word for a speck of dust. The name often references a diminutive form of *naskh*, but, as a descriptor of size, it can apply to any style. *Ghubar* versions of other styles, such as *ghubar muhaqqaq* and *ghubar ta'liq*, also exist. Despite their minuscule nature, *ghubar* varieties preserve legibility. As functional styles, they recorded messages sent by pigeon post. Ottoman scribes also applied the small size to a variety of aesthetic, talismanic, and spiritual practices. *Ghubar* copies of Qur'anic *masahif* measure less than five centimeters across. They take the form of small codices or octagon-shaped amulets and were often worn on cords or hung from battle standards.

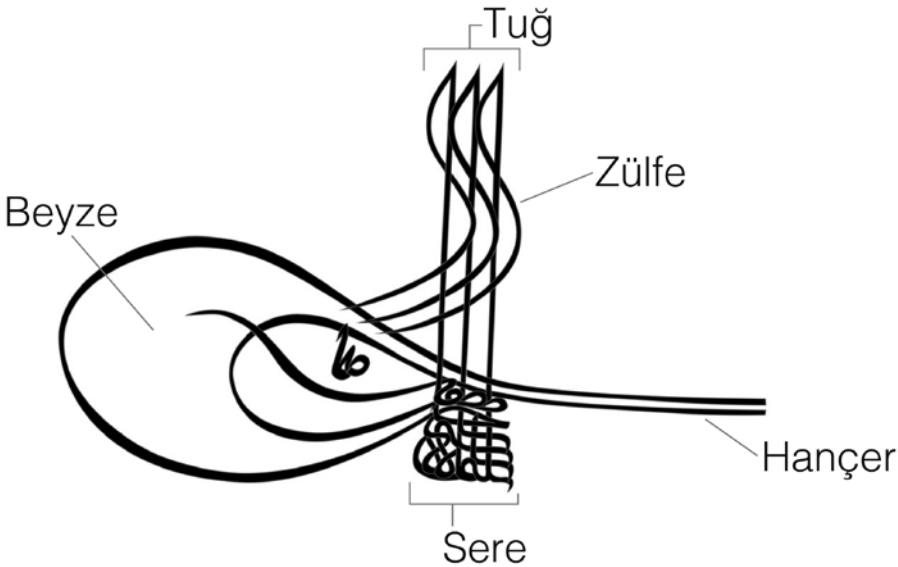


FIGURE 13: *Tughra* Composition

The *tughra* (Turkish: *tuğra*) logotype was the official signature of Ottoman sultans. It often topped and authorized chancery pronouncements written in the royal *diwani* style. This diagram labels the constituent components of the *tughra*, which remained consistent over time. The displayed signature is that of Sultan Süleyman the Magnificent (reigned 1520–1566 C.E.). (Image produced in Adobe Creative Suite, based on a design by M. Şinasi Acar; see Acar 1999, *Türk Hat Sanatı*, 163.)

The *tughra* (Turkish: *tuğra*) is a calligraphic form that serves as the royal signature of Ottoman sultans (see FIGURE 13). Although it is composed of writing, it is not a style per se, and it therefore differs from other entries described in this chapter. Instead, the closest modern analogy of the *tughra* is the logotype. Logos communicate a visual synthesis of an idea or entity, such as a business, a corporation, or an agency. Logos remain recognizable as unique marks, regardless of familiarity with the referent or an immediate ability to decipher their textual content. *Tughra* operate along similar principles: they serve as the logo of the Ottoman state. *Tughra* incorporate a stylized version of the sultan's name as an official seal and signature. Although the written name changed with each new sultan, the *tughra* shape did not. The logo form remained a consistent visual marker of Ottoman authority, even as its specific linguistic content shifted with the times.

Tughra were drawn by specialized artist-designers, and their presence certified official documents penned in the *diwani* style. Key components of the *tughra* logo include (1) the *sere*, a stacked base of compressed letters that indicate the name and genealogy of the sultan, as well as honorifics such as “khan” and *al-muzaffar da’im* (the eternally victorious); (2) the *tuğ*, three tall shafts that vertically extend the *alifs* of said honorifics; (3) *ziilfe*, S-shaped serifs that fall from the left-hand side of the *tuğ* in semblance of battle standards; (3) ovular *beyze* that expand the letter *nun* as a large loop to the left of the *tuğ*; and (4) the *hançer*, which draws the lines of the *beyze* in a fine pincerlike dagger on the right. Like any good logo, the shape translates concept into visual form. It communicates a sense of “gathering.” The expansiveness of the ovular *beyze* are threaded, needlelike, through the shafts of the *tug* and into the point of the *kol*. The sultan’s name provides a solid foundation on which lines march through vertical battle standards.

Ottoman Scribes as Typographers and Designers

In 1930, Beatrice Warde famously described typography as a crystal goblet. A crystal goblet presents wine in optimal fashion: its clear glass highlights the wine’s color, its shape channels the wine’s aroma, and its delicate stem allows one to hold the content up to the light before directing the wine to the lips. The wine is the message, and the goblet delivers the message without interference. The taster should notice the wine, not the glass. Warde suggested that type holds content in similar fashion. It reveals the color and flavor of a text, and it should step aside when delivering its message. Both vessels—goblet and type—direct attention away from themselves and toward their content. Typography should not interfere with presentation of text; readers should feast on the meaning and message of the words. Stanley Morison seconds Warde’s analogy in his *First Principles of Typography*: “any disposition of printing material which, whatever the intention, has the effect of coming between the author and the reader is wrong.” Classical typography is an invisible and infrastructural art. It strives for clarity and transparency. It is ever-present and necessary but unobtrusive and unnoticed. Type holds text like a goblet holds wine.

To craft the proper goblet, a typographer considers the textual copy. A designer has a toolbox of fonts and styles, and she or he determines which of the available options best honors the requested task. Some contents appear best in Helvetica, others in Times New Roman, Palatino, Garamond, or Edwardian Script. Font variations of regular, **bold**, *italic*, and SMALL CAPS further dress the text, as does the sizing, justification, and alignment. Legal documents do not employ Comic Sans, and children’s books do not condense stories into eleven-point Times New Roman. Long-form printed texts are more likely to employ serif typefaces; small text displayed on screens works better with sans serifs. Professional typographers, like scribes, certainly beautify texts, but their craft acts in service to the intended message. Successful typography conveys necessary information to necessary audiences, all the while remaining faithful to content, source, and sponsor. Type clothes the message in an outfit suitable to its role.

The same principles apply to scribal design. Ottoman scribes dressed written messages in the proper garment of display. They copied, clarified, honored, and occasionally disguised written content in the selection and application of appropriate styles.⁵⁵ When delving into manuscript collections, scholars usually focus on the textual content. They rarely notice the different styles of script that hold the content. This is good design, and *khatt* was the typography of the Ottoman era. Ottoman scribes drew the crystal goblets that held and emphasized textual wine. In some cases, the goblet clearly indicated genre, origin, and authority: the *diwani* style signified official pronouncements of the imperial court, and the *siyaqah* style recorded financial statements. Other goblets operated through connotation: the *muhaqqaq* style conveyed a stately divinity, and the *ta’liq* style implied Persian influence. These vectors of *khatt* and scribal design directed texts into appropriate channels.

Robert Bringhurst defines typography as “a craft by which meanings of a text can be clarified, honored and shared, or knowingly disguised.”⁵⁶ A more apt description of Ottoman scribal practice is hard to find. Scribal design strives for the same ideals as Bringhurst’s vision of typography: (1) invite the reader into the text, (2) reveal the tenor and meaning of the text, (3) clarify the structure and order of the text, (4) harmonize the text with supporting elements (such as illustrations, citations, and notes), and (5) induce a state of energetic repose.⁵⁷ The following section demonstrates this parallelism by applying Bringhurst’s *Elements of Typographic Style* to Ottoman scribal design.

First, our hypothetical Ottoman designer “chooses a [style] or a group of [styles] that will elucidate the character of the text.”⁵⁸ This begins with technical considerations of material and medium: “consider the medium for which the [style] was originally designed.”⁵⁹ Modern typographers distinguish between natively digital fonts and those adapted from metal type.⁶⁰ Styles of Arabic script were similarly designed for different technologies and tools. Texts carved or printed in stone look and feel different than texts written on papyrus, parchment, or paper. The bold forms of archaic *Kufic* work well when scratched onto parchment and papyrus. And geometric *Kufic* lends itself to mosaic tiling. *Kufic* styles pair well with hard mediums, and they remained popular in architectural inscription long after being replaced on paper. The *naskh* styles, in contrast, were designed for paper. The adoption of paper nudged Arabic script toward a more delicate line. But not all paper is created equal: “Choose [styles] that suit the paper you intend to [write] on, or paper that suits the [styles] you wish to use.”⁶¹ As early as Umayyad times, the size of the paper sheet informed the size of the Arabic pen. The base measure of *tumar* refers to both a sheet of paper and the size of its corresponding pen.⁶² Similarly, the large pens of *muhaqqaq* do not serve the delicate line of *diwani*, and the reed pen for *thuluth* is larger than the pen for *naskh*. The larger styles of *thuluth* and *muhaqqaq* utilize a smaller pen to mark *tashkil*, whereas the *tashkil* of *naskh* and *rayhan* are drawn with the same pen used for the base letters.

Next, the designer, “chooses [styles] that suit the task as well as the subject.”⁶³ The proper style has “historical echoes and associations that are in harmony with the text.”⁶⁴ Thus, the classical Arabic styles of *al-aqlam al-sittah* were employed for Qur’anic *masahif*. Classical styles visually and scribally linked Ottoman *masahif* with the Arabic source and Arabic language of the Qur’an. *Al-aqlam al-sittah* reference Yaqut al-Musta’simi and Abbasid scribal tradition. The call was answered by Şeyh Hamdullah and echoed in his association with Yaqut’s hometown. This stylistic connection subtly underscored Ottoman claims to the caliphate and Sunni orthodoxy. The historically Persian associations of *ta’liq*, in contrast, echo romantic Persian poetry and spiritual reflection. The *ta’liq* style transcribed Persian texts and Ottoman writings in Persian style. Although *ta’liq* became an incredibly popular style, Ottoman scribes never employed it for copying the Qur’an.⁶⁵ The Arabic language of the Qur’an and the visual language of *ta’liq* spoke different idioms. Persian translations and commentary were occasionally inserted between lines of Qur’anic text. But even when this occurred, the interlinear insertions used *ta’liq*, while the primary text preserved classic Arabic style. The cultural connotations of the two styles differentiated Arabic source from Persian interpretation. The *diwani* style, in contrast, suited the task and subject of Ottoman power. It echoed the royal court and recorded texts in Ottoman Turkish. *Al-aqlam al-sittah*, *ta’liq*, and *diwani* all display letters and forms of Arabic script. But they communicate in different cultural, linguistic, and connotative registers.

The styles of *al-aqlam al-sittah* operate like a font family. Their shared history and classical connotations provide “variety and homogeneity at the same time: many shapes and sizes but a single [scribal] culture.”⁶⁶ The sister-script pairings of *al-aqlam al-sittah* provided complementary styles at different sizes. This afforded both consistency of idiom and visual contrast. Scribes seeking the classical connotations of the scribal family could still choose a particular style “whose individual

spirit and character [are] in keeping with the text.”⁶⁷ In the unique case of the Qur’an, the visual varieties of *al-aqlam al-sittah* explored the depth and multiple messages of the text. *Muhaqqaq*, the most preeminently hieratic of *al-aqlam al-sittah*, exclusively recorded Qur’anic passages and quotations. The meticulous and stately appearance of *muhaqqaq* exhibits the eternal spirit and character of the Qur’an. *Thuluth* characterizes the Qur’an’s fluidity, adaptability, and compositional perfection. And the spirit of *naskh* communicated the Qur’an’s clarity and accessibility. These three Qur’anic scripts share a common idiom of classical Arabic, but they convey the idiom with distinct character.

Elsewhere, stylistic variety conveys textual hierarchy. The Ottoman pairing of *thuluth* and *naskh* parallels the typographic distinction of display type and text type.⁶⁸ *Thuluth* titles and headings mark textual divisions and modulate the body of *naskh* text. Display types are typically larger and more expressive. They present titles and headings while aiming to capture reader attention. Text types are typically smaller and more consistent. They present the body of written content, emphasize legibility, while aiming to hold reader attention. As a display style, the flexibility and decorative fluidity of *thuluth* captures attention. As a text, or body, style, the clarity of *naskh* presents content in an easily legible register. *Naskh*’s clearly distinguished letterforms, consistent baseline, open counters, and tracklike *tashkil* stress legibility. Its spirit and character benefit the presentation and reading of long-form texts. Not surprisingly, therefore, *naskh* became the model for Ottoman and Arabic movable type. Within the wide spectrum of Ottoman scribal styles, *naskh* already recorded texts of wide distribution and shared legibility.

Finally, our Ottoman designer aligns the chosen styles with other visual elements and the page as a whole.⁶⁹ Designers strive to articulate the conceptual relationships of visual elements: “Shape the page and frame the text block so that it honors and reveals every element, every relationship between elements, and every logical nuance of the text.”⁷⁰ Such nuanced design of logical relations occurs in the layers of Arabic script itself. The higher layers of *tashkil* and *i’jaam* inform the logical priority of *rasm*. Styles such as *muhaqqaq* and *thuluth* reveal and honor this relationship by using a larger pen for *rasm* and a smaller-tipped pen for *tashkil*. *Tughra*-topped *diwani* scrolls provide another wonderful example of coordinated design. *Diwani* texts functioned as official slips of permission, and they were often displayed as such. Thus, the text was drafted as a single block on an extended scroll. The scroll format allowed the entire text to be displayed at once. The *tughra* logotype confirmed the sultan’s authority, and the text that followed, written in *diwani*, conveyed the idiom of Ottoman power. *Diwani* flaunts ornateness, complexity, and a highly aestheticized presentation. Its unorthodox ligatures and the density of its forms made the content difficult to decipher, while protecting the pronouncement from forgery and unsanctioned interpolations. Although the textual content was highly significant, that significance did not translate into efficient legibility.⁷¹ The coordinated design of a *diwani* scroll both protected and authorized its contents. The recognizable *tughra* logotype, the stylistic complexity, the textual content, the extended sheet, and the suitability for display all convey a logically consistent message: a precisely worded grant of royal permission, that should not be forged or altered.⁷²

Hafiz Osman’s *hilye* template raised the visual arrangement of textual and visual elements to a new plateau (see **FIGURES 2** and **3**). A variety of elements—both linguistic and otherwise—bolster and reinforce a shared message. *Hilye* transform stylistic variety into a richly layered symbolic architecture, and communicative depth arises from the perception of multiplicity: multiple styles of script, multiple textual passages, and multiple visual forms. As scribal depictions of the Prophet, *hilye* encapsulate the varieties of Ottoman style and the importance of reading between the lines. Stylistic variety entices viewers through a contrast of linear rhythms: “The flowing movement produced by writing can be compared to the lapping of waves produced by water. Effect and counter

effect form both the water’s wave and that of script. [A script] is a rhythmic shape with a succession of similar shapes. Its chief rhythmic elements are: straight-curved, vertical-horizontal, arch shaped-garlanded, slanted-back slanted, circular-straight, pressure-resistance, tension-counter tension, upwards-downwards, start-end.”⁷³

By organizing scribal tensions, Osman’s *hilye* template invoked a new language of design. The text flows from the pinnacles of *muhaqqaq*, through the regulated pacing of *naskh*, to the deep valleys of *thuluth*, and back again. The effect is emphasized by the eddies of *thuluth jali* that surround the deep central pool (the *göbek*) of *naskh*. *Hilye* traverse a series of stylistic comparisons and tensions: big and small, *thuluth* and *naskh*, *thuluth* and *muhaqqaq*, circular and rectangular, text and decoration, writing and image. *Muhaqqaq* is strongly hieratic. It implicates the divine and opens the *hilye* as a pious and spiritual remembrance. *Thuluth* rose to supremacy as the predominant Ottoman display script, and it occupies the design’s commanding central position. *Naskh* presents longer lines of content clearly and consistently without challenging the primacy of the two larger styles. The interaction evokes a style beyond style. Viewers learn to appreciate the differences of scribal styles, each in its proper place and each with a distinct aesthetic calling. Scribal style, in this broad and communicative sense of the word, does not refer to any one particular Ottoman script, but the power to move freely through the whole domain of scribal practice with grace and vitality.⁷⁴

Considering Scribal Design

Ottoman scribes were textual designers. They certainly beautified text, and their products more than deserve aesthetic appreciation as calligraphic art. But Ottoman scribal texts were also functional and operational. Visual style and textual copy are two sides of the same coin. Styles of script communicate alongside, and in support of, written content. Ottoman scribes dressed written messages in appropriate outfits. They designed texts to connect content and audience. Visual distinctions began with notational differences. Arabic, Hebrew, Greek, Armenian, and Latin characters all targeted distinct communities. Stylistic variety internal to a script further specified the direction of the text. That direction, the vector of communication, was visualized through *khatt*. The lines of *khatt* draw letters, outline text boxes, direct messages, target audiences, and connect readers across time and space. Ottoman scribes certainly beautified text, and their products more than deserve aesthetic appreciation as calligraphic art. But Ottoman scribal texts were also functional and operational. Visual style and textual copy are two sides of the same coin. Like crystal goblets, styles of script communicate alongside, and in support of, written content.

Ottoman scribes were textual designers. They dressed written messages in appropriate outfits, and they designed texts to connect content and audience. Ottoman scribal distinctions began with notational differences. Arabic, Hebrew, Greek, Armenian, and Latin characters all targeted distinct communities. Stylistic variety internal to a script—such as the stylistic varieties of Arabic script outlined in this essay—further specified the direction of the text. That direction, the vector of communication, was visualized through *khatt*. The lines of *khatt* draw letters; they outline text boxes; they direct messages; they target audiences; and they connect readers across time and space. *Al-khatt al-mansub* provided a powerful system for the construction of formalized proportions and recognizable types. These types, or styles, were systemized, practiced, and taught. They were repeated by multiple scribes in multiple scriptoria across multiple centuries. Ottoman scribal tradition was incredibly durable, with a deep understanding of visual, graphic, and textual design.

The rich vocabulary of Ottoman design can, and should, be mined for contemporary considerations and analytic concepts.. Some terms, such as *al-aqlam al-sittah*, delineate specific proportions and identify specific styles of script. Others, such *jali* or *ghubar*, refer to the size or scale of a particular variation. And yet others, such as *tughra* and *hilye*, refer to particular forms and the spatial organization of textual content. Practices of *khatt*, understood as design, unites a vast range of textual and visual activity. Designs can be formal or informal, rounded or stately, traditional or experimental; style of script can be large or small, red or black, bold or fluid; the regulated vector of textual content can unfold as a single line or splinter into a collection of frames and boxes. Despite drastic differences in content, technology, and practice, the considerations of contemporary designers and scribal practice overlap. Digital designers weigh choices of hardware, software, and fonts. Ottoman designers weighed choices of paper, pen, and style. Different sizes and finishes of paper, different widths and cuts of the reed pen, and different styles of script all carry cultural, practical and regional connotations.

If form follows function, the diversity of Ottoman styles attests to a diversity of functional solutions. Ottoman design applied suitable styles and suitable tools to the copy at hand. Reframing scribal practice—and calligraphy more broadly—as textual design allows us to analyze and recover these earlier processes as models of current practice. It repositions products of Ottoman design as communicative objects with form, function, and practical insight. As we now digitize and remediate the Ottoman scribal legacy, how do we retain, remember, and reinvigorate these practices? And how might similar practices inform contemporary communication? Is there a place for conventionalized styles in a digital, global, and networked world? Scribal models encourage us to examine our communicative dilemmas from new and pertinent angles. The wealth and quantity of textual material has certainly increased since Ottoman times, but Ottoman society was no less design literate than our own. Approaching Ottoman *khatt* as a practice of communicative design reinvigorates the history of writing. Lines of *khatt* once again become functional templates and successful models of design solutions.

Endnotes

¹ Grabar 1992, 60. Grabar notes that the Greek word *kalligraphos*, as opposed to *kalligraphia*, means simply “scribe.”

² Ibid., 66.

³ Marks 2010, 199.

⁴ Lupton and Phillips 2015, 13: “Point, line, and plane are the building blocks of design. From these elements, designers create images, icons, textures, patterns, diagrams, animations, and typographic systems.”

⁵ Ingold 2007, 128.

⁶ Acar 1999, 26–27; Derman and Çetin 1998, 37. Jamal Elias relates a similar story in which Ibn Muqlah retreats for forty days in order to improve and refine Arabic letters. Elias 2012, 239.

⁷ Type designer Erik Spiekermann describes a similar method for updating and adapting historical examples: “I look at [the letter] for a long time . . . and I draw it and I sketch over it. Then I put it away, and the next day, I draw it from memory.” Spiekermann 2011.

⁸ Stanley 2004, 56. Common Ottoman form defined *masahif* of fifteen lines per page on sheets measuring 18 by 12 centimeters. A ruling board, or *mistar*, used prior to writing, ensured consistency of line spacing from page to page. The *mistar* delineated borders, frame, and lines of text with threads. Pressing the paper onto the *mistar* would impress the template upon the paper.

⁹ Mahir 1999, 31.

¹⁰ Schimmel 1984, 36; Ülker 1987, 60.

¹¹ Stanley 2004, 56.

¹² Ülker 1987, 79; Blair 2006, 492.

¹³ Sheila Blair notes that Hafiz Osman lightly altered Hamdullah’s style of *naskh* by “smoothing out the strokes, reducing the number of swooping tails and sublinear flourishes, and opening up the spaces between letters and words so that the layout is more compact and regular.” Blair 2006, 483.

¹⁴ Acar 1999, 218.

¹⁵ Associations of the *hilye* components with parts of the body—the *başmakan* as head, the belly of the *göbek*, and the *etek* as foot or skirt—convey a bodily portrait-like quality. Elias 2012, 239; Marks 2010, 235.

¹⁶ Grabar 1992, 74.

¹⁷ The text of Osman’s *hilye* presents a description of the Prophet Muhammad as relayed by his nephew ‘Ali. An English translation of the passage can be found in Blair 2006, 483–484.

¹⁸ The brief descriptions of specific styles draw heavily on Adam Gacek’s *Arabic Manuscripts: A Vademecum* (2009) and the descriptions in Sheila Blair’s *Islamic Calligraphy* (2006) and Uğur Derman and Nihad M. Çetin’s *The Art of Calligraphy* (1998). The books that introduced me to the concept of stylistic variety as a marker of genre are Wijdan Ali’s *What Is Islamic Art?* (1996), Muammer Ülker’s *Başlangıçtan Günümüze Türk Hat Sanatı (The Art of Turkish Calligraphy from the Beginning up to the Present)* (1987), and Yasin Safadi’s *Islamic Calligraphy* (1979).

¹⁹ Mohamed Zakariya provided the translation. The passage appears in Ibn ‘Ata’Allah 1978.

²⁰ Gacek 2009, 274.

²¹ For a more detailed discussion of the seven layers of Arabic script, see Chapter 1 of *Letters of Light: Arabic Script in Calligraphy, Print, and Digital Design*. Osborn 2017, 23-32.

²² Qadi 1959, 56.

²³ Gacek 2009, 164.

²⁴ Mansour 2010. Mansour provides a close examination of *muhaqqaq*, its history, its traditional hieratic character, and the shape of each of its letters.

²⁵ Schimmel 1984, 23; Mahir 1999, 12.

²⁶ Gacek 2009, 160; Qadi 1959, 137.

²⁷ Gacek 2009, 223.

²⁸ Safadi 1979, 20.

²⁹ Gacek 2009, 223.

³⁰ Ibid., 264: The prevalence of unorthodox connections made *tawqi’* a common base style for writing *musalsal*, or chained, compositions. *Musalsal* compositions deliberately deviate from proper script grammar and connect all letter blocks in a single unbroken line.

³¹ Blair 2006, 516–517. Blair analyzes a collection of *hadith* written for Süleyman’s son Mehmet. The Arabic traditions of the prophet are transcribed in *tawqi’*, while the accompanying Persian commentary is written in *ta’liq*. The Abbasid and traditional Arabic connotations of *tawqi’* distinguish it from the Persian connotations of *ta’liq* script.

³² See, for example, Derman 1998. Derman lists the genealogies of famous scribes and the teachers from whom they received *ijazah*.

³³ The *ketebe*, or the calligraphers’ signature, was a mark of pride and individuality in an otherwise regulated system of scripts. The signature allowed scribes to design their own logotype: incorporating additional flourishes such as decorative serifs or intertwined loops that made their *ketebe* visually unique.

³⁴ Gacek 2009, 165.

³⁵ In appearance and form, the Persian script *ta’liq* more closely resembles the Ottoman script *diwani*. Gacek 2009, 263.

³⁶ Blair’s opening discussion of Arabic script explores how the script’s flexibility allowed it to adapt and emphasize the linguistic features of diverse languages. Arabic emphasizes the verticality of repeated *alifs*, Persian highlights the flowing curves of final *yā’* and *nūn*, and Turkish builds upon the repeated cross-strokes of *kāf* and *gāf*. Blair 2006, 11–15.

³⁷ Derman and Çetin 1998, 42.

³⁸ Blair 2006, 433; Gacek 2009, 166.

³⁹ Wright 2012, 234–239.

⁴⁰ Ali 1996, 45.

⁴¹ Blair 2006, 508.

⁴² Gacek 2009, 252.

⁴³ Fekete 1955. Fekete learned *siyaqah* from Turkish prisoners while held in a concentration camp during World War I. See also Bagheri 1998.

⁴⁴ Gacek 2009, 252.

⁴⁵ Darling 2012, 180.

⁴⁶ Mitchell 1953.

⁴⁷ Derman and Çetin 1998, 40–41.

⁴⁸ *Ghubar* refers to the smallest and airiest variety of script. The term *hurde* was used for scripts written with a thinner pen than normal, but larger than *ghubar*. Acar 1999, *Türk Hat Sanatı (Turkish Calligraphy)*, 286.

⁴⁹ Acar 1999, 228. Upon obtaining the throne, the sultan would select a new *tughra* from a variety of compositions presented before him. Once a design was settled upon, the *tughra* form remained consistent throughout the sultan’s reign.

⁵⁰ Blair 2006, 509; via Wittek 1948. See also Acar 1999, 227–228.

⁵¹ Warde 1955.

⁵² Morison 1936.

⁵³ For a methodological introduction to infrastructural inversion, a practice in which invisible technologies are problematized and made visible, see Bowker and Star 1999. Typically, infrastructural technologies are only noticed when they break down. For example, readers are more likely to comment on a typeface if it is difficult to decipher.

⁵⁴ A fun take on typographic rules and the ways they have been broken is Felton 2006.

⁵⁵ The dominant Ottoman styles remain recognizably distinct, much like modern fonts. But they are not as easily exchanged as digital fonts; a scribal style cannot be altered without recopying an entire document. Typographers receive textual copy and dress it in the proper uniform. Scribes dressed the copy during inscription. There is no equivalent of “plain text” in a scribal environment. The style of script—the attributes of rich text—are applied and inscribed at the time of production. The formalized proportions, shapes, and ligatures of a particular style of manuscript copy were regulated and maintained as it was written. The font and style of script—the attributes of “rich text”—were chosen before production, and texts were directed to specialist scribes trained in the requisite style.

⁵⁶ Bringhurst 1997, 1.1.1: 17. Citations to Bringhurst contain both section numbers and page numbers. The section numbers are relatively consistent across all versions of his text. Page numbers are from the 1997 second edition.

⁵⁷ Ibid., 1.3: 24.

⁵⁸ Ibid., 1.2.4: 22.

⁵⁹ Ibid., 6.1.1: 93.

⁶⁰ Ibid, 6.1.2: 93. Letterpress also differs from photographic typesetting. Letterpress adds bulk to the form, whereas serifs and fine lines appear reduced in photographic typesetting.

⁶¹ Ibid., 6.1.4: 94–95.

⁶² Karabacek 1991, 70.

⁶³ Bringhurst 1997, 6.2.1: 95.

⁶⁴ Ibid., 6.3.1: 98–99.

⁶⁵ Schimmel 1970; Blair 2006, 433; Gacek 2009, 166.

⁶⁶ Bringhurst 1997, 6.5.1: 102.

⁶⁷ Ibid., 6.4.1: 99–102.

⁶⁸ White 2011, 177.

⁶⁹ Bringhurst 1997, 1.2.3: 21–22.

⁷⁰ Ibid., 1.2.5: 23–24.

⁷¹ *Diwani*’s aestheticized appearance might tempt us to classify it as a display style. And indeed, *diwani*-inspired forms are often used for decoration and display in modern advertising and design. But the formalized style of Ottoman diwani was not simply for creative display. It served as the official style for a particular format of document. It therefore complicates the binary distinction of display styles and text styles. As a text style, it transcribes particular content; as a display style, it privileges aesthetics and complicates legibility. *Diwani* scrolls—despite their relative illegibility—authorized holders to act in particular ways.

⁷² While the linguistic content of an Ottoman *ferman*—written in the *diwani* style and topped with an ornate *tughra*—communicates to a limited audience of knowledgeable readers, the aesthetic display communicates its import to a much wider audience. This “double writing” draws upon conventional expectations (both linguistic and stylistic) in order to reach multiple audiences. For a discussion of artistic “double writing,” see Jules-Rosette 1984: 227.

⁷³ Ruder 2013, 66.

⁷⁴ Bringhurst 1997, 1.1.3, 19–20: “There is a style beyond style.” These two sentences, from “the interaction . . .” to “. . . grace and vitality” borrow heavily from Bringhurst’s poetic phrasing.

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Next two pages: Calligraphic panel (Turkish: *levha*) with gilded lettering by Sultan Mahmud II (1785-1839). The inscription is verse 45 of the Ahzab surah, *Yâ eyyühe’n-nebiyyü innâ erselnâke şâhiden ve mübeşşiran ve nezîran* (O Prophet! Truly we have sent thee as a witness, a bearer of glad tidings, and warner). The proportions of the letters and calligraphic equilibrium of the composition in Jali Thuluth, *celî sülûs*, reflects the influence of Mustafa Râkım’s (1758-1826) style on Sultan Mahmud II.

Mahmud’s signature (*ketebe*) at the bottom center of the *levha* (highlighted below), which reads, *Ketebehu Mahmûd Hân b. Abdulhamîd* (written by Mahmud Han son of Abdülhamid), was designed by Mustafa Râkım Efendi, the most influential calligrapher of the period. Hafız Ahmed Agha Library, Rhodes.

Photos: T. Tuten



يا ايها الناس كنتم لنا ومنا
والله اعلم بالصواب

الحمد لله