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“THE EYE IS FAVORED FOR SEEING THE WRITING’S FORM”: ON THE SENSUAL AND THE SENSUOUS IN ISLAMIC CALLIGRAPHY

Writing is calliphoric, that is to say a carrier of beauty, and it becomes terpnopoietic by bringing pleasure... Difficulties arise, however, as soon as one tries to understand what actually is beauty or even artistic quality in writing.

Oleg Grabar, *The Mediation of Ornament*¹

The intense screeching noise generated by the writing instrument, whether reed or bamboo, as it flexes across the surface of the paper sheet is an experience of Islamic calligraphy unknown to most of us.² Equally surprising is the slow movement of the pen by which the calligrapher generates individual letter shapes through fastidious, controlled movements, especially when writing at larger sizes: it is then that the size of the writing tool and the properties of materials—such as the viscosity of the ink and the expanse of the writing surface—place still greater strain on the calligrapher’s physical capacities. Traces of the successive movements of applying ink are rarely registered on the paper support. When these movements are visible to the eye, they appear as a series of graded lines of ink akin to the contours made in sand by the physical forces of ebbing water, as one sees in two squared-off blocks denoting their adjacent letter’s phonetic values (fig. 1). A record of physical movement can also be visible in the long strokes—principally in lengthened or joined letters and ligatures—where the ink becomes less dense in the passage from right to left (figs. 1 and 2). Though the calligrapher repeatedly returned pen to inkwell to replenish the nib with ink in the process of copying a few lines, he generally did this in a way that left little or no indication of the pen’s to-ings and fro-ings, favoring instead a seamless production signaled by the absence of certain means of encoding expressiveness.³

Perhaps following the dictates of its genre, a specimen of calligraphy (fig. 3, already shown in detail

in figs. 1 and 2) attributed to Firuz Mirza Nusrat al-Dawla I is an exception that makes the kinetic and temporal dimensions of the calligrapher’s work evident, available to the eye. The study belongs to a category of works termed *siyāh mashq*, literally “black writing,” in Persian (Arabic *musawwada*; Turkish *karama*).⁴ These were ostensibly made as practice exercises over the course of a calligrapher’s career but quickly developed identifiable, formalized aesthetic features, including superimposed or staggered letters; a text written in opposing directions so as to require different, often multiple, angles of viewing; and the privileging of visual affect over legibility. Some employed writing of different sizes, opposing small and large script to foreground the value of scale. Though *siyāh mashqs* seem to be about modest practice, they attained a level of virtuosity.⁵ The example attributed to Firuz Mirza not only reveals process through materiality—as something that was made in time—but also suggests another mode of temporality by the repetition of words.⁶ Words are laid over each other, and repeated letter shapes (graphemes) or word fragments (combinations of two graphemes) are slightly offset, suggesting their translation across the sheet of paper as a rapid sequence of repetition (e.g., *mā/mā/mān* [grief] in the third line at top right, or the doubling of the *nūn* after *jā* in the word *jān* [soul] at the end of the same line).

Broad characterizations of Islamic calligraphy, when they address formal aspects of writing—and this is curiously rare—typically focus exclusively on the attribute of skill, asserting the calligrapher’s consummate control and closely measured steps.⁷ In the most recent assessment to appear in print, we are offered a comparison between Islamic and East Asian calligraphic traditions to drive home this point:



Fig. 1. Detail of a practice exercise (*siyāh mashq*) in *nasta'liq*, attributed to Firuz Mirza Nusrat al-Dawla, Iran, ca. 1835–53. Ink, opaque pigment, and gold on paper, 41.5 x 28.9 cm (folio). Harvard Art Museum, Arthur M. Sackler Museum, gift of Afsaneh Firouz in honor of her father, Shahroukh Firouz, 2006.119. (Photo: Katya Kallsen, © President and Fellows of Harvard College)



Fig. 2. Detail of the same practice exercise, shown in full in fig. 3.

East Asian calligraphers generally sat motionless, contemplating the moment of artistic creation, and then, with a burst of creativity, applied brush to support. As a result, the reader is meant to sense the personality of the artist through the calligraphy. In following the brushstrokes, the reader experiences a visual sequence of movement and rest and thus participates in the physical process of creation.

This scenario does not hold true in the Islamic lands, where the individual artist is thought to have applied pen to support in regular, steady strokes...The reader is not meant to glean the calligrapher's personality from the script, but rather to appreciate the unwavering line and modulated forms that reflect the transcendence of the Almighty. Palpability and movement are replaced by ineffability and control, complex characters by simple strokes.⁸

This comparison raises many issues, not least of which is the validity of underwriting a comparison between two distinct cultural and artistic traditions—where Islamic calligraphy is defined in opposition, or through, the features of East Asian calligraphy—by invoking a universalizing or transcultural formalism—that is, defining formal features in relation to each other without concern for understanding whether those values were read by contemporaries within the cultures invoked in the way that we read them today, or whether they were assigned similar meanings.

For the purposes of this essay, however, emphasis will be given to the commonly accepted assumption expressed in this definition of the traits of Islamic calligraphy: that the art of beautiful writing in the historical Islamic lands can be understood to involve



Fig. 3. Practice exercise (*siyāh mashq*) in *nasta'liq*, attributed to Firuz Mirza Nusrat al-Dawla, Iran, ca. 1835–53. Ink, opaque pigment, and gold on paper, 41.5 x 28.9 cm (folio). Harvard Art Museum, Arthur M. Sackler Museum, gift of Afsaneh Firouz in honor of her father, Shahroukh Firouz, 2006.119. (Photo: Katya Kallsen, © President and Fellows of Harvard College)

(perhaps even to require) the radical omission of the calligrapher’s body in favor of technical perfection and conformity to established convention in which-ever context of historical occurrence the artwork was originally made. In this view, Islamic calligraphy is deprived of any form of indexicality—it cannot be an autograph—and any access that viewers might have to apprehending the fact of time passing in the making of the writing is denied in the finished artwork, which insistently signals its all-at-onceness. In this assessment,

visual pleasure lies solely in an appreciation of skill and the individual calligrapher’s abilities at replicating preexisting canonical tradition. Visual pleasure does not entail the apprehension of the calligrapher’s process—whether through material or time—or the gauging of individuality as it might become manifest in idiosyncracies of letter shaping or composition.

The perfect antidote to many of these assumptions, one that challenges us to redirect and rephrase our questions, is a calligraphic specimen from Timurid



Fig. 4. Calligraphic exercise after a model in *riqā'*, attributed to Ahmad al-Rumi, Herat (?), before 1433. Ink on paper, 57.8 x 41 cm (written surface). Topkapı Palace Museum, H. 2152, fol. 31b. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

Herat made before 1433 (fig. 4). Composed of eighteen lines that repeat the Arabic saying “Blessings coalesce around gratitude” (*bi 'l-shukr tadūmu al-ni'am*), the specimen shows how fourteen calligraphers responded to the “example” (*khatt* or *mithāl*) by Ahmad al-Rumi provided in the upper right-hand corner.⁹ Writing in *riqā'* script, each calligrapher took turns imitating the original line and concluded his performance with a signature (later encircled); these written names can more readily be comprehended by us as “autographic” because of their proximity to our cultural notion of handwriting. Taken as a whole the sheet signals the ever-present performative aspect of Islamic calligra-

phy, here enacted by a community of men who gathered to write after a model, and evidences an actual temporality through multiple iterations of the saying written by fourteen individuals. Gesture and individuality may be coded in each line, but not by variation on the tonality of ink, or by the material traces of an instrument pulled across paper, or by a subjective manipulation of the form of each letter. The most pressing of its visual aspects not considered thus far—that the repeated lines *are* differentiated from each other, but not at the level of individual letter shape—will be examined below.

This essay attempts to adjust the common understanding of the omission of the body in the production of Islamic calligraphy by addressing a paradox; in broad terms this might be described as the gulf dividing art-historical writing since the early 1900s from the assessments of contemporary viewers in late Timurid, Safavid, and Ottoman dynastic settings about the merits of individual calligraphers and their calligraphies, of how they defined achievement and the criteria of aesthetic value, and of what calligraphy promised to those who made it and those who viewed it. What we will also see, however, is that correlating the formal and material aspects of Islamic calligraphy with what one reads about it in art-historiographic literature dealing directly with its practice is no simple matter.¹⁰ Perhaps that explains why so few art historians have tackled the aesthetic dimensions of Islamic calligraphy, preferring instead to immerse themselves in a taxonomic project seemingly without end.¹¹

This study focuses on the sensual and the sensuous in Islamic calligraphy as a means of thinking about the corporeal dimensions of an artistic practice, of the ways in which the calligrapher's body might be understood as incarnated in the finished work. If we are to think of Islamic calligraphy as the inscription of a human movement, as a deposit left by a kinesthetic process, on what grounds can this be comprehended? We are concerned here with the modes of reception found in written sources that record cultural attitudes to calligraphy mostly framed through an encounter with specimens seen cold, after their production, and with selected case studies on the pursuit of calligraphy from the 1500s through the early modern period that consider issues ranging from the processes of training and practice to the execution of the fair copy. We will consider both forms of evidence from the perspective of what they reveal about the effect of the work of art on the human senses—"the sensuous" defined here as aesthetic gratification or "visual pleasure," and "the sensual" as the process by which the senses are activated.

CALLIGRAPHY AND ITS RECEPTION IN WRITTEN SOURCES

Sixteenth-century Iran was without doubt the richest provider of written sources on the aesthetic evaluation of calligraphy. These texts were mostly written in Persian as introductions to album collections of cal-

ligraphy, painting, and drawing, but works of straight history and treatise literature also include references imparting advice on the techniques of artistic production.¹² Throughout this corpus of written sources, the high status of calligraphy as an art form—a status attained in the early years of Islam—is proclaimed by citing references to writing and the pen from the Qur'an and the Hadith that provide, for example, metaphors of God's act of creation being akin to that of writing, such as "The first thing God created was the pen." Joining revelation and the words of the Prophet Muhammad are a number of sayings attributed to historical persons from the early Islamic period, such as 'Ali b. Abi Talib's "Whoever writes 'In the name of God, the compassionate, the merciful' in beautiful writing will enter Paradise without account." There are also aphorisms attributed to the Greeks, including Euclid's "Handwriting is spiritual geometry that appears by means of a bodily instrument."¹³ In writing about calligraphy and calligraphers, authors of the 1500s and later periods had at their disposal a rich and profound literary tradition composed of concepts and images from earlier Arabic sources, which had in turn assimilated the traditions of the Greeks and pre-Islamic Persians. This corpus of wisdom about calligraphy—developed in works of *belles-lettres*—was also perpetuated in calligraphic specimens that took aphorisms as their subject matter. Examples include the frequently used "Calligraphy is the tongue of the hand and the translator of infinite duration" (*Al-khaṭṭ lisān al-yad wa tarjumān al-khuld*), and 'Ali b. Abi Talib's "I recommend to you the beauty of calligraphy, for it is among the keys to sustenance" (*'Alaykum bi-ḥusn al-khaṭṭ fa-innahu min mafātīḥ al-rizq*).

An important concept that was applied to cultural understandings of calligraphy in the sixteenth century was that of the "trace" (*āthār*, pl. *āthar*). In its varied uses "trace(s)" had the senses of a relic, a footprint, calligraphies, and memorials or architectural landmarks. A key element of the "trace" as applied to calligraphy was the capacity of writing to preserve ideas. This concept developed an especially rich body of sayings, including "Handwriting is the tongue of the hand. Style is the tongue of the intellect. The intellect is the tongue of good actions and qualities. And good actions and qualities are the perfection of man" ('Abbas); "Handwriting is the necklace of wisdom. It serves to sort the pearls of wisdom, to bring its dispersed pieces into good order, to put its stray bits together, and to fix its setting (?)" (Ja'far b. Yahya

[d. 803]); “The light of handwriting makes wisdom visible, and the skillful handling of the calamus shapes politics” (attributed to an unnamed Greek philosopher); “The calamus is the nose of the brain. When it bleeds, it divulges the secrets of the brain, shows its ideas, and spreads the information the brain has” (Sahl b. Harun [d. 830]); and “The stars of wise sayings [shine] in the darkness of ink” (al-Ma’mun).¹⁴ There are many others. One aspect of the beauty of writing lay in its utility.

A fundamental element of the concept of the trace was the additional notion that writing recorded, by way of a footprint-like impression, the moral makeup of the calligrapher. Thus the Safavid calligrapher Dust Muhammad, in an album preface dated 1544–45, writes, “Verily our works point to us; so gaze after us at our works” (*inna ātharnā tadullu ‘alaynā fa-anzurū ba’danā illā al-āthār*). It is an idea that finds expression in calligraphy treatises as early as the eleventh century. In his “Ode Rhyming in the Letter R on Calligraphy” (*Rā’iyya fi l-khatt*), Ibn al-Bawwab (d. 1022) urged his reader to develop good writing precisely because it would be the only thing left to posterity.¹⁶ Such ideas maintained their cultural value up to the late 1400s and early 1500s, when they were used by Shihab al-Din ‘Abd Allah Murvarid (d. 1516) and Ghiyath al-Din b. Humam al-Din Muhammad, known as Khvandamir (d. 1535), the authors of the earliest known album prefaces. Murvarid and Khvandamir employ metaphors that liken the pen to an instrument that scatters pearls (drops of ink). Moreover, in Murvarid’s preface, a poem dedicated to praising ‘Ali b. Abi Talib compares every “point” (*nuqt*) ‘Ali wrote to an unaltered pearl extracted from “the ocean of sanctity.” In his preface, Khvandamir employs an image of calligraphies as pearls brought from a capacious inkwell—he likens it to a “sea” (*lujja*)—to the “shores of these folios” (*bi-sāhil-i in awrāq*). Murvarid and Khvandamir use these metaphors to conjure potent mental images of the calligrapher’s body.¹⁷

The idea that calligraphy constituted not merely a physical remnant of the person but also his moral imprint—hence that calligraphy also possessed a moral beauty—was voiced even more forcefully by the calligrapher Sultan ‘Ali Mashhadi (d. 1520), a contemporary of Murvarid and Khvandamir. In his treatise on the practice of calligraphy, *Širāṭ al-suṭūr* (Way of Lines of Writing), completed in 1514, Sultan ‘Ali Mashhadi singles out ‘Ali b. Abi Talib as his prime example, noting that ‘Ali’s goal in writing was the practice of vir-

tue, and that his beautiful writing was a sign not only of his acquired virtue but also of his innate virtue.¹⁸

In their compositions about art, aesthetics, and art history, writers active in the later sixteenth century also addressed the benefits that accrued from contemplating calligraphy. On this subject Khvandamir writes:

The eye is favored for seeing the writing’s form
but the heart is ignorant of its meaning.
Its form and meaning are praiseworthy;
they brighten the pupil of the eye.¹⁹

In an expanded and highly metaphorical poem, Khvandamir engages the album as a totality in which calligraphies and other works of art are preserved:

Every coveted pearl that is nourished in the ocean of
contentment
is to be found in this sea [i.e., album].
Like beauty, it lights the torch of the eye;
like the meeting of lovers, it seizes every heart.²⁰

One of the more specific writers on the perception of calligraphy is Shams al-Din Muhammad Vafsi (writing between 1568 and 1577). According to him, “human nature” (*tabā’i-i insānī*) acquires “spiritual/contemplative pleasure” (*hazz-i rūḥānī*) and “eternal bounty” (*fayz-i jāvidānī*) from observing works of art.²¹ He remarks that calligraphy is held in high esteem by elite and common people alike, and that even the illiterate enjoy looking at it.

Authors give primacy to sight in the sensory process of apprehending calligraphy; comparisons of calligraphy to musk, for example, seem to be more about color than odor. Nevertheless they also invoke olfactory sensation, comparing calligraphies to sweet-smelling herbs or ambergris. The synesthetic metaphors used by writers of the Persian-language sources give an impression of the activation of the senses—and invoke an overwhelming experience—even if they do not supply criteria for the appreciation of calligraphy in specifically formal or technical terms.

Comments about works of art amount to characterizations of their visual properties or attributes. The formal elements of artworks are often implied through analogy. Overall, two modes of response are identifiable: the attributive, which describes an abstract quality of the artwork, and the metaphorical, which infers relationships between things based on like qualities (e.g., the perfect materiality of a pearl or ruby and the shape of a letter of the alphabet). These two responses are entirely consistent with the rhetorical

protocol of the Persian-language sources, whose vector is the exemplary and always tends toward the absolute. The generic framework of the written source controls how the authors write about art and their experience of it.

In assessing Sultan ‘Ali Mashhadi’s calligraphy, another preface author, Malik Daylami (writing in 1560–61), stresses its “purity” (*ṣafā*) and “sharpness” (*tizī*); writing on Muhammad Qasim Shadishah’s calligraphy, Shams al-Din Muhammad Vasfi notes that it is “at the extremity of sweetness, elegance, and lightness” (*bi-ghāyat-i shūrīn va namakī va nāzūk*), and that Anisi Badakhshi’s penmanship is “very pure, sweet, and light” (*bisṣār ṣāf va shūrīn va nāzūk*).²² Dust Muhammad describes Anisi Badakhshi’s calligraphy as “delicate” (*nāzūk*), “pure” (*ṣāf*), and “pleasing” (*pasandīda*) and Muhammad Qasim Shadishah’s as “delicate” (*nāzūk*), “clean” (*pākīza*), and “pleasing” (*pasandīda*).²³ Less generic descriptors include Dust Muhammad’s opinions that Sultan Muhammad Khandan “wrote with [an] essential quality” (*bi-kayfiyat nivishtand*) and that Nur al-Din ‘Abd Allah exhibited an impressive “quickness of copying” (*sur‘at-i kitābat*).

Invoked amid such assessments are references to the calligraphers’ personal attributes, evidenced by their conduct in life. It is often difficult to separate these from assessments of their calligraphy per se. In Dust Muhammad’s words, Sultan ‘Ali Mashhadi was of “good character” (*ḥusn-i akhlāq*), and Sultan Muhammad Nur was “accomplished” (*sar-anjām*), “pure” (*pākīzagī*), “pious” (*varā’*) and “abstemious” (*taqvā*). The language used to praise personal conduct often resembles that used to describe and judge performance in calligraphy: they are not only related by a shared vocabulary but also by the conception of abstract qualities. This gives further impetus to an indexical reading of calligraphy, though the index cannot be understood via the formal language of gesture in the way we might conceive of it through East Asian calligraphy.²⁴ In further support of the idea that Islamic calligraphy had an indexical relation to its maker—that writing embodied the traits of an individual and operated as a transport medium—is a much earlier anecdote, cited by Abu Hayyan al-Tawhidi, relating an encounter of the seventh century:

When a secretary of ‘Amr b. al-‘As came to ‘Umar, the latter asked him: Are you not Ibn al-Qayn from Mecca? When the secretary answered in the affirmative, ‘Umar said to him: The calamus does not hesitate to show to whom it belongs.²⁵

A summary of these written sources in Persian and Arabic reveals that the body, whether that of the calligrapher inscribed in the calligraphy or of the viewer engaged in the experience of the work, is very much present. The senses involved in the appreciation of calligraphy include sight and, by way of metaphor, smell or even taste. Hearing is presumably a given, especially because these visual shapes are attached to sounds. The sense of touch is less directly invoked, unless one considers a form of haptic visuality, or seeing linked to touch and movement, as suggested in Shams al-Din Muhammad Vasfi’s poem praising the pen:

Writer of marvels, ruddy-cloaked reed
with two tongues but silent in speech,
A resplendent cypress in stature spreading shade
that draws its night-tresses underfoot,
Straight as an arrow, in nature like a bow
that hides the countenance of day with dark night.²⁶

The poem anthropomorphizes the pen—it is dressed in a cloak and is as slender as a cypress (a comparison frequently applied to men and women)—and furthermore assigns it the capacity to speak, invoking the conventional image of the two tongues of the pen (its split nib). As the pen moves, it spreads shade and pulls its dark tresses behind it (the ink moving from the pen onto the paper). The last couplet develops this image by discussing the physical properties of the pen and likening the dispersal of ink on paper to the passage from day to night, the pen blackening the light sheet.

THE CALLIGRAPHER’S TRAINING AND PRACTICE

Fine calligraphy was appreciated not only in its post-production life, as historical manuscripts of various kinds or album collections that assembled formerly loose calligraphed sheets and made new entities out of them (figs. 5 and 6);²⁷ calligraphers also studied specimens of accomplished writing as part of their education. This aspect of training and practice is referenced in a variety of primary sources, including manuals on the practice of calligraphy and even the occasional work of history, Ibn Khaldun’s *Muqaddima* (Prolegomena) being a prime example.²⁸ Practice through the “visual” (*nāẓirī*) study of preexisting models, and not only those made “by the pen” (*qalamī*), is mentioned in several Persian written sources, ranging



Fig. 5. Practice exercises by various calligraphers in *riqā'* (one specimen signed by Nasr Allah al-Tabib, dated Muharram 736 [August–September 1335]). Ink on paper, 41.8 x 30.6 cm (folio). Topkapı Palace Museum, B. 410, fols. 85b–86a. (Photo: courtesy of Topkapı Palace Museum, Istanbul)



from Sultan 'Alī Mashhadi's above-mentioned work to another treatise, written in the late 1500s by Baba Shah Isfahani (d. 1587–88) and titled *Ādāb al-mashq* (Manners of Practice).²⁹ Baba Shah Isfahani outlines three stages in training, the first being “visual practice” (*mashq-i nazārī*), the second “pen practice” (*mashq-i qalamī*), and the third “imaginative practice” (*mashq-i khayālī*).³⁰ In this tripartite model, Baba Shah Isfahani voices an element of training, the third, that Sultan 'Alī Mashhadi may have taken for granted. Explaining what he means by “imaginative practice,” Baba Shah Isfahani writes:

“Imaginative practice” is when the scribe writes not according to a model but with reference to the power of his own nature, and he writes every composition that appears [to him]. The benefit of this practice is that it makes the scribe a master of spontaneity (*taṣarruf*), and when this practice mostly takes the place of pen practice, one's

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Fig. 6. *Siyāh mashq* in *muḥaqqaq*, attributed to Yāqūt al-Musta'simi ('an Yāqūt), Iran, before 1549. Ink on paper, 41.8 x 30.6 cm (folio). Topkapı Palace Museum, B. 410, fol. 127b. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

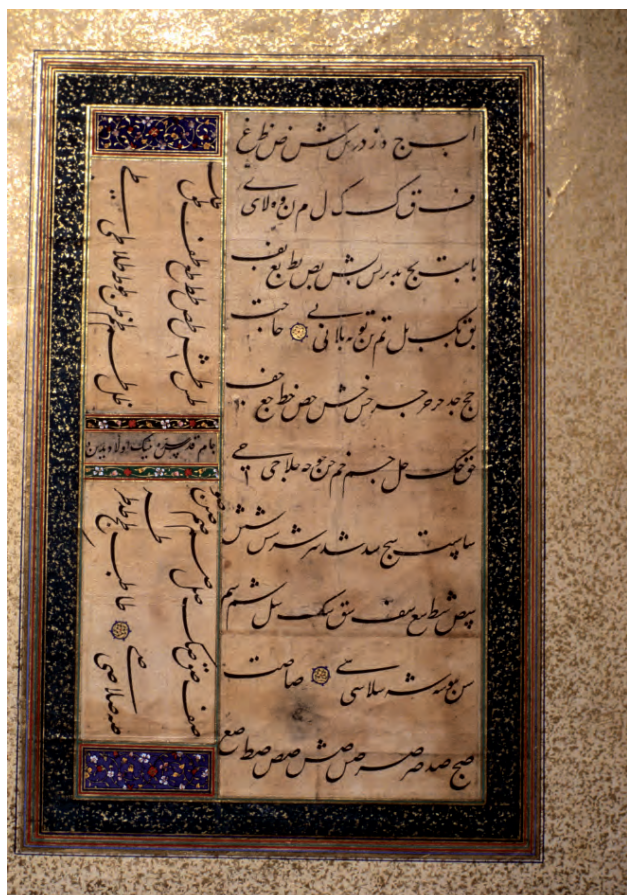


Fig. 7. *Mufradāt* in *nasta'liq* (first of two sheets) by Sultan ‘Ali Mashhadi, Herat, before 1520. Opaque pigment, ink, and paper, 48.4 x 34.5 cm (folio). Topkapı Palace Museum, H. 2154, fol. 47b. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

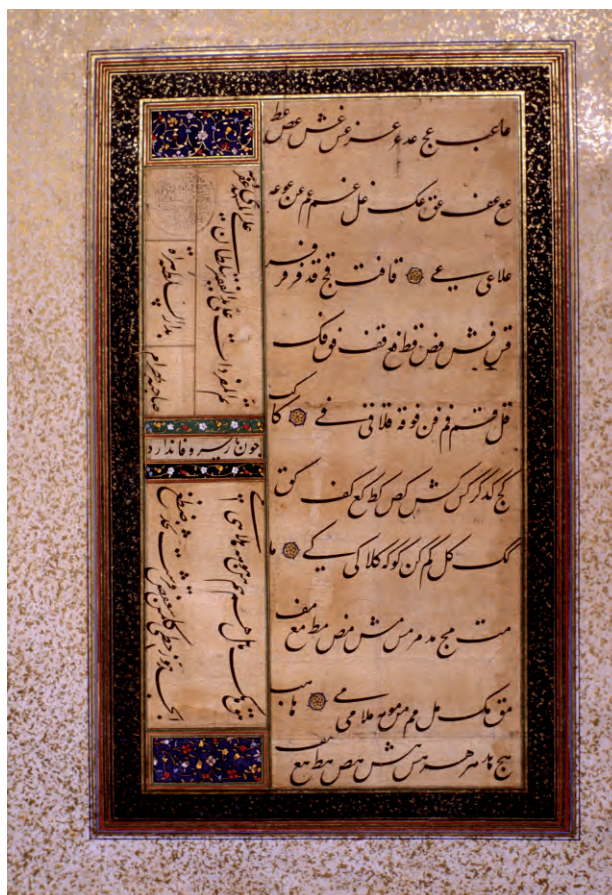


Fig. 8. *Mufradāt* in *nasta'liq* (second of two sheets) by Sultan ‘Ali Mashhadi, Herat, before 1520. Opaque pigment, ink, and paper, 48.4 x 34.5 (folio). Topkapı Palace Museum, H. 2154, fol. 48a. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

writing becomes non-reflective (*bī-maghz*). If someone makes a habit of pen practice and avoids imaginative practice, he lacks spontaneity, and is like the reader who grasps the writing of others but himself cannot write. Spontaneity is not permitted in pen practice.³¹

Calligraphers in training were encouraged to devote total commitment to studying ink-on-paper models—which they either were given or selected according to their own tastes—before or during the process of actually writing with a pen. Such study of models provided many important lessons about the formal configurations of letters in their different positions in a word. Through concrete examples it also imparted advice about how to organize writing on a page, how

to seat words in a line, and how to space a sequence of words across a page. This order of instruction was the one least effectively mediated through written modes of pedagogical transmission. And if the calligrapher were to attain a level of mastery—and not simple competence—as stressed by Baba Shah Isfahani, achieving fluency in aspects of composition would be truly critical to his success. Rote replication of letter shapes and fluency in their combinations were insufficient skills if one wanted to achieve the status of master.³²

Two sheets bound into an album are in fact practice exercises in *nasta'liq* script signed by Sultan ‘Ali Mashhadi (figs. 7 and 8).³³ Known as *mufradāt* (literally, “simple, singular” as distinct from “compound,”

murakkabāt), these exercises begin with the writing in isolated form of the individual graphemes used in the Arabic alphabet, followed by the joining of each letter in alphabetical sequence to the other letters of the alphabet, also in alphabetical order. Every permutation is not shown because the same grapheme, or letter shape, can be modified to produce different phonemes by the addition of a number of dots above or below the letter (the Arabic alphabet has several homonyms, and the system of pointing offered a means of differentiating individual phonetic values). Hence the letters *jīm*, *hāʾ*, and *khāʾ*, which share a single shape, are combined with the alphabetic sequence *alif* through *yāʾ*, avoiding duplication of letters that share the same form, such as *fāʾ* and *qāf*. The line thus reads: *hāʾ*, *jat*, *haj*, *jad*, *har*, *har* (two forms are given for the initial-position *hāʾ* joined to *rāʾ*), *jar*, *has*, *hash*, *has*, *khat*, *jaʿ*, *jaf*, *haq*, *hak*, *hal*, *jam*, *kham*, *han*, *jaw*, *jah*, *jalā*, *hay*, *hay* (two forms for the initial-position *hāʾ* joined to *yāʾ*). Sultan ‘Ali Mashhadi conveys the various means of linking letters to each other, offering a template of the conventions for joined letters and the relation between consecutive letters that are not joined (there are six in all). The *mufradāt* also demonstrates how letters are configured in their initial, stand-alone position and in their medial form. We see the latter in the penultimate section of the exercise, where Sultan ‘Ali Mashhadi writes out the *abjad*, the sequence of Arabic letters according to their numerical value from one to one thousand (fig. 8, the two lines at lower left).

The preservation of these *mufradāt* in an album signals their value to Sultan ‘Ali Mashhadi as specimens, but before they entered that context they were presumably among a panoply of written models used by students. Masters continued to pen these exercises over their career to maintain their capacity to perform writing. The practice of calligraphy in Iran, Central Asia, and Afghanistan, areas where Persian was the predominant language, has left a few examples of such exercises, the majority bound into albums of the Timurid and Safavid dynastic periods. Many more examples demonstrating the process of learning calligraphy through duplication are preserved in the lands of the Ottoman Empire, especially from the late 1500s to the modern period. The Ottomans appear to have formalized the practice of calligraphy as had no culture before them in the Islamic lands.³⁴ A more regimented training system is also manifest in the development of the *icāzet* (literally, “license” in Turkish; *ijāza* in Arabic

and Persian) protocol, at the end of which students were granted permission to sign work in their own names.³⁵ The final outcome of this licensing procedure yielded a palpable sign of mastery in the form of an exercise made by the student and signed by the student’s master and other witnesses.³⁶

Though calligraphers working in the Ottoman lands formalized this process of calligraphic training, the basic principles of learning and instruction were much the same as what we can deduce about both earlier and contemporary practice in other regions. Students studied physical specimens, as per the advice of Sultan ‘Ali Mashhadi and Baba Shah Isfahani, and watched their teachers in the action of writing,³⁷ an immediate form of instruction that let them see activities ranging from the preparation of materials and tools to the actual generation of letters. These two forms of empirical observation—study of specimens and study of the living master—culminated in practice with the pen and, it was hoped, ultimate success.

Students in the Ottoman lands would begin by writing out the letters one by one and then by combining them into pairs as in the format of *mūfredāt* (Arabic and Persian *mufradāt*). One page of *mūfredāt* (fig. 9), shows such a sequence of joined-letter pairs—the first line links the letter ‘*ayn* and the fourth line the letter *fāʾ* to letters of the alphabet: the script of both lines is *sūlūs* (*thuluth*), one of the six cursive scripts canonized since the tenth century. The intervening second and third lines show the same sequences but in a smaller scale and different script, *nesih* (*naskh*); the reduction in size allows one to see various means of linking the letter *fāʾ* to the letters of the alphabet. This example of *mūfredāt* is the work of Abdūlbaki, whose signature employs the verb form *mashaqa* to indicate the intention of the work as practice (hence the Arabic noun *mashq*, which is rendered *meşk* in Turkish).

Two additional pages from a collection of *mūfredāts* (fig. 10) represent the efforts of Seyyid Abdullah (d. 1731; obtained *icāzet* in 1690), well known as a student of Hafız Osman (1642–98), to absorb the technique of his master through direct pedagogy.³⁸ Like the preceding example, their formalized protocol involves the simultaneous practice of two scripts, *sūlūs* and *nesih*, written in contrasting sizes but following the same pattern of letter configurations in alphabetic sequence. The letters *bāʾ* and *jīm* are shown connected to the other letters in *sūlūs*; one can also see the alphabet of single letters written in the central line of *nesih*



Fig. 9. Incomplete *müfredât* by Abdülbaki, Ottoman Turkey, 17th–18th century. Opaque pigment, ink, and gold on paper, 20.2 x 30 cm (folio). Nasser D Khalili Collection, CAL290–299. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)

on the upper page of the opening. In addition to writing these letters in simple and compound form, Seyyid Abdullah has executed the customary vocalization symbols, showing the short vowels (*damma*, *fatha*, *kasra*). Other exercises often added more symbols that helped with reading, including those indicating intensification or a doubled consonant (*shadda*) and silence (*sukūn*).

When the requirements of the *müfredât* had been mastered, the student moved on to another exercise (*mürekkabât*), which tested his capacity to make compound forms from letters, to combine these words into lines, and to write lines in succession in satisfying visual array. A number of different texts could be selected for the content of the *mürekkabât*. In examples made at the end of the student calligrapher’s process of training, as a demonstration to the teacher that all aspects of writing were mastered, the exercise would open with a *basmala* (*bism Allāh al-rahmān al-rahīm*,

→

Fig. 10. *Müfredât* album signed by Seyyid Abdullah, Ottoman Turkey, 18th century. Opaque pigment, ink, and gold on paper, 20.5 x 29.8 cm (folio). Nasser D Khalili Collection, MSS191. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)





Fig. 11. Opening invocation and prayer in joined letters from a *müfredât* album, Ottoman Turkey, 17th–18th century, opaque pigment, ink, and gold on paper, 18.5 x 27.3 cm (folio). Nasser D Khalili Collection, MSS297. (Photo: The Nasser D. Khalili Collection of Islamic Art, © The Nour Foundation)

In the name of God, the Compassionate, the Merciful) and the calligrapher's common prayer asking for God's assistance, *Rabbi yessir, ve lâtuassir, Rabbi, tem-mim bi 'l-hayr* (O Lord, make things easy and do not make them difficult. O Lord, make everything come out well),³⁹ which would be followed by the alphabet and continue with the texts constituting the body of the *mürekkebât*.⁴⁰ At the end, though not in the specific example illustrated (fig. 11), witnesses would sign the exercise, attesting that the calligrapher's formal training was now complete. Though the calligrapher of this example has used *nesih* and *sülûs* for the body of the exercise, the beginning segments also employ *riqā'*. The exercise as a whole is thus a distilled catalogue, a virtual microcosm, of the range of challenges calligraphers confronted when writing.



Fig. 12. *Müfredât* album signed by Mehmed Vasfi, after a model by Hafiz Osman, Ottoman Turkey, 1784–85. Opaque pigment, ink, and gold on paper, 16 x 23.7 cm (folio). Nasser D Khalili Collection, MSS333. (Photo: The Nasser D. Khalili Collection of Islamic Art, © The Nour Foundation)

The degree of standardization in text and general format of Ottoman-period practice exercises is highlighted by another example of *müfredât* (fig. 12), by the calligrapher Mehmed Vasfi (d. 1831), who followed a prior master's example (obviously by studying his models on paper). This was completed not as a licensing process but rather seventeen years after Mehmed Vasfi was already licensed, an indication that practice continued throughout a career and that a well-seasoned master was still interested in confronting the challenge of a historical antecedent, in this case the Ottoman calligrapher Hafiz Osman (d. 1698).⁴¹ Calligraphers made *müfredât* and *mürekkebât* over their lives as a way to rehearse and maintain their ability. Presumably some of these ended up in the hands of students who used them as models, and others came



Fig. 13. Two pages from the *Rasm al-khatt* (Canon of Calligraphy) by Majnun Rafiqi Haravi, copied by Muhammad Bahram in 1551–52 in Iran. Opaque pigment and ink on paper. Topkapı Palace Museum, YY. 599, fols. 21b–22a. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

into the possession of collectors who sought fine historical examples.

Some practice sheets are marked with the teacher’s interventions, written in red or black ink. These include rhombic points (*nuqt*), which show the correct proportional relations between letters, and thin, deft strokes that reveal laterally organized correspondences between the words strung together in a line.⁴² The rhombic points are the diamond-shaped dots left by the pen when pressed in a stationary mode against the paper and then released and lifted away. Since the codifications of Ibn Muqla (d. 940), who applied geometric principles to a canon of scripts dubbed the “six scripts” (*al-aqlām al-sitta*) and invented “proportioned script” (*al-khatt al-mansub*), scripts had been closely regulated by systems that defined a proportional relation between a standard—the letter *alif*—and every other letter (which related to the dimension of the *alif*, itself assembled from a fixed number of dots, by a series of ratios).⁴³ The teacher’s emendations to a student’s work thus renders whichever proportional system was in place visible as a series of rhombic points.

Comparable graphic techniques are used to diagram the shape and interrelation of letters in manuals of calligraphic instruction chronologically earlier than *müfredāt* and *mürekkebāt*. One is *Rasm al-khatt* (The Canon of Calligraphy), originally written in 1504 by

Majnun Rafiqi Haravi (d. after 1549) in honor of the Timurid prince Muzaffar Husayn Mirza.⁴⁴ The text (fig. 13) alternates between discussions in verse about the six styles of calligraphy and images set apart from the text showing the configuration of individual letters. Here the letters of the alphabet carry an armature of dots and lines—differentiated from the main text by another color of ink—and are introduced in their stand-alone form by captions that use the term “taking a form” (*tashakkul*); the intervening texts, composed as rhyming couplets, describe features of the letters in their simple and then their compound forms. Thus, on the two pages illustrated in fig. 13, the captions written in red, gold, and blue on the right-hand page read: “in this order” (*bar in tartib*), “on the form of the *jīm*” (*dar tashakkul-i jīm*), and “in this method” (*bar in nahj*); and those on the left read “by this quantity” (*bar in ‘adad*), “on the form of the *rā*” (*dar tashakkul-i rā*), “in this style” (*badin tarz*), “by this foundation” (*badin asās*), and “on the form of the *sīn*” (*dar tashakkul-i sīn*).⁴⁵ Additional notations indicate the form and hence position of the letter, as in “simple” (*mufrad*) and “compound” (*tarkīb*), or annotate a specific formal feature, for example, “allowed to fall” (*mursal*), “slender in the body” (*ẓamr*), “brought near” (*marfū*), “bow-shaped” (*qawsī*), or “attenuated” (*muzammar*).



Fig. 14. *Mürekkebât* in *sülüs* and *nesih* by Mehmed Şevki Efendi, Istanbul, 1863, opaque pigment, ink, and gold on paper, 16.8 x 26 cm (folio). Sakıp Sabancı Müzesi, Istanbul, 216. (Photo: Sabancı University, Sakıp Sabancı Museum)

Called “measurement of the letters” (Arabic *mi’yār al-hurūf*), rhombic points are written on calligraphies as either solid or empty circles to make proportional relations visible to the eye. Such dots were added not as a correction but rather as a form of proportional scaffold. One example is a *meşk* among a series of *müfredât* and *mürekkebât* exercises by Mehmed Şevki Efendi (1829–87), which he presumably made to give to one of his students for the purpose of instruction (fig. 14). The upper and lower lines are in *sülüs*.

The upper one reads, “The letters were finished with the help of God the king, the mighty, the merciful” (*Tammat al-hurūf bi-ʿawn Allāh al-malik al-ʿaziz al-raʿūf*), while the lower one is the alphabet given in order of numerical value. Between them are two lines in *nesih* proclaiming God’s unity and citing a tradition of ‘Alī b. Abi Talib. Şevki’s annotations in red offer a complete armature for his writing by showing its system of measurement and relation. Many of these annotations measure out the length of ligatures and the distances to be left between adjacent vertical strokes, or establish the relative depth of adjacent letters in the sublinear region (i.e., their seating).

A similar technique of proportional and spatial mensuration is found in three other pages by Mehmed Şevki Efendi, from an album of his *müfredât* exercises (figs. 15 and 16).⁴⁶ These pages, too, bear the calligrapher’s marks as an apparatus of dots and lines. The carefully executed rhombic dots and dashes provide a complete set of guidelines for the relative proportion of letters, the spaces between letters, and the seating. The lines reading “the letters are completed...” at the respective top and bottom of fig. 14 and fig. 15 show identical instructions for measurement, despite minor changes in the text (*Allāh* and *al-ʿaziz* are missing from the phrasing in fig. 15).

Yet another example showing *mi’yār al-hurūf* is from a twenty-four-page set of *mürekkebât* exercises written in Ottoman *taʿlīq* by Hacı Nazif Bey (1846–1913). The text consists of the *Hilye-i hākānī*, an ode describing the Prophet Muhammad (fig. 17),⁴⁷ copied in “emulation” (*taklīd*) of a model by Yesarizade Mustafa İzzet Efendi (d. 1849). Each line of text, written in black ink, is annotated with lines and dots in red that map the precise proportional system developed by Yesarizade; text lines are separated by curving notations that stand for the phrase “persevere” (*saʿy*). In writing out the



Fig. 15. Opening from a *müfredât* album in *sülüs* and *nesih* by Mehmed Şevki Efendi, Ottoman Turkey, 1866–67. Opaque pigment, ink, and gold on paper, 10 x 19 cm (folio). Nasser D Khalili Collection, MSS239, fols. 9b–10a. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)

Hilye-i hākānī, Hacı Nazif Bey has revealed the proportional system, spacing, and conventions of seating letters that he learned through the patient visual study of Yesarizade’s models. His exercise is not only a facsimile of Yesarizade’s writing but is annotated so as to share with others the principles of the master’s calligraphy.

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Though all of the aspects of practice and training highlighted here suggest the near-tyrannical hold of

replication and duplication in the practice of Islamic calligraphy, whether Timurid, Safavid, or Ottoman, it would be inaccurate to assume that this was so. Practice involved the absorption of rules and norms in the art of writing by repeated rehearsals in such a way that a calligrapher could, and indeed would, reproduce a teacher’s or another calligrapher’s mode to make a facsimile of the original. Command over technique permitted writing to be executed at will at different scales and in different scripts. This qualitative difference is noted by Shams al-Din Muhammad Vasfi when he opines, “Calligraphy by the destitute is [like] potsherds and pieces of stone. Calligraphy by the eminent has



Fig. 16. Page from a *müfredât* album in *sülüs* and *nesih* by Mehmed Şevki Efendi, Ottoman Turkey, 1866–67. Opaque pigment, ink, and gold on paper, 10 x 19 cm (folio). Nasser D Khalili Collection, MSS239, fol. 10b. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)

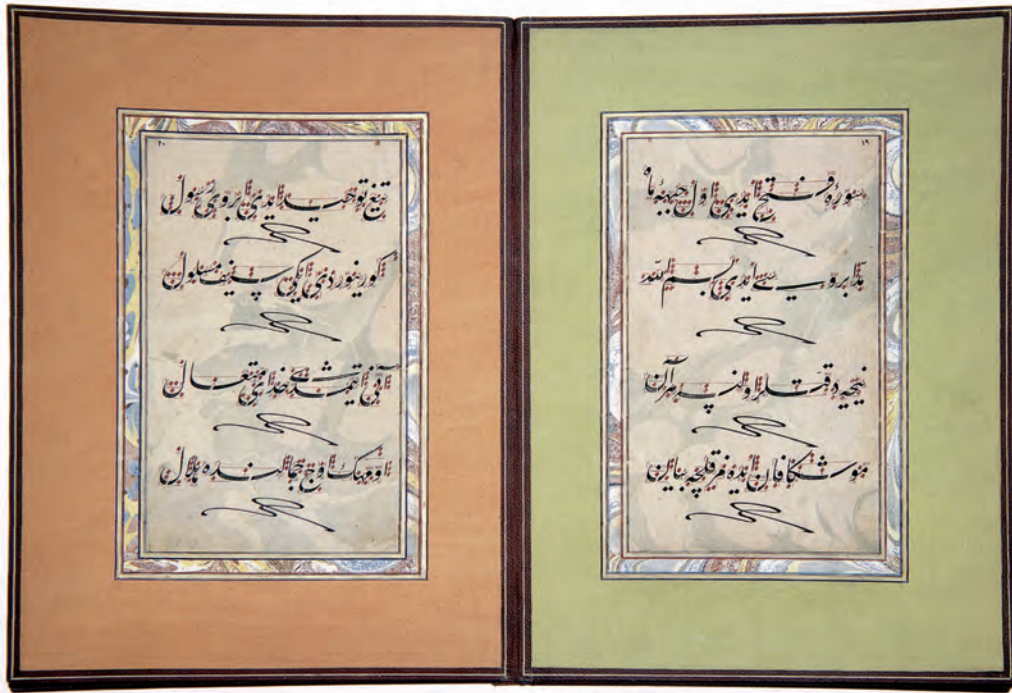


Fig. 17. Two pages from an album of *mürekkebât* by Hacı Nazif Bey, after Yesarizade Mustafa İzzet Efendi, Istanbul, late 19th to early 20th century. Opaque pigment and ink on paper, 31.6 x 23.2 cm (folio). Sakıp Sabancı Müzesi, Istanbul, 226. (Photo: Sabancı University, Sakıp Sabancı Museum)

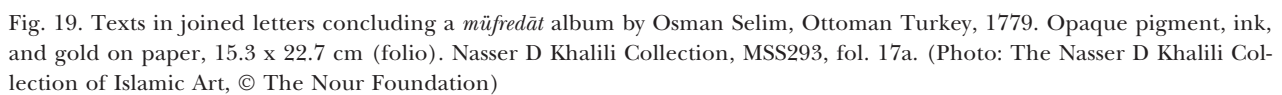
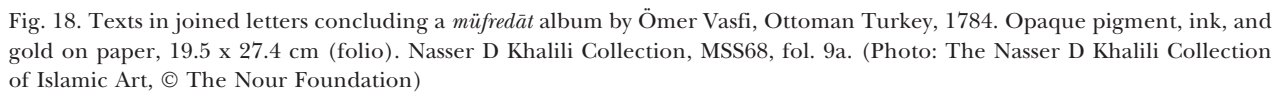




Fig. 20. Practice exercise in *riqā'* by Baysunghur, Herat (?), before 1433. Ink on paper, 25 x 33 cm (sheet). Topkapı Palace Museum, H. 2152, fol. 21b. (Photo: courtesy of Topkapı Palace Museum, Istanbul)



Fig. 21. Practice exercise in *riqā'* by Muhammad Sultani, Herat, 1459. Ink on paper, 41.8 x 30.6 cm (folio). Topkapı Palace Museum, B. 410, fol. 180b. (Photo: courtesy of Topkapı Palace Museum, Istanbul)

the value of pearls and rubies.”⁴⁸ But technical prowess did not obviate an individual’s inflection—Baba Shah Isfahani’s “imaginative practice”—whether in adjustments made to proportional systems or through other means.

Two Ottoman *mesks*, which are part of albums of *müfredāt* exercises by Ömer Vasfi and Osman Selim that date, respectively, to 1784 and 1779, are copies of the same Arabic text, written in *nesih* and *sülüs* (figs. 18 and 19). The upper line on each page includes the end of the alphabet organized according to numerical sequence, followed by “May God be blessed, the best of the creators” (*Fa-tabāraka Allāh aḥsan al-khāliqīn*). The lower line contains the prayer, “Glory to You, O God, in Your praise may Your name be blessed” (*Subḥānaka Allāhuma wa bi-ḥamdika wa tabāraka ismuka*). Phrases between these majuscule *sülüs* lines here and

elsewhere in the album comprise sayings attributed to such figures as ‘Ali b. Abi Talib, including “Calligraphy is concealed within the teaching method of the master. Its essence is in frequent repetition, and it exists to serve Islam.”⁴⁹

The two specimens follow shared principles of breaking the texts and arranging them on lines.⁵⁰ It is clear, however, that each calligrapher—Osman Selim was Ömer Vasfi’s son—finds a different solution to ending each line on the page and to joining certain letters. While Osman Selim follows a more normative connection between the letters *ghayn* and *lām*, for instance, Ömer Vasfi utilizes a feature of writing termed “chained” (*musalsal*) by writing the *ghayn* in its stand-alone form and sweeping back its sublinear curve to connect to the letter *lām* next to it. This convention was common in such scripts as *riqā'* and

tawqīʿ, used mostly in the chancery for official correspondence, but it could also be applied in a variant form of *sūlūs*. Another readily visible distinction between the two *mešk*s is in the spacing at the end of the upper line: where the father evenly spaces the letters of the final word “creators” (*al-khālīqīn*) and expands the final letter *nūn* so it tails off and falls away, the son compresses the letters *lām*, *qāf*, *yāʾ* and *nūn* and pulls them up above the preceding four letters, *alif*, *lām*, *khāʾ*, and *alif*. The overall effect is of a word deliberately compacted to contrast with its openness in the father’s specimen. If one were to expand this comparison through a minute, detailed description, the two lines would in addition reveal subtler differences that are responsible for the overall quite different effect of the two *mešk*s.

The uppermost line in each of two further specimens (figs. 20 and 21) reproduces the saying “Blessings coalesce around gratitude,” already seen in the calligraphic exercise in *riqāʿ* copied by Ahmad al-Rumi and responded to by fourteen other calligraphers, including the Timurid prince Baysunghur (fig. 4). One of these two specimens (fig. 20) represents Baysunghur’s effort to write the phrase as a stand-alone exercise, either before or after the group endeavor.⁵¹ The other (fig. 21) is a practice exercise signed by Muhammad al-Sultani, completed in 1459 in Herat.⁵² The exercise initiated by Ahmad al-Rumi does not suggest its process of making through aspects of materiality; this multiple was presented at the beginning of this essay as a way to confront the commonly accepted notion that Islamic calligraphy involves the removal of the individual from the finished product by denying writing’s indexical function. It is clear that manipulations do not take place within the shaping of an individual letter, and that proportional relations govern relations between letters. This is true whichever context or strand of Arabic-script tradition one looks to, east or west. (These proportional relations were by no means static and were changed by calligraphers over time; the new systems were imparted to their students and from them to their students; alternatively, proportional systems could be reconstructed at some chronological distance as a calligrapher sought out past models to emulate).

And yet, clearly, no two calligraphers’ responses to the model of Ahmad al-Rumi were the same, and their reenactments of his line met with varying levels of success. The closest to failure are two lines written by Payanda Darvish at the bottom left (second and



Fig. 22. Two pages from an album of *murekkebāt* exercises in *sūlūs* and *nesih* by al-Hacc al-ʿArif, Turkey, 1896–97. Opaque pigment, ink, and gold on paper, 23.18 x 32.39 cm (folio). Harvard Art Museum, Arthur M. Sackler Museum, the Edwin Binney, 3rd Collection of Turkish Art at the Harvard Art Museum, 1995.829. (Photo: Katya Kallsen © President and Fellows of Harvard College)

third from the bottom). His upper line went quite smoothly, but in the lower one the ascending stroke of the letter *kāf* was insufficiently steep, which had the unfortunate effect of penetrating too deeply into the area above the next letter. As a correction, Payanda Darvish retraced the ascending stroke of the *kāf*. One other example of line repetition by a single individual appears amid the group exercise. Three lines signed by Hajji Muhammad—two at the bottom right followed by one at the top left—show an unwavering fluidity. Each of the three lines shows various degrees of relation to Ahmad al-Rumi as Hajji Muhammad plays with



Fig. 23. Practice exercise (*siyah mashq*) in *nasta'liq* by 'Imad al-Hasani, Qazvin, before 1600. Ink on paper, 11.4 x 16.7 cm (folio). Nasser D Khalili Collection, CAL266. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)

the length of ligatures joining letters, the arrangement of dots marking phonetic value, and the presence or absence of short vowels. One could contend that the lines in *riqā'* are equally as “autographic” as the “signatures” adjacent to them. These examples reveal that a way of inscribing individuality in calligraphy was through the manipulation of ligatures (termed in Arabic and Persian *madd*, *mashq*, and *kashīda*) as well as through the apparatus of dots and dashes supplying phonetic values and vowels. This was one means of embodying the self and individual movement in an art form of closely regulated norms.

It is also possible to see those daunting rhombic dots in a related way, as satisfying the desire to perceive human movement in writing (fig. 22). While they can certainly be understood as an armature of measurement supplied to calligraphy specimens with the intention of revealing or uncovering the master's secrets—two down, three across, and so forth—they also provide the means of segmenting the calligrapher's physical move-



Fig. 24. Pages from an album of specimens in *shikasta* by 'Abd al-Majid, Isfahan, dated between 1767 and 1770. Ink on paper, 20 x 29.8 (folio). Nasser D Khalili Collection, MSS391, fols. 1a and 2a. (Photo: The Nasser D Khalili Collection of Islamic Art, © The Nour Foundation)

ment. Much like the filming of Jackson Pollock's drip paintings—or any other example from modernism's history of "mechanical inscriptions of movement"⁵³—*mi'yār al-ḥurūf* have the effect of dividing the movements of writing into units that can be perceived in succession. The dots, one after the other, register the fluid lines of writing against a quantifiable grid akin to a time-motion study. Here, that study slows writing down to provide its viewer with a perspective on practice beyond the direct observation of its original maker at work. The system of applied dots and strokes not only segments the apparently continuous line of the calligrapher but annotates the intervals between his letters and words and their relative seating.

A final two examples, by 'Imad al-Hasani (before 1600) and 'Abd al-Majid (between 1767 and 1770), offer another pathway to the perception of movement (figs. 23 and 24).⁵⁴ Their comparative "expressivity" when seen in relation to other examples illustrated in this essay is of less interest than their arrangement of writing at angles off axis to the rectangular format of the sheet or in opposed directions: viewed from a single position, some of this writing appears upside down. Such examples as these, spanning the late 1500s to the late 1700s, prompt a mode of haptic visuality, that is, a tactile way of seeing and knowing that engages the viewer's body in movement. To read the writing, the viewer is required physically to move, or imaginatively to rotate an image of the calligraphy to a readable axis. The kinesthetic properties of writing are also enacted through variations in the size of writing, a feature of the macrographic and micrographic that has the immediate effect of suggesting foreground and background, or depth in space.

The examples of calligraphy and extracts from written sources presented here suggest how Islamic calligraphy can be understood to involve the inscription of the body in the act of writing, whether it was experienced by its historical viewers through a set of localized variations, through the manipulation of interval—as a pattern-based mode of recognition—or through general composition. These were the primary visual structures that calibrated the eye and body in the pleasure of seeing calligraphy over the course of its history, or, to paraphrase Plato in an Arabic setting, these were the means by which "handwriting deployed the senses."⁵⁵

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NOTES

Author's note: This essay started out as a lecture that I presented at Princeton University in January 2007, in a series cosponsored by the Institute for Advanced Study and the Department of Art and Archaeology, Princeton University. I would like to thank Yve-Alain Bois and Hal Foster for their invitation. Oleg attended the lecture and dinner and was characteristically curious and generous with his suggestions. The quotation in the title is by Khvandamir (d. 1535): see nn. 17 and 19 below.

1. Oleg Grabar, *The Mediation of Ornament* (Princeton: Princeton University Press, 1992), 59.
2. Auditory dimensions of calligraphic practice are often addressed in the body of literature that grew up around the production and reception of calligraphy. In one of the most common themes, inspired by the exordium ("The Song of the Reed") in Mawlana Jalal al-Din Rumi's *Masnavī-i ma'navī* (Couplets of Meaning), a link is drawn between the reed pen and the reed flute. In Sufi imagery, the flute makes its lament because it has been taken from the reed bed:

Now listen to this reed-flute's deep lament
about the heartache being apart has meant:
Since from the reed-bed they uprooted me
My song's expressed each human's agony,
A breast which separation's split in two
Is what I seek, to share this pain with you:
When kept from their true origin, all yearn
For union on the day they can return.

(Jalāl al-Dīn Rūmī, *The Masnavi, Book One*, trans. Jawid Mojaddedi [Oxford: Oxford University Press, 2004], 4). The reed wails because it desires to be reunited with its primal origin. The analogy was obvious enough for writers about calligraphy. For this and other aspects of sound-related imagery in poetry about Islamic calligraphy see Annemarie Schimmel, *Calligraphy and Islamic Culture* (New York: New York University Press, 1984), 120–21.

3. One of the few scholars to study this aspect of writing and the flow of ink is Vlad Atanasiu, "Le retroencrage: Deduction du ductus d'une écriture d'après l'intensité de l'encre," *Gazette du livre médiéval* 37 (2000): 34–42.
4. For a discussion of the historical practice of making *siyāh mashq* in Iran see Maryam Ekhtiar, "Practice Makes Perfect: The Art of Calligraphy Exercises (*Siyāh Mashq*) in Iran," *Muqarnas* 23 (2006): 107–30. Firuz Mirza Nusrat al-Dawla I, to whom this work is attributed, was the son of Qajar crown prince 'Abbas Mirza and the grandson of the second Qajar ruler, Fath 'Ali Shah (r. 1797–1834). He was governor of Fars, southern Iran, from 1835 until 1853.
5. The clearest sign of this conceptual change—of a transition from practice to virtuosity and to a discernable calligraphic genre in its own right—is a corpus of *siyāh mashqs* mounted in the "St. Petersburg Album." The calligraphies are signed by 'Imad al-Hasani, but only one is dated (equivalent to 1612–13). The others are assumed to date from his period of activity from the late sixteenth to the early seventeenth century. For illustrations and commentaries on these specimens see Oleg F. Akimushkin, *The St. Petersburg Muraqqa': Album of Indian and Persian Miniatures from the 16th through the 18th Century and Specimens of Calligraphy by 'Imād al-Ḥasanī* (Milan: Leon-

- ardo Arte, 1996), esp. pls. 96, 137, 140, 141, 144, 145, 148, 159, 162, 163, 166, 167, 170, 183, 186, 187, 189, 192, 200, 221, 225, 233, and 237. Some of 'Imad al-Hasani's specimens from this album are illustrated in Ekhtiar, "Practice Makes Perfect" (figs. 8, 11, and 12), alongside examples by him in other collections. Ekhtiar considers the works of 'Imad al-Hasani to be "the first extant 'artistic' *siyāh mashq* pages," which she argues he was inspired to make after visiting Ottoman territories in 1594–95, when he saw Ottoman specimens of *karalama*. The primary changes that Ekhtiar identifies as lending the *siyāh mashqs* the status of collectible works of art and not simply practice exercises are an increased incidence of signatures, the presence of dates, and a more "finished look," hence the addition of illumination and borders ("Practice Makes Perfect," 112). If the artistic transmission effected by 'Imad al-Hasani is correct, it would still have to account for earlier, though rare, examples of *siyāh mashqs* from Iranian contexts, such as a specimen attributed to Yaqut al-Musta'simi in an album made for Bahram Mirza before 1549 (see fig. 6 above and n. 27 below). This *siyāh mashq* carries no complete signature but does include a partial name in the text at lower left, which may be read: "written by Yahya bin." This ambiguous phrase could be read as a signature but is more likely a segment of the text, hence the possibility of applying the attribution to Yaqut.
6. Harvard Art Museum, Arthur M. Sackler Museum, Cambridge, MA, 2006.119.
 7. Most studies on Islamic calligraphy present the subject matter through a historical framework constructed around the development of types of script, features of orthography, and historical individuals credited with making important changes in calligraphic practice or considered to have possessed a good hand. A subset of this scholarship explores primary sources on the technical practice of calligraphy, with an even smaller subset devoted to exploring the various cultural values assigned to calligraphy at different periods in the history of the Islamic lands. Oleg Grabar's chapter on calligraphy as an intermediary of ornament (in *Mediation of Ornament*) is one of those uncommon studies that engage the visual and aesthetic dimensions of Islamic calligraphy and ask questions that exceed strictly taxonomic problems.
 8. Sheila S. Blair, *Islamic Calligraphy* (Edinburgh: Edinburgh University Press, 2006), 7.
 9. Each line concludes with a signature placed inside a circle, beginning with the customary formulas *katabahu* (written by), *kātibuhu* (his writing), *mashaqahu* (copied by), and *harrarahu* (penned by): these seem to be used as synonyms for writing without registering any qualitative differences between the calligraphy. The line by Ahmad al-Rumi carries an attributive signature "specimen by Mawlana Ahmad al-Rumi" (*khatt-i Mawlānā Aḥmad al-Rūmī*). Further discussion of this specimen and its bibliography may be found in David J. Roxburgh, *The Persian Album 1400–1600: From Dispersal to Collection* (New Haven: Yale University Press, 2005), 85–87.
 10. For a case study that confronts the same methodological problem but looks at Chinese calligraphy see John Hay, "The Human Body as a Microcosmic Source of Macrocosmic Values in Calligraphy," in *Theories of the Arts in China*, ed. Susan Bush and Christian Murck (Princeton: Princeton University Press, 1983), 74–102.
 11. Blair's recent book (*Islamic Calligraphy*) is the epitome of these taxonomic efforts and makes many new contributions while at the same time clearing up some of the problems and inconsistencies of earlier scholarship. She identifies taxonomy as a prime objective, stating her aim to write a book about the historical development of Islamic calligraphy (*ibid.*, xxviii) and contrasting her approach with the "universalities" (i.e., ahistoricism) sought by Seyyed Hossein Nasr and the trans-historical approach taken by Grabar in *Mediation of Ornament*. Identifying her approach as one informed by "the viewpoint of a historian of Islamic art," she states that it causes her to "miss much of the passion and fervor that calligraphy evokes both in the practitioner and the believer" (*ibid.*). These however, are little more than reductive categories of the human subject and narrow conceptions of art history as a discipline.
 12. For a discussion of these sources and their interpretation see David J. Roxburgh, *Prefacing the Image: The Writing of Art History in Sixteenth-Century Iran* (Leiden: Brill, 2001). For critical editions of several sources and their English translation see Wheeler M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters* (Leiden: Brill, 2001).
 13. Cited in Abu Hayyan al-Tawhidi's treatise on the practice of calligraphy, which also contains numerous aphorisms about its importance and value. See Franz Rosenthal, "Abū Ḥaiyān al-Tawhīdī on Penmanship," *Ars Islamica* 13–14 (1947): 15. Abu Hayyan al-Tawhidi was born ca. 926 and died after 1009–10.
 14. The excerpts are from Abu Hayyan al-Tawhidi's treatise. See Rosenthal, "Abū Ḥaiyān al-Tawhīdī on Penmanship," 11, 12, 13, and 17. Rosenthal notes that 'Abbas's identity cannot yet be determined. Other sources attribute the same saying to 'Ubayd Allah b. al-'Abbas b. al-Hasan al-'Alawi (*ibid.*, 11, n. 88).
 15. Pre-Islamic poets, including Imru 'l-Qays, use *khatt* "to refer to the traces in the sand left by abandoned campsites," while the eleventh-century lexicographer Ibn Faris (d. 1004) defines *khatt* as "the extended trace [*āthār*] of a thing" (Blair, *Islamic Calligraphy*, xxv).
 16. Ibn al-Bawwab's poem and its later reception are discussed by David James, "The Commentaries of Ibn al-Baṣīṣ and Ibn al-Wahīd on Ibn al-Bawwāb's 'Ode on the Art of Calligraphy' (Rā'iyyah fī l-khatt)," in *Back to the Sources: Biblical and Near Eastern Studies in Honor of Dermot Ryan*, ed. Kevin J. Cathcart and John F. Healey (Dublin: Glendale Press, 1989), 164–91. For the problems associated with the transmission of knowledge about calligraphy and the various means available to calligraphers see David J. Roxburgh, "On the Transmission and Reconstruction of Arabic Calligraphy: Ibn al-Bawwab and History," *Studia Islamica* 96 (2004): 39–53.
 17. Expanded discussion of these sources may be found in Roxburgh, *Prefacing the Image*, esp. 89–94.
 18. Sultan 'Alī Mashhādī's treatise was cited verbatim in Qadī Aḥmad's biographical history of calligraphers and artists of other media. The pertinent text reads: "The aim of Murtada 'Alī in writing / Was not merely characters and dots / But fundamentals, purity, virtue / And he pointed to this by the beauty of his writing" (*Gharāz-i Murtaza 'Alī az khatt / na ḥamīn lafz būd va ḥarf va nuqt / bal usūl va ṣafā va khūbi būd / zi ān ishān bi-ḥusn-i khatt farāmūd*). See Qāzī Aḥmad, *Gulistān-i*

- hunar: tazkira-yi khushniviśān va naqqāshān*, ed. Ahmad Suhayli Khvānsārī (Tehran: Intishārāt-i Bunyād-i Farhang-i Īrān, 1352 [1973]), 65; trans. in V. Minorsky, *Calligraphers and Painters: A Treatise by Qādī Ahmad, Son of Mīr-Munshī (circa A.H. 1015/A.D. 1606)* (Washington, DC: Freer Gallery of Art, Smithsonian Institution, 1959), 108.
19. *dīda shud az šūrat-i khaṭṭ bahravār / dil būd az ma'nī-yi ū bī khabār / šūrat va ma'nīyash paśandīda ast / nūr-dih-i mardumak-i dīda ast* (Roxburgh, *Prefacing the Image*, 92).
 20. *har gawhar-i murād ki dar bahr-i khūshdīlī / parvarda-and jumla dar in bahr hāsīl ast / hamchun jamāl mash'ala afzūz-i dīda ast / hamchun vaṣṣāl khurramī andūz-i har dīl ast* (ibid., 93).
 21. Ibid., where the preface is discussed at length, esp. 99–102.
 22. Further discussion of Malik Daylami's album preface may be found in ibid., 33–34 and passim.
 23. Ibid., 96–99 and passim.
 24. Even the characterization of the somatic properties of East Asian calligraphy, as characterized by Blair, *Islamic Calligraphy*, 7, from studies of Chinese and Japanese calligraphy, is ripe for reappraisal. East Asian calligraphy was based on a highly disciplined rhetoric of gesture that automatized corporeal movement. On this see Yukio Lippit, "Of Modes and Manners in Medieval Japanese Ink Painting: Sesshu's Splashed Ink Landscape of 1495," (forthcoming). Also see Thomas LaMarre, *Uncovering Heian Japan: An Archaeology of Sensation and Inscription* (Durham, NC: Duke University Press, 2000).
 25. Rosenthal, "Abū Haiyān al-Tawhīdī on Penmanship," 14.
 26. *ṭurfa nigāri qaṣab-i āl push / bā du zabān dar sukhān ammā khamush / jilva-kunān sarv-qadī sāya sāy / gīsū-yi shabrang kishān zīr-i pāy / tīr-qadī hamchu kamān tūz push / az shab-i tārik rukh-i rūz push* (Roxburgh, *Prefacing the Image*, 100).
 27. Istanbul, Topkapı Palace Museum, B. 410, fols. 85b–86a and 127b. For further details about this album collection, assembled for Safavid prince Bahram Mirza in Tabriz before 1549, see Roxburgh, *The Persian Album*, 78–80, and David J. Roxburgh, "Bahram Mirza and His Collections," in *Safavid Art and Architecture*, ed. Sheila R. Canby (London: British Museum, 2002), 31–36.
 28. Ibn Khaldun's *Muqaddima* includes a subsection on calligraphy where he writes about processes of calligraphy instruction in Cairo. There, he states, the student learns "to draw and form the letters well, as he learns them by sensual perception (*al-hiss*), becomes skilled in them through practice in writing them, and learns them in the form of scientific norms" (Ibn Khaldun, *The Muqaddimah: An Introduction to History*, trans. Franz Rosenthal, 3 vols. [New York: Pantheon Books, 1958], 2:388–89).
 29. The text presenting Sultan 'Alī Mashhadi's advice reads:
 Collect the writings of the masters,
 throw a glance at this and that.
 For whomsoever you feel a natural attraction,
 besides his writing you must not look at the others,
 So that your eye should become saturated with his writing,
 and because of his writing each of your letters should become a pearl.
 (Qāzī Ahmad, *Gulistān-i hunar*, 73; trans. Minorsky, *Calligraphers and Painters*, 117). For Baba Shah Isfahani's *ādāb al-mashq* see Carl Ernst, "The Spirit of Islamic Calligraphy: Baba Shah Isfahani's *Ādāb al-Mashq*," *Journal of the American Oriental Society* 112 (1992): 279–86. For an edition in Persian see Najīb Māyil Haravī, ed., *Kitāb ārā'ī dar tamuddan-i islāmī* (Mashhad: Astān-i Quds Razavī, 1372 [1993]), 207–36.
 30. The treatise and its terms and implications are discussed by Ekhtiar, "Practice Makes Perfect," 110–11.
 31. Trans. Ernst, "Spirit of Islamic Calligraphy," 284.
 32. The same distinction between letter shaping and composition was made in the earlier writings of Ibn al-Haytham (965–1039), also referred to as Alhazen. See Ibn al-Haytham, *The Optics of Ibn al-Haytham: Books I–III, On Direct Vision*, 2 vols., trans. with introduction by A. I. Sabra (London: Warburg Institute, University of London, 1989), 1:201. Ibn al-Haytham notes that composition could make calligraphy look beautiful even when the letter shapes were not correct, indicating in another way his highly relativist and subjective notion of the perception of beauty.
 33. The *mufradāt* is bound into an album assembled for Safavid prince Bahram Mirza in 1544–45 by Dust Muhammad. The second sheet carries a signature, "The practice was completed under the hand of the poor Sultan 'Alī al-Mashhadi—may his sins be forgiven—in the abode of the sultanate Herat" and an additional notation, "Its owner is Bahram." The paper also bears a seal impression; though it is quite faint, two names—of Bahram and his father Isma'il—are discernable, as is the date 935 (1528–29).
 34. Though there are abundant specimens of calligraphy—many of them practice exercises surviving in albums—made in Iran, Central Asia, and Afghanistan in the period after the mid-1300s continuing through the 1500s, the corpus lacks a consistent set of conventions. Though there are similarities in textual content—ranging from the *mufradāt* and *murakkabāt* to selections of Hadith, wisdom sayings, and verses from the Qur'an—and occasionally in aspects of format, they lack the level of consistency and continuity evident among the Ottoman practice exercises.
 35. See M. Uğur Derman, *Letters in Gold: Ottoman Calligraphy from the Sakıp Sabancı Collection, Istanbul* (New York: Harry N. Abrams, 1998), 42–43; Nabil F. Safwat, *The Art of the Pen: Calligraphy of the 14th to 20th Centuries* (London and Oxford: The Nour Foundation in association with Azimuth Editions and Oxford University Press, 1996), 40–45. Ekhtiar, "Practice Makes Perfect," 109, notes the absence of a formalized production of *ijāzas* in Iran.
 36. Several examples are illustrated in Derman, *Letters in Gold*, Safwat, *Art of the Pen*, and Mary McWilliams and David J. Roxburgh, *Traces of the Calligrapher: Islamic Calligraphy in Practice, c. 1600–1900* (Houston and New Haven: Museum of Fine Arts, Houston, and Yale University Press, 2007).
 37. Practice through duplication of a model is seen in earlier specimens of calligraphy, of the 1300s and 1400s, even if no written source specifically highlights this procedure. A number of calligraphies either evidence a direct imitation after a model or use language in their colophons that indicates this intention. For examples and further discussion see Roxburgh, *The Persian Album*, 57–59.
 38. The *mufradāt* is published by Safwat, *Art of the Pen*, cat. 9, with an extensive biography of Seyyid Abdullah.
 39. This is the translation of the prayer rendered by Derman, *Letters in Gold*, 126.
 40. Published and discussed in Safwat, *Art of the Pen*, cat. 7. Safwat's

- catalogue entry includes a complete summary of the textual content.
41. For additional biography on Mehmed Vasfi see Safwat, *Art of the Pen*, 21. Commenting on Mehmed Vasfi's working after Hafiz Osman's model, Safwat observes "a licensed master would still take pride in copying the work of an illustrious predecessor," and that such forms of exercise were not confined to the practice of calligraphers in the early stages of their careers (ibid.).
 42. An illustration of a teacher's corrections to a student's work appears in Derman, *Letters in Gold*, 4. This notion of stringing words together, in a manner comparable to that of a jeweler, is frequently invoked through poetic metaphor in Arabic, Persian, and Turkish written sources, as in the saying attributed to Ja'far b. Yahya cited above.
 43. A discussion of the nature and context of Ibn Muqla's reforms is presented by Yasser Tabbaa, "The Transformation of Arabic Writing: Part 1, Qur'anic Calligraphy," *Ars Orientalis* 21 (1992): 119–48. Proportionality came to be viewed as a source of beauty in itself from the tenth century onward. For a review of the key developments see Ibn al-Haytham, *Optics of Ibn al-Haytham*, 2:99–101. Ibn al-Haytham's section on "Perception of Beauty" (1:200–24) contains several references to calligraphy. As Sabra remarks, it is a study on beauty that is "remarkable for its consistent approach" to beauty "from an exclusively aesthetic point of view" (*Optics of Ibn al-Haytham*, 2:97). Key aspects of the aesthetics of proportion developing from the tenth century onward are discussed by Gülru Necipoğlu, *The Topkapı Scroll: Geometry and Ornament in Islamic Architecture, Topkapı Palace Museum Library MS H. 1956* (Santa Monica, CA: Getty Center for the History of Art and the Humanities, 1995), chap. 10.
 44. The manuscript studied here is dated 959 (1551–52) and is housed in the Topkapı Palace Museum, Istanbul, YY. 599. For a Persian edition of Majnun Rafiqi Haravi's text see Haravī, *Kitāb ārā'ī dar tamuddan-i islāmī*, 159–81. This is not the earliest dated example to use the rhombic points as annotation to letters. A still earlier example occurs in the prefatory pages to Muhammad b. Hasan al-Tibi's *Jāmi' al-mahāsīn kitābat al-kuttāb*, a manuscript dated equivalent to January 11, 1503 and dedicated to Mamluk Sultan Qansuh al-Ghuri (r. 1501–16), wherein al-Tibi purports to reconstruct Ibn al-Bawwab's "method" (*tarīqa*). The unicum is in the Topkapı Palace Museum, Istanbul, K. 882. For a facsimile with commentary see Ṣalāh al-Dīn al-Munajjid, *Jāmi' mahāsīn kitābat al-kuttāb: Jama'ahu wa katabahu bi-khattihi Muhammad b. Hasan al-Tibi min al-qarn al-ashir al-hijri* (Beirut: Dār al-Kitāb al-Jadid, 1962).
 45. The opening illustrated is from the section of the treatise where Majnun Rafiqi Haravi describes the "qualities of the *mufradāt*" (*awsāf-i mufradāt*).
 46. Published and discussed at length in Safwat, *Art of the Pen*, cat. 12.
 47. Hakani Mehmed Bey (d. 1606) composed the poem. The text on the pages illustrated (trans. Derman, *Letters in Gold*, 154), reads:
His moonlike forehead brings to
mind the Qur'an chapter of victory.
His long eyebrows like its *besmele*.
With however much subtlety,
Critics cannot convey
How the eyebrows of the Prophet
are like the indicator of God's unity.
They look like two drawn swords.
God the Transcendent has created his beauty.
The crescent is the ultimate of the moon's beauty.
 48. *Khatt-i faqir khazaf-rizahast va sang pārhā va khatt-i sharif-i ishān durar va la'ālī pūrbahā* (Roxburgh, *Prefacing the Image*, 101).
 49. Trans. Safwat, *Art of the Pen*, 26.
 50. Both albums are published in Safwat, *Art of the Pen*, cat. nos. 10 and 11, with extensive biographical information.
 51. Istanbul, Topkapı Palace Museum, H. 2152, fol. 21b. The three lines below the aphorism are a signature reading, "Written by the weak servant who is in need of God, the kind one, Baysunghur, may God make his end good."
 52. Istanbul, Topkapı Palace Museum, B. 410, fol. 180b.
 53. Caroline A. Jones, *Eyesight Alone: Clement Greenberg's Modernism and the Bureaucratization of the Senses* (Chicago and London: University of Chicago Press, 2005), 224 and esp. 242–50. I found Jones's work on Greenberg to offer a productive parallel to my thinking about the kinesthetic dimensions of Islamic calligraphy.
 54. The texts have been read and the calligraphies published in Safwat, *Art of the Pen*, cat. nos. 15 and 51.
 55. The full anecdote is: "The calamus is the fetter of the intellect. Handwriting is the deployment of the senses, and the desire of the soul is attained through it" (trans. Rosenthal, "Abū Haiyān al-Tawhīdī on Penmanship," 15).