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Original Research Article

I'jam and the Development of Islamic Khatatti

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Abstract

In our study, we tried to find the roots and contexts which formed the Islamic Khattati and configured the form of letters, through social backgrounds, historical texts and also inscriptions of first century AH. According to the prevalent thesis, Arabic scripts originated before Islam from Nabatean in letter's form and from Syriac in calligraphic structure. Nevertheless, the contentions raised through the first century, mainly on Quran, were the major cause and agent in formation of khattati, and the necessity of their sublation, brought about main parts of key Islamic principles, sciences and rules. The Islamic khattati formed correspondingly from the systematic sublation of contentions on exegesis, esoteric interpretation, collecting, reciting, and mainly I'jam of the Quran. I'jam, as the science of resolving the misgivings and mistakes, not only consists of diacritics, but also includes the shape of graphemes and words. Orthographical I'jam in its evolutionarily advanced phase, deconstructs the letters into their few in-dividual monomorphic elements (e.g. Muntasib, Munsatih, Munahhan, and Muqawas), determines a fixed form and size for each, and eventually reconstructs them in the homogenized distinguishable compositions. Thenceforth, the letters will be repeated similarly and located orderly in text. Islamic khattati emerged, constituted and advanced based on this structure.

Keywords: I'jam, Islam, Script, Calligraphy, Khattati, Quran.

Problem statement

on the origin of Islamic script-[khattati]-calligraphy Considering Khatt (script) as the writing system of storing and conveying knowledge, Khattati would be the elaborating system of the forms of written knowledge, and Khushnevisi (calligraphy) is the hegemony of aesthetic aspects over the legibility and orthographic features in writing. Khattati is a transitional phase, with no equivalent word in English, between script and calligraphy, with overlapping features causing common misconceptions. The concern of the script is the transition of meaning, while the concern of khattati, although presupposes the meaning, is legibility and the rules of the forms of rasm. Khattati rests immediately on the script. The overall shape and spatial arrangement of letters, isolated or joined, which is determined in the script, feed the structure of khattati. In other words, each script potentially bears and builds khattati and will be promoted through it. So, the evolution of khattati, mainly through the early formation of a writing system, is based on the evolution of the script.

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There are two strongly supported hypotheses on the origin of the Arabic script: 1. According to the pre-Islamic inscriptions and by tracing the genetic transformation of the individual graphemes, it relates to Nabatean. 2. Referring to al-Balādhurī narrative of the formation of Arabic script¹, stressing its graphic arrangement resting on the baseline (opposite to the Nabatean which is suspended), and arguing that before the rise of Islam, Syriac used to be more prevalent than Nabatean, it connects to Syriac. These two theories are repeated in almost every book on the history of Arabic script². The arguments are so justified and evident based that there is also a combined generally accepted approach. Gruendler supposes that although "the general proportions of this pre-Islamic Arabic script suggest Syriac calligraphic influence. Yet the individual Arabic Graphemes descend through Nabatean from the west Semitic alphabet" (Gruendler, 2001, 138³. These theories mainly show the implicit conception of the difference between Arabic script (as a branch of Nabatean) and Arabic khattati (under the influence of Syriac), which are both rooted, unanimously, in the pre-Islamic era.

The burden of the all-pervasive Nabatean-Syriac hypothesis of the origin of the Arabic writing system, made the researchers canalized in this dichotomy. For example, in The Rise of Islamic Calligraphy, which explores the written materials of the first century, AH to find the roots of Islamic calligraphy, we will again land up to Syriac script. According to George "it only finds a clear parallel, before Islam, in Syriac, where the letters are also joined by straight ligatures at the base" (George, 2010, 22). So, the hidden parallel lines in the structure of the Arabic script originated from Syriac, formed Islamic calligraphy. Inscriptions of the Dome of Rock verify the same thesis through the geometric structure of mosaic: "Indeed, the rationale that was placed at the heart of calligraphy not only in this inscription but in the Kufic tradition as a whole - mirrors that of mosaic, with its parallel rows of tesserae and underlying grids. We may be close, here, to the context that led to the spectacular transformation of Arabic script." (ibid., 67). To prove the propagation of mosaic rationale to the entire realm of early Islamic calligraphy, George refers to ibn-Nadīm and his narrative about Khalid ibn Abi al-Hayyaj, who wrote the inscription of the Prophet's mosque, and the one who wrote a manuscript on the same model, at the request of 'Umar ibn 'Abd al-'Azīz (ibid., 75). George conceives very well the influencing rationale of the mosaic form, its employment technics, and mainly the rectangular structure as the forming logical cell of calligraphy and illumination. But he does not go further from this moment. He, under the influence of the dominant hypothesis about the origins of Arabic calligraphy, traces all the roots back to the pre-Islamic era and notices the role of Islam with a cursory glance in the conquests and the necessity of "reliable transmission of orders across long distances" which, "along with the need to record the Qur'anic text, could have provided an impetus for reforming the script" (ibid., 31). Whereas, such a necessity of reliably storing and transmitting a unique text can similarly function as the forming rationale of khattati; exactly as the imposing necessity of mosaic over the script, and not only as 'an impetus for reforming'.

So we can pose the question of how Islamic khattati was influenced by the context and dilemma of early Islam? The significance of this study, unlike the current theses, is that it explores the origins of Islamic khattati, not only in its pre-Islamic evolutions but also in the Islamic context, and will give voices to the part of history which is silenced in the Nabatean-Syriac spiral. The main context which gave birth to and evolved Islamic sciences and regularities was the early contentions of the Quran. The sublation of the contentions was the prominent rationale that formed most of the technics and sciences, including khattati.

The era of contentions and the necessity of their sublation

Sublation of contentions on the Quran played a

basic role in the formation of Islamic disciplines and regularities. The Quran at the rise of Islam was the main source of conflict. Any other socio-political conflicts would rearrange and represent somehow through this main one. There were three main contentions on Quran: 1) Tafsir and Ta'wil (exegesis and esoteric interpretation), 2) Jam' and Qira'at (collecting and reciting), and 3) Naqat and Tashkil (dots and diacritic marks). The progressive forces of the first decades are those who try to resolve these contentions. Contentions occupied the minds of intellectuals. These forces as the civilizational drive of Islam, not only constituted the disciplines but also presented the overall route and new horizons of the civilization of Islam.

The Mutashābih (contradictory verses with several possible interpretations) in Quran were introduced during the lifetime of Muhammad, first by the non-Muslims, and were so serious that were responded to in Quran (7:3). The doubt and misgivings of the text, gradually extended to the Muslims and also other non-Quranic texts⁴. Contentions necessitated the science of the sublation of contentions, such as Exegesis and esoteric interpretation. Ignác Goldziher generally proposes that the history of those unique-text-based religions is the history of the interpretations of their sacred texts (Goldziher, 1979, 104). Accordingly, Ta'wil and Tafsir evolved and also reshaped and tuned other sciences such as "Linguistics, Syntax, Morphology, Rhetoric, Fiqh (Principles of Islamic jurisprudence) and Recitation" (Al-Suyuti, 1995, 462). Collecting the scattered verses and versions of the Quran also happened in several courses. The first course named the first collection, each of the companions of the prophet (al-sahābah) could have heard and kept some part of the Quran. The concept of collecting unanimously agreed to have the meaning of hearing and remembering⁵. Putting it into written forms, although happened in the case was not prevalent (Ramyar, 2019, 211-212). The second course, after the death of Muhammad and cessation of revelation, took the ownership of the Quran from

sporadic collectors (Hufaz) and gave it to a single codex (Mushaf). Following the Battle of Yamama and the killing of so many collectors and reciters, made it clear that both those who owned the verses and their lifetimes were limited. Although the collection of the Quran became essential after Muhammad's death, and although all the caliphs tried to introduce one and only written compilation of the Quran, according to the oral tradition of the Islamic population, recitation used to be the omnipresent way of transmission for decades. With every step of the spread of Islam and annexation of various lands and conversion of different people with different languages and dialects, the potential contentions in reciting grew and became an issue. The result was the agreement on several definite recitations⁶. Contentions in recitations gave rise to orthographical contentions7. Hence, dots and diacritic marks8 of Mushaf and the science of I'jam became necessary.

Genesis of I'jam

There are two main narratives of the early genesis of dots and diacritic marks9. First, it is about verse 9:3 "that Allah and His Apostle repudiate the polytheists", which can be read to "that Allah repudiates the polytheists and His Apostle" by changing the pronunciation. Consequently, Abu al-Aswad al-Du'ali asks for a scribe and invents a system to differentiate the consonant and vowels according to mouth positions (ibid., 534). The second narrative is about Hujjaj, who by finding turmoil in Quran "told the scribe to put diacritics on the similar graphemes to facilitate reading" (ibid., 536). I'jam was the science of resolving these contentions. Abu Bakr Ibn al-Sarrāj explains I'jam genesis and says that "what necessitated diacritics was the mistakes of the reader -in case of similar graphemes-, e. g. 'Jamal and Hamal' (جمل حمل) could not be distinguished without dots" (Ibn Sarrāj, 2009, 8). The competitive argument was that any kind of diacritic marks can cause Tahrif (distortion) in Quran. Abū Dāwūd al-Sijistānī asserts that "I told to Ibn-Zarrin: Write like this and that [with diacritics], he replied: I am afraid, these reforms continue and the people think that it has been revealed from the sky" (Kazemi, 1995, 97). In both arguments, preserving the authenticity of the Quran is an axiom. The former, by maintaining the unchangeability in content and the latter in form. I'jam keeps the concept and content authentic and Tajrīd (perfection) keeps the form (Ibn Abū Dāwūd, 2002, 513). Formal perfection in the Quran (consist of marks, illuminations, and decorations) did not last long, but I'jam persisted for centuries.

Al-Fayoumy in al-Misbah al-Munir states that 'Ujmah in speech is an impediment and the absence of eloquence, and I'jam (of the same root) means to treat stammering and achieving fluency (Al-Fayoumy, 1997, 205). I'jam is commonly used for texts and means differentiating the grapheme with dots and diacritic marks. One can say that its function is to distinguish between letters and words to resolve the ambiguity and make the text accurate in writing and reading. More generally, anything concerning the script, which can bring impediment and non-fluency can be included in I'jam. In (historical) fact, I'jam consisted of the shape of the letters, as well as dots and diacritics.

Formation of Khattati in Islam

Ibn Sarrāj in the treatise of al-Naqat' o al-Shakal' (putting dots and diacritic marks), to differentiate the graphemes and to find a general rule for reading them identifiably, points out several letters which are similar in shape. The attempt to differentiate similar graphemes is a critical moment in the formation of script-khattati-calligraphy. Excluding Hamza and Alif (من ف) the rasm in some letter groups Bā', Tā', Tā', Cāy (ب ت ث), Sīn, Šīn (س ش), Ṣād, Dāl (أح ث), Rā', Zāy (أح ث أ), Sīn, Šīn (أح ث أ), Sād, Dād (أح ض), Tā', Zā' (أح ث), and 'ayn, Ġayn (أ ع غ) are exactly the same. But some groups of letters are almost the same: "Fā', Qāf (أح ف): when joined to the next letter are the same and they can be differentiated by one dot on Fa' and two dots on Qāf. Their difference in the isolated positional form is that Qaf will curve downward and Fā' stretches" (Ibn Sarrāj, 2009, 17). The moment of differentiating between $F\bar{a}^{\,\prime}$ and $Q\bar{a}f$ with curves and stretches is a khattati(c) moment, which was proposed first to resolve ambiguity. As we mentioned before, just like Tafsir and I'jam, the contentions in interpretation and recitation can be the source of new fields and disciplines. Khattati(c) genesis also began with the very first mistake and misgiving in reading the script. Another point is about Ibn Sarrāj is the way he categorizes the letters by their similarity and the possibility of reading mistakes. Some of them can be found in which the khattatic moments are made bold.

formal categorizing of letters based on the possibility of reading mistakes:

• Kāf, Lām ($2 \leq 3$): according to their difference in shape, there is no need of adding dots.

• Mīm, Wāw ((); (): the difference between the final or isolated Mīm with Wāw is that the former is a small circle attached to a bent line resembling the back (concave), but Wāw is a small circle attached to a bent line resembling the belly (convex).

• Hā', Mīm (~ •): their difference –as they are in fact both circles- is that the circle of Hā' in initial or medial position parts in half by a line, and that is why differentiated with Mīm. And the final position their kinds of bending makes them different.

 Yā', Nūn (کی ن): the difference is the final position, in which Yā' returns and Nūn bents and curves.

• Zāy, Nūn (ز ن): their difference, when they bend and the curve is that the curve of Nūn –at the scribe's scale and his writing habits- is larger and wider than Zāy.

One century later, Abū 'Amr al-Dānī points out some items that these similarities and differences are not the same as those of Ibn Sarrāj. But the rules are still based on the sublation of the formal contentions between graphemes. Al-Dānī quotes Khalīl Ibn Ahmad that

Qaf in an isolated position needs no dots, because it is larger than Waw, and being larger suffices. That is, they were similar in rasm and differ only by size. Kaf needs also no dots, while it is larger than Dal and Dal. It means that they were also similar, while Ibn Sarrāj, a century ago had said that Kāf resembles no other shapes. About Mīm, Khalīl says that it is unique, but Ibn Sarrāj differentiated between Mīm and Wāw by their kind of bent lines. According to Khalīl, Nūn, and Lām, in the joint position look like Bā', Tā', and $T\bar{a}$ and in isolated position resemble $R\bar{a}$ and $Z\bar{a}y$. However, being larger than Ra³ and Zay, it makes them needless of dots. Ibn Sarrāj had also mentioned the resemblance of Nūn and Zāy, but not that of Lām and Zāy, while Lām is completely identifiable in his eyes. For Khalīl, Hā' is unique, while for Ibn Sarrāj it resembles Mīm, with a difference of its circle being separated by a line (Al-Dānī, 1986, 36).

Ibn Sarrāj points out a moment, which is basic to the formation of Khattati. He asserts that "the author of these shapes derived them from a line, a circle, and a curve of a circle, and if you yourself scrutinize..., you will find it out. He then had combined these three and made the letters out of them" (Ibn Sarrāj, 2009, 16). Ibn Muqla, who was contemporary with Ibn Sarrāj, conceives and analyzes calligraphy with the same rationale. According to this rationale, the script will be subdivided into the smallest possible unit; words into letters, and letters into basic elements. The basic elements are undividable from the similarity point of view of the elements, which means that they are completely distinguishable. Hence, According to Ibn Muqla, the basic elements of graphemes are Muqavas (curved), Muntasib (risen), Munnahin (bent), and Munsatih (flattened), which differ from each other but are similar in their repetition (Fig. 1).

Al-Qalqashandī in Ṣubḥ al-Aʿshá, based on the same rationale and two narratives from Ibn Muqla and Ibn 'Abd al-Salam dedicated a chapter on the "rules of individual letters". He, as well as Ibn Muqla, not only used metaphors to name the elements but also

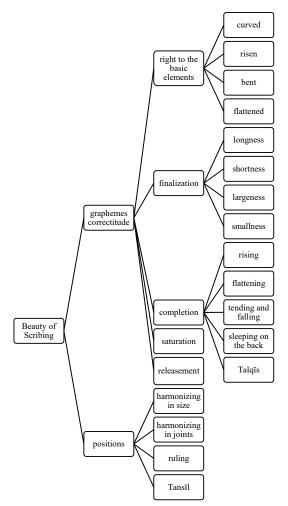


Fig. 1. Ibn Muqla's analytical framework of Khattati. Source: authors, based on Ibn Muqla, 1991.

scaled the letters (in size and surface) by dots. For him, each letter would be the combination of several concepts (basic elements of graphemes), in a phrase such as "it is a shape combined from three lines"; e.g. Bā' "Risen and Flattened"; Ğīm "tending and falling and half-circle [flattened]" (Al-Qalqashandī, 1921, 33-38). Letters are deconstructed, separated, and described by unique elements and their scaling system is based on dots¹⁰. It is interesting that since then, the similarities of the letters would be explained through these basic units. For example, Țā' is described "curved as the suspended Rā', and flattened as the released Bā'"; Wāw "on the head is like the head of Fā', and curved like Rā'". Hence, in khattati, the letters deconstruct to minor units and the graphemes would get the simpler but more developed form in their scalability and legibility. What used to be problematic for legibility got modified as a developed manual. Accordingly, we had three levels of analysis of graphemes. The first level includes I'jam in its common concept, and the second and third levels cover the I'jam in shapes (Table 1).

Abū Hayyān al-Tawhīdī in his treatise on the rules of scribing mentions ten axioms, which are conceptualized according to same logic: Tahqīq, Tahdīq, Tahwīq, Taxrīq, Ta'rīq, Tashqīq, Tansīq, Toufīq, Tadqīq, Tafrīq. From all the above, Tafriq stresses the "differentiation of the letters and prevention of mistaking one for another, so that the shape of the letters differ from each other, but aesthetically resemble". The difference in shape and similarity in beauty are two features that have formed khattati. Tadqīq means "narrowing" and refers to the release of the final letters. Toufiq means "harmonizing" and refers to the order of lines and uniform ruling. Tansīq is the identical consideration of the graphemes, positionally and aesthetically. Tashqīq is "the appropriation and equivalence of letters such as Ṣād, Đād, Ṭā', Ṭā', Kāf, etc. to have correct and beautiful shapes". Consistently, these letters would be categorized in size in a group and would be identifiable from other groups like Dāl, Dāl, Rā', and Zāy. Ta'rīq is the lettering of final Yā' and Nūn in the recurring combinations such as Man (of, from, who), 'An (about,

on, that), Fī (in), Hatta (even, to), Ela (to), and Ala (on, high), while their homogenization can constitute the script. Taxrīq means tearing the mouth in 'Ayn, Ġayn, and Hā', in a way it becomes legible for everyone, including those with "poor eyesight and perception". Tahwiq refers to the curves of the head of Fa', Qaf, and Wāw, which are different in form from those of Mīm and Hā'. Tahdīq refers to the eye socket shape of Ğīm, Hā', Hā', which should be open enough to be distinguishable from the returning $Y\bar{a}^{\prime}()$. Tahqīq, which is the main axiom refers to all of the shapes and means to formally amend the letters in such a way that "when observed at a distance, smiles at you or looks like a beautiful garden full of flowers". Interesting thing is that Tahqīq, for Sufis is the "representation of God in the form of holy names", and here it refers to the totality of the script and "the clarity of letters ... in a joint or isolated position, extended or shortened, and their curves and kerning" (Tawhīdī, 2000, 7-11).

Ibn Durustawayh categorizes graphemes in Kitāb al-kuttāb and describes some forms metaphorically: Mahzuf (shortened in initial and medial Bā', Sīn, and Ṣād (جب به); Mamtut (stretched in final and isolated Bā' (جب به); Mu'araq (curved for Ḥā', Rā', Ṣād, Sīn, Nūn, Wāw, Qāf, Mīm, Lām); Maftuh/Muqafal-Mu'aqaf (opened/closed »in the head's part«-bent »in the returning part« of 'Ayn); Mu'araq Memliya (curved laid in Yā'); Mashkul/Mu'ara (tied/untied in

Table 1. Grapheme's categorization placed on the logic of I'jam. Source: authors based on al-Qalqashandī, 1921.

Grouping	Simple Substances
28 letters	Alif (لك), Bā', Tā', Ṭā' (ب ت ث), Čīm, Ḥā', Ḫā' (ج ح خ), Dāl, Dāl, Dāl (د ذ), Rā', Zāy (م ن ئ), Sīn, Šīn (س ش), Ṣād, Dād (ص ض), Ṭā', Ṭā' (ر ز), 'Ayn, Ġayn (ز ز), Fā', Qāf (ك ل), Mīm, Wāw (م و), Yā', Nūn (ن ن), Kāf, Lām (ك ل), Hā' (ه)
19 positional form	ا – 222 – 233 – رر – سیس – صصص – طط – عقع – ^{وووں} - ق - کک – للل – ممم – ن – ههه – ∠ - ی – لا
5 basic units	Muqavas (curved), Muntasib (risen), Munnakkab (tended and fallen), Munsatih (flattend), Mustalaq (lied on the back)

Kāf in medial position/isolated); Musalath/Mustadīr-Mahzuf Mamtut (triangular/circular in the head's part Fā', Qāf); Mashqus (parted in two in Hā'). Mu'araq can be placed under three categories according to the size of the curve: large curved (Sīn, Šīn, Ṣād, Dād, Qāf, Yā', and Nūn); medium curved (Mīm and Wāw); small curved (Rā', Zāy). About the vertical stroke of Bā', Tā', and Yā' when they are joint together, he asserts that to be differentiated by Sīn, one of the strokes should be written higher¹¹. In addition to the rules of individual, joint, and stretched letters, finally, he finds the beauty of letters in their uniformity and isodiametricity (Ibn Durustawayh, 1921). This is the same principle as Tawhīdī's "different in body shape and similar in beauty forms" (Al-Tawhīdī, 1951, 33).

Configuration of the script in viewer's eye

Al-Tawhīdī quotes Ali ibn Ja'far that "the shape of letters are hidden in hands". Here we tried to show that the shapes are hidden not in the hands of the scribe, but the viewer's eye. Actually, it is the viewer's discrimination that configures the script and forms Khattati. Again according to Tawhīdī quoting Omar ibn Khattab "the most beautiful script is the most distinctive one, and the most distinctive script is the most beautiful one" (ibid.). Being distinctive implies the script casting in the viewer's eye socket. To indicate the importance of distinctiveness in Khattati, from the remained script samples of around the first century AH, we extracted the similarities between the letters (Table 2). These similarities were the source and drive of I'jam and the formation of Khattati.

Undeniably, the similarity of Dāl and Kāf is the main contention of this period. Gruendler in her study of the development of the Arabic scripts, from the Nabatean Era to the first Islamic century according to dated texts showed the evolution of individual letters (Gruendler, 1993). According to the similarity of Dāl and Kāf in early Arabic scripts, we extract them from her tables in evolutionary order. It is obvious that almost every Nabatean-Arabic text Dāl and Kāf is the same as the

following evolution¹² (Fig. 2).

What we proposed here is the reverse process of what Gruendler applied to the texts. For us, in order to resolve the misgivings, the letters have differentiated gradually and formed Khattati, but for Gruendler the letters are pursued retrospectively in time to find the similarities and therefore their roots. Although the Arabic script has maintained its Nabatean origins, the Islamic Khattati has formed since the mid-first century. Around this time Dāl and Kāf in Qurra papyri, epigram of the Dome of the Rock, milestone of 'Abd al-Malik, and Stone inscriptions of Mecca had been differentiated mostly. Every Attempt to reduce the similarities of this kind is an attempt to form khattati¹³.

Reading and Legibility

Hitherto we declared our problem statement on the similarity of graphemes and the probability of misgiving. From an orthographical point of view, it is called legibility. Alan George opens a discussion under the title of "economy, orthography and legibility", but just mentions the dots and diacritics marks and conceives legibility as kerning (George, 2010, 43-46). Habibullah Faza'eli, in his six-phased periodization of calligraphy, suggests a vague conception of the first period as relating to I'jam (Faza'eli, 1971, 5). Although he also mentions diacritics and not the shapes of letters, diagnosing it as the "early evolution" is of significance. Ibn Khaldun also discusses the script and legibility and suggests that "perfection of script and speech is in their clear and identifiable implications ... and also when their shapes in rasm will be separately beautiful and distinguishable." (Ibn Khaldūn, 2003, 174). We can also touch I'jam, legibility, and their role in the formation of Islamic calligraphy from a different perspective. For a contemporary outsider viewer, deciphering the inscriptions or classification of them follows the reverse process of khattati formation. Samuel Flury's deciphering methodology of Islamic ornamental inscriptions is an interesting experience (Flury, 1912). In Flury's method, the letters are

Material	Title				Similar	graphemes			
Inscription	Jabal Usays pre- Islamic 528 CE		Rā', Zāy different from Nūn		Alif and Lām				
Inscription	Harran Pre-Islamic 568 CE	Dāl here resembles Kāf in Jabal Usays	Rāʾ almost similar to Lām	Initial and medial Qāf and Mīm	1711	Initial Sīn,Bā' ,Yā'			
Inscription	Umm Al- Jimāl pre- Islamic 5 th or 6 th	Dāl and Kāf		مقم	1771	ڊ پ			
Inscription	Tombstone Of 'Abd al-Raḥmān Ibn Khair, 31 AH / 652 CE	Dāl and Kāf د ک	Rā [°] , Zāy almost similar to Nūn	مةم Somehow identifiable by baseline position	1111	ڊيس Similar also to Alif and Lām			
Inscription	Dam Built By Muʿāwiya, 58 AH / 678 CE	Dāl and Kāf	Rā', Zāy almost different from Nūn	Initial and medial Qāf, Mīm, Fā'	ان المو	^{دیس}			
			انطد	عفر					
Epigraph	Dome of the Rock 72 AH	Dāl and Kāf – mostly different in size and serif	Rā', Zāy almost different from Nūn (except in the last two later- added lines)	فققر Initial and medial Qāf, Mīm, Fā' almost identifiable by baseline position	Serif turns left or right on the baseline	InitialBā' and Yā' different from Sīn by vertical stroke's height	Ţāʾand Kāf ط	Şād and Nūn In releasment ص ن	
Inscription	'Abd al- Malik's Milestone 73 AH	Dāl and Kāf different in size and serif	Rā', Zāy a bit different from Nūn	فققم	1771				
Inscription	South of Makkah Qur'an 4:87, 38:26, 80 AH	Dāl and Kāf – mostly different in size and serif	Rā', Zāy different from Nūn	فققم	1771	ذ ي مد		Ṣād, Nūn, and Lām In releasment	

Table 2. similar graphemes in the early Arabic texts. Source: authors.

ص ن ل

Continued of table 2.

Material	Title			Similar graphemes						
				8 . I						
Coin	,Abl al- Malik Dinar 77 AH	د ذ ک	Rā', Zāy and Nūn ن ر ز		1111	ذي سد	Ṭāʾand Ṣād صدط		Mīm, Hāʾ	
Papyri	Statement of amir al- Jarrah ibn 'Abdallah 22 AH PERF 558	د ذ ک	Rā', Zāy different from Nūn	فققم	Even similar with Yā' in case	ن ي سر		Sīn and Nūn In releasment س ن	4 م	
Papyri	The Qurra Papyrus tax demand 91 AH APEL III,161 PSR I,V PSR I,I	دذ کی Kāf infrequently different by size	Rā', Zāy different from Nūn	فققم	11()	InitialBā' and Yā' different from Sīn by vertical stroke's height	Ţā'different from Şād	Sīn, Nūn and sometimes Lām س ن ل		Hైā Rā در
Papyri	Letter from Qurra ibn Sharik to the sovereign of Asuh 91 AH	دذ ک	ن رز ل	ففققم روا	Ju	ذیس				
Papyri	Letter from Divastich to the amir al-Jarrah 99-100 AH	Dāl, Kāf and 'Ayn	Rā', Zāy, Nūn and Wāw	فقمه	رين ۱۱	InitialBā' and Yā', Sīn, Lām				
Folio	Quranic fragment 11:5- 11 First Century AH CVA1605	د ذ ک	Rā', Zāy different from Nūn	فقم	7771	ذ ي س		Şād, Sīn and Nūn In releasment		Hైā', Bāʾ ב ب ت
Folio	Quranic fragment 24:59-64 1 st -2 nd AH KFQ59	د ذ ک	Rā', Zāy different from Nūn	فقم In cases identifiable by baseline position	1771	ن ي س		ن س ض In releasment		

Dāl	٦	F	Ľ.	Ţ	Л	Л	Ą	S	J	بر	N
Kāf	٦	<u>ן</u>	F	Ņ	J-	ט	5	5	L	Z	J.

Fig. 2. Genesis of Dal and Kaf from Nabatean to Arabic. Source: authors based on Gruendler, 1993.

categorized into 18 groups according to their visual similarity: " $1 = alif; 2 = b\bar{a}$ ', $t\bar{a}$ ', $th\bar{a}$ '; $3 = dj\bar{l}m$, $h\bar{a}$ ', $kh\bar{a}$ '; 4= dāl, dhāl; 5= rā', zāi; 6= sīn, shīn; 7= Ṣād, Dād; 8= tā', zā'; 9= 'ain, ghain; 10= fā', qāf; 11= kāf; 12= lām; 13= mīm; 14= Noūn; 15= hā'; 16= wāw; 17= yā'; 18= lām.alif." based on these categorizes "the alphabetic tables are so arranged that for each group of letters, we put the simple form first in line and the most complicated at the end. So, we will have a clearer image ... Numbering the letters in this way permits everyone, even non-Arabs or someone who does not know the characters, to appreciate the evolution of epigraphic alphabets" (ibid., 237-238). Built on this methodology, Lisa Volov, reading plaited Kufic on Samanid epigraphic pottery, suggests a more general classification. Letters are categorized in five basic forms: I. Vertical (alif, lām), II. Rectangular (dāl, dhāl, kāf, sād, dhād, tā', zā), III. Round (mīm, fā', qāf, hā', wāw), IV. Low (rā', zāi, noun, wāw) and V. Oblique ('ain, ghain, djīm, hā', khā') (Volov, 1966, 112). Visual classification of Flury and Volov is important to us because, in their attempt to read the complicated Kufic inscriptions, they found the most basic form of the letters and then categorized them in such a way to propose a rule for reading the inscriptions. Finding the differences and similarities, for them is a method to regulate the inscription reading, which is in fact an exploration of the roots in the genesis of Islamic khattati¹⁴.

Conclusion

The origin of Islamic khattati and its prevalent forms

and styles returns to the first century on the seedbed of contentions in the completion and regularization of the Quran. Khattati formed as the result of I'jam, in a more general sense, and evolved diversely. The similarity in letters and the possibility of misgiving in reading necessitated the differentiation of individuals and the formidability of forms. Accordingly, Khattati is configured on the perception of the viewer and structured systematically. This evolution is of significance from different aspects. First, it suggests the recollection of the history of Islamic civilization, in such a way that contributes to understanding the socio-historical structures and mechanisms to the historical necessities, contentions, and any systematic attempt to resolve them. Secondly, in such a manner of historical perception, in addition to the representation of the individuality of a genesis based on its immanent dilemmas, it can also stretch our contemporary horizons of forming our civilizational individuality in the course of our confrontations with our necessities and contentions. Finally, in a reverse process in I'jam, by finding the similarities of graphemes, we can extend the methods of classification, paleography, codicology, calligraphic periodization, and decipherment.

Endnote

4. For an immanent conception of the history of exegesis and interpretation

^{1.} Al-Balādhurī says that "three people from Tayy gathered ... and constitute the script, and scaled Arabic grapheme on Syriac grapheme". (Al-Balādhurī, 1956, 597 v 3)

^{2.} See Sheila Blair's Chapter "The Standardization of Arabic Script" in Islamic Calligraphy (Blair, 2006); also Beatrice Gruendler topic "Nabatean or Syriac?" (Gruendler, 1993, 1); or Alain George's chapter "Looking for the origins" (George, 2010, 21); find more on the debate here (Abbott, 1939); (Grohmann, 1971); (Briquel-Chatonnet, 1997); (Starcky, 1966).

^{3.} The same approach supported by (George, 2010, 27).

in Islam see (al-Suyuti, 1995).

5. One of the main characteristics of this era is the prevalence of recitation comparing to writing. See Arthur Jeffery introduction to Kitāb al-Masāhif of al-Sijistānī (Houshmand, 1995, 27); also (Duri, 2015, 70) and (Rosenthal, 1968, 20).

6. See Arthur Jeffery's periodization of evolutions of the contentions over different recitations (Houshmand, 1995, 9).

7. For the debate on historical precedence of contentions of recitations in comparison to writing see (Shebeli, 1980, 87)

8. Diacritics marks are « , , , , which are called Tashkīl in Arabic and differs from I'rāb. See (Mayel-Herawi, 2000, 273)

9. Historically I'jam evolves from the first century and finds its developed form during the third century AH (Ackerman & Minawi, 2008, 1969)

10. De- and reconstruction of letters became a prevalent methodology in different treatises. In Tohfat al-Mohebbīn, the author had also translated and described some of these main unfamiliar concepts into Farsi (Seraj Shirazi, 1995, 272-273).

11. François Déroche finds this rule in his paleographical studies: "when the same three letters occur in the middle of a word, their basic shape -a short vertical stroke- is the same as that of nūn and yā'. When three of these five letters appeared in a row, as in the word baynahum, they were a limited attempt to differentiate between them by varying the heights of the three strokes. This precluded any confusion with the letters sīn and shīn, which are both written at the beginning and in the middle of a word as three short vertical strokes of equal height." (Déroche, 1992, 15)

12. Rā' had also the same evolution with Dāl, but starts to change and gets close to Nūn since then.

13.. Déroche explains this evolution from a different perspective: "During the 7th century ... Inscriptions show that attempts were made to regularize the Arabic script and to turn it into a vehicle suitable for the decoration ... The fluctuations observed in these hands suggest that the copyists were more concerned with the transmission of the Qur'anic text than with the external appearance" (Déroche, 1992, 27-28). The most important missed point in the last phrase is that it is exactly 'the [correct] transmission of the Qur'anic text' that regularized and formed khattati.

14. We can refer to two other similar attempts. François Déroche tries to classify script styles based on the shape of letters. He excludes similar letters and chooses those with "most significant variations": "the independent and final forms of alif; the medial form of 'ayn/ghayn; the final form of mīm; the final form of nūn; and the medial form of hā' (Déroche, 1992, 15). Estelle Whelan's art-historical method of classifying the early manuscripts (in two groups) includes also the shape of letters. The tail of qaf in group I which is in form of dāl/dhāl is considered as one of the main features in comparison to group II. She also stresses the similarity of the tails of sād and sīn and sometimes nūn and yā' in both groups. She also notices that "the similarity between dāl/dhāl and kāf may at first cause some confusion", but keeps it out perfunctorily (Whelan, 1990, 114).

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