

Graphemological Features of The Sogdian “Ancient Letters” Script

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Abstract: This article is devoted to the formal features of the letters and the archaeogrammatological analysis of the Sogdian letters known in scholarship as the “Ancient Letters”, discovered in the territory of Dunhuang (China) and dating to the first quarter of the 3rd century CE. In the study, the graphic forms of each letter are analyzed following their sequence in the alphabetic system. During the research, the letters were compared with their similar features in the Aramaic, Parthian, and Khwarazmian scripts. Where necessary, variants of letter combinations are also presented in the text in the form of tables. The article also provides information about the discovery of the “Ancient Letters”, their dating, and the scholars who studied these documents. The study consists of an introduction, the main research results, and a conclusion. In the conclusion, the authors suggest that the “Ancient Letters” were influenced by the lapidary tradition of Sogdian writing, which began in the 3rd–2nd centuries BCE (writing each letter in an independent form without connecting them in the text), and that they represent an example of the initial stage of cursivization in the history of Sogdian writing culture.

Keywords: Dunhuang, cursive script, archaic, W. B. Henning, graphemological, form, Sogd.

Introduction: In studying the history of the peoples of Central Asia in the early Middle Ages, Sogdian sources occupy an important place. Especially, documents written outside historical Sogd, including the collection of documents known in scholarship as the “Ancient Letters”, provide important information about the activities of the Sogdians in China.

The “Ancient Letters”, written on Chinese paper and discovered in 1907 by Aurel Stein (six letters fully preserved and three fragmentary), are Sogdian letters dating to 313–317 CE. They were found at a watchtower of the Great Wall of China (T. XIIIa) west of Dunhuang and were intended to be sent from Dunhuang to Samarkand (a distance of about 3800 km). Today they are preserved in the British Museum in London.

The letters contain information about the Sogdian merchant community (the name of the city is erased in

the letter), the Sogdians in Luoyang, the city of Samarkand, and the trade routes from Dunhuang to Sogd. Specialists who studied the “Ancient Letters” emphasize that names like those of these merchants are also mentioned in the documents. The analysis of these sources further clarifies that Sogdian merchants traveled along the Silk Road for trade with China and India. The “Ancient Letters” also provide information about the Sogdians, the land of Samarkand, the Kushans, the Maymurg people, the people of Kesh, and foreign merchants in China.

The date of the “Ancient Letters” was determined by the Iranologist W. B. Henning, who based this on the capture of the cities of Ye in 307 and Luoyang in 312. This opinion was also supported by V. A. Livshits, F. Grenet, and N. Sims-Williams. J. Harmatta proposed that the date of these documents belongs to 196 CE and attempted to make this date more than a century earlier. In our opinion, the interpretation of W. B.

Henning is correct, as it refers to the historical events connected with the attacks of the Hun tribes and the burning of the city of Luoyang. This corresponds to the historical processes of that period. At that time the Sogdian cursive script had not yet been fully formed, which is shown by the analysis of the text of the “Ancient Letters.”

The “Ancient Letters” were studied by H. Reichelt , W. B. Henning, V. A. Livshits , M. Ishakov , and N. Sims-Williams, and in these studies the meanings of the letters, their translations, and explanations are presented. By their nature, the “Ancient Letters” were written at a time when the Sogdian cursive script had not yet been fully formed. The formal features of the letters in them are interpreted as an important stage in the history of Sogdian writing of that period. Therefore, it is necessary to determine the graphemological features of the letters presented in the “Ancient Letters” and to take this into account in scholarly research related to the field.

MAIN RESULTS OF THE RESEARCH

The writing style of the “Ancient Letters” differs from one another. At the same time, they are graphically sharply different from administrative documents of the 7th–8th centuries or from Buddhist and Manichaean texts written in Sogdian script. This can be explained by the fact that the script of the “Ancient Letters” preserved relatively archaic features. However, despite

this, letter forms characteristic of later calligraphy from the 4th century CE onward are also found in the documents. In particular, the final forms of the letters *t* (ط ص), *p* (پ), *k* (ك), *c* (س) demonstrate this (Document III). Almost all letters have initial, medial, and final forms.

The “Ancient Letters”, by their characteristics, can show the connection between the ancient Sogdian (archaic) script and the cursive Sogdian script. In them, elements of Aramaic letters were preserved, and at the same time the process of forming the graphic shapes of the alphabet was taking place. In the “Ancient Letters”, the Sogdian written letters were on the verge of becoming cursive. In these documents the letters *(ayn), H, D, and Q* are expressed through Aramaic ideograms. The analysis of the paleographic features of the letters is important for clearly understanding the issue. The analysis of the paleographic features of the letters is important for clearly understanding the issue. During this period the Sogdian cursive script had not yet been fully formed, which is shown by the analysis of the text of the “Ancient Letters”. Only in some cases can the connection of letters with each other be observed. This appears mainly in certain letter combinations.

<i>tw</i>	<i>kw</i>	<i>rw</i>	<i>šw</i>	<i>pw</i>	<i>mw</i>	<i>nw</i>	<i>čw</i>




The connection of letter combinations through a hook-like linking form is also found in the Sogdian documents from Mount Mug.
















<i>kw</i>	<i>kt</i>	<i>pw</i>	<i>pt</i>	<i>pr</i>	<i>tw</i>
















Especially, this situation can be observed in word combinations ending with the letter **w**. Also, when letters occur next to each other, combinations such as **zn, nz, 'w, ZK, ZKZY, βr, βk, 'k** are written together. However, the regular joining of letters, that is, a smooth continuous cursive script, is not characteristic of the text of the “Ancient Letters”. This shows that the Sogdian script in the “Ancient Letters” had not yet reached a fully cursive stage. Each time a letter or a letter combination was written, the scribe lifted the hand from the writing and then began a new







movement to write the next letter.




The letter ' (āleph) appears in different forms in the “Ancient Letters”. In the letters, the initial, medial, and final forms of the letter are also presented. In Document I it occurs in the forms (initial), (medial), and (final); in Document II it appears in the forms (initial), (medial), and (final); in Document III it is shown in the forms (initial) and (medial) (media); the forms of the letter in Document IV are as follows: (initial), (medial), and (final); in Document






V it appears in the forms  (initial),  (medial), and  (final); in Document VI the initial form of the letter is not recorded.














In the document, the medial () and final () forms of the letter are known. In Letter VII, the letter a appears in the forms  (initial),  (medial) and  (final). The forms  (бош),  (ўрта),  (якун) are characteristic of Document VIII. In the last of the “Ancient Letters” (IX), the initial form of the letter does not occur. The (, ) ва якуни () forms of the letter are known. The initial form of this letter appears almost the same in nearly all documents and has preserved its independent shape. It is noted that the letter changes in the medial and final parts of the word. Despite appearing in different forms, the letter is close in shape to its early Aramaic form () , the form used during the Achaemenid Empire (550–330 BCE) () , and the form found in Aramaic inscriptions from Elephantine () (an island in the Nile River) () .
















The letter β (bēth) in the “Ancient Letters” is characterized by appearing in different forms: in Document I ; in Document II. ; in Document III ; IV- in letter ; V- Document ; VI- and VII- documents  appears in the following forms. This letter differs considerably in form from its Aramaic predecessor (, , ). Some forms of the letter in Parthian (, , ) and Khwarazmian (, , ) are like the form found in the “Ancient Letters”. The medial and final forms of the letter in this group of documents do not differ significantly from its main form.







The initial form of the letter γ (gimel) is not presented in Document I. The medial (, ) and final (, , ) forms of the letter are recorded in this document. The form of the letter in Document II is like the previous one, almost identical. In Document III only the medial form () is given, and its external appearance differs slightly from the previous ones. In this case, the letter appearing in the middle of the word has a “tail” connected from the left side. In Documents IV–IX of the “Ancient Letters”, the external appearance of the letter γ does not differ greatly from the forms presented in the other documents.

The letter d (dālet) appears only once in the “Ancient Letters” as () (Document VII). This letter occurs rarely in the documents. The Aramaic form of the letter (, )

) appears more like a sign and resembles its Phoenician predecessor (, , , , ) According to specialists in the field, the absence or very rare use of the Sogdian letter d is explained by the fact that there was no sound corresponding to this letter in the Sogdian language. The functions of this dental plosive letter were transferred to the fricative letters δ and θ. These voiced and voiceless fricative sound pairs in the Sogdian language are produced at a narrow articulation point between the upper surface of the tongue and the upper palate while the tip of the tongue touches the lower row. As a result, the graphic representation of these two sounds was assigned to the sign (lāmedh). The sounds δ and θ are distinguished intuitively when read in the text

In the “Ancient Letters”, the letter h (hē) is used only at the end of words and appears in the following forms:  (I);  (II); ,  (III);  (IV); ,  (V);  (VI);  (VII);  (VIII). In Document IX this letter does not occur. At first, this letter was depicted based on a long line with lines attached from two sides, but later it developed into a closed form as seen in Documents III and V. The ancient Aramaic form of the letter () , the form from the period of the Achaemenid Empire () , and the forms found in the documents from Elephantine Island () “differ considerably from the form in the “Ancient Letters”.

The letter w (wāw) in the “Ancient Letters” appears in open and closed forms. The open forms of the letter , , ,  (II) and the closed forms, ,  (III); ,  (IV) are recorded. There is also a U-shaped form of the letter w ,  In depicting the closed form of the letter, because of connecting it with the preceding and following letters, variants with two downward branches (, ) also appeared. In the “Ancient Letters”, the letter w (wāw) passed through the stage of transition from its open form to a closed form. In earlier Aramaic () , Parthian () , and Khwarazmian () written monuments, the letter appears only in its open form, which confirms this.

The letter z (zayin) in the “Ancient Letters” appears in a graphic form close to its Aramaic predecessor. In Aramaic, the letter z had an independent graphic form, but later forms connected with other letters (, ) appeared. In the “Ancient Letters”, this letter appears in the following forms , , ,  , The Aramaic

forms (𐎧, 𐎨, 𐎩) and the Khwarazmian forms (𐎧, 𐎨, 𐎩) of the letter are close in appearance to the variant found in the Sogdian “Ancient Letters”.

The letter x (Aramaic ḥ – ḥeth), which took its formal basis from the Aramaic (𐎧, 𐎨, 𐎩, 𐎪), Parthian (𐎧, 𐎨, 𐎩), and Khwarazmian (𐎧, 𐎨, 𐎩) letters, appears in the “Ancient Letters” in a form clearly distinguished graphically from the letter y, which was used interchangeably in later Sogdian sources. In the “Ancient Letters”, this letter is written in the following forms: 𐎧 (I); 𐎨 (II); 𐎩 (III); 𐎪 (IV); 𐎫 (V); 𐎬 (VI); 𐎭 (VII); 𐎮 (VIII). In Document IX, this graphic form does not occur. In all scripts, the basis of the letter’s form is a wavy shape directed to the left. The diversity of this grapheme may be explained not only by the different styles of the scribes but also by the fact that it had not yet reached a state of graphic unification.

In the document, the letter y (yōdh) has a single graphic form with the shapes 𐎮, 𐎯, 𐎰. These graphic forms continue the graphic features of the Aramaic letter y (yodh) (𐎮, 𐎯, 𐎰, 𐎱, 𐎲).

In the “Ancient Letters”, the letter k (kāf) appears in the forms 𐎳, 𐎴, 𐎵, 𐎶, 𐎷, and it does not differ greatly in shape from its Aramaic predecessor (𐎳, 𐎴, 𐎵, 𐎶). These graphic forms of the letter k were preserved throughout the period of the Sogdian script. This can also be observed in the ancient graphic forms of the Khwarazmian script (𐎳, 𐎴, 𐎵, 𐎶, 𐎷, 𐎸).

For the sounds δ/θ, the letter δ (lāmedh) used in the form l (lāmed) is presented in several different forms (𐎹, 𐎺, 𐎻, 𐎼, 𐎽). The Aramaic predecessor of this letter appears in the forms 𐎹, 𐎺, 𐎻, 𐎼, 𐎽, and the form in the “Ancient Letters” is characterized by its graphic diversity.

In the letters, the letter m (mēm) (𐎿, 𐏀, 𐏁, 𐏂, 𐏃, 𐏄) continues its Aramaic form (𐎿, 𐏀, 𐏁) without significant change. The formal difference of the letter m in Sogdian manuscripts is related to the adjustment (or adaptation) of the direction order (duct) in cursive writing (𐏃, 𐏄, 𐏅).

The letter n (nūn) in the “Ancient Letters” is simplified compared to its Aramaic predecessor. The letter has the forms 𐏆 (initial), 𐏇 (medial) and 𐏈, 𐏉

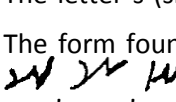



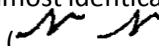
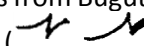


(Document III). It is known that three forms of the letter 𐏆, 𐏇, 𐏈 are also reflected in Document VI. In Document V, the final form of the letter n, used at the end of a word 𐏉, occurs.

The letter p (pē) in the “Ancient Letters” appears in three forms – open (𐏊, 𐏋), closed (𐏌, 𐏍, 𐏎) and angular (𐏏). The initial, medial, and final forms of the letter are not recorded. The open form of the letter was characteristic of its Aramaic predecessor (𐏊, 𐏋, 𐏌, 𐏍, 𐏎, 𐏏, 𐏐). Apparently, the letter p in the “Ancient Letters” passed through a process of transition from an open writing form to a closed form.










The letter c (Aramaic ṣ – ṣādē) in the “Ancient Letters” appears in several forms (𐏑, 𐏒, 𐏓, 𐏔, 𐏕, 𐏖, 𐏗, 𐏘). In the later development of the Sogdian script, the forms 𐏑, 𐏒 became the basic ones (initial, medial, and final). The Aramaic letter ṣādē (𐏑) later began to be used to represent the letter č. Graphic differences began to appear in the initial and medial forms of the letters x (𐎧, 𐎨, 𐎩) and y (𐎮). In the words of the text, it is also noticeable that the letters are mostly written without being connected to each other. In some places, however, two or three letters are written in a connected form.

The letter q (qōph) (𐏙) occurs only once, representing the number “100” (In Sogdian-Buddhist texts, the number 100 appears in the form 𐏙𐏙𐏙. The form 𐏙 is also found in a financial record written on wood discovered in Afrasiab.) (Document V). In this case, the sound “q” is expressed in cursive as a double kāf form, that is “k + k”. In other words, the letter “q” is represented by writing the letter “k” twice (one large and a smaller k placed below it). However, such a form of representation is characteristic of later Sogdian texts, especially for representing letters in the Uyghur script. Therefore, Sogdian sources in which the letter “q” appears can be dated to the second half of the 8th century.

The letter r (rēš) in the documents (𐏚, 𐏛, 𐏜, 𐏝, 𐏞, 𐏟) has partially retained a form similar to its Aramaic (𐏚, 𐏛, 𐏜, 𐏝, 𐏞) predecessor in terms of its graphic characteristics. Later, during the process of italicization, this letter (𐏚, 𐏛) was connected to the letter following it by a hook (a line connecting the letters). However, it can be seen that this appearance is preserved at the base of the letter 𐏚

The letter š (šin) is recorded in three different forms. The form found in Documents I, IV, and VI () differs considerably from the forms in Documents V and IX () and in Document VII (). The wavy line that forms the basis of the letter is characteristic of all three forms. The form in Document VII reflects the letter š in later Sogdian sources. For example, the shape of the letter is described as almost identical in the findings from Bugut (), Shatial (), and Afrasiab (). In the Sogdian epigraphic inscription found in Varakhsha, the medial form of the letter š () differs from the previous ones. There is a type of Sogdian script characteristic of Bukhara, and this form of the letter may indicate that. However, the form  served as the basis for all cursive variants.

In Sogdian documents, the Aramaic ‘ayin (in transliteration – ‘) no longer performed the function of a glottal stop consonant. Therefore, this letter was preserved in Sogdian texts only in Aramaic ideograms. In the “Ancient Letters”, this letter appears in the forms

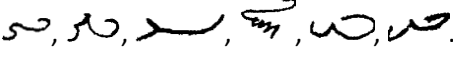
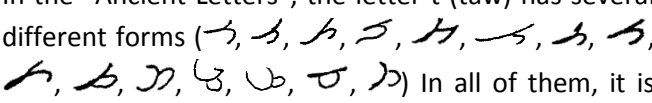
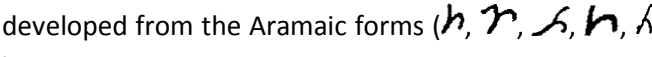
								
tw	pw	kw	rw	zk	nn	zn	pr	bt

CONCLUSION

In conclusion, it can be said that the Sogdian script in the “Ancient Letters”, in its general appearance, shows a rightward slant of cursive writing in the lines of text and indicates the speed of the scribes’ writing movements. However, under the influence of the lapidary tradition that began in the 3rd–2nd centuries BCE (in which each letter was written in an independent form without connecting them), the letters were not joined in most cases except for the pairs shown in the table. Based on this, the script of the “Ancient Letters” can be evaluated as an example of the initial stage of carinization in the history of Sogdian writing culture.

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.. In the “Ancient Letters”, the letter t (tāw) has several different forms (). In all of them, it is noticeable that the form is based on a slanted line attached to the letter from the left side and a semicircle or full circle on the right side. These forms of the letter developed from the Aramaic forms ().

In the “Ancient Letters”, the vāv grapheme is consistently written connected with preceding consonants such as **alef, β, t, p, k, ch, n, r**. This situation is often observed in the medial and final forms of the letters, where these digraph participants differ from their independent forms. These are letters that appear in sequence with angular elements or with rounded and loop-shaped elements located at the end of the preceding letters:

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