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ON THE DEVELOPMENT AND ORIGIN OF THE EAST TURKIC "RUNIC" SCRIPT*

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Although for the past three hundred years European scholarship has had information about the East Turkic Runic Script (ETRS) and it was almost one hundred years ago that V. Thomsen deciphered the script, there is still uncertainty about its origin. The theories hitherto proposed can be divided into two groups: most authors assume that the writing is of foreign origin, and many suppose a Semitic origin. Other authors argue that it is an indigeneous invention and suggest that it developed from ancient tamgas, and property signs. The two last papers on the origin of the ETRS, Clauson (1970) and Livšic (1978), excuse us from summing up the earlier opinions. Clauson suggested that the letters were modelled after old Iranian prototypes and completed with letters of Greek origin in their Hephtalite or Byzantine type. The writing was created by one man, perhaps a Sogdian for the purpose of writing Turkic. According to Livšic, all the letters are of Sogdian origin, and the creator of the script took the Sogdian letters and used one letter as a model for more letters, turning them, deforming them or adding diacritics. Neither of the hitherto suggested hypothesises is convincing. Their common weakness is that they do not give an answer to the unique inner structure of the script and do not take into consideration the inner development of the script. They suggest (different) foreign models for each letter and exclude the possibility, present in most of the scripts, that some of the letters are innovations.

The only scholar, who tried to give an answer to the seemingly odd structure of the script was Pritsak (1980). Some of his suggestions are very original, but few of them are convincing. We independently recognized that No. 27 is a secondary development of No. 15, and I also agree with him that the cause of the many *k*-signs is the frequency of this phoneme. Otherwise, how-

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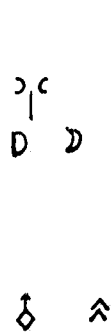
ever, our approach and results are totally different. For sake of brevity I shall put aside the discussion of Pritsak's suggestions, and without going into details on earlier opinions, I put forward my approach. I am convinced that a better solution is the best criticism on other hypothesises.

An inevitable condition for any solution of the riddle was the paleographic investigation of the whole material, the fixing of the paleographical areas and establishing the connections between them. This work was recently done with success by Vasilev (1983) who also re-edited the inscriptions of South Siberia (1983a). After these works it seems to be finally proved that the inscriptions of the Yenisei valley and other regions in South Siberia are not as early as previously supposed, they are partly contemporaneous with, partly younger than the great inscriptions found in Mongolia.

The 39 graphemes of the ETRS can be divided into five groups: **A.** Letters denoting vowels, **B.** "paired letters" letters which differ if the word is front or back vocalic, **C.** letters rendering the allophones of *k*, **D.** letters representing the sibilants, **E.** letters representing consonants regardless of vocalism, and **F.** letters representing consonantal clusters (see Table I).

The grapheme No. 5 occurs only in a few inscriptions of the Yenisei area and is a newcomer. The remaining four vocalic signs indicate a somewhat strange system. No. 1 and 3 are common signs for the back and front vocalic pairs (*a—ä, ï—i*), while No. 2 and 4 are common letters rendering labials where the same letter is taken for the open and the closed phoneme (*o—u* and *ö—ü*). This vowel-system has only one more vowel sign than the Semitic, and this is a letter for a special Turkic sound group, the front vocalic *ö* and *ü*. The hypothesis that this sign is secondary can be made very probable if we observe its shape. Thomsen expressed the idea that it was created from No. 3 with the addition of a diacritical marker, in fact:  If so, we can reconstruct the history of the vowel signs in three stages: I. *A* : *W* : *I*, II. *A* : *W* : *I* : *Ẅ*, III. *A* : *ė* : *W* : *I* : *Ẅ*. This seems to be the normal way in which scripts used to develop, and the question is: can we find similar developments in the case of the consonant letters?

First it has to be stated that none of the "paired" consonantal signs can be connected with their respective opposite numbers, i.e. b^1 is independent from b^2 and vice versa. In an additional note to his paper originally published in 1894—96, V. Thomsen wondered whether the letters for r^2, l^2, t^1, n^2, g^1 and *ś* (No. 30 in this paper) could not have been pictographs. Similar ideas were expressed by Polivanov and Emre. Later on the pictographic origin of b^2, k^4 and y^1 was suggested by A. von Gabain (1948) and G. Clauson (1970). If d^2 also had a pictographic origin then one of each pair of the first group was of pictographic origin. To this it has to be added that all the consonants were read with a vowel before, as can be seen from the Runic alphabet transcribed with the Manichean script (Le Coq, 1909, p. 1050). Thus we gain the following:



b^1 *ab*		b^2 *eb* "tent, house"		
d^1 *ad*		d^2 *ed* "property, livestock"		
g^1 *ay* "net"		g^2 *eg*		
y^1 *ay* "moon"		y^2 *ey*		
l^1 *al*		l^2 *el* "hand"		
n^1 *an*		n^2 *en* "declivity"		
r^1 *ar*		r^2 *er* "man"		
t^1 *at* "horse"		t^2 *et*		

further:

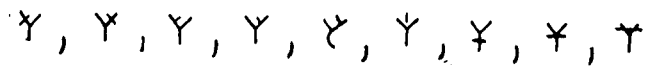
◁, ▷ k^3 *ik* "spindle"
↓, ↑ k^4 *oq* "arrow"

Only a very few comments seem to be necessary. It has been suggested that y^1 may be *yay* "bow". As a pictograph it would be possible, but the system excludes it, since all the pictographs are read with the vowel before the consonant in question. Thomsen suggested for n^2 *en-* "to step downwards", but this would be the only verb in the set, and the noun *en* appears in Kāšgarī's Dīvān. Thomsen suggested for No. 30 (in our paper) *äšik* "door", but all "keywords" are monosyllabic. The pictograph for d^2 is from the tally-sticks, where the livestock was marked with similar signs (see Róna-Tas 1956). The distribution of the K-letters is important: k^4 and k^5 are associated with the same vocalic features as No. 2 and 4 and thus they show that they appeared simultaneously or later than stage II of the vocalic signs.

In the case of the sibilants, the representations seem to be confused and this led to several interpretations. Let us see in chronological order what we find in the most important inscriptions:

Ongin (720 or 731)	s^1	s^2	|
	$š^1$	$š^2$	
Küli čur, Kül Tegin, Bilge kagan (724, 732, 735)	s^1	s^2	| ᛉ
	$š^1$	$š^2$	
Toñuquq (726)	s^1	s^2	|
	$š^1$	$š^2$	
Terh, Tez, Šine usu, Suǰi (750, 752/3, 760, 840)	s^1	s^2	|
	$š^1$	$š^2$	
Yenisei	s^1	s^2	|
	$š^1$	$š^1$—$š^2$	∧

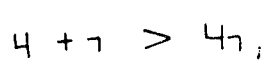
If we compare all extant forms of No. 27 we find the following:



(see Vasilev, 1983, pp. 133—134). This suggests that we are dealing with the basic sign Y and a diacritic, which was placed on different parts of the basic sign. The basic sign is l^2. How and why did the latter l^2 + diacritic sign become a letter rendering *š*? If we suppose that the script was used originally for a Turkic language, which did not have *š* and then later the script was taken over by a Turkic language in which in some places *l* corresponded to *l* in the earlier, but in others an *š*, confusion would have arisen. If somebody wrote the word *el* "people etc.", this caused no problem, since this was also *el* in the second Turkic language. But if somebody wrote *el* "companion, comrade" this had to be read as *eš*. Those "*l*-s which had to be read *š*" were marked with a diacritical mark. But there was also another possibility to represent *š*, namely with the letter for *s*. This seemed to be the first choice of the scribes, but then in the court of Bilge Kagan this system was crossed with the other, where l^2 + diacritic appeared. In the inscriptions of the Uighur period, the main difference was not between *s* and *š*, but between the back and front vocalic sibilants, trying to fit them into the general system. The new sign for *š* appeared in the Yenisei inscriptions.

An additional argument for the secondary origin of No. 27 would be if the same procedure could be shown with No. 35 (*z*).

In fact this seems to be the case. The basic sign of No. 35 is No. 18 (r^1), to which a hook was added:



This hook also occurs as a diacritical mark in the Uighur script. As it is known, the only main difference between the late Sogdian script and the Uighur script is that, since there was no letter for the consonant *l*, the Turks added a hook to the letter Resh indicating that this is the Resh which has to be read as *l*. The hook in the ETRS marking "the *r* which has to be read *z*" has a similar function. Two signs remained which render typical Turkic consonants No. 32 *η* and 36 *ñ*. Both go back to the old sign for *n* (No. 16), *η* is *n* + diacritic and *ñ* is a doubled *n*:



The three letters for *ld*, *nd* and *nč* resp. also have to be new signs created specially to render the Turkic language, because none of them can be deduced from the letters representing their respective constituents.

Thus we can now reconstruct at least four stages of the development of the ETRS:

I.	A, I, W, b, d, g, y, l, n, r, t, k^1, k^2, s^1, s^2, č, p, m		
II.	Ẅ	b^2, d^2, g^1, y^1, l^2, n^2, r^2, t^1, η, ñ, k^3, k^4, k^5	
III.		š, z	$\underset{\smile}{ld}$, $\underset{\smile}{nd}$, $\underset{\smile}{n\check{c}}$
IV.	ė	$š^{1-2}$	

Having separated the earliest stage from the later developments, we can now look for its model or origin. Though since Thomsen, the older Sogdian alphabet has always been taken into consideration, a direct connection has to be excluded. A typical feature of the Sogdian alphabet, distinguishing it from other alphabets of Aramaic origin, is that the letter Lamed represented as a rule the fricative δ in the earliest known texts, the so-called Old Sogdian letters (and *l* only in some loanwords). The ETRS letter *l* is Lamed and not d^1 (neither d^2). On the other hand, as can be seen from Table II, some forms are very near to the Old Sogdian forms. Some other letters have a shape which we meet in the so-called Armazic alphabet found at the old Georgian town of Armaz. We have to conclude that the primitive ETRS goes back to an Aramaic alphabet, which was near to the old Sogdian and the Armazic, but was not identical with either. Most probably all three have the same common origin.

The influence of Sogdian appeared later. The three letters for the consonantal clusters *nd*, *ld* and *nč* show most probably Sogdian influence. The voiced dental stop was spirant in Sogdian with the exception of the position after *n*, where it had stop character. This was also the case in East Old Turkic, at least in the dialect reflected by the system of the system of the ETRS. The sign for *ld* can perhaps be connected with the Lamed of the Sogdian script, that is 𐼴 𐼱 > 𐼼, where the second sign is the Sogdian Lamed. The letter for *nd* is a Sogdian Nun with a diacritical dot. In the Toñuquq inscription the letter is still open and has one dot, but in the Kül Tegin and Bilge kagan inscriptions it grimed three dots, and later on the half circle was closed. The letter for *nč* seems to be a double *n*:



The choice of the hook to get from r^2 a *z* may also reflect Sogdian influence.

Summing up these suggestions: The Turks took over a form of Aramaic alphabet, which stood near to, but was not identical with, Sogdian or Armazic. The first changes occurred when the script was incised or carved in wood, on stone and rock. After this alphabet had been in use for a time, it lead to difficulties in rendering the special Turkic sound system. The need to differentiate the back and front vocalic opposition was most evident and they

created new signs. For creating new letters, two procedures were used, the addition of diacritical marks to existing letters and the use of pictographs. The greater choice of the K-letters was due to the fact that the phoneme *k* was the most frequent. In this language there was no *š* and *z* sound, it must have been of the Chuvash type, Old Bulgarian or Khazar. The second Turkic Kaganate took over this script, found a good solution for rendering *z*, but experimented with *š* for a longer period. They created special letters of *ld*, *nd* and *nč*.

The high prestige of the script in the chancellery of the second Turkic Kaganate was imitated by the local lords. The decay of the high chancellary style was surely connected with the conversion to Manicheism and the introduction of the Manichean script and later the Sogdian-Uighur. The decay caused the emergence of local variants. A special type of the alphabet appeared in Turkestan, when the ETRS was written on paper.

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Table I.

The inventory of the graphemes of the East Turkic Runic Script

VOWELS

1.		a, ä
2.		o, u
3.		i, i, e
4.		ö, ü
5.		ė (only in the Yenisei inscriptions)

CONSONANTS

A. "Paired"

6.		b^1
7.		b^2
8.		d^1
9.		d^2
10.		g^1
11.		g^2
12.		y^1
13.		y^2
14.		l^1
15.		l^2
16.		n^1
17.		n^2
18.		r^1
19.		r^2
20.		t^1
21.		t^2

B. *Letters denoting k*

22.		k^1
23.		k^2
24.		k^3 $^{i}k^{i}$
25.		k^4 $^{ẅ}k^{ẅ}$
26.		k^5 $^{w}k^{w}$

C. *Sibilants*

27.		$š^1$, $š^2$, s^1
28.		$š^1$, $š^2$ (s^1, s^2)
29.		s^1
30.		$š^1$, $š^2$ (only Yenisei)

D. *"Singles"*

31.		m
32.		ŋ
33.		p
34.		č ($^{i}č^{i}$)
35.		z
36.		ñ

E. *Clusters*

37.		ld
38.		nd
39.		nč (nǰ)

Table II,

The origin of the primitive East Turkic Runic Script

	1	2	3	4	5	6	7		
	Imperial Aramaic	Inscriptions Parthian	Persian	Pahlavi Psalter	Book	Old Sogdian	Armazic	Runic	
āleph									a/ä
bēth									b^1
gimel									g^2
dāleth					=g				d^1
hē									k^2
wāw									o/u
zayin									s
ḥēth					='				k^1
ṭēth									—
yōdh					=g				y^2
									i/ī
kaph									—
lāmedh									l^1
mēm									m
nūn					=w				n^1
sāmekh									s^1
ʿayin			=w	=w	=w				—
pē									p
ṣādhē									č
qōph			=m	=m	=m				—
rēsh		='	=w	=w	=w				r
šīn									—
tāw									t^2

1—5. after Mackenzie (1986), 6. from a kind personal communication of Sims-Williams, 7. after Cereteli (1948/49).