

TIFINAGH ROCK INSCRIPTIONS IN CENTRAL SAHARA

Renata Ana Springer Bunk
Universidad de La Laguna

ABSTRACT

During a stay in a small Tuareg village in the south of Tamanrasset (Ahaggar, Algeria), a number of fifteen Tifinagh inscriptions has been observed, which were reported here. Being accompanied by some Tuaregs from this area, we had an excellent opportunity to observe their difficulties in trying to read and understand the texts. So we were able to compare rock inscriptions with those of the current alphabet and appreciate certain aspects of the script's evolution, focused on features such as the use of different signs.

KEYWORDS: Libyco-berber script, rupestrian inscriptions, *tifinagh*.

INSCRIPCIONES TIFINAGH EN EL ÁMBITO RUPESTRE (SÁHARA CENTRAL)

RESUMEN

Durante la estancia en una pequeña aldea tuareg al sur de Tamanrasset (Ahaggar, Argelia) pudimos documentar un total de quince inscripciones *tifinagh*, que se presentan en esta comunicación. Siendo acompañados por algunos tuaregs de la zona tuvimos además una excelente oportunidad para observar sus dificultades tratando de leer y comprender dichos textos. De esta manera pudimos comparar las inscripciones rupestres con el uso del *tifinagh* actual y apreciar ciertos aspectos de la evolución de la escritura, fundamentalmente en el uso de diferentes signos.

PALABRAS CLAVE: escritura líbico-bereber, inscripciones rupestres, *tifinagh*.



LIBYCO-BERBER ALPHABETIC INSCRIPTIONS IN THE AHAGGAR

Charles de Foucauld is remembered as one of the first and most prominent Tifinagh searchers for his studies into the language and writing of the Kel Ahaggar during his long stay in the south of Algeria (Foucauld, 1920). One of his many contributions to knowledge was to publish the alphabet used by these societies, modern Tuareg or Tifinagh. He also published the signs that constitute ancient Tuareg, which would have been used in the same places, but many years ago. Foucauld, however, did not record how he acquired this information, which has made some researchers believe that he based it on an unrevealed local source (Prasse, 1972: 148). No systematic study of sites in this area that may contain these sorts of inscriptions exists, and still today we only have a few specific examples, such as the one at the tomb of Abalessa, Ahaggar (Le Quellec, 2008). None of these have been unanimously accepted as examples of the ancient Tuareg alphabet (Drouin, 2008).

If we compare Tifinagh with ancient Tuareg, the difference between the characters that form part of each alphabet is striking. Modern inscriptions are strongly associated with signs made up of dots, as well as other signs that would be absent in some of the oldest inscriptions. In contrast, parallel lines prevail in characters of the oldest inscriptions, such as the \parallel for /u/ in vertical lines, lll and llll , as well as rl , rl , rl , etc. Additionally, a number of identical signs present in both scripts may have different meanings, such as \odot , which is used for /b/ in ancient Tuareg (just as in Libyco), but for /s/ in Tifinagh.

Tuaregs naturally distinguish between the Tifinagh characters that they use today and the inscriptions that are incomprehensible to them, which they generally describe as “ancient”, or sometimes as produced by their “ancestors”. The people who make this distinction still use the script and are speakers of the language it represents. The assumption of the inscriptions as ancient is, however, problematic for a number of reasons. The most significant of these is that the texts that they deem to be ancient do not always contain the signs described for this alphabet. Evidently, there may be multiple reasons for not understanding a text and the date in which this was written may be only one of various possibilities. Firstly, the mobile nature of desert dwellers could mean that while these rock inscriptions were found in close proximity to each other, they may have been written by people from different places and users of different Tifinagh alphabets. Another possible reason for this incomprehension is that people in these societies vary in their reading level, particularly where the use of the Tifinagh script is clearly in decline, as specified by Foucauld (1920: 7) when he mentions that the Kel Ahaggar themselves recognize the constant decline in users of the script, as well as a decrease in orthographic accuracy. We found evidence of the decline much more recently – in a small Tuareg settlement – less than half the population knew the script, and that knowledge varied between men and women, younger and older people (Springer & Quintana, 2006).

Having provided a short description about the two types of Libyco-Berber scripts in Central Sahara, we will now turn to the aim of this paper, the analysis of various inscriptions visited during a stay to a settlement to the south of Taman-



bers of people who understand the written script well, but has been recorded since research into it began (Reygasse, 1932: 55). Contrary to common belief, texts are not always understandable, not even to speakers of the language or those with a good knowledge of the writing.

3. DIRECTION AND MEANING OF THE LINES

Whenever we approached an inscription, our guide firstly tried to locate a character indicating the reading direction, such as \subset /m/ in a horizontal line. The character indicates left to right reading, as the open-ended side reveals the direction in which the signs were written. This is not the only symbol with a directional characteristic, $\cdot\cdot$, \times , E and \mathcal{E} , generally indicate the same, since they have to rotate on their axis if the direction of the writing changes.

However, some texts, in particular, the shortest ones, don't include any of these signs, which makes reading more difficult. Tuaregs in these cases have to try and start from each end of the line (adding vowels as necessary) in order to look for any logical meaning in the string of characters. There is no word separation in Tifinagh script and splitting the string up in various ways could lead to multiple different meanings, which helps to explain the difficulty in understanding these inscriptions.

4. FORMULATIONS

Another element that Tuareg try to identify in Tifinagh scripts are frequently occurring formulations. These also help the Tuareg to identify the start of the text, or reading direction. The most used formulation in the visited areas was $\cdot\cdot$ *awa nek* "It is I", which is usually followed with a proper noun or a verb. This formulation appeared in a number of inscriptions.

5. BICONSONANTAL LIGATURES OR REPRESENTATIONS

Biconsonantal ligatures (two consonants in a row, represented by a single symbol) are not widely used, but further test a Tuareg's knowledge, as demonstrated by this observation, "*Aujourd'hui du moins, elles servent surtout à montrer la virtuosité de celui qui écrit et qui met à l'épreuve la sacacité du lecteur.*" (Galand, 1997: 1). Four signs identified in the rock inscriptions in the area may be ligatures: \oplus (/t/ y /t/), \perp (/n/ y /t/), \mathbb{H} and \mathbb{H} (/l/ y /t/); none of these were recognized by my guides. Even though ligatures are considered a more modern writing innovation, there are no fixed established norms for their use (Prasse, 1972: 149), it is also worth noting that these signs also exist in non-Tuareg regions, where they are unlikely to represent ligatures (Springer, 2019). Finally, two different meanings have been indicated for some of these characters, such as the phoneme /ɣ/ for \mathbb{H} and \mathbb{E} in Niger (as well as /l/ y /t/) (Aghali-Zakara, Drouin, 2009: 3-10).



6. SIGNS INCOMPREHENSIBLE TO THE TUAREGS

Besides the biconsonantal ligatures, there were other signs the Tuareg did not recognize, such as |\Lambda and $\text{|\text{W}}$. Charles de Foucauld had included the first of these in the ancient Tuareg alphabet for /k/ and, despite this form being infrequent, it has been recorded in various places throughout the Ahaggar: in Tagmart (Trost, 1981) and in Ifrazi (Reygasse, 1932: 77), as well as Mammamet, Niger (Aghali-Zakara, Drouin, 2009), to give just a few examples. The Tuaregs in these cases also were unable to give definitive answers as to their meaning, despite them sometimes appearing together with modern signs. These signs are also known in other areas in which Libyco-Berber writing is used, such as Morocco and the Canary Islands (Springer, 2019). It is also possible that a sign may not represent an alphabetic character. In one case, a sign found on one line (same size and technique, with an identical distance from the other sign) was described by our Tuareg guide as “not being Tifinagh”. In fact, the lines of the sign looked very much like a quadruped drawn in a very schematic way.

7. FORMAL VARIANTS

When writing, Tuaregs are usually very consistent in using one sign per phoneme. Nonetheless, they do fundamentally recognize the use of some variants (allographs), when they come from the text written by someone else, or on a rock inscription. Very frequent variants were Λ and \cap (/d/ in horizontal lines), \succ and \succsim /y/, as well as \bigcirc and \square /t/, the pairs of which they assured could be used indistinctly. We could not find evidence of the use of χ for /g/ in the settlement where we stayed (they used $\text{|\text{I}}$ for this phoneme), however, it was recognized as such in the inscription “*ag Abderrahman*”, “son of Abderrahman”.

COMPARATIVE ANALYSIS

By comparing modern Tuareg characters (Foucauld, 1920) with the signs collated in horizontal and vertical rock inscriptions from a relatively near-by area (south of Tamanrasset), as well as those in use by Tuaregs in Touffadet, observations show the alphabet to be relatively homogenous, with some differences. Firstly, two Tifinagh characters, $\text{|\text{J}}$ and $\text{|\text{H}}$, (from the Foucauld alphabet, but also in use by the inhabitants of the settlement) were not seen among the rock inscriptions. As we have only been able to reproduce about two hundred characters, it could simply be that these signs did not appear in the written words. Also six signs not used by the Tuaregs appeared in the rock inscriptions: $\text{|\text{E}}$, $\text{|\text{O}}$, $\text{|\text{L}}$, $\text{|\text{I}}$, $\text{|\text{N}}$ and $\text{|\text{W}}$ (this last was written with a 90° rotation). The first four are thought to be biconsonantal ligatures.

The most difficult signs to assess were $\text{|\text{W}}$ and |\Lambda . The latter was identified as belonging to ancient Tuareg (Foucauld, 1920), although it may also appear in the context of characters belonging to modern Tuareg. In fact, these two forms, $\text{|\text{W}}$ and



SIGNS USED

TABLE 1: COMPARISON OF CH. DE FOUCAULD'S (1920) CHARACTERS AND HIS TRANSLITERATION WITH CHARACTERS WE COLLATED FROM THE ROCK PANELS IN HORIZONTAL AND VERTICAL LINES, AND THOSE IN USE BY THE TUAREG

SIGNO <i>tifinay</i> LIN. HORIZONTAL (FOUC. 1920)	SONIDO SEGÚN CH. DE FOUCAULD	RUPESTRE HORIZONTAL	RUPESTRE VERTICAL	TOUFFADET, USO ACTUAL, HORIZONTAL	
·	A E I O OU	·	·	·	voc
⊖ ⊙ □ ⊔	B	⊖ ⊙	⊖	⊖	b
∞ ∅	CH		∞	ε	ch / š
∧ □ ∨ ⊥	D	∧ □		⊥ ∨	d
∃	Ḑ		∩	E	ḑ
≡ ≡	F			I	f
× × × ×	F	× ×	× ×		
ÿ	G	ÿ	ÿ	ÿ	g / gʸ
∴	H		∴	∴	h
≈ ≈ ≈	I	≈ ≈	≈ ≈	≈ ≈	i
× H H I	J	× H	I H	×	×j / Hf
∴	K	∴	∴	∴	k
∴	Ḳ		∴	∴	q
∴	KH	∴	∴	∴	x / kh
	L		=		l
⌋	M	⌋ ⊥	⌋ U	⊥ ⊥	m
	N		-		n
:	OU, O	:	∴	:	ou
○ □	R	○ □	○	○	r
∴	Ṛ	∴	∴	∴	gh / y
⊙ ⊔	S	⊙	⊙	⊙	s
+ ×	T	+ ×	+	+	t
E	Ṭ		∩	E	ṭ
× ×	Z			×	z
#	Z			#	z
	LT				
≡		≡			
⊕			⊕		
⊥			⊥		
∞		∞			
∩			∩		



lʌ, have been identified at various sites across the Sahara. The first as an equivalent to ω (Aghali-Zakara, Drouin, 2007:60), the second is also present in rock inscriptions in the Sahara (Reygasse, 1932: 77; Camps-Fabrer, 1963: Trost, 1981: 77), to give just a few examples.

CONCLUSIONS

A corpus of inscriptions usually provides further information about known inscriptions, although often differences between them are found before. It is difficult, however, to interpret these differences. It is frequently necessary to suggest hypotheses that can only be corroborated after having acquired further epigraphic evidence, which is essential to expanding our knowledge on the subject.

We can suggest two possibilities when comparing the signs appearing in the rock signs studied here and those used by the Tuareg hosts. It is likely that some of the inscriptions have characteristics of older rather than current writing, but the coexistence of modern Tuareg signs with ancient Tuareg signs on the panels indicates that the change from one modality to the other did not happen immediately. Most likely this passed through various stages and/or intermediate alphabets, incorporating new signs at different times. The differences observed between the Tuaregs and the alphabet of Ch. de Foucauld (here we are referring to the absence of the use of λ) could be a result of influence from more southern regions, such as Mali or Niger, from where two of the host settlement's inhabitants originated. A possible example of this influence comes from Iwelen, Niger, where inscriptions found have used the ʾ to represent the /g/ phoneme and ɿ to represent an /f/ instead of ɸ / ɿ (Aghali-Zakara, Drouin, 2007:14).

The study of the alphabets used in a specific area provides information which can support the study of differences between multiple systems, both in terms of quantification as well as of the most affected phonemes and the impact of these changes in other places. Only then can similar changes be studied between other geographically proximate modalities, for which –in contrast with Central Sahara– there are no longer users to describe the writing systems and their variants.



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