

## The Libyco-Berber inscriptions of Aourdaoum (Algeria)

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### Résumé

L'analyse statistique et épigraphique de ce travail concerne cinq panneaux comprenant environ 480 signes alphabétiques libyco-berbères collectés par J. Hansen sur le site d'Aourdaoum, dans le sud-algérien. La caractéristique principale de cet ensemble d'inscriptions est la fréquence particulièrement élevée du signe ... qui, normalement, n'est utilisé, dans les alphabets tifinagh, que pour de très rares phonèmes. Nous concluons provisoirement qu'il est, avec une forte probabilité, un incipit stéréotypé usité en Algérie méridionale uniquement. Les inscriptions commençant par ... sont très fréquemment voisines d'autres qui débutent par l'incipit bien connu I• = NK (= moi). Par ailleurs on remarque que ... et I• sont interchangeables devant une même séquence de signes. Jusqu'à présent, les linguistes n'avaient pu donner aucune interprétation sensée du signe ...

### Abstract

The subject of this statistic and epigraphic analysis is five panels with about 480 characters of the Libyco-Berber script which were documented by J. Hansen at the site Aourdaoum in southern Algeria. The most conspicuous feature of this complex of inscriptions is the extraordinarily high frequency of the sign ... (13 %) which normally is used in tifinagh alphabets for very seldom-used phonemes. A provisional result of the analysis shows that it is with a high probability a stereotyped beginning of a script line which is used only in southern Algeria. The lines which begin with ... are extremely frequent next to lines which begin with the well known incipit I• = NK (= I). In addition we can notice that ... and I• can stand interchangeable before the same sequence of signs. Up until now, linguists were not able to find a meaningful lecture for ...

### Zusammenfassung

Gegenstand der vorliegenden statistischen und epigrafischen Untersuchung sind fünf Paneele mit insgesamt etwa 480 Schriftzeichen, die Hansen an der Fundstelle Aourdaoum in S-Algerien dokumentierte (22° 12' N/4° 28' E). Auffälligstes Merkmal dieses Inschriftenkomplexes ist die extreme Häufigkeit des Zeichens ... (13 %), das in Tifinagh-Alphabeten normalerweise für sehr seltene Laute verwendet wird. Das vorläufige Ergebnis der Untersuchung zeigt, dass es sich mit großer Wahrscheinlichkeit um einen kurzen formelhaften Zeilenbeginn handelt, der nur in S-Algerien bekannt ist. Besonders häufig stehen die Zeilen, die mit ... beginnen neben solchen mit der bekannten Formel I• = NK (= ich), interessant ist aber auch, dass ... und I• austauschbar vor der gleichen Zeichen-Gruppe stehen können. Bislang ist es den Linguisten leider nicht gelungen, eine sinnvolle Lesung für ... zu finden.

### Riassunto

La statistica e l'analisi epigrafica di questo studio hanno come oggetto cinque pannelli con circa 480 caratteri libyco-berberi, documentati da J. Hansen nel sito di Aourdaoum nell'Algeria meridionale. La caratteristica più cospicua di questo gruppo di iscrizioni è la frequenza eccezionalmente alta del segno ... (13%), che normalmente negli alfabeti tifinagh viene usato per dei fonemi rari. Il risultato preliminare dimostra che molto probabilmente si tratta dell'inizio stereotipato di una linea di iscrizione, in uso esclusivamente nel sud dell'Algeria. Le righe che cominciano con ... sono molto frequenti vicino alle righe caratterizzate dal ben noto incipit I• = NK (=I). Inoltre, possiamo osservare che ... e I• sono intercambiabili prima della stessa sequenza di segni. Fino ad ora, i linguisti non sono riusciti a stabilire il significato del segno ...

The subject matter of the following statistical and epigraphic analysis are five rock art panels of different sizes found by J. Hansen at Aourdaoum (Fig. 1), a South Algerian site (22° 12' N/4° 28' E). In addition to a very few schematic depictions of animals, these panels contain exclusively Libyco-Berber inscriptions with a very light patina on dark rock surfaces (Fig. 2 – 4). In the line drawings of Fig. 2-10, the animals and some not identifiable signs have been omitted. In total, the inscriptions of Aourdaoum provide a series of about 480 characters – thus sufficient for a statistical analysis.

### The sign ...

The most striking feature of this group of inscriptions is the extremely high frequency of the sign ... . With 13 %, it is the most frequent one after I (=N). This is rather unusual and, to my knowledge, can be noted at no other site. Two explanations are possible :

1. The sign ... was used to render a very frequent phoneme at Aourdaoum, in striking contrast

Fig. 1

Fig. 2-4

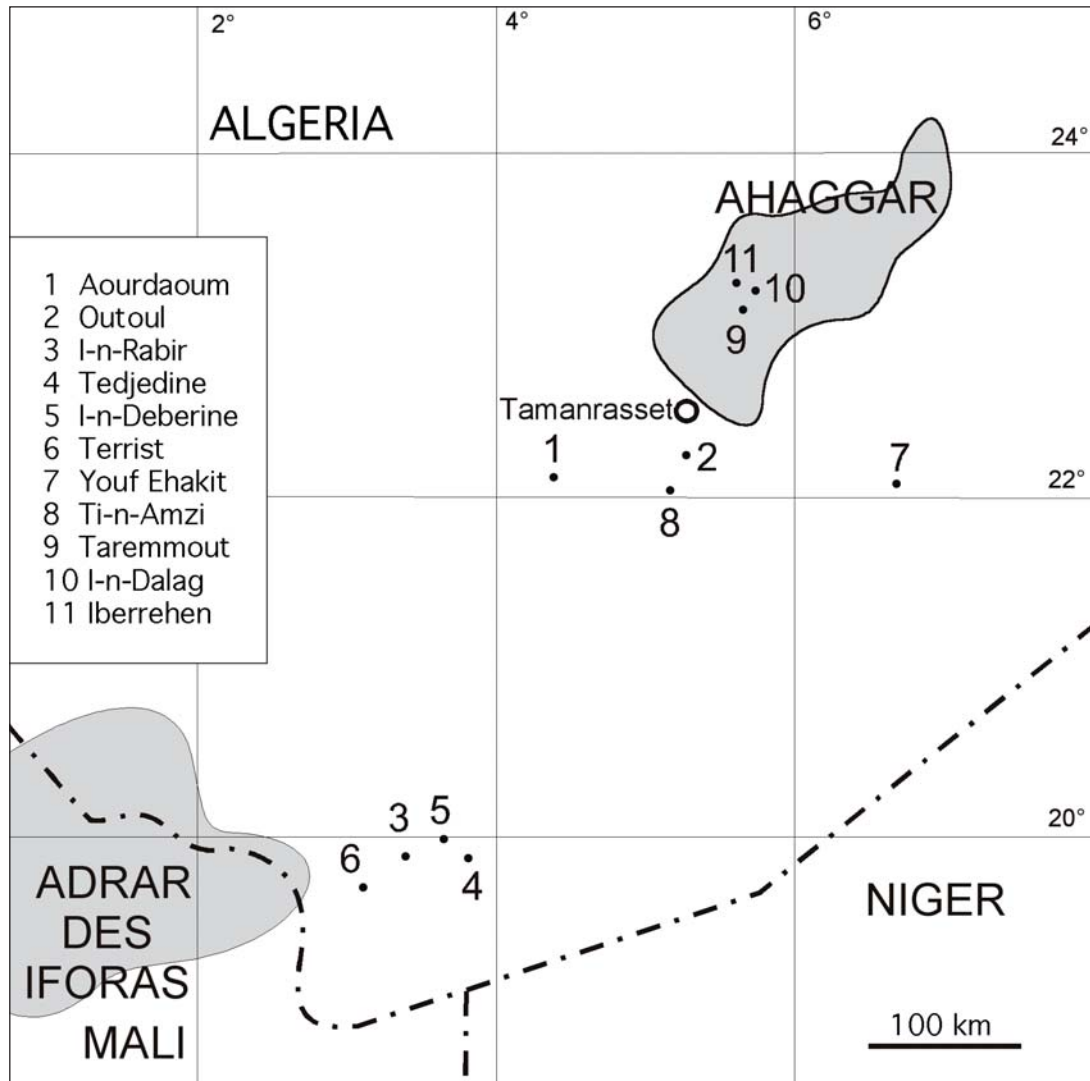


Fig. 1.

Fig. 2.



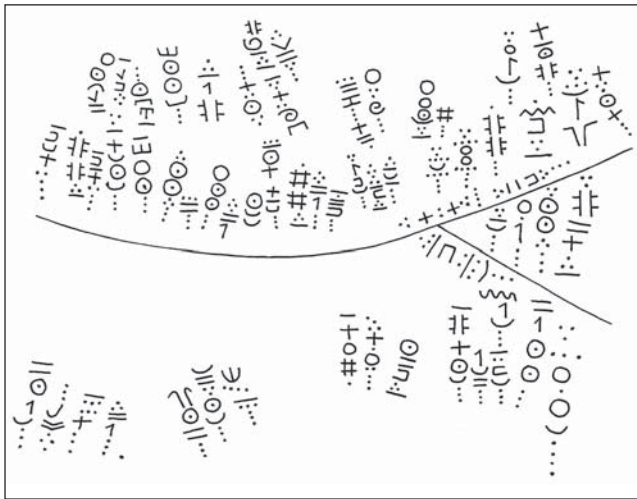


Fig. 3.

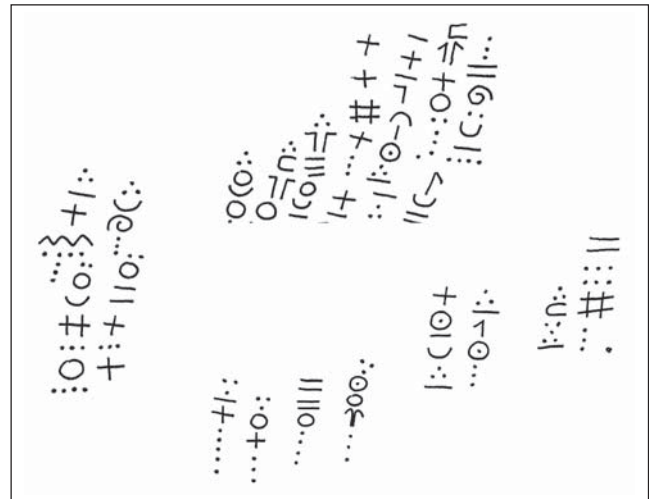
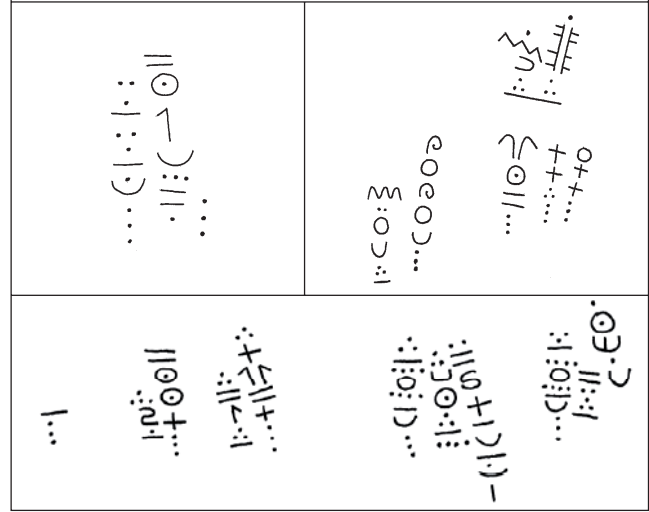
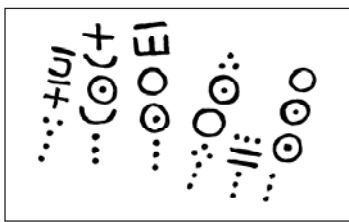


Fig. 4.

Fig. 5.



with all existing alphabets. This is very unlikely, considering that all the traditionally frequent phonemes (N, M, T, R, S etc.) are represented here by their conventional signs.

2. The sign ∙∙∙ was used at Aourdaoum for a rare sign like q, x or  $\_$ . In this case the high frequency is caused by a stereotyped repetition.

The analysis of the position of ∙∙∙ within the predominantly vertical lines shows that the overwhelming part (87 %) is situated at the beginning of sequences. It is very common in Libyco-Berber writings that inscriptions start with stereotyped sequences (e.g. NK, WNK etc.). We thus have to check whether ∙∙∙ can be such an incipit by analysing the combinations of two or more signs in which it appears.

Combinations of two signs : the sign ∙∙∙ is followed in some cases by  $\square$  (=M), but generally by 14 further signs, that means by nearly all consonants.

Combinations of three signs : two groups (∙∙∙  $\square$   $\odot$  = ?MS, ∙∙∙  $\square$  | = ?MN) are more frequent, but in total 40 different combinations occur.

Therefore ∙∙∙ does not appear to be part of an initial sequence consisting of two or three consonants.

Further analysis of the data indicates that lines starting with ∙∙∙ occur in some cases as groups of 3 – 5 lines side by side (Fig. 5). A quarter of all lines starting with ∙∙∙ is situated immediately next to lines starting with | ∙∙ ( = NK = nek), and located with similar probability on either side of them.

While the high frequency of ∙∙∙ at Aourdaoum looks like a unique phenomenon among the well-known locations of Northern Africa and the Sahara, the combination of adjacent lines starting with ∙∙∙ and | ∙∙ is documented at several further sites in Southern Algeria (Fig. 6) as well as in Central Ahaggar (Fig. 7). But we have no such evidence from Morocco, Mali, Niger or Libya.

An additional observation deserves attention : ∙∙∙ and | ∙∙ can occupy equivalent positions before the same sequence (Fig. 8) !

Provisional conclusion of the analysis:

- ∙∙∙ seems to be an initial sequence
- such an initial sequence usually contains more than one sign (consonant)
- lines beginning with ∙∙∙ are either isolated or coupled with a second line starting with | ∙∙
- so far, ∙∙∙ is known exclusively in Southern Algeria

Fig. 5

Fig. 6

Fig. 7

Fig. 8

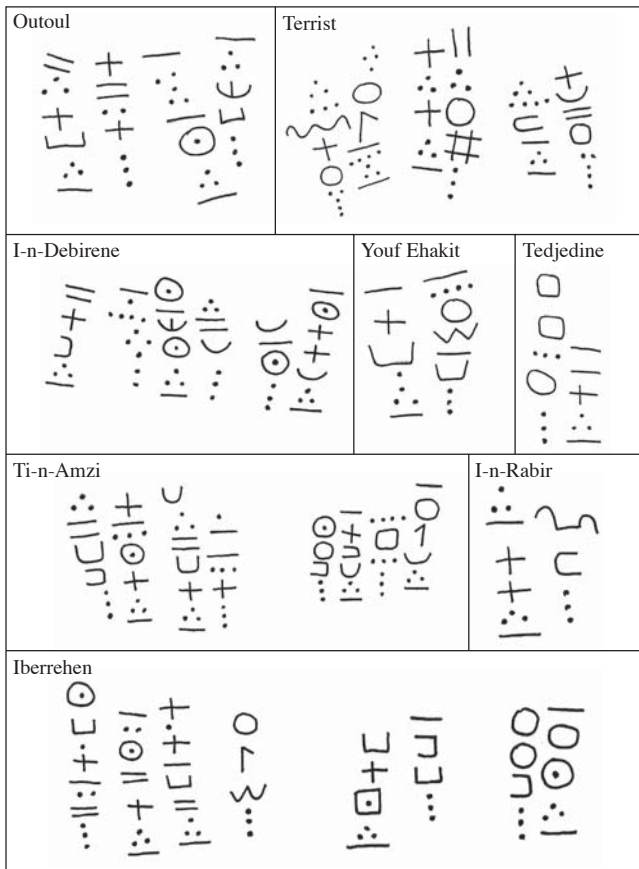


Fig. 6.

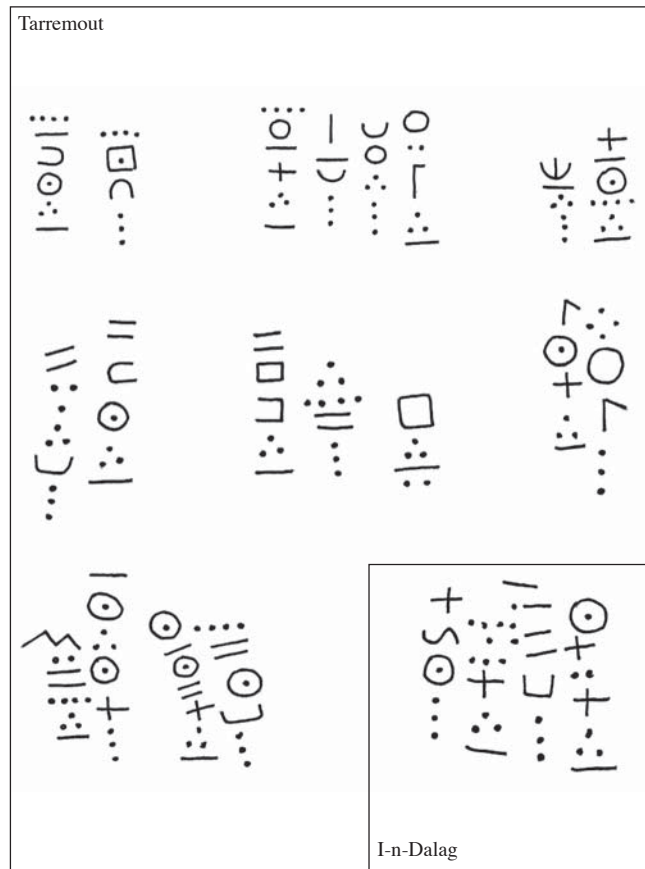


Fig. 7.

For a further approach to the meaning of the initial ... as possible incipit some linguistic considerations are necessary. In particular, we may ask whether it is possible to identify :

1. the sequences after NK as personal names?  
Example: NKDYA = *nek daya* = I, Daia (Foucault : 287).
2. the sequences after NK as place names?  
Example: NKDLS = *nekka edeles* = we have come from Edeles.
3. the sequences after ... as
  - a) personal names?
  - b) place names?
  - c) denominations of objects?

No example of toponym associated to ... has been recorded so far. In contrast, we know of several writings at Aourdaoum and other South Algerian sites where ... is associated to people names :

MLK = MELLOUKA  
 KTT = AKETETOU  
 MNT = AMINATA  
 KRM = KARMİ  
 TRK = TEROUKI  
 KNS = EKENISI  
 DRS = IDRIS.

Together, both facts point to an equal value for I: and ... as already suggested by the «interchangeability» observed in some writings (see above). However, we cannot discard a different meaning, as in c). In this case, is it conceivable to suggest a sequence like «I need, I want, I miss ...»

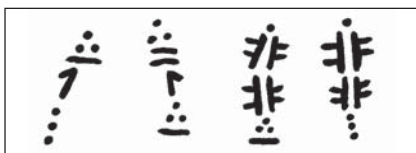


Fig. 8.

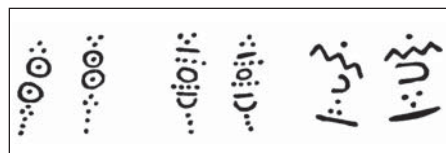


Fig. 9.



Fig. 10.



	Lihyo- Berber		AOURDAOUM		Tifinagh Abajjar	
1	N		—	13 %	N	—
2	M			9 %	M	
3	T	+	+	6 %	T	+
4	R	○	○	6 %	R	○
5	H		...	3 %	H	...
6	S <sub>1</sub>	Σ	⊙	8 %	S	⊙
7	Y	~	~	1 %	Y	∞
8	L	=	=	6 %	L	=
9	D	□	□	2 %	D	<
10	K	↑↑	∴	12 %	K	∴
11	B	⊙	⊙	2 %	B	⊖
12	W		∴	3 %	W	∴
13	Z <sub>1</sub>	—			Z	⋈
14	G	1	˘	4 %	G	λ
15	F	Δ	↑↑	2 %	F	⊥
16	Š	∫			Š	⊕
17	Z <sub>2</sub>	H	#	3 %	Z	#
18	S	+				
19	T				T	⊖
20	Q	÷	∴	13 %	Q	∴
21	Z <sub>3</sub>	⊖			Z	λ
22	S <sub>2</sub>	⊙	⊙	1 %		
23			·		A	·
24			⊖	<1%	D	⊖
25					GY	↑
26					ñ	⊖
27					x	∴
28			...	3 %	γ	...
29			§	<1 %		

Tab. 1.

Do Berber languages actually contain a well-fitting word with one consonant ?  
Linguists have not solved this problem to date.

### Additional observations concerning the alphabet of Aourdaoum

The 480 characters of the five panels represent a typical Tifinagh alphabet with regard to the form of the signs as well as to their frequency. Nevertheless some exceptional features are worth mentioning.

#### Signs for Y

We cannot find one example for the usual form **S** as well as for the usual variants **w**, **ω**, **∞**. The substituting signs at Aourdaoum seem to be **∞** and **∞** respectively.

#### Signs for B

The usual form for B (**⊖**, **⊖**) does not occur at Aourdaoum. However the sign **⊙**, for which Aghali-Zakara (2000) discussed about two possible interpretations as B or R is present in the Aourdaoum writings. His preference for B, supported by the example of the well-known personal name BALLATAN – is corroborated by the fact that, at Aourdaoum, R is clearly represented by **○**. By the way the sign for B exists with four different orientations (by rotation and/or mirror symmetry) (**⊙****⊖****⊖****⊙**), a further confirmation of my thesis that :

“alle Varianten eines Zeichens ohne Symmetrieachse sind Allographe eines Graphems“ (Pichler 1996:74, 2000:131).

(all variants of a sign without any symmetry axis are allographs of one grapheme)

### Signs for G

None of the usual Tifinagh signs for G (𐤎) is present at Aourdaoum but the sign 𐤎, which is common in more ancient alphabets. As it is not easy to explain how an ancient sign should be included in a more recent alphabet (even if it is theoretically possible), we have to search for an explanation. 𐤎 is used for Z in some regions (e.g. Niger, Mali), but Z is represented by 𐤎 in Aourdaoum. It is thus possible that 𐤎 replaced another sibilant (Z or Ž).

### Signs for K

At a quick glance it seems that the ancient sign for K (𐤎) as well as the more recent one (𐤎) are present at Aourdaoum. However, this is contradicted by two observations :

- both signs occur together in the same line.
- as we cannot find a standard sign for F (𐤎 or 𐤎) it is probable that 𐤎 was used for F – there are several examples for 𐤎 = F in the personal name FADIMATA at other sites.

𐤎 (= K) is one of the signs usually giving the writing direction. We note here that among the frequent sequences NK (17 examples), 𐤎𐤎 (=NK) occurs 14 times and 𐤎𐤎 3 times. The opposite orientation for 𐤎 does not mean a reverse writing direction as clearly shown by the 3 groups of two sequences of Fig. 9. In particular, note that both orientations for 𐤎 appear in one of these lines. The reversed («wrong») orientation may probably be ascribed to frequent «typing» errors rather than to the existence of two different values.

Fig. 9

### Signs for sibilants

Traditionally, this group of signs is the most instable one. Various North African regions provide a remarkable amount of variants. Among the usual Tifinagh signs, only 𐤎 (= S) and 𐤎 (=Z) are present. Additional alternative signs could be 𐤎 for Z or Ž and 𐤎 for Š. Three sequences prove that 𐤎 is a variant of 𐤎 (Fig. 10).

Fig. 10

In Tab. I, we tentatively compare the signs recorded at Aourdaoum with those of the ancient Libyco-Berber Alphabet and with the Ahaggar Tifinagh Alphabet.

## References

- |  |  |
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| <p>AGHALI ZAKARA M., 2000, Séquences graphiques et lecture déductive, <i>Épigraphie Libyco-berbère, Lettre du RILB</i>, 6, p2-3.</p> <p>FOUCAULD (P. de.), 1940, <i>Dictionnaire abrégé Touareg – Français de noms propres</i>, Paris.</p> | <p>PICHLER W., 1996, Libysch-berberische Inschriften auf Fuerteventura, <i>Almogaren</i>, XXVII, p7-83.</p> <p>TROST F., 1981, <i>Die Felsbilder des zentralen Ahaggar (Algerische Sahara)</i>, Akademische Druck u. Verlagsanstalt, Graz, 251p.</p> |
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