

## The Libyco-Berber inscriptions of Foum Chenna (Morocco)

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The range of hills forming the western boundary of the broad Oued Draa is interrupted by a series of small valleys. Several rock art sites were found in some valleys open to the north-east: Djorf-el-rhil (Khil), Rich de M'Bidia (Chaba el Beida), Assif Ouiggane and Foum Chenna. It is reasonable to presume that nearly all the engravings belong to the Libyco-Berber culture.

The mouth (*foum*) of Oued Chenna is 7 km west of Tinzouline at a height of about 960 m (Fig. 1). The engravings are on both sides of the valley, but most of them on the northern side. The site, discovered by Reine in 1942, was first studied in 1952 by Reine, Allain and Glory, who counted about 3,000 engravings, scattered over one km length. Up to this day, no one else bothered to examine this huge amount of engravings. Apart from hundreds of horses, camels, ostriches, antelopes, dogs and other animals, these researchers recorded «*plus d'une dizaine de cartouches à écriture libyque appelée aussi numidique*» (1952:716). They published six drawings and two photographs showing characters belonging to the script family now called «Libyco-Berber». Since then, the nearly horizontal layers of «*quartzite acadien*» broke into thousands of pieces, and this progressive erosion process can be seen by comparing the 1952 photographs with the present situation. During the last fifty years a great number of boulders, including some with engravings, fell down. As a consequence, some of the inscriptions reported in 1952 can no longer be found. Actually, despite an accurate search, it was not possible to find even the fragments of the inscription visible in Glory *et al.*, 1952: pl. I/p.717. Therefore, we can presume that many inscriptions were destroyed by natural events. A narrow path -still used by herdsmen and their animals - runs along the foot of the dark hills. The engravings are not evenly distributed along the valley, but concentrated in areas with stone structures, such as dwellings and circular enclosures for animals. Most of the rocks higher up the slope are not engraved.

### *Statistical analysis*

At the moment, the Foum Chenna *corpus* of inscriptions consists in 30 panels with 59 lines and about 341 signs. Four more panels can be reconstructed from old photographs and drawings by Simoneau and Glory. It has not been possible to examine them, therefore they have not been included in this analysis.

*Orientation:* 90% of the panels are oriented in a SSE to SSW direction, based on the valley orography. Only panels 22, 26 and 27 point to the east.

*Inclination:* Most of the panels (77%) have an inclination ranging from 70° to 90°, three from 40° to 70° and four of them are nearly horizontal.

*Direction of lines:* 46 of 59 lines (78%) proceed vertically, the rest horizontally.

*Technique:* A «flat pecking» technique was used, the letters measure only 1-2 mm in depth and up to 1 cm in width.

*Number of lines:* Most inscriptions (57%) have only one line. The rest are equally grouped into clusters with two or three lines, except for two panels that have 5 and 9 lines.

*Context:* Two thirds of the panels show only inscriptions, one third show inscriptions associated with anthropomorphic and zoomorphic figures, mainly camels and riders.

*Patina:* The patina is very light, similar to that of the animal, and human figures.

### *Epigraphic analysis*

A comparative analysis of inscriptions distant from each other in space and/or time is

difficult, but can be very instructive. A few years ago I tried to compare the *corpus* of the Canarian island Fuerteventura (Pichler,1996) with the «classical» RIL *corpus* (Chabot, 1940). Now of course it is very tempting to compare the Fom Chenna *corpus* with the RIL and examine the results. To this purpose, the alphabet must be grouped into different clusters. The comparative table (Table 1) shows a very high conformity in the frequency of six signs. Sign  $\sqcup$  is very frequent, because a few panels (see p. 14 and 15) are engraved with whole groups of this sign. It is not possible to establish whether these are letters, symbols, animal marks or the like. However, the general conformity is a strong indication that the Fom Chenna rock inscriptions belong to the Libyco-Berber script family.

2. As regards five further signs, by experience there is no particular problem in relating them to phonemes. Although in the IAM (*Inscriptions Antiques du Maroc*) there is no formal equivalent for the phoneme /f/p/, the Fom Chenna signs correspond with the Fuerteventura and IAM signs and it seems unlikely that they have different phonetic values.

3. Contrary to the first two clusters, the signs for gutturals and sibilants are very difficult to identify. This depends on the fact that the articulation of gutturals and sibilants differs from language to language, especially in the Afro-Asiatic (formerly Semito-Hamitic) languages. The great instability in the quantity and quality of phonemes - still existing in present Berber languages — creates a similar instability in the style and distribution of signs.

*Gutturals:* With the exception of eight examples of  $\uparrow$  and  $\uparrow$  in the IAM, no signs comparable to  $\uparrow$  (=G) and  $\uparrow$  (=K) exist, neither in Fuerteventura nor in Morocco. A detailed statistical analysis shows that possibly in Fuerteventura these signs have been replaced by  $\wedge$   $\sqcap$   $\cap$  for G and  $\wedge$   $\sqcap$   $\cup$  for K. Which signs correspond to these at Fom Chenna? Although there are eight examples of  $\sqcap$ , we can find no similar sign for K.

*Sibilants:* This is the group of phonemes with the greatest instability. Comparing the graphical form of the signs, four of the six signs typical of the inscriptions on steles (RIL) are also present in Fuerteventura and Fom Chenna. The main problem, however, is their phonetic value. As I was able to evidence in the case of El Hierro (1996: 54), all the sibilants very likely changed their phonetic value. At Fom Chenna obviously there are not enough lines to establish and analyse this variability.

4. *Punctiform signs.* One of the totally unsolved problems concerning the Libyco-Berber script is when the punctiform signs were introduced. We know that no punctiform signs (except for  $\bullet$ ) occur in the ancient Libyan inscriptions on monuments and steles, whereas they are very frequent in the tiffinagh inscriptions. Up to now, there is no evidence showing when this change took place. The analysis of the modern tiffinagh script shows that the group of punctiform signs is the most in-stable, and the frequent variations can be explained as local adaptations. The epigraphers' diffused opinion is that punctiform signs appeared relatively late in the history of Berber people. However, basing upon the occurrence of camels and horses, a very plausible hypothesis is to date the whole ensemble of the Fom Chenna engravings back to the second half of the first millennium B.C.

The question therefore is, is this dating completely wrong or should we revise the concept of an ancient Libyco-Berber script without punctiform signs?

## References

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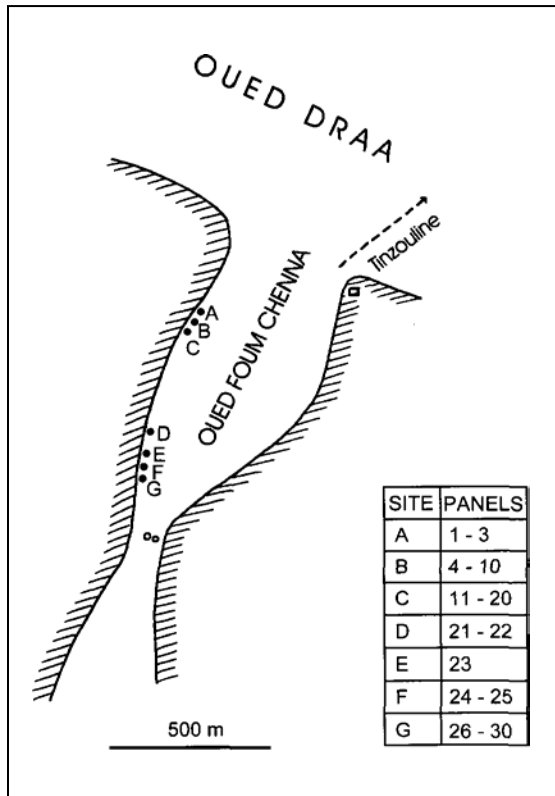


Fig. 1. Site plan

	RIL	FUERTE	IAM	CHENNA
M = □	11 %	9 %	7 %	<b>19 %</b>
T = +	9 %	6 %	11 %	6 %
N = -	11 %	10 %	11 %	12 %
L = =	6 %	3 %	2 %	5 %
R = ○	8 %	7 %	8 %	9 %
Y = ∩	6 %	9 %	3 %	4 %

Table 1. The “basic components” (Zakara et Drouin, 1988/87: “constant factors”)

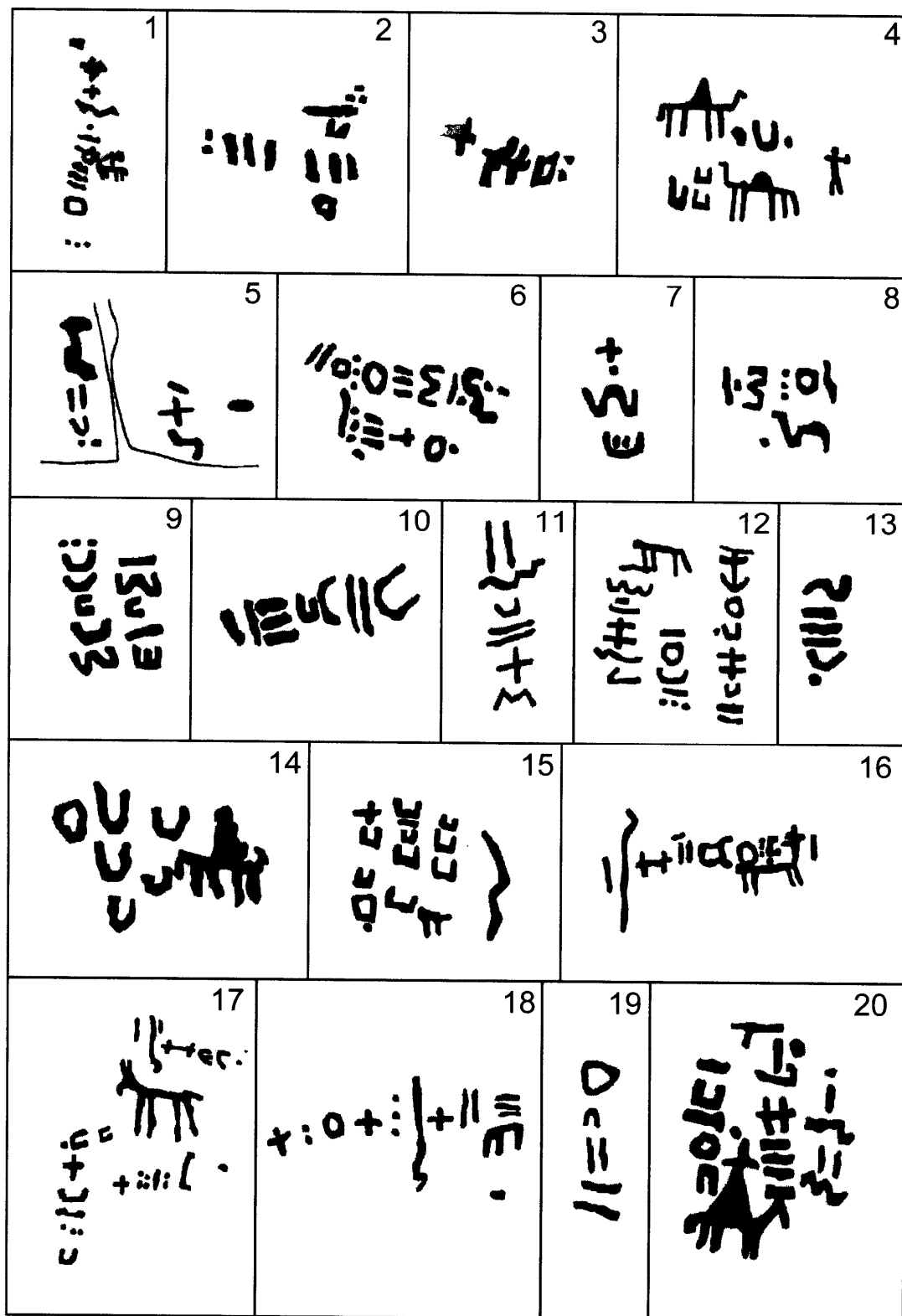


Fig. 3. Inscriptions p. 1 - 20

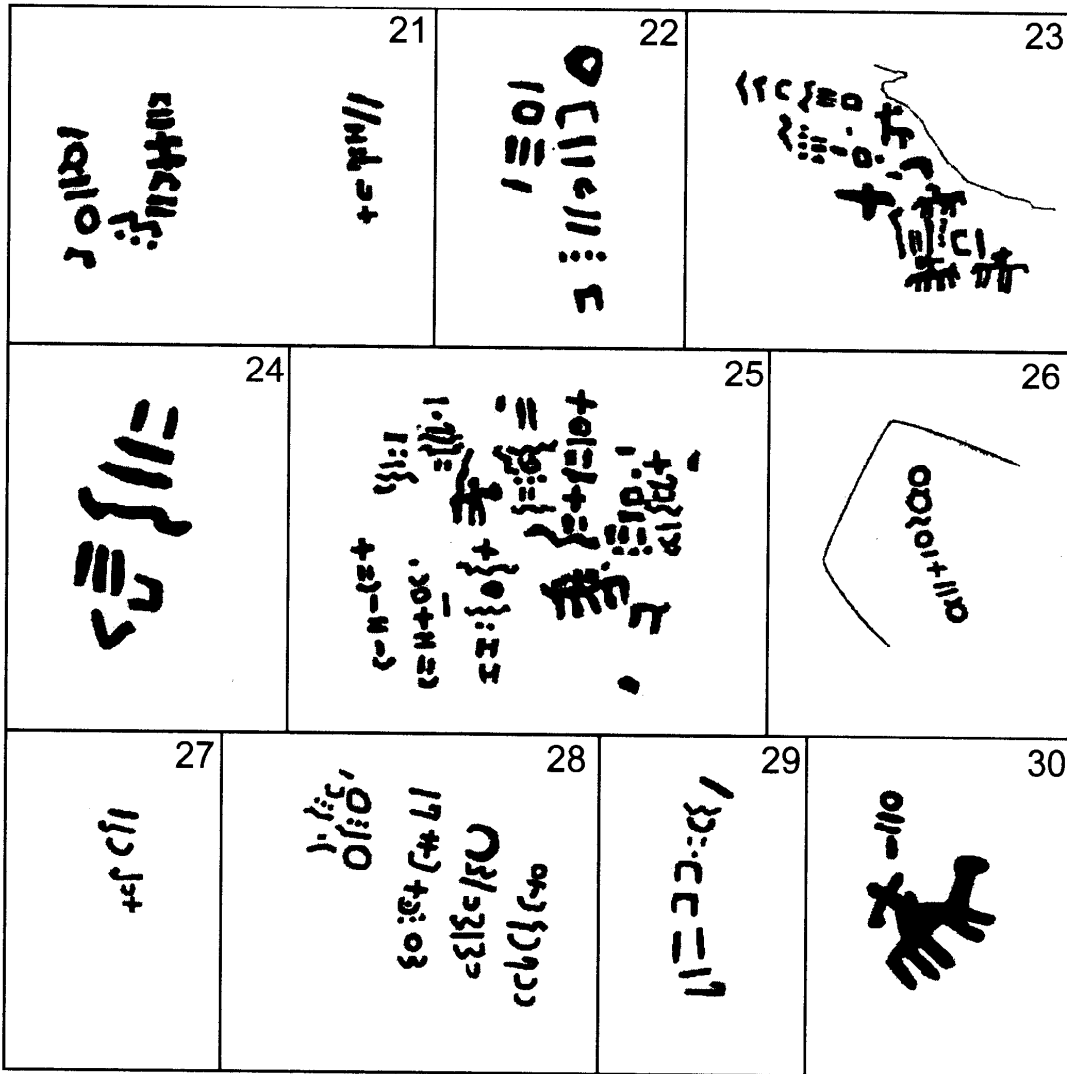


Fig. 4. Inscriptions p.21 - 30

	≡	□C	⊙	♊
W	,	D	B	F/P

Table 2. Five further signs



Fig. 2. General view at Foug Chenna

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