The Libyc Writing

S. Ait Ali Yahia

Abstract-One of the main features of the Maghreb is its linguistic richness. The multilingualism is a fact which always marked the Maghreb since the beginning of the history up to know. Since the arrival of the Phoenicians, followed by the Carthaginians, Romans, and Arabs, etc, there was a social group in the Maghreb which controlled two kinds of idioms. The libyc one remained, despite everything, the local language used by the major part of the population. This language had a support of written transmission attested by many inscriptions. Among all the forms of the Maghreb writing, this alphabet, however, continues to cause a certain number of questions about the origin and the date of its appearance. The archaeological, linguistic and historical data remain insufficient to answer these questions. This did not prevent the researchers from giving an opinion. In order to answer these questions we will expose here the various assumptions adopted by various authors who are founded on more or less explicit arguments. We will also speak about the various forms taken by the libyc writing during antiquity.

Keywords—The alphabet libyc, Eastern libyc, Western libyc.

I. INTRODUCTION

WRITING to communicate was of all times, a man's first concern. Since millenniums, fixing and transmitting a message to this similar was the major concern of the human being. He started by telling his daily newspaper, his myths and his spiritual life while colouring and drawing on various supports, a way of perpetuating the message and of transmitting it without word. Only those which were on a durable support like the rock faces and ceramics had reached us. The number and the diversity of engravings and cave paintings in North Africa and Europe prove the man's will of the area to communicate with others. With time, these signs gave each other the hand to become our alphabets of today.

In the need thus to fix messages and to consign the facts and thoughts in a durable way, the people such as Sumerians, the Egyptians, the Berber ones invented the spelling and exploited them according to their knowledge and their languages. These first signs of writing translate a world and build a direction starting from the symbolic signs systems (ideograms and pictograms). And while evolving, these written forms will become later alphabets.

II. THE LIBYC WRITING

The ancient Berbers had since Antiquity their own writing which was called the libyc one where one of the forms has been preserved until our days by the tifinagh characters, always used by the Tuaregs. The geographical space covered by these inscriptions extends from the Canary Islands as far as

Samia Ait Ali Yahia is with the Department of Language and Amazigh Culture, University Mouloud Mammeri, Tizi-Ouzou, Algeria (e-mail: aitali 61@yahoo.fr).

Libya and from the Mediterranean to Niger. In the Maghreb, the libycs inscriptions are distributed on Morocco, Algeria, Tunisia and Libya. Those which are currently known exceed the number of 1300 inscriptions, whose majority is funeral. The majority comes from the numidic kingdom (Northern West of Tunisia and as well as the eastern part of Algeria) from where the name numidic was given at the beginning to this writing. Among 1125 inscriptions published by Chabot in his collection, 1073 come from this kingdom; the remainder of Algeria as well as septentrional Morocco knows a low density of inscriptions. Since the Collection of the Libyc Inscriptions of Chabot, a new discoveries about 36 inscriptions in North Morocco and around 50 in Algeria in the West of Sétif including more than one tenth in Kabylia.

The libyc writing of dedicatory types (to heroes or kings), was revealed to us by the lybico-punic bilingual inscriptions, where the majority were discovered in Dougga (Tunisia). The analysis of these inscriptions made it possible to determine the value of the Eastern libyc alphabet. They are bilingual inscription of the mausoleum known as of Atban (RIL1) and that is known as Massinissa (RIL2), two horizontally written inscriptions (see Fig. 1 (b) below) and being read from right-hand side to the left.

The libyc text was decrypted thanks to the Punic part. Twenty three letters constitute this alphabet, as it was indicated in the 7th century by the African Mythologist Fulgence [1], but this number is consequently exceeded by the texts laid out vertically [2]. In spite of some 1300 published libycs inscriptions, whose majority comes from the Massyle kingdom, cradle of Berber Numidia, without counting all those which were painted and engraved in the Sahara, the libyc writing remains indecryptable, even if one knows the values of the major parts of these inscriptions.

"At the time where the paléo-linguists find and reconstitute dead languages which go back to prehistory and compare them with the others, one cannot read the libyc one yet. There was a big concern for the Punic one or the Greek, but not for the libyc one, and this disinterest is already extremely old. Neither Hérodote, neither Pline, nor Strabon condescend to make some comments on this language, a language whose geographical distribution extends from the Western Nile and Nubie, to the east, to the Canary Islands in the West and from the Mediterranean to the Sahel. As for Salluste, it is hardly if he points out that the numidian speak another language other than the Phoenicians" [3]. "There is almost nothing to draw from the old authors writes S. Gsell. It is known that generally the Greeks and Latin were not interested in the languages of the barbarians. Fulgence, a contemporary Roman of Africa of the vandal domination, were the only one who mentioned the libyc alphabet and found that it is composed of twenty three

letters" [4].

The libyc writing knows several directions;

A. The Vertical Writing

It is the case of the majority of the libycs inscriptions (Fig. 1 (a)). They are the funerary texts, starting with bottom and being read generally from left to right. On the other hand there is only a small number of texts which are read from right to left, like the example given in R.I.L 275,814 [5] etc.

According to M.Ghaki [6] the vertical writing would be the oldest, the most current which is lasted more, it is the first orientation which is maintained in spite of the contact with other writings having a different orientation.



Stele of Kerfala Stele of Sibaou Stele of Agouni Goughrane Fig. 1 (a) Steles with vertical writing





Stele of Atban

Stele of Massinissa

Fig. 1 (b) Steles with horizontal writing

B. The Horizontal Writing

It is read from right to left. They are the inscriptions of Dougga including the two bilingual ones (Fig. 1 (b)). The characters are laid out from right to left, perhaps under the Punic influence, and the lines are aligned ones with the top of the others. The horizontal writing being read from left to right is attested only in some cases [5] and in the inscriptions of Bu Niem. They would be caused by the Latin influence [6]. The dedicatory inscriptions are aligned horizontally and read from right to left. The lines are far from being regular, but rather deviated and twisted because of object on which they are written. The direction of the writing is recognized according to certain directed letters. It proved that it is about a strictly consonant alphabet like the tifinagh of the Tuareg, the Western Semitic alphabets or the Egyptian hiéroglyphes. The vowels are not transcribed. On these inscriptions, almost each line forms a complete word. The words are usually not cut and are followed without typographical separation. In certain

inscriptions the separation of the words is marked by a point or a line as punctuation. The libyc writing is unaware of the redoubling of the consonant and does not indicate the tension. Inscriptions in Boustrophedon, circle or spiral were raised too.

Concerning the support of the writing, the greatest part was often carried out on a sandstone rock. Some inscriptions were also carried out on potteries following the example of the shard of Basana, or fragments of amphoras at Volubilis. One of the potteries found in a bazina at Tiddis carries three libycal signs painted on the paunch. The inscription on wood of the chajasco of El Hoyo de Los Muertos, discovered in the island of El Hierro in the Canarian archipelago and which would date from the 10th century, consists of 13 signs close to the alphabets libycs of the West of North Africa or alphabet Tuaregs. [7]

III. LIBYC ALPHABET TYPE

According to the various studies made on the libyc one (Galand, [8] Ghaki [4]), one distinguishes several types of alphabet in the libyc writing (Fig. 2): The Eastern libyc, the Western libyc, the alphabet of Dougga, the alphabet with a **V** form letters, the alphabet of Bu Njem and the old Saharan alphabet.

A. Eastern Alphabet

The geographical location of these libycs inscriptions shows clearly that this alphabet covers approximately the North-West of Tunisia as well as Eastern Algeria. The Western limit of its use is placed at the East of Sétif [9] although inscriptions of the Eastern type can exceptionally be in Kabylia; it is the case of the stele of Kerfela (Bouira) (Fig. 1) which relates to the principal face of the support, an inscription with Eastern signs and on the back an inscription with western sign [9].

The libyc inscription discovered in Kef (Tunisia) and published by M.Ghaki [10], contains a Western character. Ghaki points out also the existence in the South Tunisian of libycs inscriptions (R.I.L of 63 à71) presenting signs known in the only Western alphabet. The Eastern writing is used, therefore best studied in particular according to the existence of many bilingual inscriptions. It seems, undoubtedly under the Punic influence, to have undergone certain regularization (direction of the writing, separation of the words)

According to Camps, it would be an altered or simplified form of an original writing in contact with the Punic one. [11] According to Meltzer the Eastern alphabet would have been invented by Massinissa [1]. When one tries to observe this alphabet more closely, one recognizes in the form known as Eastern twenty four signs of which is doubtful; what agrees with the indication given by the African writer Fulgence who indicates in substance that this alphabet account only 23 signs.

Galand makes a distinction between two intrinsic forms with this Eastern alphabet. According to him, there is not only one Eastern alphabet but two: that of the funerary steles and that of the monuments [12]. Galand [13] gave the name of alphabet of Dougga to the alphabet of the monuments. This alphabet is fixed at the two discovered bilingual inscriptions with Dougga (libyco-punic) of the mausoleum of Massinissa,

gone back for the first from the 2nd century and the other to 138 av. J. - C. the alphabet of Dougga is written horizontally and account 24 signs of which two remain enigmatic. As for the alphabet of the funerary steles, it is indicated by the name of Eastern alphabet.

B. Western Alphabet

Studies showed that the use of the Western alphabet is widespread mainly on western half of Algeria and even Morocco (country populated by Masaesyles and the Moors). But these inscriptions are fewer and generally shorter and rougher. The characteristic of this alphabet is that it includes additional signs that the Eastern one is unaware of, whose value could not be given. Some of these characters are identical to the Touareg letters of the alphabet; but according to Chabot, they appear to have a different value. [5]

In the texts of the Western inscriptions, one finds the following formula: V + This one does not appear in any Eastern inscription; on the other hand the formula OIX which is common to the majority of the Eastern epitaphs does not appear in any Western inscription. Galand [12], [14] made an observation on the subject of this alphabet. According to him there exists an alphabet with a V form letters whose summit is directed to the bottom and which does not appear in the alphabet of Central Tunisia. Another letter according to Chabot (R.I.L 645) could be like a simple alternative of the sign:

All the other elements of this alphabet present layouts known to the East. Galand was limited to the steles which present the sequence or much more characteristic than the V form letters

It counted 26 examples distributed as follow: 4 in Morocco 1 in the West of Algeria, 15 in Central Algeria, 5 in East Algeria (area of Sétif and Guelma), and 1 in Tunisia in Kef.

Ghaki writes "the geographical era covered by this alphabet was not more to be limited to the Western part of the field of the libyco-Berber writing since the inscriptions of the South Tunisia contain signs which are in Central Algeria and in Morocco. The problem remains posed which is more difficult to solve with the fact that the number of the inscriptions remains weak". According to Camps, it would be initially about a conservation of the ancient forms which seems to have been the origin of the evolution which led to the current tifinagh. [4]

C. The Alphabet of BU NJEM

They are graffiti discovered at Bou Njem, the Gholaia antique in Libya, and on the wall of an old monument which dated from the 3rd century. The writing is horizontal, made up of nine inscriptions.

"The libycs inscriptions which we can neither read nor to translate" wrote R. Rebuffat [16]. He adds that graffiti were influenced by the Latin graphy at the point to constitute a special alphabet.

D. The Old Saharan Alphabet

This alphabet is widespread in Berbèrie pre-saharan and

Saharan, territory of Gétules and Garamantes where it was used, by the inhabitants who had populated these regions, to engrave their messages. It is mostly unknown and badly located. It is distinct at the same time from the modern tifinagh and the libyc alphabets. Ghaki said: "it would be, at this stage more careful to speak about Saharan writing because an inventory was not made; this writing arises in the form of graffiti and of inscriptions engraved on rock faces, sometimes associated with engravings; this field remains to explore and counted, before making any conclusion". [4]

If the discoveries of engravings and steles with libycs inscriptions do not stop multiplying, the decrypting of these layouts remain timid, despite of the efforts made and the interest caused by this writing by the researchers who devote themselves to this mission. Galand wrote [15] "... but all the specialists, even those who risked the most adventurous explanations, have agreed to recognize the insufficiency of the results obtained in one century and half of research".

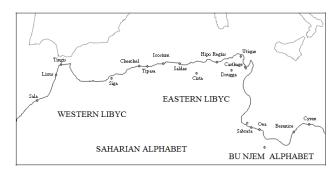


Fig. 2 Distribution of the various libyco-Berber alphabets

IV. HISTORICAL OUTLINE OF THE LIBYCS INSCRIPTIONS

The history of these inscriptions is provided to us by the Abbot Chabot in the foreword of his book R.I.L [5].

The existence of a Berber writing was revealed, by the discovery in 1631 of the first libyc inscription embedded in the Eastern frontage of the mausoleum of Dougga, the antique Thugga (Tunisia). The merit returns to Thomas d' Arcos who took himself a first copy of this inscription whose analysis showed that it was bilingual (libyco-punic). He sent a statement of it to his Peiresc compatriot, who tried to decrypt it but without success. Two centuries later, in 1842, Thomas Reade, English consul in Tunis, made it removed from the monument. After his death, the inscription was sent to British Museum. It is with the copies of this document that the first tests of reconstitution of the libyc alphabet were tried. Because of the relevance of the scientific information which it contained, this document was republished, on several occasions, but only the Punic part remained studied for a long time. It is to the French scientist of Saulcy that returns the merit who has established in 1843 most of the alphabet of the inscription. From the proper names quoted in the two texts of the inscription, he succeeds in establishing the value of the majority of the characters of the libyc alphabet. These studies were continued by Dr. Judas and some others [5]. For a long time, this text which was composed of six lines, where the first

two were partly mutilated, remained the only first discovery available and thereafter, the only base usable for the determination of the value of the libycs letters. During second half of the 19th century, the libycs discoveries multiplied. Thus between 1840 and 1867 several libyc inscriptions were collected by officers of the French Army, civil servant and explorers on the Algero-Tunisian borders and in Kabylia, thus in 1853 an inscription was discovered by colonel Wolf at Oued Isser and a second in 1859 in Abizar by Aucapitaine.

In 1868 M. Reboud collected and published successively in the memories of the archaeological company of Constantine all the libycs inscriptions that he discovered and a great number was joined together in one volume, in 1870 by the general Faidherbe[5]. From 1874 to 1887, new inscriptions were discovered by Reboud and were published thereafter in: the archaeological bulletin of the committee of historical work, or in the collection of the notes and memories of the archaeological company of Constantine.

F. of Saulcy [5] tried to understand the value of the inscription starting from the proper names and since, much of the authors tried to decrypt the libyc inscriptions. In 1874 J. Halévy [5] published a collection where he wanted to see only proper names. He sought to find in these inscriptions the 22 letters of the Phoenician alphabet, and was mistaken on the values of the 7 most frequently employed signs. In his Berber studies published in the Asian newspaper, he tried to give the complete translation of 250 libycs inscriptions, being helped on the one hand by his knowledge of the Berber languages and on the other hand by the decrypting of his precursors.

It resulted from it that the four fifths of his readings were erroneous. He ran up then against some obstacles like, the presences of Roman names written in libyc characters. Chabot did not realize these facts well until later while seeking in libyc onomastics, the interpretation of the neo-Punic inscriptions.

Chabot could reconstitute thus the libyc alphabet thanks to new texts discovered later, like in particular the second bilingual inscription of Dougga updated in 1904. In this historic insight Chabot tells the difficulties encountered by the researchers while trying to decrypt this writing, but he did not quote the characters of the libyc alphabet highlighted by Saulcy nor [5] explained how he arrived at these results and the seven signs on which Halevey [5] is misled in value.

Even Gsell was satisfied to write without giving more explanation: "it is grace to Saulcy who had the merit to identify the majority of the libycs letters, according to the inscription of the mausoleum of Dougga. The value of some other letters was fixed by Halévy, Letourneux and M. Chabot". [3]. Between 1932 -1939 about 600 texts were discovered at Souk-Ahras by Mr. Paul Rodary who was inspector of National Forestry Commission, in collaboration with his agents [5]. In 1940 Chabot published his collection of libyc inscriptions which joins together 1125 inscriptions found in the three Maghreb countries, most having been discovered mainly in Tunisia and in the East of Algeria.

After Chabot other works were carried out on the libycs inscriptions, by other researchers, and were published

thereafter in various articles and collections.

The concern of these researchers was the decrypting of the libyc inscriptions, the dating and the origin of this writing. Despite all these this researches, the libycs inscriptions remain indecryptable.

According to Chaker [17] the reasons of the non satisfactory results of the decrypting of the libyes inscriptions are due to:

- Scarcity of methodological work in the Berber field, except the collections of Chabot and Galand which are especially descriptive corpora.
- The historical distance (two millennia) that separates the libyc one from the modern Berber dialects.
- The insufficient knowledge of the Berber lexicon.
- The poverty of these libycs inscriptions in linguistic information, their contents is limited to proper names and some ritual terms.
- The non specialization of the researchers (not berber speaking).
- The diversity of the libyc writing.

The use of vowels chosen by the researcher and intercalated between the graphemes can lead to several interpretations. Examples [18]:

In central Morocco root F.R

Ffir: to hide
Ifer: wing of bird
Ffir: behind
Ifri: cave
Tafrut: knife

All the authors announced that one of the difficulties of the libyc writing came from its consonant nature but not in the separation of the words.

"In spite of more than one century of research, the libycs inscriptions remain, essentially, undecrypted. Also, it is without surprise where one notes that it could reign in certain authors, a tough doubt as for the relationship of libyc and Berber...

Despite all the historical data, toponymy and the anthroponomy confirm the libyco-Berber relationship of the inscriptions." [17] Galand was able from there to wonder whether the libycs inscriptions (or at least, a certain number of them) were not written in a language which would not have a direct relationship with the Berber one [17].

Certain researchers concluded even that the language in which these inscriptions are written completely disappeared and deny any relationship between the libyc one and the Berber one.

But, Camps had written: "if the libyc one is not an old form of Berber, one does not see when and how the Berber one would have been constituted, one can take with witness, to establish the relationship of libyc and Berber all the historical data: toponymy, onomastics, the lexicon as well as the testimony of the Arab authors". [19]

V. THE ORIGIN OF THE LIBYC WRITING

One of the problems which caused debates is that of the

origin of Libyc. It remains difficult to establish in spite of the few attempts in the field, more especially as we have few dated inscriptions. The archaeological, linguistic and historical data remain insufficient to answer this question. This did not prevent the researchers from giving an opinion for or against a Semitic Eastern origin or a local origin or an average position defended by some. Several assumptions were advanced but remain not very convincing to answer these problems.

A. Partisans of the Semitic Origin

A. Basset [19] had written that the libyc alphabet is an alphabet which draws its origins from the Punic alphabet (Phoenician). Tifinagh and according to this author, the plural of "Tafniqt" which means in Berber the Phoenician, then the name indicates the origin of this writing. Nuance would come from Kossman [21] who estimates that the libyc writing is probably derived from the Phoenician writing, while recognizing originality in the characters. Friedrich [22] rejects the idea of a relationship with the Punic one or the neo-Punic one and leans rather for the South Arabic, but he estimates that there was parallel development rather than a borrowed one.

For Rössler [23] the libyc writing is only one deviation of the Semitic consonant writing. He rejects the explanation of the name tifinagh by that of Punica which is related to the Greek name pinaks "stone writing tablet". This etymology is hardly appropriate and which seems it was never employed on the scribe tablets. For M'OConnor [24] the libyc writing derives starting from a Semitic prototype probably Punic or Southern Arabic.

B. Partisans of a Local Origin

However several researchers dispute the Phoenicians origin: S. Gsell, J. G. Fevrier, G. Camps, etc

S. Gsell [24], [3] thinks that the libyc alphabet is the result of the evolution of a pictographic system and excludes the existence of any relation with the Punic one. On this subject he quotes: "there are elementary figures, similar to the letters of the libyc alphabet, appear already, mixed with animals on rupestral engravings whose age is not known, but certainly former to the first millennium B.C. Some of them are located in Kef el Mektouba (in the Oranian South), in Khanget el Hadjar (not far from Guelma), and in Chaiba Naima in the South-west of Biskra. Some images representing the beings on the objects would have become phonetic signs". For G. Camps [25], nothing proves that the libyc alphabet was imported because of the decorative reasons suitable for Berber art present on the potteries and tattooing. The crosses, the points, the assemblies of features and the circles which seem to be the native spelling-book of the libyc writing were announced on rupestral engravings. It is against the assumptions who defend the relationship between the Libyc writing and the Punic one. He arrives at the conclusion that the populations living at the Mediterranean borders have resemblances in their graphic system.

J. G. Février [26] believes that this writing is probably autonomous, using a former tradition and material. He rejects the Punic assumption of origin because of the vertical writing

of the libyc writing and for the flexible and undulating characters of the Punic writing.

M. Hachid [7] thinks that the Berber writing derives from an old collection of signs and geometrical symbols which one finds in rupestral art, but which also remained in the Berber decoration.

C. Partisans of an Average Position

S. Chaker, thought that the Phoenician origin is the most plausible at the beginning [27], before he adopt the option of an indigenous writing like S. Hachi [28], they wrote: "one cannot even completely exclude the existence of an embryonic form of pre-alphabetical writing with a limited stock of ideograms, which then converted to the alphabetic sign", but they do not exclude either a Punic influence, they wrote on this subject: "most probably, in contact with the Punico Phoenicians, the Berber ones had to engage in the reconstitution of an old stock of pre-existent signs of which they made a national alphabet. " For CH. Higounet [29] the ancient Berber ones would have borrowed from the Carthaginians only the idea of the consonant alphabet. For the shape of the signs, they would have taken their good in the alphabets of South-Arabic and Phenician, others drawn from a local content (pottery, tattooing) of the symbolic signs systems to see in an old spelling-book. L. Galand [14]: think that the libyc materials have, for the majority, been created in Africa or, at least, one often finds them in varied functionalities like, tattooing, decoration of potteries, and marks of animals. The Semitic influence which was strongly exerted to cause or improve the placement of these materials is on the contrary undeniable. Holding of the Semitic origin insist much more on the consonant character of the libyco-Berber writing, in which, for our part we will rather see borrowed of a technique than that of an alphabet.

D. Unknown Origin

According to Prasse [30] the origin of the libyc writing is unknown, according to him all the attempts to derive it from the Egyptian hieroglyphs, from the alphabets of: southern Arabic, Greek, Iberian, and Punico - Phoenician, did not succeed in providing the decisive proof up to now.

E. Comment of the Assumptions

It was considered for a long time that the libyc writing derived from Punic, like the majority of the Semitic and Mediterranean alphabets. But this assumption as those who made derived the libyc writing from the Greek, South - Arabic or of the Egyptian hieroglyphs is not very convincing.

This assumption is based on the following indices:

- Resemblances of some libycs alphabetical letters to the Punic one.
- 2. On the name even of the alphabet, tifinagh.
- 3. The libyc one is a consonant alphabet, does not note the vowels, Semitic characteristic.
- 4. The greatest number of libycs inscriptions comes from the Punic zones of influences. "One very early saw in this geography of libyc an important index in favour of the thesis of its Punic origin" writes S. Chaker [28].

The Tuareg called their writing "Tifinagh" (tafineq): Tifinagh plural female name built on the f.n.q root which indicates Phoenicians in Semitic. One immediately said that the origin of the libyc writing was phenician. But in the current Tuareg the word tifinagh wants to say the letters, plural of the word afnegh/tafineq, which means sign which is not a very common word. The word Phoenician according to Gsell comes from the word phoenix which is the name given by the Greeks to the coastal region of Lebanon (Phoenicia). Phoenix means in Greek either the red colour or the palms, because this area was very rich of shells from which was extracted a red matter which the kings used to tint in red their coats. Therefore the Punic ones, who had just arrived to North Africa, were called Phoenicians by the Greeks, according to Gsell. [3] If one takes into account this remark, then the word Phoenician would not be Phoenician origin but Greek. According to the investigations made in Niger and Mali by Mr. Aghali-Zakara and J. Drouin [31], it was noted that the root of the word "tifinagh" is not used any more. They connect this term with that of "assefinagh" which means 'hidden' in the Tuareg popular speech. In a legendary historical tradition one allots the invention of the tifinaghs to a civilizing hero "Amorelqis", who would have created them to correspond with the women. These tifinaghs were equivalent to secret codes, where each sign have a hidden significance. Other explanations were proposed by S. Chaker: the first, is that there exists in Adrar of Ifoghas a verb "efne" which means "to write", the second, this root was also used in Berber to indicate the large Kabylian domestic trunk, "afniq". These trunks had in Punic and libyc antiquity funerary uses (coffins). S. Chaker [28] wonders whether the supposed borrow from Punic one is not initially due to an influence on the levels of the funerary rites, and the tifinagh term wouldn't have initially meant for Berber the epitaphs, whose practice would have been borrowed from the Punic ones, rather than with the Punic Phoenicians? But M. Hachid wrote on this subject: "If the existence of a verb which means to write into Berber is extremely interesting, a borrow of the epitaph term from Punic appears very later to us, knowing that on this date, the libyc writing is already made up". [7]

The geography of the libyc corpus should not be an indication of Punic or Phoenician origin because the oldest documents come from the areas far away from the Punic coasts of influences (the high Moroccan atlas and perhaps Saharan areas). With regard to the resemblances of the forms between the libycs letters and Phoenicians, we noted that the libyc one presents less signs known with the Punic writing, than that with old Phoenician and the South Arabic.

It is noticed from Table I, that;

- In 22 Punic letters, only 3 are in the libyc alphabet,
- In the 22 characters of the old Phoenicians 5 characters are found in the libyc one,
- among 30 characters of South-Arabic, 6 characters are found in the libyc one,
- In the Iberian alphabet, 6 characters are found in the libyc alphabet and 7 characters are found in the Etruscan

alphabet but the value allotted to these signs is not the same except for some of them.

It is noticed that the form of certain signs of the libyc alphabet is common to various alphabets and that is logical since they are of geometrical forms. This identity of form can be explained by an influence born by a prolonged contact with the Carthaginians, which could be the explanation of the divergent evolution of Eastern and Western libycal alphabet. Studies showed that the majority of the old written forms use simple geometrical forms like the triangle or the circle which have the advantage of being easily learned and easily realizable. It is thus not surprising to see some resemblances between the two most distant graphic systems. Moreover, one finds the libycs geometrical forms in the figures and symbols of Caspian parietal art and proto historic of Northern Africa. It is certain that in contact with the Punic writing, the libyc one was subjected to some influences: regularity of the characters and the direction of the horizontal writing, from right to left primarily; but the comparison of the Libyc and Punic signs show that this influence stopped there. The greatest difference between the two graphic systems is the general aspect and the orientation of the libyc writing which is vertical and upwards, whereas the Punic writing is horizontal and from right to left. It seems difficult, under these conditions, to derive the libyc writing from the Punic one. If it is thus necessary to seek among the Eastern close writings, as that appears probable, the forms from which derives the libyc alphabet, is not the phenician of Africa such as it is known in Carthage but it is towards a more antiquated writing than it is necessary to be turned over, which would explain the resemblances announced to the writings of South-Arabic (Himyarite, Sabéen) but also Iberian and Etruscan and so on.

VI. DATING OF THE LIBYC WRITING

The problem of the age of the libycs inscriptions is mentioned more and more. This one is not precise. The only old document which is dated, is the celebrate dedication of the temple of Massinissa, 138 B.C., at Dougga. The dates of the other steles and rupestral engravings which carry libycs inscriptions are only supposed, from where the difficulty of locating them precisely. It is thus difficult historically to locate the appearance of this writing. Several specialists in the Berber field tried to date the libycs inscriptions. There is among them, those who chose a low dating (5th and 7th century a. J. - C.) like Prasse, J.G.Février and others for a high dating (pre-Roman) like Camps. Those who chose a low dating didn't agree to make the libyes inscriptions go up beyond the 2nd century, or more than the 3rd century b. J. -C., example, J.G. February [2] placed the libycs inscriptions at 3rd or at the beginning of the 2nd century b. J. - C. This assumption was allowed by Prasse [30] "only one of these inscriptions carries according to our knowledge, a date from where the temple of Massinissa was constructed even to year 10 i.e. 139 b. J. - C. One does not have the reason to believe that any of the other inscriptions is much older than this one..... ". [32]

It is believed that the libyc writing should go back to an

older date because work of Camps showed that this writing is older than it was thought. Certain texts at Dougga are former to 138 B.C. a vase of Tiddis carries on its sides a painted libyc inscription and containing bones, was dated with carbon-14 towards 250 B.C. A sign of the libyc writing is recognized on another vase of the necropolis of Rachgoum which is dated from the 7th century B.C., and a parietal inscription of Yagour (Moroccan high-Atlas) could be much older, it is the

engraving of Azib Ikkis discovered by J.Malhomme. This engraving comprises a line of writing from 15 to 16 libycs characters. Camps go up this inscription at least until 7th century B.C. On this subject Camps wrote: "Even by renovating to the extreme the archaeological context, this inscription appears to us quite former to 7th -6th century B.C." [9]. we notice that G. Camps wanted to show that the libyco-Berber epigraphy does not start in Dougga.

TABLE I

LYBIC ALPHABET AND ITS CORRESPONDING VALUES WITH SOME OTHER ALPHABETS

LYBIC ALPHABET AND ITS CORRESPONDING VALUES WITH SOME OTHER ALPHABETS libyc of Dougga Punic Ancient South - Arabic Etruscan							
horizontal line	vertical line	Dougga values	Punic	Ancient Phoenician	South - Arabic Alphabet	Iberian Alphabet	Etruscan Alphabet
<u></u>	0	В					0 0
$\overline{}$	\	G	► (G)	^ (G)		$\Gamma_{(A)}$	1 _(P)
П		D				(.2)	(-)
=	II	U					
m		Z			$\mathbf{\Pi}_{(\mathrm{T})}$		
Н	\mathtt{IH}	o Z		I (Z)	•	H (0)	
	_	o Z		▲ (Z)			
-	Ш	T					
ζ	~ \	• Y				$\mathcal{F}_{(ext{ki,gi})}$	M N (H)
\Rightarrow	11	K			T_{G}	(K1,g1)	
П		L			, , (G) (I)		
]>		M					
	<u> </u>	N			_1	(ba, pa)	
ΣC	፟፟ጟ_	S			$\mathbf{X}_{(\mathrm{Z})}$		8 (F)
X	κX	F					
÷	—	С					
	0	Q R	0	0		\bigcirc	0 ◊
T÷ O ¾ +	Ш₩	v S	$O_{(R)}$		{}{}	O _(ku, gu)	UV
+	+		4	+ _(T) (S)	$\times_{(T)}$	v	0 Q _(T)
■	→	T Ti	$\mathbf{h}^{(\mathrm{L})}$	(T)	/ (1)	X _(da,ta)	∪ v (T)
<u> </u>	<u> </u>	Н					

To reinforce the old dating of libyc, R. Rebuffat [33] specialist in the Roman period has just discovered in Ségeste (Italy) on potteries discovered in an archaeological level going up to 500-480 before J. - C of the libycs characters. These signs belong to the Eastern alphabet. "This discovery is older by three centuries and half per contribution to that one knew up to now" wrote Laporte [33]. M. Hachid adds at this point: "if this information is confirmed, the Eastern alphabet would be considerably out-of-date, and, would give reason to G. Camps who estimated that this one was older than J. Février's estimation". If these dates are confirmed, they would be the highest for the libycs inscriptions marking with the archaeological objects. Since the libyc alphabet is regarded as most recent, then it would push back the age of the Western alphabet on a date which would take place in the first part of 1st millennium before J. - C and which approached that of the inscription of Azzib [34]. Malika Hachid defends a greater seniority of the libyc writing of which it locates the appearance between 1500-1000 before J.-C. "All the elements; archaeological, linguistic and historic site converge towards this same reference mark, that of the appearance of libyc towards the end of the 2nd millennium before J. - C, between 1500 and 1000 before J. - C" writes Hachid [7]

VII. CONCLUSION

Why the researchers would always regard their Berber Antiquity as simple imitators, inapt to produce an original written form and to influence in turn their neighbours to use them as a model? As a fact many evidence attest that the Berber ones were the investigators of some discovering that their neighbours had borrowed to them, example of the tank drawn by four horses, that one finds on cave paintings and of which the use was propagated in Greece, then in all the Roman empire, as attest it the authors of Antiquity etc "archaeology also showed that neither the corn, neither the olive-tree, neither the fig tree, nor the vine are of Phoenician importation. The settlement is a fact quite former to the first millennium and hydraulics in general does not have any more related to the Phoenicians but with the Romans. "As many testimonies on some advanced technologies and on the libyc industry which someone wonder how it could not extend to the writing" writes R. Kahlouche [35].

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