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NUOVA SERIE

SUPPLEMENTO 1

Paths into Script Formation in the Ancient Mediterranean

edited by
Silvia Ferrara and Miguel Valério



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CHAPTER 3

THE BYBLOS SCRIPT

Juan-Pablo Vita, José-Ángel Zamora

Summary

The discovery of the first pseudo-hieroglyphic inscription in 1929 in the city of Byblos (modern Jbeil, Lebanon) by Maurice Dunand marks the beginning of the modern history of this type of inscriptions, the current corpus currently being made up of about fifteen texts. Written in a pictographic signary, probably a syllabary and seemingly Egyptian-inspired, almost one hundred different signs are attested. These inscriptions were all found in Byblos in unclear archaeological contexts (they are usually dated from the early stages of the second millennium BC) and are incised on various supports. The area and period of reference might suggest that the language used in these texts is Northwest Semitic, though no internal evidence supports this claim. Yet, despite numerous efforts, the script must still be considered as undeciphered. Notwithstanding all the difficulties attached to this epigraphic corpus, the pseudo-hieroglyphic script is highly significant for the history of ancient writing. It reveals that local scripts other than Egyptian hieroglyphic and Mesopotamian cuneiform systems existed in the Syro-Palestine area prior to or simultaneous with the first linear alphabet or alphabets. Syria-Palestine in the second millennium BC thus appears to be a hotbed of disparate languages and scripts which fostered the development of new systems. This chapter will review the history of research, the chronological issues, the morphology of signs and the layout of lines, the direction of the script, punctuation marks, etc. An internal analysis of the script system will also be attempted, with the due caveat that this is an undeciphered script recording an unknown language. We will examine the possible stems, declension patterns, suffixes, logograms, etc. The ultimate purpose is not to identify the underlying language, but rather to gain a greater understanding of how this script works.

INTRODUCTION

In the late 1920's and early 1930's a small group of texts, carved on a couple of metal tablets, some fragments of stone stelae and several bronze spatulas, was discovered during Dunand's archaeological excavations at Byblos (Fig. 1). They were written, probably in the second millennium BC, in a linear script usually called pseudo-hieroglyphic of Byblos due to the resemblance of its signs, noticeably pictographic, to Egyptian hieroglyphs.

Nevertheless, the designation 'pseudo-hieroglyphic of Byblos' poses some issues. While the geographical reference is quite appropriate to refer to the script known chiefly in pre-classical Byblos (though it is not certain that the script actually originated in the city), the adjective 'pseudo-hieroglyphic' seems inferential (as it *a priori* links its name to the Egyptian script)¹ and unclear (it may apply to any, even non epigraphic, hieroglyph-like element).² Other possibly more accurate options, such as 'Byblos syllabary' (or the bolder variant 'Canaanite syllabary'), also presupposes conclusions on its functioning and/or historical use. The least problematic designation given to this script consequently alludes exclusively to the place the documents were mainly found: 'the Byblos script'. While not entirely trouble-free³ when other terms could perhaps be more

1 As we shall see, the resemblance of the signs to Egyptian hieroglyphs actually originated the term. As a reference to a similar graphical system, the term is equally inappropriate.

2 In archaeological literature the term "pseudo-hieroglyphic inscriptions" is used on some occasions to refer to those using Egyptian signs, either imitating them or for purely decorative reasons, without conveying a coherent text.

3 The script dealt with here is not the only script attested in Byblos. In fact, the Greek name of the city is used to identify other scripts and groups of documents such as the Phoenician inscriptions from the first millennium BC found at the site (as both the language and the script used in these inscriptions constitute clearly differentiated variants within the Phoenician *corpus*). As a matter of fact, in that context, "the Byblos script" would refer to the palaeographic variant of the Phoenician linear alphabet used in the city.

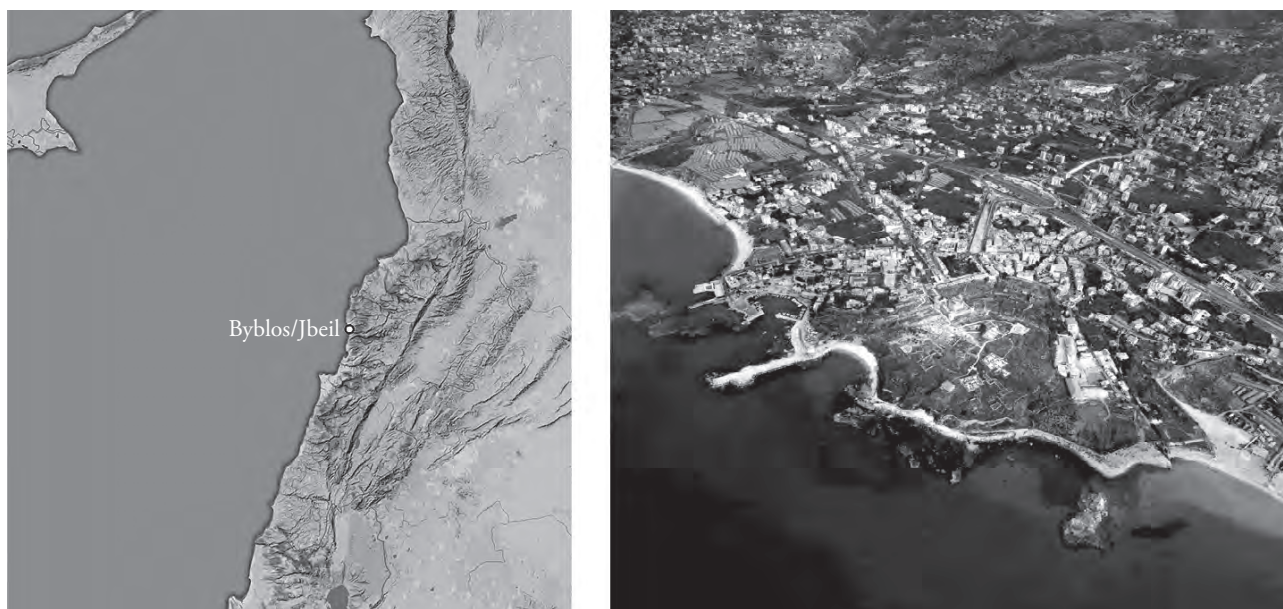


Fig. 1. Map of Lebanon showing the location of modern Jbeil, ancient Byblos (on *Google Maps*) and aerial photograph of the city's archaeological area (after Francis-Allouche, Grimal 2012, fig. 1).

appropriate,⁴ 'the Byblos script' will be the term used herein (we will refer to the sources as 'documents in the Byblos script').

This paper will produce a detailed account of the corpus in the Byblos script and of its features, its geographical and chronological framework, and the various theories regarding its formation. Finally, brief conclusions and final considerations will be presented.

CORPUS OF TEXTS

Dunand's inscriptions

The modern history of inscriptions goes back to 1929 when French archaeologist Maurice Dunand found the first instance of this script during his eighth archaeological campaign at the ancient city of Byblos (modern Lebanon). One year later Dunand published the find, a fragment of a stela engraved with an, until then, unknown script (Dunand 1930).

Later campaigns unveiled further inscriptions in the Byblos script. In 1945 Dunand published in one volume, *Byblia Grammata*, all the inscriptions found during his excavations at Byblos with the purpose of reaching an improved knowledge of the origin and development of the alphabet. He gathered different types of inscriptions from different periods, including ten inscriptions in the Byblos script. Following the order in which they were found, he identified them with letters *a* to *j*. They consisted of four stelae (*a*, *g*, *h*, *j*), four spatulas (*b*, *e*, *f*, *i*) and two bronze tablets (*c*, *d*).

⁴ Szynter (1975, 82) suggested using the term "Gublite" to refer to this script, derived from the local name of the city, Gubla or Gebel. The label "Gublian script" would indeed reduce misunderstandings since, in this way, 'Byblos' or 'Byblian' would thus be used to refer only to inscriptions from the first millennium BC (in accordance with the later Greek version of the name for the city beyond a mere conventionalism). His proposal, however, has had little influence.

A few years later Dunand published four further inscribed fragments of stelae, which he named from *k* to *n* (Dunand 1978). In total, he located and published the fourteen texts in Byblos script presented herein.

Tablets

— Tablet *c* (Fig. 2)

Editio princeps: Dunand 1945, 74-76.

Material: Bronze.

Number of lines: 15 (A: 13 + B: 2).

Total number of signs (visible or partially visible): 225.

Number of diverse signs: 46 + 3.

Direction of text: From right to left. This is demonstrated by the fact that lines start right next to the right edge of the piece and mostly finish before reaching the end of the left edge (including several consecutive lines, thus ruling out the possibility of a boustrophedon text). Unlike the Mesopotamian practice, in order to read the reverse the tablet needs to be turned on a theoretical vertical axis without inverting the obverse (as we would nowadays turn the pages of a book).

Dividers: No division lines between lines. No dots, lines or division spaces between letters.

Material segmentation indicators: Lines that have blank beginnings or ends.

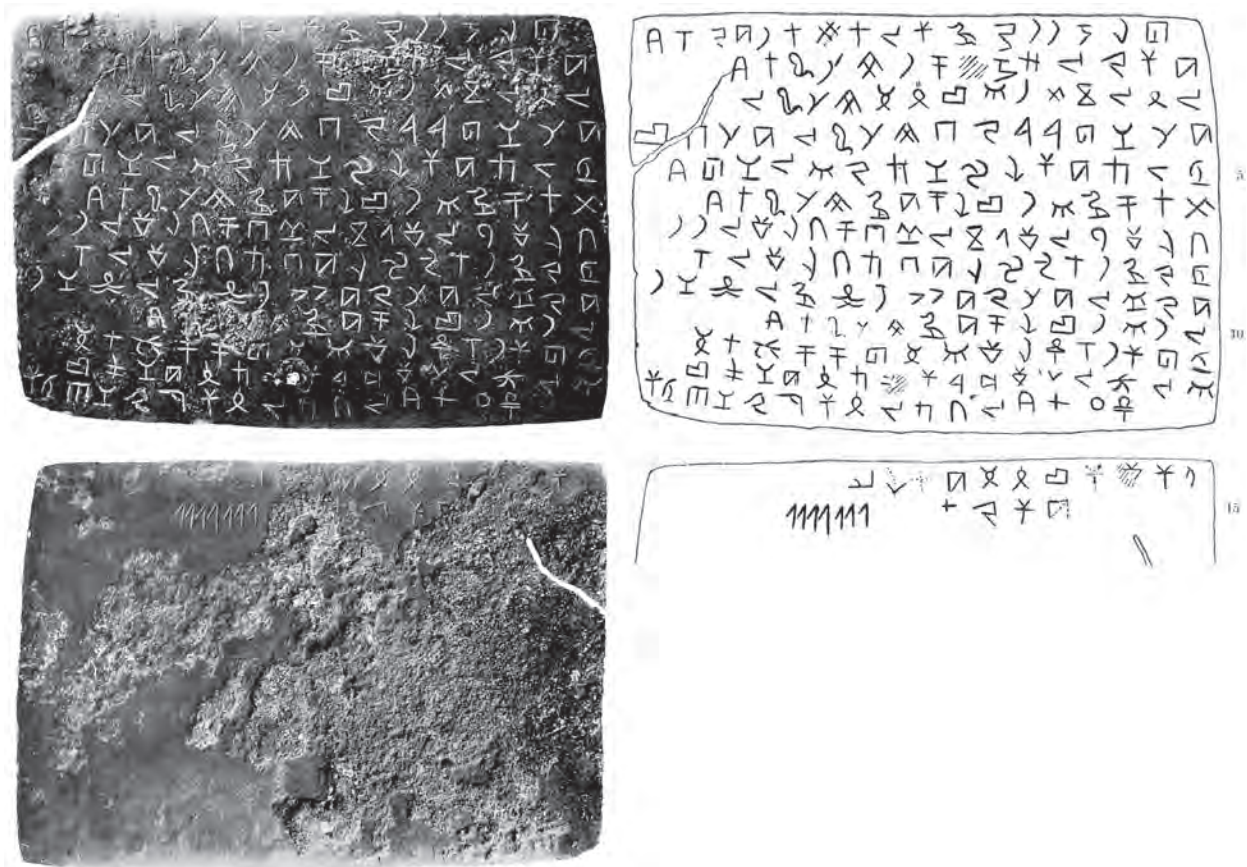


Fig. 2. Photograph and drawing of Tablet *c* (Dunand 1945, pl. IX, fig. 28).

— Tablet *d* (Fig. 3)

Editio princeps: Dunand 1945, 76-78.

Material: Bronze.

Number of lines: 41 (A: 22 + B: 19).

Total number of signs (visible or partially visible): Approx. 457 + 3 numerals.

Number of diverse signs: 65 + 3.

Direction of text: From right to left. In this case, the reverse was read by turning the tablet on a theoretical horizontal axis, turning the back upside down (that is, identical to Mesopotamian custom).

Dividers: No division lines between lines. No dots, lines or division spaces between letters.

Material segmentation indicators: Non-existent.

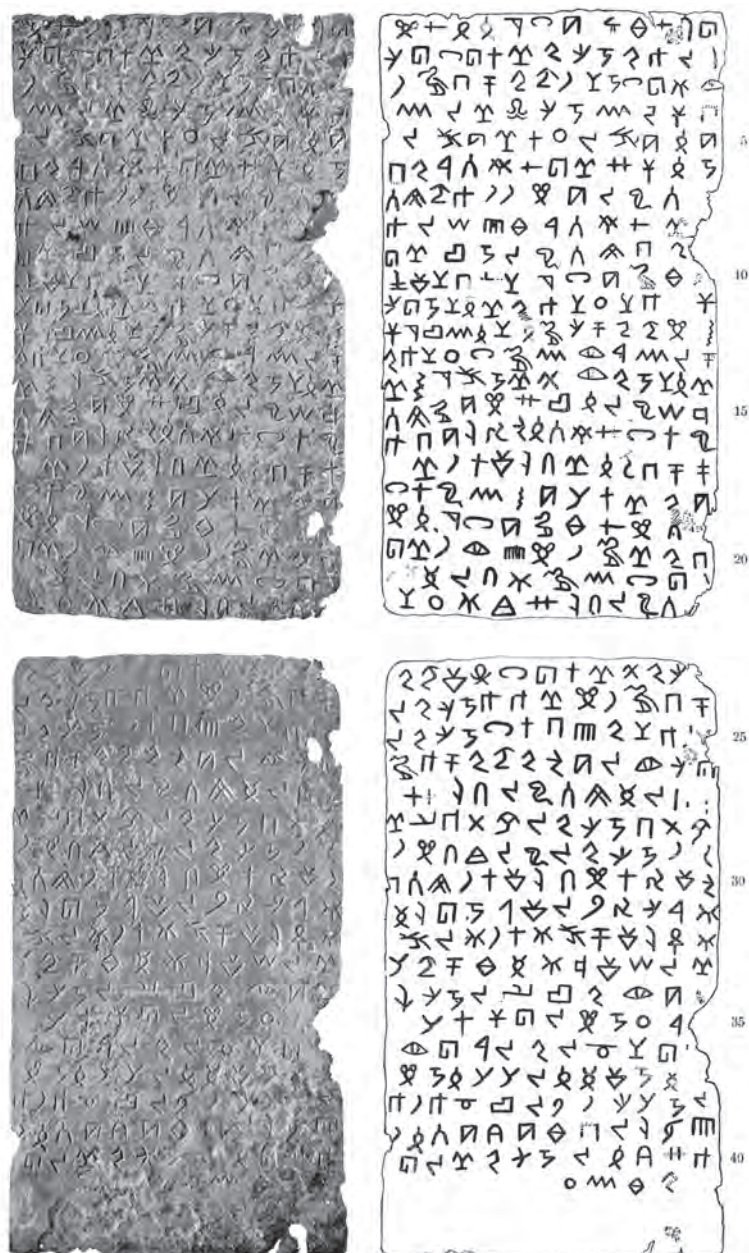


Fig. 3. Photograph and drawing of Tablet *d* (Dunand 1945, pl. X, fig. 29).

Stelae

— Stela *a* (Fig. 4)

Editio princeps: Dunand 1930; 1945, 71-73.

Material: Limestone.

Number of lines: 10.

Total number of signs (visible or partially visible): 123.

Number of diverse signs: 34 + 3.

Direction of text: From right to left.

Dividers: Text lines divided by horizontal lines.

Material segmentation indicators: Non-existent.



Fig. 4. Photograph and drawing of Stela *a* (after Dunand 1945, pl. VIII, fig. 26).

— Stela *g* (Fig. 5)

Editio princeps: Dunand 1945, 80-81.

Material: White limestone.

Number of columns: 6 (5 of them are textual in all certainty; the column on the right end is hardly visible).

Total number of signs (visible or partially visible): 40.

Number of diverse signs: 18 + 3.

Direction of text: Judging by the bird-shaped sign in the first column (provided each sign is oriented as in other inscriptions), the text should be read from right to left. The arrangement of signs into columns is reminiscent of Egyptian practice, unlike the succession of signs following sequentially.

Dividers: Double division lines between columns, though apparently no dividers are used between signs.

Material segmentation indicators: Non-existent.



Fig. 5. Photograph and drawing of Stela *g* (after Dunand 1945, pl. 11.g, fig. 32).

— Stela *h* (Fig. 6)

Editio princeps: Dunand 1945, 82.

Material: Stone, unspecified.

Number of lines: 4 (three of them certainly textual).

Total number of signs (visible or partially visible): 7.

Number of diverse signs: 4 + 3.

Direction of text: From right to left (judging by the anepigraphic spaces on the left margin of lines).

Dividers: No dividers between signs. Text lines separated by horizontal lines.

Material segmentation indicators: Non-existent.



Fig. 6. Photograph and drawing of Stela *h* (after Dunand 1945, pl. XI.h, fig. 33).

— Stela *j* (Fig. 7)

Editio princeps: Dunand 1945, 83-76. According to Dunand 1945, 83, it is highly likely that fragments *h* and *j* may correspond to the same inscription.

Material: Limestone.

Number of lines: 4 preserved, though one of them, the first on the upper part, is scarcely visible.

Total number of signs (visible or partially visible): Approx. 16.

Number of diverse signs: 10 + 3.

Direction of text: Presumably from right to left, as some lines do not cover all the space available on the left margin.

Dividers: Text lines separated by horizontal lines.

Material segmentation indicators: Dividers between letters; end of lines 2 and 4.

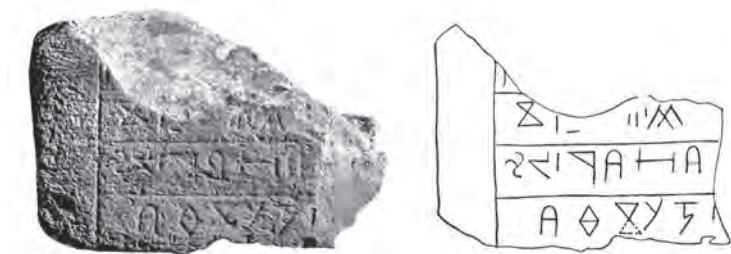


Fig. 7. Photograph and drawing of Stela *f* (after Dunand 1945, pl. XI.f, fig. 35).

— Stela *k* (Fig. 8)

Editio princeps: Dunand 1978, 51-53.

Material: Limestone.

Number of lines: 5.

Total number of signs (visible or partially visible): 30.

Number of diverse signs: 18 + 1.

Direction of text: Apparently from right to left (some lines do not cover all the space on the left).

Dividers: Possible divider between signs 4 and 5 of the fourth line. Unclear stroke between signs 1 and 2 of the fifth line.

Material segmentation indicators: The divider (provided it exists, as seems to be the case).



Fig. 8. Photograph and drawing of Stela *k* (after Dunand 1978, pl. V, fig. 1).

— Stela *l* (Fig. 9)

Editio princeps: Dunand 1978, 53-56. See also Hoch 1995.

Material: Limestone.

Number of lines: 13.

Total number of signs (visible or partially visible): Approx. 74.

Number of diverse signs: Approx. 51.

Direction of text: Probably from right to left, but cf. l. 12.

Dividers: Possible dividers between signs.

Material segmentation indicators: Unclear.



Fig. 9. Photograph and drawing of Stela *l* (after Dunand 1978, pl. VI, fig. 2).

— Stela *m* (Fig. 10)


Editio princeps: Dunand 1978, 58.

Material: Limestone.

Number of lines: 3.

Total number of signs (visible or partially visible): 14.

Number of diverse signs: 8.

Direction of text: From left to right (if, for instance, the orientation of sign  on the second line is analogous to that of other preserved inscriptions).

Dividers: Possible dividers between signs 2 and 3 on the first line and signs 3 and 4 on the second line.

Material segmentation indicators: Dividers.



Fig. 10. Drawing of Stela *m* (after Dunand 1978, fig. 3).

— Stela *n* (Fig. 11)

Editio princeps: Dunand 1978, 58-59.

Material: Stone, unspecified.

Number of lines: 5. No noticeable signs on the first line, the most poorly preserved. No indication of a sixth line can be noticed under the fifth preserved line.

Total number of signs (visible or partially visible): Approx. 19.

Number of diverse signs: 18.

Direction of text: Probably from right to left (cf. for example sign 4 on line 5).

Dividers: Possible divider after the second visible sign on the third line.

Material segmentation indicators: Unclear.



Fig. 11. Photograph and drawing of Stela *n* (after Dunand 1978, pl. VI, fig. 4).

Spatulas

— Spatula *b* (Fig. 12)

Editio princeps: Dunand 1945, 73-74.

Material: Bronze.

Number of lines: 7 (A: 4 + B: 3).

Total number of signs (visible or partially visible): 43 (39 + 4 dividers).

Number of diverse signs: 23 + 4 (dividers).

Direction of text: From right to left, as revealed, for instance, by the first sign on line 3, repeated on several occasions.

Dividers: No division lines between lines. Four dividers of sign sequences (on lines 1, 2, 3 and 6).

Material segmentation indicators: Beginning and end of text. Dividers on lines 1, 2, 3 and 6.



Fig. 12. Photograph and drawing of Spatula *b* (after Dunand 1945, pl. XIII.1, fig. 27).

— Spatula *e* (Fig. 13)

Editio princeps: Dunand 1945, 78-79.

Material: Bronze.

Number of lines: 3 (A: 3 + B: 0).

Total number of signs (visible or partially visible): 17 (12 + 5 numbers).

Number of diverse signs: 11 + 1.

Direction of text: From right to left. Lines are laid out aligned from the right and end irregularly on the left. The last two lines do not cover all the available space on the left margin.

Dividers: No division lines between lines. No division lines between signs.

Material segmentation indicators: Beginning and end of text. End of line 2 and beginning of 3.



Fig. 13. Photograph and drawing of Spatula *e* (after Dunand 1945, pl. XII.e, fig. 30).

— Spatula *f* (Fig. 14)

Editio princeps: Dunand 1945, 79-80.

Material: Bronze.

Number of lines: 7 (A: 3 + B: 4).

Total number of signs (visible or partially visible): Approx. 50 (47 + 3 numbers).

Number of diverse signs: Approx. 28.

Direction of text: From right to left on side A, and from left to right on side B (where the orientation of some signs, not all, is flipped horizontally), judging by the arrangement of the signs on the spatula.

Dividers: No division lines between lines. No clear division lines between letters.

Material segmentation indicators: Beginning and end of text; perhaps also the end of some lines.



Fig. 14. Photograph and drawing of Spatula f (after Dunand 1945, pl. XII.f, fig. 31).

— Spatula i (Fig. 15)

Editio princeps: Dunand 1945, 82.

Material: Bronze.

Number of lines: 9 (A: 4 + B: 5).

Total number of signs (visible or partially visible): Approx. 96.

Number of diverse signs: Approx. 36.

Direction of text: Apparently, from right to left. Lines start quite well aligned from the right and end irregularly on the left. The last line does not cover all the space available on the left margin.

Dividers: No division lines between lines. Small vertical division lines between letters.

Material segmentation indicators: Dividers (in addition to the beginning and the end of the text).



Fig. 15. Photograph and drawing of Spatula i (after Dunand 1945, pl. XII.i, fig. 34).

Summing up, it could be claimed that while sign appearance and line arrangement may vary depending on the surface (on bronze, strokes are simple and lines are horizontal; on stone, however, signs present double strokes, and lines can also be arranged vertically), these sources reveal a remarkably homogenous script from a graphic viewpoint. Its use seems also quite regular: while some spatulas present a different direction of text on each side, most documents are written from right to left. Another significant feature is the use of word or word-group dividers in some inscriptions (as in the Ugaritic alphabet or in the archaic Phoenician alphabet, and must therefore have applied also to the linear alphabet of the second millennium BC, at least in some of its versions). Moreover, while the

exact inventory of preserved signs of the Byblos script is yet to be established with certainty (and quite probably we do not possess the complete repertoire), most estimates agree in its comprising no fewer than one hundred signs. It therefore seems to consist of a syllabic or logosyllabic script.

Furthermore, the core of the documents in the Byblos script originates, as already stated, in undetermined locations within the city. Texts appear on a variety of surfaces which, besides affecting the shapes of the signs significantly, reflect different uses of the objects themselves. In the absence of reliable chronological data, it is also highly possible that the texts were produced in different periods. Likewise, it is apparent that a relatively high number of scribes and etchers were involved. In fact, graphic variants are noted in the signs, possibly resulting from one or several of the above circumstances. Yet it is nonetheless possible to identify clearly the same script in all the inscriptions, a fact that provides some homogeneity to the corpus. Everything seems to suggest that this script was regulated by well-defined rules and that its use was extensive and varied, at least in certain circles at Byblos.

Given the exhaustive excavation method deployed by Dunand at the site of ancient Byblos, a script with such varied attestations could be expected to be more conspicuous. The limited number of documents found, however, contradicts this expectations. The scarcity could mean that, contrary to what stated above, the Byblos script was not actually widely used in the city or was used only for a short period of time. However, this does not necessarily need to be the case: as it is well known, the extant documents do not directly attest to the overall use of the script but only to its use on potentially durable material. As a matter of fact, the documents imply that such surfaces were sought deliberately for text preservation, which indicates the existence of proper epigraphy in the Byblos script – in other words, the development of a specific epigraphic tradition (as a monumental use of the script, intended as a permanent link between a text and an object, or as the conscious creation of a lasting document).

OTHER TEXTS POSSIBLY WRITTEN IN THE BYBLOS SCRIPT

Texts in “Linear Pseudo-Hieroglyphic”

Besides the fourteen texts presented above, the corpus in the Byblos script may actually be larger. Dunand (1934) also published an inscription on a stone block whose script he called “Linear Pseudo-Hieroglyphic” (cf. Dunand 1945, 135) (Fig. 16a). Moreover, the author considered that the morphology of the signs was close to that of the earliest Phoenician alphabet, but similarities were even closer to the morphology of signs in the Byblos script. According to Dunand, it therefore consisted of a morphologically evolved and simplified Byblos script that was closer to a purely linear tradition, though still related. Results later reached by Martin after directly examining the piece reinforced these considerations. Martin identified new signs underneath the inscription published by Dunand (who had already pointed out the presence of previous incisions under the better visible ones; indeed, deliberate strokes can be noticed at least on the second line). Despite its poor condition, Martin claimed that these strokes clearly corresponded to signs in the Byblos script from a previous inscription (Fig. 16b); the inscription could hence be a palimpsest (Martin 1962a, 258-260; Röllig 1972-1975, 394):

— Stela in “Linear Pseudo-Hieroglyphic” (Fig. 16a-b)

Editio princeps: Dunand 1934, 567-571. See also Dunand 1945, 135-138.

Material: Limestone.

Number of lines: 3.

Total number of signs (visible or partially visible): Ca. 22 + 2.

Number of diverse signs: Ca. 14-15.

Direction of text: From right to left (Dunand 1934, 568: “sens qui s’accommode le mieux de l’orientation des lettres d’apparence phénicienne”).



Fig. 16a. Photograph and drawing of the block with “Linear Pseudo-Hieroglyphic” inscription (after Dunand 1945, pl. XIVb, fig. 47).

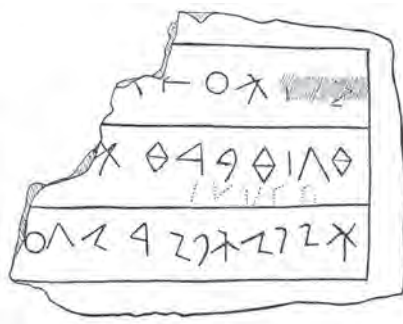


Fig. 16b. Drawing of the block with “Linear Pseudo-Hieroglyphic” inscription (after Martin 1961, 69).

Dividers: Ruling between lines and possible dividers (vertical strokes) between signs: possible division mark on the first line, at the beginning of the left edge of the damaged area, and on the second line (third from the right; cf. Dunand 1934, 568).

Material segmentation indicators: No clear indicators.

Palimpsests

Martin published three other palimpsests in the same article, which consist of Phoenician texts incised over ancient inscriptions originally written in the Byblos script, which had been erased, but were still noticeable in certain areas. In particular, he identified a text written in the Byblos script on a spatula showing a Phoenician inscription on one side (Dunand 1938, 99-107; *KAI* 3), and signs which Dunand already suggested could be ‘pseudo-hieroglyphic’ on the other side (Fig. 17a). The text in the Byblos script, identified by Martin as a Semitic language, can be seen on just one of the sides of the spatula (Fig. 17b) but, in Martin’s opinion, it possibly extended also to the other side, where the Phoenician text was later incised (Martin 1961, 47-63; see also Sass 1988, 86-87):

— “Palimpsest” spatula (Fig. 17a-b)

Editio princeps: Dunand 1938, 99-107; Dunand 1945, 85-86.

Material: Bronze.

Number of lines: Underneath the Phoenician text, possible traces of several lines. On the other side, four probable lines.

Total number of signs (visible or partially visible): Underneath the Phoenician text, impossible to quantify. On the other side, 15 to 20 in well preserved areas.

Number of diverse signs (visible or partially visible): Both underneath the Phoenician text and on the other side, impossible to quantify.

Direction of text: Probably from right to left.

Dividers: No dividers between lines, impossible to trace dividers between signs.

Material segmentation indicators: No certain indications of text segmentation.

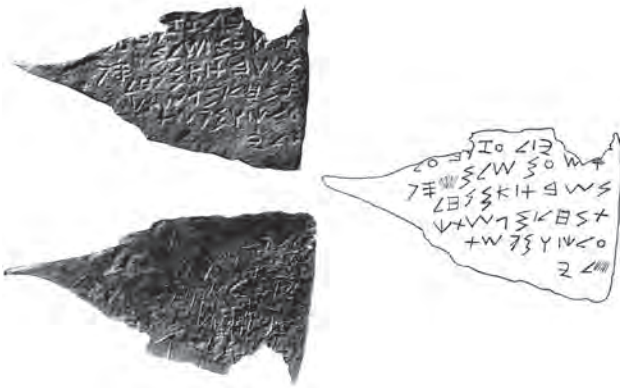


Fig. 17a. Photograph and drawing (side A) of “Palimpsest spatula” (Dunand 1945, pl. XIII.2, fig. 51).

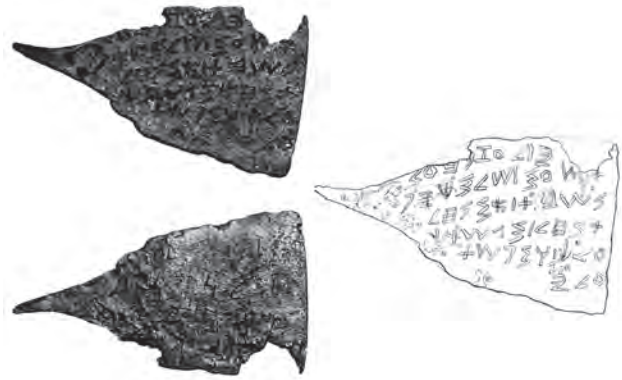


Fig. 17b. Recent photographs of both sides (by J. Á. Zamora) and drawing of side A (after Martin 1961, fig. 4) of the “Palimpsest spatula”.

— The Yehimilk inscription as a palimpsest

Martin also noticed signs in the Byblos script underneath the Phoenician inscription of Yehimilk (Dunand 1930, 321-331, *KAI* 4) (Martin 1961, 63-67) (Fig. 18). These signs are indeed apparently visible at the end of some lines wherever they are not covered by the Phoenician text. Furthermore, the obvious re-elaboration of the surface of the stone block (division lines originally existing between the text lines are only partially preserved) does suggest the existence of a previous inscription.⁵



Fig. 18. Recent photograph (by J.-Á. Zamora) and drawing (after Martin 1961, fig. 6) of the inscription of Yehimilk.

⁵ The ruling between text lines (clearly reminiscent of those used in monumental Egyptian Hieroglyphic script) are incidentally a feature of some Phoenician inscriptions from Byblos (such as the Yehimilk inscription) and do not appear in most of the inscriptions found outside the city – therefore pointing to a continuity trait in terms of traditions already in use in the Byblos script (see n.7).

— The Ahirom inscription as a palimpsest

Martin also saw signs in the Byblos script, nowadays more doubtfully identifiable, at the beginning of the inscription on the Ahirom sarcophagus (*KAI* 1; Martin 1961, 70-76) (Fig. 19).⁶



Fig. 19. Recent photograph (by J.-Á. Zamora) and drawing (after Martin 1961, fig. 8) of the beginning of the inscription on the Ahirom sarcophagus.

Other possible inscriptions

More recently Colless (1996-1997, 45-55; 1998, 29-33) suggested that a series of inscriptions, which, up until then, had not been satisfactorily interpreted, should be identified and read as texts written in the Byblos script. These comprise: an inscription on a ring found in Megiddo;⁷ Sinai inscription 526; an inscription on an Egyptian ostrakon, and three inscriptions on lamps found in Egypt; one inscription on a clay tablet found in Trieste (Italy); and an inscription on a scaraboid seal of unknown origin (Fig. 20).



Fig. 20. Drawings of inscriptions interpreted as written in the Byblos script by Colless: a) Megiddo ring (after Colless 1996-1997, 46); b) Sinai inscription 526 (after Colless 1996-1997, 47); c) Thebes ostrakon (after Colless 1998, 32); d) Lamp inscription 1 (after Colless 1996-1997, 51); e) Lamp inscription 2 (after Colless 1996-1997, 53); f) Lamp inscription 3 (after Colless 1996-1997, 54); g) Scaraboid seal (after Colless 1998, 30); h) Trieste plaque (after Colless 1998, 31).

⁶ Regarding subjectivity in the identification of some of these signs, note the criticism by Sass 2005, 78: “Yet these underlying ‘pseudo-hieroglyphic’ texts may well be a figment of Martin’s imagination: Not one of those who quoted Martin ever professed to have seen them with their own eyes; nor was I able to make out these texts on the originals or their photographs”. However, the existence of signs of the Byblos script seems clear, at least underneath the inscription of Yehimilk and on one of the sides of the spatula, which demonstrates, at the very least, that one script succeeded the other at Byblos. The possible coexistence in use of both graphic systems poses more problems, as it may only be deduced with certainty that the authors of the inscriptions in Phoenician knew the inscriptions in the Byblos script. We cannot know whether they could read them and, if so, for how long they still preserved this knowledge.

⁷ Puech (1999) suggests reading the inscription on this ring as a purely alphabetic Semitic text. The inscription could bear the name of the ring owner and his patronymic.

Finally, Garbini (*apud* Garbini, Luiselli, Devoto 2004, 377-381) proposed to identify as representing the Byblos script an inscription on a cylindrical seal which, according to the author, could have originated from Byblos and ought to be dated to the middle of the fourteenth century BC (Fig. 21). Its signs could be a simplified and schematised version of Byblos signs.



Fig. 21. Photographs of inscriptions on the cylindrical seal (after Garbini, Luiselli, Devoto 2004, fig. 2-4).

Evidently, unlike the homogeneous group of fourteen inscriptions found in Byblos and published by Dunand as proper Byblos script, and unlike the less clear inscriptions on the palimpsests, the texts proposed by Colless and Garbini constitute a much more heterogeneous and problematic ensemble. Even if we were to accept their very dubious identification as Byblos script, the differentiation and configuration of each of its signs, and their alleged relationship with the graphic material extracted from the Byblos corpus, seem quite often – and at the very least – highly speculative.

CONTEXT OF THE BYBLOS SCRIPT: SPACE AND TIME

Area of use of the Byblos script: Byblos centrality

Most of the inscriptions in the Byblos script originate in different locations at the site. The documents originating outside Byblos and proposed as specimens of the Byblos script are few and highly dubious. This script may thus only be considered with certainty to have been used within the city's confines. Obviously, it cannot be discounted that documents written in the Byblos script circulated over a wider area (all the more probable if we assume that the material used for writing was perishable), but no direct or indirect evidence of this can be observed. This was thus, in all likelihood, a local system, plausibly originating from Byblos itself, to record texts in the language of the area. Nonetheless, the scarcity of available documents allows for no secure inferences.

Period of use of the Byblos script: The issue of chronology

The dating of the inscriptions in the Byblos script poses serious issues. For stratigraphical reasons, Dunand (1945, 87; cf. also 78, 131-132) did not consider any of the inscriptions in the Byblos script to be earlier than the 12th Egyptian Dynasty, or later than the 18th Dynasty, thus placing them between 1900 and 1600 BC approximately. This chronological horizon is accepted by a substantial number of scholars. Along these lines, after comparing the morphology of its signs to the Egyptian Hieratic script, Posener (1969, 239) proposed dating the Byblos script to the nineteenth century BC. Hoch (1990, 119), however, concluded that the comparison to the Egyptian Hieratic script allowed for an even earlier date: it could have been developed between the Ancient and Middle Egyptian Kingdoms, while the basic forms of the Byblos script could have been established before the 12th Dynasty.

A different chronological clue, pointing to a later date, is provided by the spatula which features signs of the Byblos script along with a Phoenician inscription (Dunand 1938, 99-107; 1945, 85-86, 155-157; *KAI* 3; see above). The fact that the Phoenician inscription may be dated, according to some views, to the tenth century BC

I	1.	XX	28, 44, 46, 51, 52.
II	2	XXI	29, 104.
III	3, 75, 35, 32, 74	XXII	30; 65, 105.
IV	4, 37, 54, 20, 110, 119	XXIII	34, 42, 66, 79, 82, 106, 117.
V	5, 63, 120	XXIV	43.
VI	6, 121	XXV	48, 119, 62, 100, 113 (B)
VII	7	XXVI	44 (?), 49, 60, 90; 101.
VIII	8, 32. 75.	XXVII	55, 94, 122.
IX	9, 33, 85	XXVIII	56, 92; 54; 88.
X	10, 36	XXIX	62.
XI	11, 16, 21, 38, 58, 74, 99, 112	XXX	64.
XII	12	XXXI	68, 108.
XIII	13; 54; 30, 114.	XXXII	72.
XIV	14, 21, 115.	XXXIII	77; 86.
XV	15, 83, 116; 75	XXXIV	78.
XVI	16, 57; 98; 111	XXXV	118, 123, 7 (1)
XVII	17, 73.	XXXVI	69, 109.
XVIII	18, 94, 102; 50, 70.	XXXVII	84.
XIX	19, 32 (?), 39, 52, 67, 93, 107	XXXVIII	103.

Fig. 22. First table of signs by Dunand 1930, 5.

monumental or consciously chosen hard surfaces is exceptional for the Levant in the Bronze Age (Zamora 2006; 2007). In that case, the scarcity of documents has no chronological relevance: the Byblos script may well have been used for a significantly long period of time, mainly for practical purposes on probably perishable material, which would have left few traces. This would explain, to a large extent, the limited but existent development of a local epigraphic culture.

CHARACTERISTICS AND FORMATION OF THE BYBLOS SCRIPT

When the Byblos script was discovered, it was perceived as different from any other script known up until then, even though its appearance, epigraphic technique and (likely logosyllabic) structure seemed quite familiar. It looked incised, formed by an abundant though limited inventory of signs (thus excluding *e.g.* alphabetical systems, rather pointing to a sort of syllabic script not different from the ones already known in the area); these, well defined, were linear though potentially pictographic, with similar shapes to the signs used in other graphic systems at the time in the area.

In his edition of the Stela *a*, the first published text, Dunand (1930) pointed out that, in the condition it was when it was recovered, the inscription displayed 119 certain signs, though three more could be conjectured. He grouped these signs into 38 different classes as shown in fig. 22.

(KAI 3; Sass 1988, 87) or even later (Sass 2005, 54), has led scholars to conclude that the Byblos script possibly remained in use as late as the first decades of the ninth century BC (Sass 1988, 86 with n. 58; 2005, 54).

The date of the Phoenician inscription is, however, unclear as are the implications in dating the Byblos script.⁸ While the spatula involves the physical association on the same surface of two scripts, namely Byblos and linear Phoenician, it is not clear whether they were both simultaneously in use or whether the latter script was used on this object, when its surface was no longer legible. Should this be the case, although the piece must have been in relatively good condition when it was etched in Phoenician, it is not easily deduced how long before it had been engraved in the Byblos script and when this older system may have been abandoned.

Moreover, the noticeable graphic variants in the Byblos script and the existence of documents that might be evidence of later stages or derivations of the script (such as the inscription referred to by Dunand as “Linear Pseudo-Hieroglyphic”, see above) suggest a relatively long period of use. The scarcity of documents, conversely, could point to a limited lifespan, (because a short period of use would theoretically explain why no more traces of the script remain). Yet we must not forget that the change of the script from its specific everyday supports to monumental or consciously chosen hard surfaces is exceptional for the Levant in the Bronze Age (Zamora 2006; 2007).

8 This is a question to be framed also within recent discussions on the chronology of the oldest instances of alphabetic script in the Levant. See above all Sass (2005), who reduces the dates traditionally attributed to the oldest Phoenician inscriptions from Byblos, not without rejections (see *i.e.* Rollston 2008). Confront with recent summary by Amadasi Guzzo (2014).

He analysed their morphology and compared them to signs of other ancient scripts. He concluded that most signs were remarkably hieroglyph-like, half way between Egyptian and Hittite hieroglyphs in their design. In terms of shape and orientation, between seven and nine signs were, according to Dunand, practically identical to archaic Phoenician signs, while fifteen corresponded to similar signs in the Egyptian Hieroglyphic script. The remaining ten signs were without corresponding parallels in either of these two writing systems.

In 1945, Dunand (1945, 88-131) undertook a renewed, extensive and meticulous analysis of the signs in the ten texts in the Byblos script he had published. He concluded that these texts presented a total of 114 different signs, which still fell short of a complete system. He grouped them into different categories depending on the class of object they seemed to depict: A – animals, B – vegetables, C – sky, water, D – buildings, E – tools, F – cult, G – geometrical shapes, H – unidentified objects, I – uncertain signs (Fig. 23a).

A. – Animaux.	20	D. – Bâtiments.	10	3	15	6
1	21	1	11	4	16	7
2	B. – Végétaux.	2	12	5	17	8
3	1	3	13	6	H. – Figures géométriques.	9
4	2	4	14	B. – Objets indéterminés.	1	10
5	3	5	15	1	2	11
6	4	6	16	2	3	12
7	5	7	17	3	4	
8	6	8	18	4	5	
9	7	9	19	5	6	
10	8	E. – Instruments.	20	6	7	
11	9	1	21	7	8	
12	10	2	22	8	I. – Signes incertains.	
13	11	3	23	9	1	
14	12	4	24	10	2	
15	13	5	25	11	3	
16	C. – Ciel, Eau.	6	26	12	4	
17	1	7	F. – Culte.	13	5	
18	2	8	1	14		
19		9	2			

Fig. 23a. Expanded and classified table of signs by Dunand 1945, 88-89.

He next looked for purely formal equivalences in scripts from different times and places (Fig. 23b). Thus, he compared sign 1 to a sign on the Phaistos Disc, sign 14 to signs in Phoenician, Cretan and even Chinese scripts, sign 15 to a sign in Phoenician and South Arabian alphabets and also to a Sinaitic sign, he also compared sign 16 to an Anatolian hieroglyphic sign, etc.

Nevertheless, the author was well aware that this type of purely formal and external comparisons was of little significance, admitting that most of these parallels should be considered merely fortuitous (Dunand 1945,

122-131). When dealing with the Proto-Sinaitic script, for instance, he contended that both this and the Byblos script must be understood as two parallel and independent scripts, though with a common origin: the Egyptian Hieroglyphic script. Dunand believed that some of the signs in the Byblos script bore what he called “striking” similarities to Egyptian hieroglyphs. Such similarities, according to the author, were even greater when compared to Hieratic signs. In total, these similarities would apply to about 50 signs in the Byblos script, 25 of which would have been extracted directly from the Egyptian Hieroglyph repertoire (Fig. 23b).

Hiéroglyphes phéniciens	Signes minoens			Hiéroglyphes phéniciens	Signes minoens			Signes phéniciens	Hiéroglyphes égyptiens	Écriture hiératique	Signes phéniciens	Hiéroglyphes égyptiens	Écriture hiératique	Signes phéniciens	Hiéroglyphes égyptiens	Écriture hiératique
	Hiéroglyphes	Alphabétiques	Alphabétiques		Hiéroglyphes	Alphabétiques	Alphabétiques									
[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]	[Signe]

Fig. 23b. Tables by Dunand 1945, 122-123 comparing signs in the Byblos script (“hiéroglyphes phéniciens” or “signes phéniciens”) to Minoan signs (left) and to Egyptian hieroglyphs and hieratic signs (right). Below, signs in the Byblos script directly extracted from Egyptian hieroglyphs.

In conclusion, Dunand contributed two key notions which have served as the basis for a number of later analyses concerning the Byblos script. On the one hand, the fact that the script had been elaborated under the direct influence of Egyptian hieroglyphs and Hieratic signs; on the other hand, the fact that the system of the Byblos script could have been the source of Phoenician alphabetic signs (Dunand 1945, 130-131).

Later, Martin (1962a; 1962b) revised Dunand’s proposal and conducted his own analysis of the signs. His was an internal analysis of the Byblos script itself, without comparing it to any other writing systems. He first proposed the following classification: 1. bird, 2. insect, 3. snake, 4. fish, 5. ox-head, 6. head (frontal), 7. head (lateral), 8. eye, 9. mouth, 10. hand, 11. hand, bough, 12. human figure, 13. tree, prop, 14. plant, stick, 15. blossom, 16. crooked staff, 17. twisted rope, 18. cruciform, 19. building, monument, 20. courtyard, house, 21. door, 22. *massebah* (“pillar, memorial stone”), 23. angle, 24. star, 25. hill-country, 26. water, 27. numerals (Martin 1962a, 261). In his later analysis, he concluded that all the signs could actually be grouped into 26 fundamental classes (Fig. 24), to which a final group could be added comprising signs with a numeral function (Martin 1962b, 350). A number of variants could be identified within each group which he defined as “a sign which results from the addition of a stroke to a fundamental *type* and whose function in the script is thereby modified”.

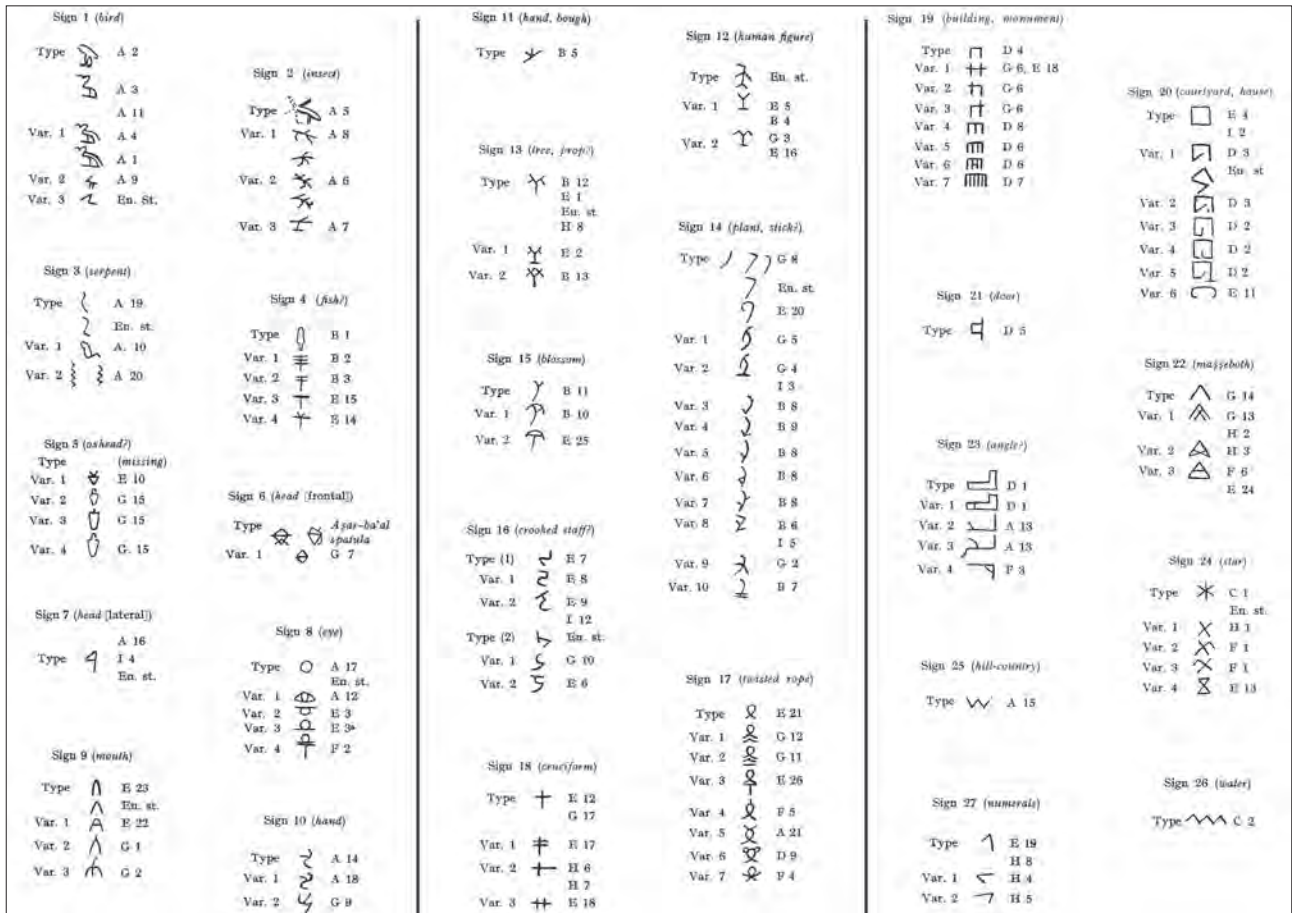


Fig. 24. Martin's classification of the signs in the Byblos script (1962b).

As Daniels (1996, 30) points out, “[i]t is clear from the descriptions attached and from certain remarks in the text that he was trying to make the script into an ordinary alphabet (*i.e.* abjad). The absence of further publications suggests that the attempt was not successful”.

As explained above, Dunand stressed the noticeable influence of Egyptian Hieroglyphic and Hieratic on the Byblos script. Several Egyptologists have pursued this line of thinking. Posener (1969), for instance, investigated the problem of the formal relationships between the Byblos and Egyptian Hieratic scripts. After analysing certain signs (Fig. 25), he concluded on the basis of palaeographical features of Hieratic that the *terminus ante quem* for the formation of the Byblos script could be set in the nineteenth century BC.

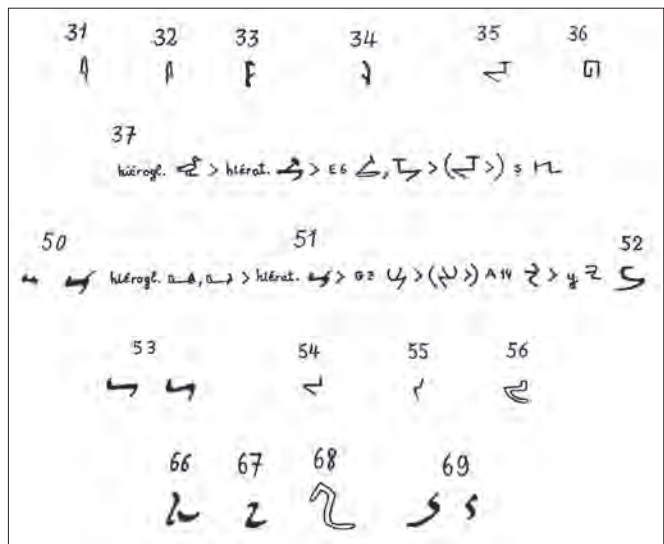


Fig. 25. Comparison with Hieratic signs, as suggested by Posener 1969.

𐤀	eye	* <i>avna</i>	<i>ʿa</i>	𐤁	hieroglyphic	𐤁 (F12)
𐤂	ox head	* <i>ʿalpa</i>	<i>ʿa</i>	𐤃	hieratic	𐤃 (M17)
𐤄	house	* <i>baytu</i>	<i>ba</i>	𐤅	from	𐤅 (F1)
𐤆	door	* <i>dalta</i>	<i>da</i>	𐤇	from	𐤇 (D36)
𐤈	hook	* <i>wawwa</i>	<i>wa</i>	𐤉	from	𐤉 (A28)
𐤊	palm of hand	* <i>kappa</i>	<i>ka</i>	𐤋	from	𐤋 (O1)
𐤌	hand	* <i>yoda</i>	<i>yū/yo</i>	𐤍	Byblian innovation	
𐤎	serpent	* <i>nahšu</i>	<i>na</i>	𐤏	Byblian innovation	
𐤐	pillar	* <i>samka</i>	<i>sa</i>	𐤑	Byblian innovation	
𐤒	one	* <i>ʾhīdu</i>	<i>ʾi</i>	𐤓	Byblian innovation	
𐤔	car	* <i>ʾudnu</i>	<i>ʾn</i>	𐤕	Byblian innovation	
𐤖	Egyptian consonantal value <i>h</i> plus the <i>a</i> -vowel			𐤗	Byblian innovation	
𐤘	Egyptian hieratic form	𐤘 [𐤘] <i>pa</i>		𐤙	Byblian innovation	
𐤚	Egyptian consonantal value <i>pa</i>			𐤛	Byblian innovation	
𐤜	Egyptian hieratic form	𐤜 <i>sa</i>		𐤝	Byblian innovation	
	logogram: "son of"					
𐤞	<i>ʿu-šī-ru</i> "ten" (with the value <i>ʿu</i>) from the Egyptian numeral ten: 𐤞 (V20)			𐤟	the "yoke saddle" of the chariot harness	
𐤠	* <i>hiwa</i> or * <i>hiya</i> "life" (with the value <i>hi</i>) from the Egyptian <i>ʾankh</i> sign 𐤠 (S34)			𐤡	Egyptian sign for the headrest 𐤡 (Q4)	
𐤢	* <i>bikya</i> "weeping" (with the value <i>bi</i>) from the Egyptian "crying eye" sign 𐤢 (D9)			𐤣	Egyptian stand 𐤣 (R12)	
𐤤	* <i>ʿiwwara</i> "blind" (with the value <i>ʿi</i>) a form of the eye sign (𐤀 <i>ʿa</i>)					
𐤦	* <i>ʿarzina</i> "axe" (with the value <i>ʿa</i>) close to the Old Egyptian sign 𐤦 (U20) and the tool in 𐤦 (U18)					
𐤨	* <i>layla</i> "night" (with the value <i>la</i>) from Old Kingdom hieratic form 𐤨, 𐤩 of the Egyptian sign 𐤨 (N3)					
𐤪	* <i>dikarāna</i> "memorial" (with the value <i>di</i>) from the Egyptian signs 𐤪 (O24) and 𐤫 (O25)					
𐤬	* <i>kursa</i> or * <i>kussa</i> "chair, throne" (with the value <i>ku</i>)					
𐤮	related to 𐤮, 𐤯 "chamber" (with the value <i>ta</i>) from the Egyptian hieratic form 𐤮 of the house sign 𐤮 (O1)					
𐤰	* <i>maʿala</i> (with the value <i>maʿa</i>) from the Egyptian hieratic form 𐤰, 𐤱 of the face sign 𐤰 (D2)					

Fig. 26a. Analysis of signs in the Byblos script by Hoch 1990, 115-118.

graphic closeness between some signs in the Byblos script and signs in alphabetic "Proto-Sinaitic" inscriptions (Hoch 1990, 119) and proposed the identification of several signs in the Byblos script with signs in later linear alphabetic systems (Hoch 1990, 120). He also suggested that some of the signs which were not incorporated into the Canaanite alphabet reappeared, however, in the much later Old South Arabic (Sabaean) and Ethiopic scripts (Hoch 1990, 120). The author concludes that "the remains of the Byblian syllabary formed the core of the Semitic linear alphabets" (Fig. 26b).

Other scholars later continued to explore the two key notions put forward by Dunand: 1) at least some of the signs in the Byblos script are heavily influenced by the Egyptian script, and 2) these signs are the origin of some of the signs in later Semitic alphabetic systems. This is the idea underlying the reconstruction of the Byblos script suggested by Colless (1998, 34-35) (Fig. 27), a script he refers to as "Canaanite syllabary".⁹

9 According to Colless (1998, 36-38): "The Canaanite syllabary could be described as a *vocalic* script, in that it shows the vowels along with the consonants [...] is a simple monosyllabic script, with a much smaller signary than Egyptian hieroglyphic writing or Babylonian cuneiform writing [...] it is a *logo-syllabary*, such that a sign can stand for the word it represents as well as a syllable".

Next, Hoch (1990, 116) claimed that, as Mendenhall (1985) had already suggested, the acrophonic principle was a regular feature in the Byblos script, whose signs could derive both from Egyptian Hieroglyphic and Hieratic signs. Some signs could have been borrowed directly from the Egyptian Hieroglyphic repertoire, others were possibly of the same origin but with considerable modifications, and finally other signs could have been sourced from Egyptian signs and afterwards subjected to significant adaptations. Again according to Hoch, most of these Byblos signs of alleged Egyptian origin or background would have been rotated with regard to the usual Egyptian orientation. Other signs in the Byblos script, however, constituted local innovations (Hoch 1990, 116-117; Zauzich 2015, 18) (Fig. 26a).

Byblian signs	Proto-Sinaitic counterparts		Byblian	Canaanite	Hebrew, Greek	Byblian signs	Old South Arabic (Sabean) alphabet counterparts
		(ox-head)			[K, A]		ⲁ (ox-head)
		(house)			[G, B]		Ⲃ (house)
		(fish)			[Z, F]		ⲃ (axe?)
		(rejoicing man)			[V, A]		Ⲅ (door)
		(fence ²⁵⁵)			[V, A]		ⲅ (rejoicing man)
		(arm)			[V, Y]		Ⲇ (chair?)
		(hand)			[V, M]		ⲇ (water)
		(palm of the hand)			[V, N]		Ⲉ (serpent)
		(water)			[Z, G, K]		ⲉ (eye)
		(serpent)			[D, M]		Ⲋ (mouth)
		(eye)			[I, N]		ⲋ (teeth)
		(vessel)			[D, E]		Ⲍ (mark)
		(head)			[V, O]		
		(teeth)			[V, P]		
		(mark)			[V, S]		
		(mark)			[V, T]		

In addition, ⲁ is possibly transmitted as ⲁ

It is also possible that the Old South Arabic alphabet borrowed ⲁ (z) from Byblian ⲁ

Fig. 26b. Comparison of signs in the Byblos script to Proto-Sinaitic signs, Canaanite signs and Old South Arabic signs by Hoch 1990, 119-121.

CANAANITE SYLLABARY	EGYPTIAN HIEROGLYPHS	ALPHABET	CANAANITE SYLLABARY	EGYPTIAN HIEROGLYPHS	ALPHABET
ʾ za 𐤀 𐤁 𐤂 𐤃 ʾalpu ox	𐦎 F1	𐤀 𐤁 𐤂 𐤃	M m 𐤌 𐤍	𐦎 V19	
ʾu 𐤄 𐤅 ʾuratu breast	𐦎 D27		ma 𐤌𐤁 māgālu sickle	𐦎 U1	
ʾu 𐤆 𐤇 ʾuznu ear			mi 𐤌𐤀 mizbahu altar	𐦎 R1E	
B ba 𐤈 𐤉 baytu house	𐦎 O1	𐤈 𐤉 𐤊 𐤋	mi 𐤌𐤁 miṣru rain	𐦎 N4	
bi 𐤌 𐤍 bihitu weeping	𐦎 D9		nu 𐤌𐤎 nu water	𐦎 N35	𐤌 𐤎
bu 𐤏 𐤐 bunduru reed	𐦎 M17		nu 𐤌𐤏 nūlku kingship	𐦎 M25	
ga 𐤑 𐤒 gamlu boomerang	𐦎 T14	𐤑 𐤒 𐤓 𐤔	N na 𐤌𐤓 nahaṣu snake	𐦎 I12	𐤑 𐤒 𐤓 𐤔
gi			ni 𐤌𐤔 niḡhatu tusk	𐦎 F18	
gu 𐤕 𐤖 guṣnu vine	𐦎 M45		nu 𐤌𐤕 nūbtu bee	𐦎 L2	
da 𐤗 𐤘 dalktu door	𐦎 O51	𐤗 𐤘 𐤙 𐤚	S sa 𐤌𐤕𐤓 samaku support	𐦎 R11	𐤗 𐤘 𐤙 𐤚
di 𐤛			si 𐤌𐤕𐤔 simālu left hand		
du 𐤜 𐤝 dūdu jar	𐦎 W3,2		su 𐤌𐤕𐤕 sukhatu booth	𐦎 O22	
ha 𐤞 𐤟 hayhaliu temple	𐦎 O15		e 𐤀 𐤁 ʾaynu eye	𐦎 D4	𐤀 𐤁 𐤂 𐤃
hi 𐤠 𐤡 hilluluu jubilation	𐦎 A28	𐤠 𐤡 𐤢 𐤣	ei 𐤀 𐤁 𐤂 𐤃 ʾaynu eye		
hu 𐤤 hudumu footstool			fu 𐤌𐤎 𐤏 𐤐 ʾuṣru ten, tithe	𐦎 V20	
w 𐤑 𐤒 wawu hook		𐤑 𐤒 𐤓 𐤔	pa 𐤌𐤕 𐤓 𐤔 panu face	𐦎 D145	
wi 𐤕 𐤖 wiru copper	𐦎 N34A		pi 𐤌𐤕 𐤓 𐤔 pilakku spindle whorl		
ww 𐤗 𐤘	𐦎 Z7		pu 𐤌𐤕 𐤓 𐤔 pilakku spindle whorl	𐦎 O21	𐤌 𐤍 𐤎 𐤏 𐤐 𐤑 𐤒
Z za 𐤑 𐤒 zanabu tail	𐦎 F27	𐤑 𐤒 𐤓 𐤔	sa 𐤌𐤕 𐤓 𐤔 samaku support	𐦎 O21	𐤑 𐤒 𐤓 𐤔
zi 𐤠 𐤡 ziqquratu ziggurat, pyramid	𐦎 O24		si 𐤌𐤕 𐤓 𐤔 simālu left hand	𐦎 V53	𐤑 𐤒 𐤓 𐤔
zu 𐤛 𐤜 zuruṣu arm	𐦎 D36		su 𐤌𐤕 𐤓 𐤔 sukhatu booth		
H ha 𐤞 𐤟 hazizu rain-storm	𐦎 N4	𐤞 𐤟 𐤠 𐤡	Q qa 𐤌𐤕 𐤓 𐤔 qa	𐦎 V24	𐤑 𐤒 𐤓 𐤔
hi 𐤠 𐤡 hiwatu life	𐦎 S34		qu 𐤌𐤕 𐤓 𐤔 qa		
hu 𐤤 huduṣu new moon	𐦎 N9		R ra 𐤌𐤕 𐤓 𐤔 raʾiṣu head	𐦎 D1	𐤑 𐤒 𐤓 𐤔
H ta 𐤞 𐤟 tābu good	𐦎 V28	𐤞 𐤟 𐤠 𐤡	ri 𐤌𐤕 𐤓 𐤔 riḡlu leg	𐦎 D5E	
ti 𐤠 𐤡 tiṣṣaru scribe	𐦎 R20		ru 𐤌𐤕 𐤓 𐤔 ruḡhamu vulture	𐦎 G14	
tu 𐤛 𐤜 turru knot	𐦎 V12		ru 𐤌𐤕 𐤓 𐤔 ruḡhamu vulture	𐦎 S24	
Y ya 𐤑 𐤒 yaḡhidu united	𐦎 S23	𐤑 𐤒 𐤓 𐤔	S sa 𐤌𐤕 𐤓 𐤔 sādu breast		𐤑 𐤒 𐤓 𐤔
yi 𐤠 𐤡 yimnu right hand			si 𐤌𐤕 𐤓 𐤔 simṣu sun	𐦎 O51, O6, N6	𐤑 𐤒 𐤓 𐤔
yu 𐤛 𐤜 yuḡḡu			su 𐤌𐤕 𐤓 𐤔 subṣu rod, sceptre	𐦎 S44	
K ka 𐤞 𐤟 kappu hand(wing)	𐦎 D48	𐤞 𐤟 𐤠 𐤡	ta 𐤌𐤕 𐤓 𐤔 tarāṣu wine	𐦎 MA3A	
ki 𐤠 𐤡 hippatu palm			ti 𐤠 𐤡 tibbuttu harp		
ku 𐤕 𐤖 kappu hand(wing)	𐦎 Z9		tu 𐤌𐤕 𐤓 𐤔 tibbuttu harp	𐦎 Z11	𐤑 𐤒 𐤓 𐤔
la 𐤑 𐤒 laylu night	𐦎 N2	𐤑 𐤒 𐤓 𐤔			
li 𐤕 𐤖 libnu white	𐦎 Q4				
lu 𐤛 𐤜 lubnu white	𐦎 D14				

Fig. 27. Reconstruction of the graphic system in the Byblos script by Colless 1998, 34-35.

Byblos script	Egyptian hieroglyphic	Creatan h. and Linear A	Byblos script	Egyptian hieroglyphic	Creatan h. and Linear A
A12	re, D4	irt "eye"	E11	pt O1	pr "house" (Dem. pi)
A14	ka D29	ki "soul"	D2	ra O6	lwt "castle"
A13	ya, D36	"arm"	D6-8	d'dw O27	d'dw "hall of columns"
A21	ma E13	miw "cat"	B11	sa O30	synf "supporting pole"
A3-4	ya O25	i "crested ibis"	D5	ya, O31	"door"
A10	da H10	d	D1	ke O38	knbi "corner, angle"
A6-8	pi L2	bit "bee"	F3	nt R8	nt "god"
B5	re M9	sn "lotus"	B2	ta R11	dd "djed-column"
B10	wa, M13	wid "papyrus"	I2	nh S34	nh "sandal strap"
E20	i M17	i "reed"	A16	w's S40	w's "scepter"
D3	wu M43	irp "wine"			
A15	h'at, N25	h'at "foreign land"			

Variant writings	Transliteration
	ya, yā
	'nh, yā, yā
	ya, yā
	pi, pi
	pt, pi, pī, pl
	d'dw
	a
	lu
	wa, wa
	u
	lim
	ki
	ñ
	ye
	tu
	γ
	.

Fig. 28a. Comparison of signs in the Byblos script to Egyptian and Cretan (sic) signs according to Woudhuizen 2007, 750-751.

Woudhuizen, in turn, proposes a series of correspondences between signs in the Byblos script and Egyptian hieroglyphs, adding some possible correspondences with Cretan Hieroglyphic and Linear A signs (Fig. 28a). He also suggests some writing variants for a series of signs in the Byblos script (Fig. 28b). Nevertheless, as is also the case with other authors (Mendenhall, Colless, Garbini), his highly speculative approach results in unacceptable translations – both from philological and historical perspectives.

More recently, other Egyptologists have briefly reassessed the Byblos script. According to Morenz (2011, 251-252), as also proposed by other scholars before him (see above), some of the signs in the Byblos script may derive from Egyptian signs through acrophony. Later on, the same principle could have been operating to facilitate the transfer of some of the Byblos signs onto linear alphabets (Fig. 29). In comparison to the Egyptian Hieroglyphic script, Morenz points out the limited number of signs representing birds, as well as the lack of rep-

Fig. 28b. Writing variants of the graphic system in the Byblos script according to Woudhuizen 2007, 756.

Bildhaft- Kanaanäisch	Lautwert	Frühbyblisch
	a	Y oder
	b	
	g	
	h	
	h	
	y	
	k	
	l	
	m	
	n	
	r	
	s	
	q	
	r	
	š	
	i	

Byblos	ägyptische Hieroglyphen	Bildhaft Kanaanäisch	Ableitung
			HAUS = <i>bet</i>
			ob von EID = <i>šbt?</i>
			SCHLANGE = <i>naḥaš</i>
			ZEICHEN = <i>taw</i>

Fig. 29. Acrophony, Egyptian origin and Canaanite derivation of the Byblos script according to Morenz 2011, 251-252.

		<i>di</i>
		<i>bu</i>
		<i>ši</i>
		<i>na</i>
		<i>ti</i>
		<i>ma</i>
		<i>li(?)</i>
		<i>li(?)</i>
		<i>ku</i>
		<i>qa > ga</i>
		<i>ši > ša(?)</i>
		<i>da oder ra</i>
		<i>hi</i>
		<i>wa</i>
		<i>ja</i>
		<i>ka</i>

Fig. 30. Signs in the Byblos script, their relation with Egyptian signs and their acrophonic value, according to Zauzich 2015, 124.

resentation of the human body. In general, the Byblos script could be much more abstract than the later Canaanite linear script and the Egyptian Hieroglyphic script itself. He also suggests the possibility that the prestige of the Egyptian script could have been at the same time the prompt for the creation, and the root of the obsolescence of the Byblos script itself.

Zauzich (2015, 17-18, 122-125) also suggests the possibility that acrophony may have operated (Fig. 30), but puts more emphasis on the possibility that almost all the signs in the older Phoenician alphabet may have an equivalent sign in the Byblos script.

In conclusion, comparisons that are strictly graphic have led researchers to seek the origin and inspiration for the Byblos script in the Egyptian (Hieroglyphic, but also Hieratic) scripts, though a precise chronological framework and reconstruction has not yet been established. Furthermore, graphic similarities (particularly in light of documents taken as intermediate between the properly Byblos script and the Phoenician alphabet) have prompted – with more difficulties – the suggestion that the Byblos script represented the first step in the creation of the Northwestern Semitic linear alphabet. Nonetheless, in both cases, difficulties arise when attempts to tie the script to a graphic tradition and understand its formation process become mixed with efforts at deciphering it. These efforts have proved to be ridden with uncertainties.

The plausible hypotheses guiding both the study of graphic formation and any attempts at reading this script consist of presupposing on the one hand a syllabic system created by some sort of reinterpretation of the Egyptian system in a Northwestern Semitic linguistic context, and, on the other, an alphabetic derivation somehow based on acrophony which eventually could have resulted in the linear alphabet that later became standard. But given the scarce or dubious results reached by various decipherment proposals, the hypotheses on the creation and development of the graphic system have not found solid material to be supported.

CONCLUSIONS AND FINAL CONSIDERATIONS

The Byblos script, an undeciphered graphic system

Indeed, any attempt at reconstructing the Byblos script formation process must be assessed bearing in mind the almost total lack of certainties in terms of attributing phonetic values to its signs and even a basic understanding of how it worked. It must be accepted that despite numerous efforts,¹⁰ this undeciphered script conceals a language yet to be identified.¹¹ Further attestations (alas, quite unlikely) may probably be needed to achieve such decipherment, either in the form of a significant increase in the number of available texts to facilitate the successful application of statistic methods, or through the appearance of bilingual or parallel texts allowing for more solid conventional approaches. Besides, advances in the understanding of other graphic systems in the area could contribute to integrate the available documentation within a broader and better known framework, thus leading to the cogent reading of the texts in the Byblos script, and fostering the formulation of new and better-grounded hypotheses.¹²

The corpus: Characteristics and implications

Therefore, we can only establish more or less solid starting points from which we can draw some reasonable conclusions in the light of our current knowledge. The Byblos script is attested on a very small number of documents. Those belonging to the proper corpus originate in just one place, the ancient city of Byblos. The variety of objects engraved with this script, whose morphology and sign *ductus* feature variants, suggests that it was used for diverse purposes and genres, perhaps throughout a significantly long period of time. Yet, the core of the extant documents does reveal the kind of homogeneity that could be attributed to a well defined, regularly used script. It would appear that the graphic system was extensively and variously used for some time at least in some circles in the city of Byblos – probably amongst (some of) its scribes. It must have been mainly used for ordinary matters on non-preserved supports, only leaving behind remains of what seem to be proper epigraphic – and probably exceptional – uses.

Indeed the use of a script on surfaces other than those commonly used seems to have been exceptional in the Bronze Age Levant, where local graphic systems seem to have been particularly used, above all, for practical, daily purposes, being only rarely preserved on hard supports and seldom applied to purely epigraphic practices and genres¹³. All this, together with the number and variety of documents in the Byblos script, is totally compatible with a regular use for a significant period of time. Used mainly for practical purposes on probably perishable material,¹⁴ as

10 See above all the analyses by Dunand 1930; 1945; Hrozny 1944; Dhorme 1946; Sobelman 1961; Mendenhall 1985; Colless 1992; 1993; 1994; 1995; 1996-1997; 1998; Woudhuizen 2007; Best 2008; Best, Rietveld 2010; Garbini 2009a; 2009b. See, more in general, the history of investigation presented by Sznycer 1994; Israel 2003; Van de Sande 2004.

11 This is an opinion shared by a large number of scholars: see, for instance, Röllig 1972-1975, 394; Lipiński 1993, 363; Daniels 1996, 29-30; Woodard 2004, 6; 2008, 2; Huehnergard 2008, 580; Charaf 2014, 446. See, as a recent summary, the considerations by Amadasi Guzzo 2014, 72; cf. also n. 17: “les différentes tentatives entreprises dernièrement ne me semblent pas avoir résolu le problème de cette écriture”.

12 Unfortunately, chances of fully deciphering the Byblos script seem remote. See also the considerations made by Daniels 1996, 141-142, or Hackett 2002, 66.

13 Compare, for instance, to the case of Ugarit, Zamora 2006; 2007.

14 This is probably papyrus, in light of the intense relations between Byblos and Egypt and the privileged use of this material in the Nile valley. The city of Byblos became the great centre of the papyrus trade in the eastern Mediterranean at least from the first millennium BC, a fact which explains that the name of the city was the origin, as is well known, of the Greek word for ‘book’ (*byblos*).

the possible existence of cursive features in some sign variants indicates, only a very small percentage of potentially preservable texts might have existed (of which, even a smaller percentage could have been preserved, discovered and identified).

Space and time: Byblos in the second millennium BC as the place of birth and use of the Byblos script

The local urban use and the context of the Bronze Age appear to be the space and time framework in which we should set the inception and use of the Byblos script, as can be concluded from the available material evidence. As regards the geographical framework, Byblos clearly played a central role in terms of written documents. Lack of evidence precludes us from considering a potential widespread use outside the city, although this option certainly may not be discarded. Moreover, further data make Byblos the ideal place where the graphic system could have been born and developed.

Byblos' relationship with writing was indeed prolonged and intense. The Egyptian Hieroglyphic script was well known there at least from the middle of the third millennium BC (Helck 1974; Redford 1992, 41) and all clues indicate that in the ensuing millennium, scribes in the city, or scribes who frequented it, were able to use it. The tradition of Mesopotamian writing was also well known in Byblos from a very early period, as finds at the site and testimonies in the Amarna and Ugarit archives confirm.¹⁵

These documents demonstrate that the syllabic cuneiform script was known in Byblos by the third millennium BC and regularly in use in the city, at least in compiling international documents until the thirteenth century BC.¹⁶ The scribes in Byblos in the Bronze Age must have therefore been accustomed to several scripts linked to different languages and regularly exposed to their underpinnings. In this context, it is hardly surprising that, for still unknown reasons (such as administrative purposes or suitability to record cultic texts), scribes in Byblos felt at some point the need to also record their own language in writing and that, in order to do so, instead of adapting a foreign script they had already mastered, which was linked to a specific foreign language, they chose to develop their own.¹⁷

The second millennium BC as the period of development and use of writing in the Byblos script

The Bronze Age, namely the second millennium BC, seems to be the most plausible chronological framework where the origin and use of the Byblos script ought to be set. In spite of the challenging issues in terms of dating, this is the period indicated by the archaeological context where the documents were found (as far as Dunand's conclusions on stratigraphy are based on reliable excavation techniques) and by the graphic relationships between the Byblos script and the Egyptian (despite the fact that the particulars of such correlations continue to be debated).

The precise moment when the Byblos script system was created and how long it was in operation can not be easily determined, although it would appear that this period must not have been specific or limited, as the attested variants seem to indicate some diachronic development. The attestation of documents where the Byblos script appears to be supplanted by archaic versions of the Phoenician linear alphabet prompts further considerations as to its demise. While some of these scripts must not have been chronologically distant, and may even have existed simultaneously at some stage, the Byblos script could have preceded the Phoenician until the Phoenician eventually prevailed in the late Bronze Age across the Levant, including Byblos. Perhaps the Byblian epigraphic culture maintained some of the features of the previous local tradition, all the same.

15 In the same excavation site that was explored by Dunand, a cuneiform school text from the third millennium BC was found. See Dossin 1969; Klengel 1992, 32.

16 It should also be recalled that Byblos is the place where the oldest monumental inscriptions using the Phoenician alphabet were found (*KAI* 1-8), which supports the hypothesis that its linear precedents in the second millennium BC were also extensively used. See below.

17 This also happened, possibly soon afterwards, to the eventually triumphant linear alphabet, seemingly used from the beginning to record in writing the local languages in the Levant. In this respect, it is relevant to mention the case of Ugarit where this alphabet adapts to the cuneiform technique in order to register texts in the local language (almost never using the syllabic cuneiform, mastered by scribes in Ugarit, to record the Ugaritic language). Even in cases where the surface was different, they favoured the script linked to the local language, rather than use the script linked to a different language. See again Zamora 2006; 2007.

Graphic relationships between signs in the Byblos script and alphabetic signs (and the obvious geographical continuity) have repeatedly led scholars to suggest, as explained above, that that relation could somehow also imply development; that is, that the linear alphabetic script could have originated in the probably syllabic Byblos script. In fact, beyond the comparison of the signs in both scripts, the only material support for this hypothesis is the existence of documents which could be interpreted as intermediate stages of such a development. But these possible intermediate steps are in fact few and obscure and, once more, attempts at producing a precise interpretation of this development have not yielded solid conclusions.

The formation of the Byblos script

The most commonly supported hypothesis to explain the genesis of the Byblos script, namely the Egyptian inspiration or derivation of, at least, the morphology of a substantial number of its signs, is therefore well at home in the historical context of Byblos in the second millennium BC, not least in light of the intense and continuous relations between the city and Egypt at that time.¹⁸ However, the specific process, or the precise moment (or moments), when it may have taken place remains unclear.

In fact, strictly speaking, we cannot affirm that the relationship between the signs of the Byblos script and those of the Egyptian scripts was exclusive, or that there was necessarily a direct transmission between the two systems as we know them. Overall, we are once more confronted with the paradox that the most reasonable hypothesis (the creation of a local system in Byblos, most probably syllabic, originating on the knowledge of the Egyptian scripts to record a Northwestern Semitic language in the second millennium BC) does not yield more convincing decipherment proposals. We can only hope that closer integration in the studies on the Byblos script and further research on the formation processes of scripts in the ancient Mediterranean may open up new and more fruitful routes.

Abbreviations

KAI Donner H., Röllig W. 2002, *Kanaanäische und aramäische Inschriften*, 5th edition, Wiesbaden.

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18 On the relations between Byblos and Egypt (which began much earlier and went on much later) see for instance Redford 1992; Helck 1974; 1994; Morenz 2011, 253-254. Regarding the history of pre-classical Byblos, see for instance Acquaro *et al.* 1994; Klengel 1992. Cf. Elayi 2009 for the first millennium BC and, more generally, Jidejian 1968.

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Juan-Pablo Vita

Consejo Superior de Investigaciones Científicas (CSIC)

Instituto de Lenguas y Culturas del Mediterráneo y Oriente Próximo (ILC)

Calle Albasanz, 26-28,

28037 Madrid

Spain

juanpablo.vita@cchs.csic.es

José-Ángel Zamora

Consejo Superior de Investigaciones Científicas (CSIC)

Instituto de Lenguas y Culturas del Mediterráneo y Oriente Próximo (ILC)

Calle Albasanz, 26-28,

28037 Madrid

Spain

joseangel.zamora@cchs.csic.es

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