

## ON THE BEGINNINGS OF THE PUNIC SCRIPTS\*

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Only one specific analysis has been devoted to the so called "Punic Scripts",<sup>1</sup> including also the study of Neopunic, prevailing after the fall of Carthage (146 B.C.).

The lack of other comprehensive studies of a number of more than six thousands inscriptions, known today only from Carthage, has different reasons. The first, already well discussed by J.B. Peckham, is the uncertainty of the chronology of most documents. To obtain a detailed and comprehensive analysis of Punic, it would be necessary to reproduce and analyze one by one the script of a greater number of inscriptions than in Peckham's study, in order to outline a relative chronology and to identify scribal tendencies; it is a huge work, which can risk to give scarce results, without a precise chronology independent from epigraphy, and disposing of photographic reproductions not particularly good.

The greatest number of Carthaginian inscriptions<sup>2</sup> are dated, on the basis of archaeological data - mostly from old excavations - and the typology of the stelae, to the III<sup>rd</sup> - first half of the II<sup>nd</sup> century, a period relatively short.<sup>3</sup> Inscriptions surely attributed to the V<sup>th</sup> - IV<sup>th</sup> century are very rare (see below); archaic inscriptions (VII<sup>th</sup> - VI<sup>th</sup> century) are also few, fragmentary or with letters having forms difficult to recognize in details, owing to the bad quality of the stone used (CIS I, 5684, 5685, 3789 = Ferron 1964-1965, 59; Ferron 1971, 1-15; Mazza 1977, 131-137). Moreover, during the later period of Carthaginian life, the way of engraving the texts shows a great variety, which is certainly due not only to chronological reasons. Without disposing of reliable absolute dates, it is not always possible to establish when different letter forms reflect a difference in chronology or different styles in writing, during a period when literacy seems to have spread in a wide range of the society.

Another difficulty to analyzing the Punic scripts is their wide distribution in the West: Malta, Sicily, the colonies of North-Africa, Sardinia and Spain provide us with a large number of documents exhibiting local scripts variants, but only some single items or groups from specific places are dated: for example, as Peckham has already noted, some of the Constantine inscriptions mention ruling years of kings Massinissa and Micipsa (end III<sup>rd</sup> - II<sup>nd</sup> century B.C.).<sup>4</sup> This being the situation of the documents, we shall proceed by examples and try to delineate tendencies of scripts in order to identify the beginnings of a language and a script properly Carthaginian (Punic).

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<sup>1</sup> Peckham 1968, 191-222.

<sup>2</sup> They have been found mostly in the so called "tophet" and are near all dedications (some funerary inscriptions are generally very short, cf. Bénichou-Safar 1982).

<sup>3</sup> On the excavations and levels of Carthage tophet cf. Lancel 1992, 247-268; Peckham 1968, 195-197, perhaps too optimistic; cf. more recently Bénichou-Safar 2004, with a new study of all available data.

<sup>4</sup> Berthier - Charlier 1955, 51-61; on the chronology also Bertrand - Szyner 1987, 88-91.

Our first step is to define what can be called a “Punic script” related to a “Punic language”. Traditionally, we call Punic (deriving from “Poeni”, the Latin word for Phoenicians), the writing typical of Carthage, which spread in the western colonies, when the “New City” (QRTḤDŠT = Carthago) became the capital of the Phoenician West. Judging from the existing data concerning the history of the region, Carthage became leader of the other colonies towards the middle-end of the VI<sup>th</sup> century, when we first know of “symbola” with the Etruscan cities, of the first treaty with Rome (509 B.C.) and of the first Carthaginian involvement in wars in Sardinia and Sicily.<sup>5</sup> One can suppose that before that period the Phoenician language written according to Phoenician traditions (orthographic and paleographic) was still in use in the West, showing perhaps already some local changes in the scripts from region to region or from city to city.

As for the inscriptions, the most ancient, engraved on objects like pendants, bowls, statuettes, are presumably imported from the East - including Cyprus: for example the gold pendent from Carthage, CIS I, 6057 (= KAI 73), the Palestrina and Pontecagnano bowls (CIS I, 147, Amadasi Guzzo 1992, 98-99; perhaps works of immigrated artisans), the statuette of “Ashtart from Seville”.<sup>6</sup> These inscriptions show scripts which can be safely called “Phoenician”, because they follow the general development attested in the mother country, even if their place of origin cannot be detected.<sup>7</sup>

Some archaic inscriptions (VII<sup>th</sup> - VI<sup>th</sup> century) are engraved locally on stelae from Malta (CIS I, 123 and 123 bis = KAI 61 A and B), Carthage (see above) and Sardinia (after the isolated Bosa and Nora inscriptions CIS I, 162; CIS I, 144 = KAI 46; CIS I, 145,<sup>8</sup> cf. a stela from Sulcis CIS I, 147 dated to the VI<sup>th</sup> century B.C.)<sup>9</sup> and consist mainly in dedicatory texts from the tophet. Here we have examples of the local way of writing, but the quality of the stone used has often caused some oddities in the shape of the letters: on the whole, the scripts attested seem again to follow the Phoenician tradition (a Cypriot origin for the “Nora stone” CIS I, 144 has been proposed, identifying it as a dedication to the supposed Cypriot god Pumay).

Turning to the Phoenician East, one must note the dearth of inscriptions which can be attributed to the (VIII<sup>th</sup>) - VII<sup>th</sup> - VI<sup>th</sup> century and compared to the Western documents:<sup>10</sup> they come mainly from Akzib (VII<sup>th</sup> - VI<sup>th</sup> century; cf. Delavault - Lemaire 1979, 3-5; for Tyre, see below), Sarepta (inscription dedicated to TNT-‘ŠTRT, end VII<sup>th</sup> - beginning of VI<sup>th</sup> century; Pritchard 1982, 83-92 and Amadasi Guzzo 1990, 62-66), Sidon (especially Tabnit, KAI 13, Eshmun‘azor, CIS I, 3 = KAI 14, and Bod‘asthart, KAI 15-16; Bordreuil - André-Salvini 1990, 493-500; Bonnet - Xella 2002; Xella - Zamora López 2004; Xella -

<sup>5</sup> For example Huss 1985, 75-85; Gras - Rouillard - Teixidor 1989, 227-231; Bondi *et al.* 2009, 103-109.

<sup>6</sup> Puech 1977, 85-92; Amadasi Guzzo 1993.

<sup>7</sup> They follow the development traced in the “General Series” by Peckham 1968, 115-155, pls. VII-XI).

<sup>8</sup> On the Nora inscriptions cf. Lipinski 2004, 234-247 (especially 235-242).

<sup>9</sup> We can add the short inscriptions from S. Imbenia, Garbini 1997c. A fragment from a golden plaque from the Sulcis tophet, ICO Sard. 38, pl. XLVI, is earlier and could be dated to the end VIII<sup>th</sup> - VII<sup>th</sup> century B.C. Not enough letters are preserved to allow a classification. Its script is in any case more formal than the one attested on the Palestrina bowl CIS I, 164.

<sup>10</sup> The “northern” tradition represented by the inscriptions from Byblos and Amrith does not seem to me to have played a specific role in the West.

Zamora López 2005; Mathys 2005, with dates still discussed),<sup>11</sup> and from Egypt (especially Abu Simbel CIS I, 111 and 112); Tyre has only recently delivered funerary inscribed stelae, with uncertain dates based on the shape of their letters, which, in some cases, seem to have been at least reworked in some way.<sup>12</sup> From Cyprus, we have a good number of inscribed texts, but few are ancient (for example, the funerary inscription KAI 30, probably of the IX<sup>th</sup> century, the so called “Kition bowl” = Kition-III, D 21, about 800 B.C. and Nys - Briquel Chatonnet 2001, 62-64, IX<sup>th</sup> - VIII<sup>th</sup> century), while most of them are difficult to date<sup>13</sup> or belong to the V<sup>th</sup> - end of the IV<sup>th</sup> century and seem too late to be used safely for comparisons in order to establish the first appearance of the Punic scripts.

As for the language, the Phoenician-Punic grammars - whose authors generally do not completely agree in classifying the different phases and dialects of Phoenician - make a distinction between Phoenician and Punic.<sup>14</sup> However they are somewhat vague when they have to define the characters of Punic and the period of its beginning.<sup>15</sup> Only Ch.R. Krahmalkov, in his Phoenician Punic Grammar describes Punic as “a dialect or dialects of Phoenician from a part or parts of Greater Phoenicia other than the region of Tyre and Sidon”<sup>16</sup> and records a number of features that characterize this dialect, which, according to him, begins in the V<sup>th</sup> century.<sup>17</sup> However, not all the features hold as typical of Punic by this author can be evaluated in the same way: some do not seem to be specifically Punic, other seem typical of the later phase of the language and are attested only in documents from the III<sup>rd</sup> - II<sup>nd</sup> centuries B.C.<sup>18</sup>

The first feature which allows us to distinguish Punic from Phoenician, because it affects the orthography of the written language, is the tendency to drop in the pronunciation first the laryngeal ’ (Punic), then *h*, and lastly all the series of laryngeal and pharyngeal (late Punic). This tendency perhaps already existed in Phoenician (PPG<sup>3</sup>, § 102), but it is only in the West that the dropping of ’ leads to the use of this letter as a simple vowel marker (PPG<sup>3</sup>, § 104);<sup>19</sup> this use becomes a rule for marking the suffix pronoun (genitive and accusative) of the 3<sup>rd</sup> person singular, masculine and feminine, when it is a vowel (PPG<sup>3</sup>, § 112 and bibliography on p. XXXIV and XXXV); in the case of internal long vowels, on the other hand, it is typical of later Punic;<sup>20</sup> the dropping of *h* in the pronunciation had the consequence of the frequent orthography of the definite article as ’- instead of *h*- (first example in the VI<sup>th</sup> century, see below).

<sup>11</sup> From the antiquities market cf. the inscribed crater studied by Puech 1994.

<sup>12</sup> Sader 1991, 101-126; 1992, 53-79; 2005, 26-74; Lemaire 2001, 7\*-23\*.

<sup>13</sup> Useful for comparisons with western inscriptions of the end VI<sup>th</sup>-V<sup>th</sup> century are CIS I 86 A-B; a fragmentary dedication from Palaepaphos (Kouklia) (Masson - Szyner 1972, 84, pl. I:3; attributed to the III<sup>rd</sup> century but certainly earlier), and coins from Lapethos (Masson - Szyner 1972, 97-10, n. 8, fig. 3).

<sup>14</sup> Harris 1936, 9; Segert 1976, 30 (§ 14.28: PPG<sup>3</sup>, 3-4, IV).

<sup>15</sup> For the different dialects cf. also Garbini 1988, 61-68; Schmitz 1995, 560-561; 570-571).

<sup>16</sup> Krahmalkov 2001, 10.

<sup>17</sup> Krahmalkov 2001, 10-14, 18.

<sup>18</sup> Amadasi Guzzo 1999.

<sup>19</sup> In some positions, especially in closed syllables, ’ drops, at least in the pronunciation, already in Phoenician (cf. PPG<sup>3</sup>, § 14).

<sup>20</sup> Krahmalkov 2001, 18; in details Amadasi Guzzo 1995.

Typical of the Western language is also the dissimilation of *n* before *t*; so we have the noun MTNT “gift” already in the VI<sup>th</sup> century, while in Phoenician, only MTT is attested. For the word “stele” we have MNŠBT while MŠBT is only attested in Phoenicia and on Cyprus.<sup>21</sup>

Founding these particularities in Western inscriptions give us the possibility to classify them as non-East-Phoenician and to call them conventionally Punic; this does not mean, however, that they originated first at Carthage, but that Carthage, along with other Western colonies adopted the new orthography (corresponding to a pronunciation different from the traditional Phoenician one), which could have begun elsewhere. As already indicated, the earliest examples containing the dissimilation of *n* before *t* in the word MTNT can be dated during the VI<sup>th</sup> century B.C., and appear on inscriptions from the tophet of Motya (Sicily), coming from levels V, VI and III; the two most ancient examples, from the V level,<sup>22</sup> can be dated, archeologically, to the first half of the VI<sup>th</sup> century.<sup>23</sup>

The use of -' as a *mater lectionis* for the suffix of the 3<sup>rd</sup> person singular (masculine and feminine) consisting in a vowel<sup>24</sup> is attested later; the reason is that in the archaic inscriptions the formularies do not present the expressions which were used later and which needed a suffix consisting in a vowel; ex.: KŠM' QL' BRK' “because he heard his/her voice; he blessed him” (suffix -ō/ā); the most ancient formulary is K ŠM' QL DBRY “because he heard the voice of his/her words” (suffix -yū/yā): the new expressions at the end of dedicatory texts are not present, until now, before the IV<sup>th</sup> - III<sup>rd</sup> century (a somewhat conventional date, according to what has been stated before concerning the chronology of the Punic inscriptions).

We have in any case other instances showing that ' was already used as a vowel, or had replaced *h* in the orthography of the article. Again the first examples come from Motya: it is likely that this place has not a particular meaning regarding the origin of the new spellings; in fact it is only in Motya that we have a group of forty texts dated to the VI<sup>th</sup> century and a series of inscribed coins with the name of the colony ranging from about 480 (only one type of inscription) to 397 B.C. (conquest of the island by Syracuse).<sup>25</sup>

Another possible example of the use of ' as internal *mater lectionis* is attested at Pyrgi,<sup>26</sup> where the word MŠ “statue” appears for the first time written M'Š;<sup>27</sup> however the etymology of this word is discussed; in any case, its ancient writing is MŠ already in Byblos KAI 6, about 900 B.C.

One of Motya inscriptions shows also the expression 'MTNT “the gift”, with ' indicating the article.<sup>28</sup> Later, on coins, the name of the town (in Greek Μοτῶν) is written MW' (*t* forgotten), MṬW', HMṬW', 'MṬW' and in one case 'MṬW. The presence of the

<sup>21</sup> Cf. DNWSI, 676-677, s.v. *mšbh*.

<sup>22</sup> Amadasi Guzzo 1986, n. 14, 3, n. 36, 3-4.

<sup>23</sup> Ciasca 1992.

<sup>24</sup> Cf. PPG<sup>3</sup>, § 112.

<sup>25</sup> Manfredi 1995, 347-351.

<sup>26</sup> Now S. Marinella, in southern Latium; KAI 277, around 500 B.C.

<sup>27</sup> Krahmalkov 2001, 18.

<sup>28</sup> Amadasi Guzzo 1986 n. 39, 1, perhaps belonging to the III level.

article (written *h* and *'*) probably demonstrates that this toponym was originally a common noun, as in the case of GDR “Gades” - meaning “enclosure” -, which is generally written on coins as *'*GDR or, less frequently, HGDR.<sup>29</sup> The Phoenician name of Motya was probably a noun with prefix M- from a root *ṭWY*, as already proposed in the past (and then rejected for orthographic reasons; cf. Sznycer 1977).<sup>30</sup>

It is possible to conclude that a first stage of a Western dialect, which we can call conventionally Punic, was already attested at least towards the middle of the VI<sup>th</sup> century, in Sicily. The question of its place of origin has still to be studied; in any case, at the end of the V<sup>th</sup> century the dissimilation of *n* before *t* and the use of *'* instead of *h* for the article is attested at Carthage in the inscription CIS I 5510, where, as shown by Ch.R. Krahmalkov,<sup>31</sup> the fall of Agrigentum (406 B.C.) is mentioned and where the form *'*MTNT is present (line 10).

A further step consists now to control if the inscriptions showing these new features in respect to Phoenician, exhibit also new letter shapes, similar to those which are found in the later Punic inscriptions. Again we have to come back to Sicily, whose scripts have been studied in details. The letters from Motya stelae show many varieties, which are not always easy to identify - as on contemporary inscriptions from Carthage - because of the bad quality of the stones used. On the whole, two tendencies appear, one more accurate and lapidary, the second more cursive: both kinds of scripts find good comparisons with those attested in the homeland and, especially, with inscriptions of the VI<sup>th</sup> century from Egypt.<sup>32</sup> Interesting is the presence, on two texts, of letters with shapes resembling the Neopunic ones (M and T in n. 37; one T in n. 20) (fig. 1), a feature which indicates, as already supposed,<sup>33</sup> that Neopunic is a cursive script already used in previous times (in Phoenicia), probably for texts written in ink, as shown by the *ostraka* found in Sidon and Elephantine.<sup>34</sup> In comparison to later Punic, the Motya inscriptions do not show all the peculiarities typical of that script; but they share common features with the archaic Carthaginian inscriptions and with some archaic inscriptions from the West (Malta, Sardinia). However, they are the first texts showing already in some examples the tendency to a triangular shape of the head of *d* and *r*, with a sharp angle on the right top, and a kind of *t* with the horizontal bar cutting to the left the vertical one, two features that will be typical of Punic and which will never develop in the eastern script (figs. 2, 3).

As for coins, one has to account with peculiarities generally present on this kind of small inscriptions: on the whole the script attested is quite accurate; sometimes *w* is reversed; *'* is of the formal type, but a variant present in later Punic inscriptions is also present; *t* is extremely simplified (fig. 6). It is generally drawn as an oval open on top; at its center there is most frequently a single dot; only on one type (with inscription HMTW' dated between 405 and 397 B.C. [fig. 5]) the central sign consists in an inverted *v* with a

<sup>29</sup> Manfredi 1995, 410-419.

<sup>30</sup> Cf. PPG<sup>3</sup>, §102 and 75c for *a > o*. Cf. also Amadasi Guzzo 2005.

<sup>31</sup> Krahmalkov 1974.

<sup>32</sup> Amadasi Guzzo 1986, 83-94.

<sup>33</sup> Peckham 1968, 220-221.

<sup>34</sup> Vanel 1967, 45-92 and plates; Peckham 1968, pl. X:4-7.

dot at its center, according to a Punic variant attested on the Carthaginian tariffs dated by Peckham to the end of the IV<sup>th</sup> - first half of the III<sup>rd</sup> century (CIS I, 165, 169, 170, 175) and at Gozo (CIS I, 132), attributed to the end of the III<sup>rd</sup> - beginning of the II<sup>nd</sup> century.<sup>35</sup> On the whole the script is vertical, and not oblique as typical of Punic, but the letters, as in Punic, have, already quite long shafts (fig. 5).

Outside Sicily, around 500 B.C., the Phoenician dedication to Astart from the temple B at Pyrgi was engraved (KAI 277 [fig. 4]).<sup>36</sup> It has long been discussed if this inscription shows evidence of relations with the East, perhaps with Cyprus, or with the West, particularly with Carthage (for an eastern origin, probably Cyprus, cf. for example KAI 277). The political situation of that period seems to favor the hypothesis of a Carthaginian origin,<sup>37</sup> so that this document can be safely called Punic, in the specific sense of culturally related to Carthage. But, here again, the classification of its language and of its letters form is not accepted by all scholars. The language does not show specifically Punic features, except for the possible M'SŠ "statue" if ' is here a *mater lectionis* (line 9); note that the word MTN, "gift", is used and not the Phoenician MTT or the Punic MTNT. As for the script, the inscription is carefully engraved and formal; the letters are related to those from Motya, but without the cursive tendency of that script; they are in some examples more developed, meaning, probably, a slightly later date: there are in particular two kinds of *l*, the first is the archaic one (the only shape attested at Motya), with a foot straight and oblique or more rounded, the second is more developed, with a downward tick at the lower end of the shaft (a shape attested from the V<sup>th</sup> century, in the East and in the West). *T* has a shape which is well known in Phoenicia, particularly at Sidon (Tabnit, Eshmun'azor and Bod'ashtart), but there are also some examples of a shape with the horizontal line crossing the shaft to the left (as seen in Motya) and a tick added downward to the upper end of the shaft: this kind of *t* will develop later and will be typical only of Punic. On the other hand *k* is of the type attested in Tabnit and Eshmun'azor, with a head wedge-shaped or drawn as a broad stroke into the shaft. This kind of *k* does not seem to be present on the earliest Punic inscriptions, but it is the variant more frequent in Motya.

Concluding, it seems that already since the middle-end of the VI<sup>th</sup> century a new tendency in the development of the Phoenician script was arising in the West, along with a specific dialect, whose origin has still to be found; perhaps, as suggested by Ch.R. Krahmalkov,<sup>38</sup> the new orthography and some features of the script, along with tyro-sidonian features, can be found in the Phoenician from Egypt.<sup>39</sup>

The Pyrgi inscription confirms the data from the Motya stelae and coins and links the new tendencies to the script tradition of Carthage. We can partially follow the development of this script on the first inscribed Carthaginian coins, dated around 410, bearing the legends QRTḤDŠT and MḤNT<sup>40</sup> (fig. 8) and on the inscription CIS I 5510, of 406 B.C.

<sup>35</sup> Peckham 1968, pl. XIII:4, 8.

<sup>36</sup> Last study, with previous bibliography but a very uncertain interpretation, Schmitz 1995.

<sup>37</sup> Huss 1985, 66 with bibliography.

<sup>38</sup> Krahmalkov 2001, 8

<sup>39</sup> Also Amadasi Guzzo 1996, 1061.

<sup>40</sup> Manfredi 1995, 242-243.

The coins and the inscription show already letters inclined to the left and some shading of the shafts; *l* has the downward tick; *š* on the stone inscriptions and on some coins preserves the ancient triangular type (now rounded); on the coins *š* is often drawn as a *m* with a shorter shaft as later in “Punic”; *m* has the central bar breaking through the horizontal one forming the head of the letter, a feature which generally disappears later.

From this date - end of the V<sup>th</sup> - beginning of the IV<sup>th</sup> century - a “canonical” Punic formal tradition can be detected; it becomes particularly clear on some official inscriptions from Carthage of the IV<sup>th</sup> - III<sup>rd</sup> century,<sup>41</sup> especially on the so called tariffs, already quoted, showing a script which seems to reproduce on stone a type of writing traced with ink on perishable material (probably papyrus). It is possible to suppose that this was the official writing of the Carthaginian bureaucracy and that the documents sealed by the *bullae* found by the German mission at Carthage<sup>42</sup> were written according to that calligraphy.<sup>43</sup> The shading of the shafts and the curves of some of them (see for example especially CIS I, 166, but already this tendency in CIS I, 165) is typical; it most probably represents the official Carthaginian scribal school of the IV<sup>th</sup> - III<sup>rd</sup> century B.C. when the “New City” was, since at least one century, the leading capital of the Western Phoenician world.

Outside Carthage we lack a large number of inscriptions especially for the V<sup>th</sup> century; few examples can be attributed to the IV<sup>th</sup> century B.C. The existing texts show some letters differing from the script of North-Africa: good examples are the Benhisa inscription from Malta (CIS I, 124 = ICO Malta 2), the Monte Sirai inscribed bronze plaque (Sardinia; ICO Sard. 39) and a bronze plaque from Antas (Sardinia; Fantar 1969, 70, pl. XXV, 2, inscription IV), exhibiting local shapes of some letters (especially *k*) and a specific way of tracing the text. This evidence of a mixed tradition outside the “capital”, gives more weight to the hypothesis that the script typical of the tariffs is really Carthaginian. By the III<sup>rd</sup> century B.C., this script had spread in the whole West and it represents the way of writing diffused by the Carthaginian schools.

Concluding, a script partly differing from the Phoenician tradition of writing begins to be attested in the West towards the middle-end of the VI<sup>th</sup> century B.C., when a specific dialect appears in the written language; its links with Carthage seem ascertained by the Pyrgi inscription while its place of origin is still not clear. The distinctive features of this script are represented on few Carthaginian documents of the V<sup>th</sup> century, while it seems that outside Carthage, inside a general similar development, common also to the Phoenician homeland, local variants are not rare. It is by the beginning of the IV<sup>th</sup> century and perhaps already at the very end of the V<sup>th</sup>, that a common script tradition seems to be established; this tradition, probably originating from an official calligraphy on perishable material, was transferred on stone and is represented most clearly by the Carthaginian tariffs. By the IV<sup>th</sup> - III<sup>rd</sup> century it was adopted by the other originally Phoenician colonies; it is now particularly well attested in Sardinia, but is also present in Malta, Sicily and perhaps (less frequently) in Spain.

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<sup>41</sup> And is present also outside the North-African capital.

<sup>42</sup> Berges 1993.

<sup>43</sup> Two *bullae* with similar Punic inscriptions were published from Selinus, Sicily: ICO Sic. 7.

## ABBREVIATIONS

- CIS I *Corpus Inscriptionum Semiticarum. Pars Prima inscriptiones phoenicias continens*, Paris 1881.
- DNWSI HOFMEIJER, J. - JONGELING, K., *Dictionary of the North-West Semitic Inscriptions* (Handbuch der Orientalistik I, 21), Leiden - New York - Köln 1995.
- ICO AMADASI GUZZO, M.G., *Le iscrizioni fenicie e puniche delle colonie in Occidente* (Studi semitici 28), Roma 1967.
- KAI DONNER, H. - RÖLLIG, W., *Kanaanäische und aramäische Inschriften I-III<sup>2</sup>*, Wiesbaden 1966-1969 (vol. III<sup>5</sup> 2002).
- Kition III AMADASI GUZZO, M.G. - KARAGEORGHIS, V., *Fouilles de Kition. III. Les inscriptions*, Nicosia 1986.
- PPG<sup>3</sup> FRIEDERICH, J. - RÖLLIG, W., *Phönizisch-punische Grammatik*. 3. Auflage, neu bearbeitet von M.G. Amadasi Guzzo unter Mitarbeit von W.R. Mayer (Analecta orientalia 55), Roma 1999.

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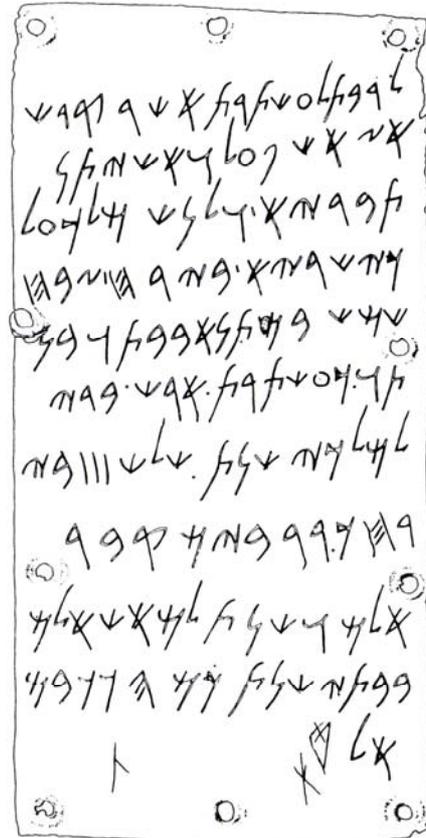


Fig. 4: Pyrgi inscription (Colonna 1989-1990, 198, fig. 1).

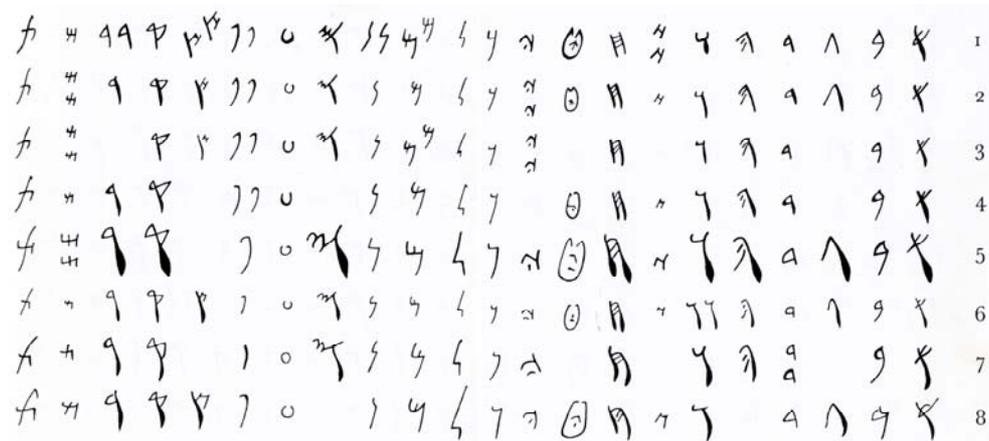


Fig. 5: Carthaginian tariffs and CIS I, 132 (Peckham 1968, pl. XIII).



Fig. 6: Motya coin (Manfredi 1995, 348).

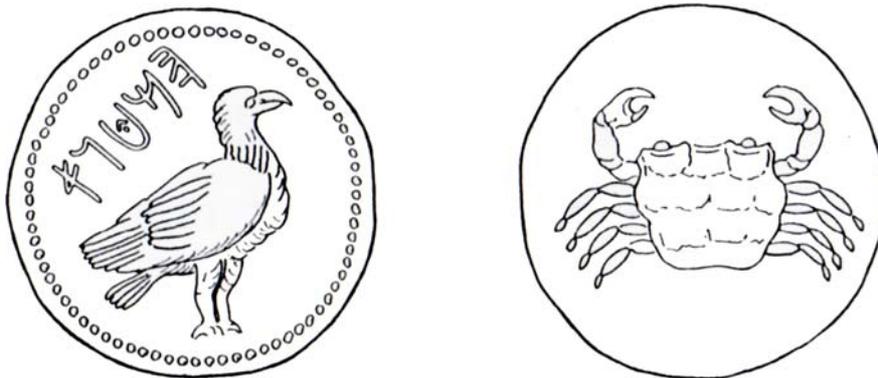


Fig. 7: Motya coin (Manfredi 1995, 348).



Fig. 8: Carthage coin (Manfredi 1995, 242).