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The Phoenician Alphabet Reassessed
in Light of its Descendant Scripts
and the Language of the Modern Lebanese

Abstract

The contemporary beliefs regarding the Phoenician alphabet are reviewed and challenged, in light of the characteristics found in the ancient alphabets of Phoenicia's neighbours and the language of the modern Lebanese.

Introduction

The Phoenician alphabet, as it is understood today, is a 22 letter abjad with a one-to-one letter to phoneme relationship [see Table 1].[1] Credited for being the world's first alphabet and mother of all modern alphabets, it is believed to have been inspired by the older hieroglyphics system of nearby Egypt and/or the syllabaries of Cyprus, Crete, and/or the Byblos syllabary - to which the Phoenician alphabet appears to be a graphical subset of.[2] [3]

Table 1: The contemporary decipherment of the Phoenician alphabet.

Letter Name	Glyph	Phonetic Value (in IPA)
aleph	ⵣ	[ʔ]
beth	ⴄ	[b]
gamil	ⴷ	[g]
daleth	△	[d]
he	ⴤ	[h]
waw	Y	[w]
zayin	I	[z]
heth	ⴵ	[ħ]
teth	⊕	[tˤ]
yodh	ⴱ	[j]
kaph	ⴹ	[k]
lamedh	L	[l]
mem	ⴲ	[m]
nun	ⴸ	[n]
samekh	₮	[s]
ayin	O	[ʕ]
pe	ⴺ	[p]
tsade	ⴻ	[sˤ]
qoph	ⴿ	[q]
resh	ⴾ	[r]
shin	W	[ʃ]
tau	+	[t]

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1   F. Coulmas, *The Blackwell Encyclopedia of Writing Systems*, Blackwell Publishers Ltd, Oxford, 1999, pp. 401-403.
2   S. Fischer, *A History of Writing*, Reaktion Books Ltd, London, 2003, pp. 121-122.
3   J. Humphrey, *Ancient Technology*, Greenwood Publishing Group, Westport, 2006, p.86.

Despite being successfully deciphered since the eighteenth century (A.D.), minimal efforts have been made to explore the motivation behind key characteristics of the script[4] - mainly: its apparent vowel less nature, the reason behind employing 22 letters and finally, a thorough analysis of the letters and their application in representing the vocal language of the Phoenicians.

Motivation

Contemporary thought claims the Phoenician alphabet exhibited 22 letters simply because the Phoenician language utilised no more than 22 phonemes. In this way, one Phoenician letter corresponded to one phoneme found in the Phoenician language. Despite there being no solid proof of the Phoenician language only utilising 22 phonemes, this argument also appears to overlook the significance of numerology in ancient, north Semitic and neighbouring cultures. More specifically, the number 22 is the largest and arguably the most powerful of a special set of numbers known as the Master Numbers.[5] Twenty Two, for many numerologists, is a symbol of: pragmaticality/economy, leadership, success, and discipline[6] - characteristics which can easily be associated with the alphabet when compared to the less efficient pictographic and syllabic methods of writing. The Phoenician alphabet, therefore, could have been purposely designed to utilise 22 letters so as to express the belief in the significance of the number 22 in Phoenician culture. The same argument might also apply to Phoenicia's neighbours who also maintained a 22 letter alphabet after the Phoenicians, such as the: Hebrews, Assyrians, Nabataeans, Parthians and the ancient Greeks of Crete [see Appendix A].[7] [8] [9] The significance of the number 22 in ancient, north Semitic culture is further emphasised by the 22 line inscription found on the Phoenician sarcophagus of King Eshmunazar II [see Figure 1] which would have undoubtedly been precisely designed given the former status of the resting body inside.[10] Further still, the book of Revelations (also known as Apocalypse) is comprised of 22 chapters which would appear as no coincidence given the (supposed) cryptic nature of this book.[11] It is therefore, no accident that the alphabet of the Phoenicians and other nearby cultures exhibited 22 letters.[12] Utilising 22 letters would have been the Phoenician inventor's way of expressing his/her spiritual beliefs in light of his/her creation - the first alphabet.[13]

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4   R. Hetzron, *The Semitic Languages*, TJ International Ltd, Cornwall, 1997, p. 175.

5   A. Oken, *Numerology Demystified*, The Crossing Freedom Press, California, 1996, p. 10.

6   *ibid*., pp. 33-37.

7   Humphrey, *op. cit*., p.86.

8   A. Gaur, *Literacy and the Politics of Writing*, Intellect Books, Oregon, 2003, pp. 69-72.

9   R. Woodard, *Greek Writing from Knossos to Homer*, Oxford University Press, New York, 1997, p. 141.

10 G. Rawlinson, 'Chapter XIII – Phoenician Writing, Language and Literature' in *History of Phoenicia*, March 2006, Internet, http://www.gutenberg.org/files/2331/2331-h/2331-h.htm#2HCH0013, (13 May 2010).

11 J. Bell, S. Campbell, *The Complete Idiots Guide to the Book of Revelations*, Penguin Group Inc, USA, 2002, p.189.

12 See Rawlinson, for more examples of Phoenician artifacts which exhibit the number twenty-two.

13 It might just be a coincidence but Lebanon's day of independence is celebrated on the 22nd day of the 11th month (i.e. November 22). The number eleven, to numerologists, is the Master Number which precedes twenty-two and is arguably second in greatness – after twenty-two. Also, the original constitution of Lebanon required its government to be comprised of six Christian to five Muslim deputies. Thus, the total number of deputies in the (old) Lebanese government was always a multiple of eleven. See: T. Collelo, 'World War II and Independence' in *Lebanon: A Country Study*, 1987, Internet, http://countrystudies.us/lebanon/21.htm, (19 May 2010).
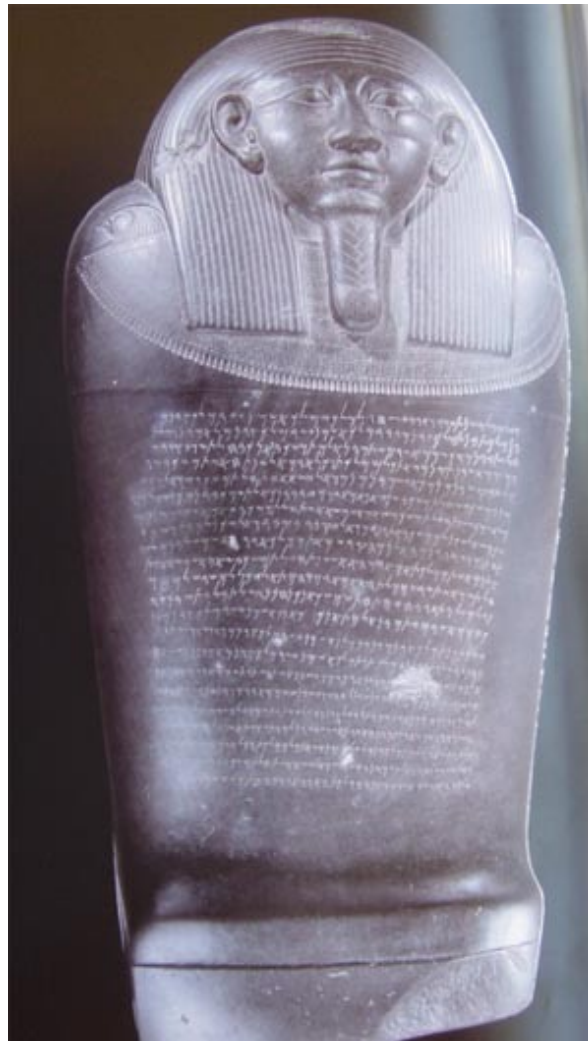
Sarcophage d'Eshmounazar II, © UNESCO,
http://portal.unesco.org/ci/en/ev.php-
URL_ID=16949&URL_DO=DO_TOPIC&URL_SECTION=201.html

Figure 1: The sarcophagus of King Eshmunazar II,
features a twenty-two line inscription.

Confining the Phoenician alphabet to 22 letters opens the possibility of the inventor choosing to sacrifice alphabetic ideality for spiritual expression.[14] Thus, the simple and "ideal" method of representing one phoneme with one letter could have been purposely rejected for a system where letters could exhibit a dual or greater polytypical nature - in the same way the letter "c" in English, can represent (in IPA [see Appendix B]): [k] in "cat" or [s] in "city" or [ʃ] in "ocean" or [tʃ] in "cello". Proving such phonetic ambiguity among the Phoenician letters when representing the Phoenician vernacular, however, would require access to the vocal Phoenician language - which is assumedly extinct.[15] Despite this apparently forgotten information, there may still be some credit in comparing scripted

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14 L. Grenoble, L. Whaley, *Saving Languages: An Introduction to Language Revitalization*, Cambridge University Press, New York, 2006, p. 158.

15 Hetzron, *op. cit.*, p. 174.

Phoenician with the vernacular of the Maronite villages found high in the Lebanon mountain range. The motivation behind this comparison is drawn from the known adamants portrayed by these mountain Phoenicians who were among the last in the Roman Empire to give up their brand of paganism and adopt Christianity.[16] [17] Further, once made members of the universal church, this community refused to conform to the ideologies of the Christian Orthodox churches - even after the later had become the spiritual status quo in the middle east.[18] History has also shown that, as time progressed, not even the rife swords of the various conquering Islamic empires could perturb the faith of the Maronites of the Lebanon[19] - not even after they were surrounded and then cut off from the rest of the world.[20] Interestingly, as well, after being reunited with Rome during the High Middle Ages, it was found that the Maronites - unlike their other eastern Catholic counterparts - had not fallen into heresy but had observed all aspects of their faith just as they did before being separated from Rome.[21] Finally, Lebanon's last official census (conducted in 1932) revealed that the Maronite community largely outnumbered all other religious communities in the newly formed nation of Lebanon.[22] [23] This observed inexorability, therefore, suggests that the Maronite community of the Lebanon mountains may be holding on to more than just their ancient faith - whether they are aware or not. Hence, therefore, the vernacular of the Maronites of the Lebanon mountains will be regarded as being closest to the vernacular of the Phoenicians and will thus, be compared to scripted Phoenician so as to determine which letters of the Phoenician alphabet may have exhibited phonetic ambiguity.[24]

Hypothesis

The (vocal) Phoenician language featured more than 22 phonemes, despite the Phoenician alphabet featuring only 22 letters. In this way, Phoenician would have been scripted more like modern English - which features more than 26 phonemes despite its 26 letter (Romanised) alphabet.[25]

Observation and Analysis

Comparing scripted Phoenician with the vernacular of the Maronites of the Lebanon mountain range yielded several interesting patterns which are summarised, as follows:

[N.B. The following comparisons were made by surveying Lebanese Maronites from the Lebanon and then comparing their responses with the Phoenician word list given by

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16 DNA analysis, sponsored by National Geographic, has revealed the majority of modern Lebanese are descendants of the Phoenicians. See: R. Gore, 'Who Were the Phoenicians?' in *National Geographic*, October 2004, Internet, http://ngm.nationalgeographic.com/features/world/asia/lebanon/phoenicians-text/1, (13 May 2010).

17 Rawlinson, *op. cit.*, 'Chapter XIV – Political History, 8. Phoenicia Under the Romans (B.C. 65 – A.D. 650)'.

18 J. Mahfouz, *Short History of the Maronite Church*, IMP. St Paul, Jounieh, 1986, p. 75.

19 Prior to World War I, "the Lebanon" referred to the autonomous Lebanon Mountains which were predominantly inhabited by Maronites and to a lesser extent, Druzes. This definition is slightly different to modern day "Lebanon" which comprises of the Lebanon Mountains as well as the Beqaa Valley and the adjacent Levantine coast. See D. Urquhart, *The Lebanon: A History and a Diary*, Thomas Cautley Newby, London, 1860.

20 *ibid.*, p. 90.

21 *ibid.*, p. 85.

22 'Lebanon' in *U.S. Department of State – Diplomacy in Action*, Internet, http://www.state.gov/g/drl/rls/irf/2001/5615.htm, (14 May 2010).

23 K. Salibi, 'Lebanon' in *Encyclopedia International*, Grolier Incorporated, New York, 1971, p. 440.

24 The people and therefore, the dialects of the Lebanese coast are likely to exhibit more foreign elements due to their greater interaction with foreigners. Hence, coastal dialects will be avoided in this comparison.

25 A. Baker, *Ship or Sheep*, Cambridge University Press, Melbourne, 2006, p. iii.

Rawlinson and the online Phoenician dictionary found at: www.canaanite.org.] [26] [27] [28]

(Phoenician, like Hebrew and Arabic, is read from right to left.)

The following results are presented in the format:
{"English" – [Lebanese Maronite pronunciation in IPA] – **scripted Phoenician**}.

1. **letter 1**, *aleph* (𐤀), generally appears in place of any vowel, or a vowel preceded or proceeded with either another vowel or a glottal stop ([ʔ]) or a semi-vowel, e.g.

    "head" - [rɔːs] - 𐤅𐤀𐤓,

    "request" - [sʌʔ–ʔɪl] - 𐤋𐤀𐤅,

    "earth; ground" - [ɑː–redˤ] - 𐤓𐤒𐤀,

    "one" - [weə–ħɪd] - 𐤃𐤇𐤀,

2. **letter 2**, *beth* (𐤁), appears in the place of the phoneme [b], e.g.

    "bless" - [beə–rɪk] - 𐤊𐤓𐤁

3. **letter 3**, *gamil* (𐤂), appears in the place of the phoneme [ʒ], e.g.

    "fee" - [ɑːʒ–redt] - 𐤕𐤓𐤂𐤀

4. **letter 4**, *daleth* (𐤃), appears in the place of the phoneme [d] , e.g.

    "blood" - [dʌm] - 𐤌𐤃

5. **letter 5**, *he* (𐤄), appears in the place of the phoneme [h], e.g.

    "here" - [haːn] - 𐤍𐤄

6. **letter 6**, *waw* (𐤅), appears in the place of the phonemes: [w], [ʊ] , e.g.

    "inside" - [ʒoʊ–weə] - 𐤅𐤂,

    "and" - [ʊ] - 𐤅

7. **letter 7**, *zayin* (𐤆), appears in the place of the phonemes: [z], [d], e.g.

    "farm" - [mʌz–reəʕ] - 𐤏𐤓𐤆𐤌,

    "sacrifice" cf. "slaughter [an animal]" - [daː–bɪħ] - 𐤇𐤁𐤆

8. **letter 8**, *heth* (𐤇), appears in the place of the phonemes: [ħ], [x], e.g.

    "go" - [rʊħ] - 𐤇𐤓,

    "kitchen" - [mʌdtˤ–beəx] - 𐤇𐤁𐤈𐤌

26 G. Rawlinson, 'Chapter XIII – Phoenician Writing, Language and Literature' in *History of Phoenicia*, Longmans, Green, and Co, London, 1889, pp. 380-384.

27 M. Kassab, 'Online Phoenician Dictionary' in *Canaanite.org*, October 2009, Internet, http://canaanite.org/dictionary/index.php, (14 May 2010).

28 Note, the names of the Phoenician letters are based on the educated guesses of Theodore Nöldeke. See: M. Everson, *The Final Proposal for Encoding the Phoenician Script in the UCS*, May 2004, Internet, http://std.dkuug.dk/jtc1/sc2/wg2/docs/n2746.pdf, (19 May 2010).

9. **letter 9**, *teth* (⊕), appears in the place of the sound [dtˤ] , e.g.
   "belly" - [bʌdtˤ–dtˤen] - ꓭ⊕Ꙅ

10. **letter 10**, *yodh* (Ꙅ), appears in the place of the sounds: [j], [ɪə], e.g.
    "day" - [jʌm] - ꙋꙅ,
    "hand" - [ɪəd] - △Ꙅ

11. **letter 11**, *kaph* (Ꚃ), appears in the place of the phoneme [k] , e.g.
    "every, all" - [kɪˈl] - Ꙇꚃ

12. **letter 12**, *lamedh* (Ꙇ), appears in the place of the phoneme [l], e.g.
    "dog" - [kɑː–lɪˈb] - ꙄꙆꚃ

13. **letter 13**, *mem* (ꙋ), appears in the place of the phonemes: [m], [n] , e.g.
    "king" - [mɑː–lɪk] - ꚃꙆꙋ,
    "forty" - [ər–bˤɪn] - ꙋOꙄꝗꙄ

14. **letter 14**, *nun* (ꓭ), appears in the place of the phoneme [n], e.g.
    "good" - [ɪˈm–nɪħ] - Ꙉꓭꙋ

15. **letter 15**, *samekh* (Ŧ), appears in the place of the phonemes: [s], [zˤ] , e.g.
    "feel" - [ħɪˈs] - ŦꙈ,
    "memory; remember" - [zˤə–kɪr] - ꝗꙋŦ

16. **letter 16**, *ayin* (O), appears in the place of the phonemes: [ʕ], [ɣ], e.g.
    "eye" - [ʕæn] - ꓭO,
    "dirt; dust" - [ɣʌ–bɪˈr] - ꝗꙶO

17. **letter 17**, *pe* (ꙶ), appears in the place of the phonemes: [b], [f] , e.g.
    "mosquito" - [bɑː–rɪˈɣ–ʃə] - ꟃOꝗꙶ,
    "open" - [fɑː–dtɪħ] - Ꙉ✝ꙶ

18. **letter 18**, *tsade* (ꙏ), appears in the place of the phonemes: [sˤ], [dˤ] , e.g.
    "onion" - [bʌsˤ–sˤɔːl] - ꙆꙏꙄ,
    "back" - [dˤɑː–hɪˈr] - ꝗꙶꙏ

19. **letter 19**, *qoph* (ꟼ), appears in the place of the phoneme [ʔ], e.g.
    "bury; grave" - [ʔɑː–bɪˈr] - ꝗꙄꟼ

20. **letter 20**, *resh* (𐤓), appears in the place of the phonemes: [r], [l], e.g.

    "cattle" - [bʌʔ–ʔɔːr] - 𐤓𐤐𐤁,

    "root" - [ʃɪ'–lɪ'ʃ] - 𐤔𐤓𐤔

21. **letter 21**, *shin* (𐤔), appears in the place of the phonemes: [s], [ʃ], and the sound [dt], e.g.

    "hear, listen" - [smeəʕ] - 𐤏𐤌𐤔,

    "sun" - [ʃɑː–mɪ's] - 𐤔𐤌𐤔,

    "three" - [dtleə–dtə] - 𐤔𐤋𐤔

22. **letter 22**, *tau* (𐤕), appears in the place of the sounds: [dt], [ndt], e.g.

    "died" - [meədt] - 𐤕𐤌,

    "daughter" - [bɪ'ndt] - 𐤕𐤁

23. no letter, this typically occurs when an initial or final vowel is pronounced but is not scripted, e.g.

    "heart" - [ɑː–lɪ'b] - 𐤁𐤋,

    "I; me" - [ə–neə] - 𐤍𐤀

These results are summarised in Table 2.

Table 2: A summary of the decipherment obtained by comparing scripted Phoenician with the vernacular of the Maronites, living in the Lebanon Mountains.

Letter Name	Glyph	Phonetic Value (in IPA)
aleph	⪤	Any vowel or combination of vowel and another vowel or glottal stop.
beth	⊿	[b]
gamil	⋀	[ʒ]
daleth	△	[d]
he	⋧	[h]
waw	Ƴ	[w], [ʊ]
zayin	Ⲏ	[z], [d]
heth	⋩	[ħ], [x]
teth	⊕	[dtˤ]
yodh	⋌	[j], [ɪə]
kaph	⸖	[k]*
lamedh	⎰	[l]
mem	⸝	[m], [n]
nun	ꓹ	[n]
samekh	∓	[s], [zˤ]
ayin	O	[ʕ], [ɣ]
pe	⏌	[b]†, [f]
tsade	⋎	[sˤ], [dˤ]
qoph	φ	[ʔ]
resh	٩	[r], [l]
shin	W	[s], [ʃ], [dt]
tau	+	[dt], [ndt]

* and possibly [g]

† where [b] is probably Arabised [p]. Also, [v] might have also been represented by ⏌ [see Appendix D].

These results were used to make the following analysis.

Letters: 2, 3, 4, 5, 9, 11,12, and 14 (*beth*, *gamil*, *daleth*, *he*, *teth*, *kaph*, *lamedh*, and *nun*, respectively), appear in the same place as their phonetic equal in spoken Lebanese - if

one considers the traditional decipherment of the Phoenician alphabet.[29] The remaining characters also give credit to the traditional decipherment, however, the observed patterns (above) suggest a slightly more sophisticated letter to phoneme relationship. These apparent relationships will be addressed in the following paragraphs.

Firstly, the duplicity exhibited by characters: 8, 16, and 18 (*heth*, *ayin*, *tsade*, respectively) can be clarified by taking a closer look at the Arabic alphabet – believed to be the successor of the Phoenician alphabet via Aramaic and Nabataean intermediaries. Thus, a comparison between *heth* (ﯼ) and its Arabic equivalent, *ħa'* (ح), show that both letters stand in the place of the phoneme [ħ]. However, by simply adding a diacritic (*i'jam*) to the *ħa'*, the resultant letter - *xa'* (خ) - becomes a representative of the phoneme [x]. Thus, by ignoring the additional diacritic, it becomes clear that the letter form "ح" stands as a representative for either [ħ] or [x]. This observation in Arabic is analogous to the comparison (above) between scripted Phoenician and the Lebanese vernacular and thus, suggests that *heth* (ﯼ) always did represent both [ħ] and [x] it is just that the Phoenicians preferred not to use diacritics – just like "g" in English "gate" ([g]) or "general" ([dʒ]). Further, of all the possible designs *xa'* (خ) could have taken, it seems more than coincidental for it to simply appear as a *ħa'* (ح) with a diacritic (خ). Surely, there must be some motivation behind this convention and based on the link between spoken Lebanese and scripted Phoenician, it does seem very likely that the Arabs had always known about the phonetic duplicity of *heth* (or at least its Nabataean descendant) but finally decided to distinguish between its two phonemes by utilising a diacritic. Therefore, it is very possible that heth always did represent the two phonemes [ħ] and [x]. The same arguments can also be applied to the Phoenician letter *ayin* (O) representing [ʕ] and [ɣ] in the same way that adding a diacritic to Arabic *ayin* (ع) [ʕ] causes it to become *ghayn* (غ) [ɣ] whilst Phoenician *tsade* (﮿) can be [sˤ] or [dˤ] just like how Arabic *tsade* (ص) [sˤ] becomes *d'ad* [dˤ] once a diacritic is added (ض).

In light of this suspected duplicity, it is worth noting that diacritic-less Arabic text has been found scripted along the walls of archaic mountain dwellings within the Lebanon [see Figure 2].[30] Such observations suggest the existence of an era in which Arabic letters exhibited phonetic ambiguity and thus, suggest that phonetic ambiguity may have been inherited from ancestral scripts. The disappearance of such ambiguities would have eventuated from the addition of consonantal diacritics.[31]

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29 Letter 11, *kaph*, may have also stood for the phoneme [g]. This suggestion is motivated by the Lebanese word for "hookah" pronounced [ər-gɪ-lɑː] and spelt (in Arabic letters) اركيلة, and the Lebanese word for "marbles" (the toy) which is pronounced [gɪ'l-lɑː] and is spelt (in Arabic letters) كلة. Using the Arabic *kaph* to represent [g] is not typical in other nations around the Middle East. In Egypt, for example, [g] is typically represented by the Arabic letter *jim* (ج) whereas in Iraq, the letter *qof* (ق) is used. See: D. Cowan, *Modern Literary Arabic*, Cambridge University Press, Melbourne, 1978, pp. 3-4.

30 G. Hayek, *The Qadisha Valley From the Depths... to the Peaks*, Annahar Publishing House, 2008, p. 83.

31 The appearance of early Arabic text in the Lebanon does not serve as sufficient proof of the Lebanese speaking Arabic. Such an argument would be as naïve as saying "Ottoman Turks spoke Arabic because it was their official script unlike modern Turks, who speak a dialect of Latin because now they use a Romanised alphabet." Any alphabet can be used to record any language so long as conventions and/or standardisations' are realised.
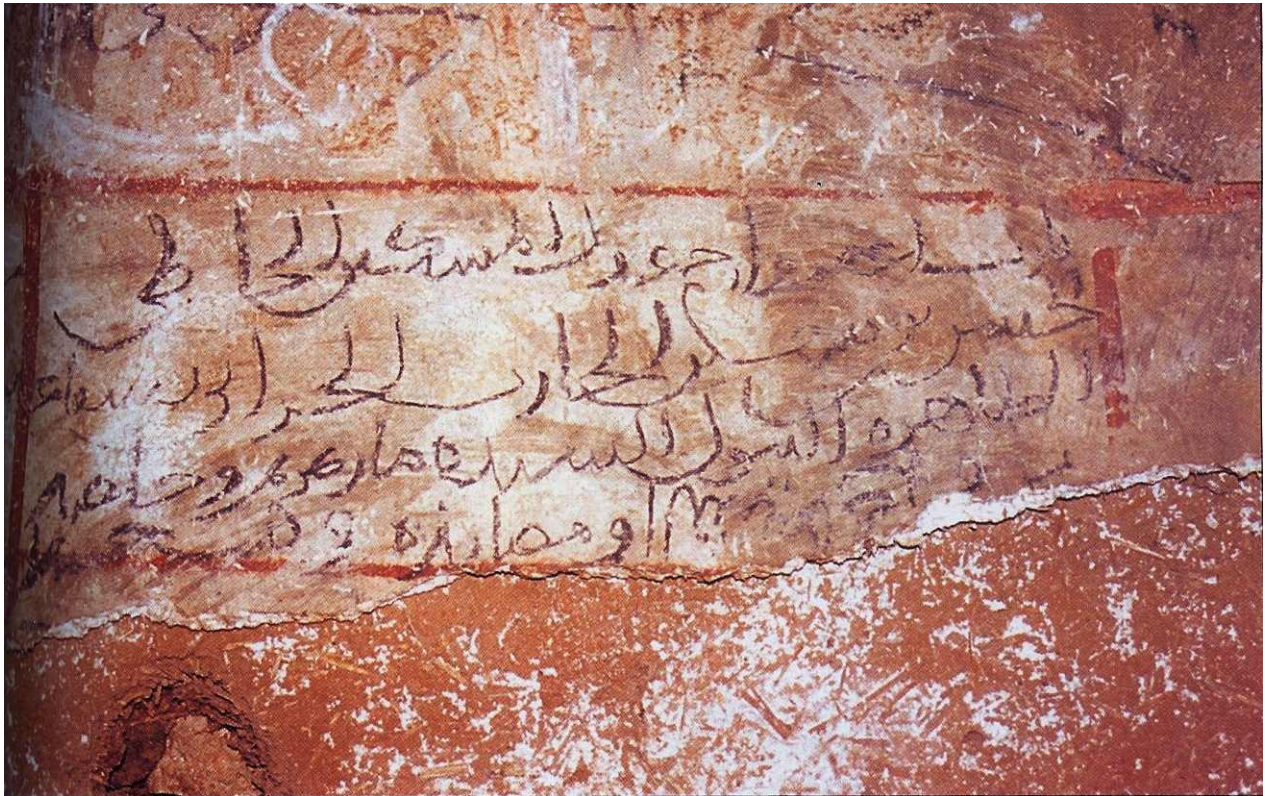
G. Hayek, *The Qadisha Valley From the Depths... to the Peaks*, Annahar Publishing House, 2008, p. 83.

Figure 2: Arabic text bearing minimal or no diacritics. This specimen was found in a cave dwelling in the Qadisha Valley, Lebanon.

Character 21, *shin* (Ш), exhibits triplicity such that it appears in place of the phonemes [s], [ʃ], and (apparently for the cardinal numbers) [dt]. Like the previously described characters, it appears logical enough for Arabic to have inherited the ambiguity between [s] and [ʃ] from the Phoenician *shin*.[32] Diacritics are again, however, employed in Arabic to distinguish between the phonemes [s] and [ʃ]. The modern Arabic alphabet also opens the possibility that, the Phoenician *shin* could have also represented [dt] by implicitly showing that two letters have been omitted from the modern Arabic alphabet - between *sin* (س) and *shin* (ش). To elaborate, Arabic *sin* peculiarly progresses to *shin* by the sudden addition of three diacritics. This is in contrast to the rest of the Arabic alphabet where progressions to the next letter are generally made by the addition of one diacritic (at a time) [see Figure 3]. Thus, it is possible that one of the letters omitted between Arabic's *sin* and *shin* could have stood for [dt] and this could have been inherited from Phoenician (via Hebrew and/or Nabataean) but then eventually omitted perhaps due to the application of the Arabic letter *ta'* (ت) with other Arabic grammatical conventions.[33] It may seem strange at first, for the

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32 This particular ambiguity may be the reason why, the word "tree" is typically pronounced [səʒ-rɔː] in the Maronite villages of the mountains but then pronounced [ʃəʒ-raː] in and around Beirut. Alternatively, perhaps this difference in pronunciation was the motivation for representing [s] and [ʃ] with the same letter.

33 Another interesting and possibly related comparison between the vocabulary of the Lebanese vernacular and modern literary Arabic is that, the letter *tha'* (phonetically [θ]) is never pronounced [θ] but instead, [s] or [dt]. Also, in the Lebanese Arabic alphabet, *tha'* is actually named "*sea*" and represents the phoneme [s] - by default.

Phoenicians to represent [dt] with *shin* when character 22 (*tau*) apparently already did the same job. However, if one considers the grammatical structure of scripted Phoenician and then of spoken Lebanese (if Lebanese can be used as a decent substitute for Phoenician), one will realise the emergence of very ambiguous homographs. As an example, the number "three" in Lebanese, is (more or less) pronounced [dtlєә–dtә] whilst "one third" is (more or less) pronounced [dtɪ'–lɪ'dt]. If one is to represent both these numbers by typically scripting only consonants, as is done in Phoenician, then the result for both numbers will be (in Roman) "dtldt". Obviously, such an ambiguity between "three" and "a third" could have catastrophic results in fields which rely heavily on numbers, such as engineering. Thus, a convention would have been necessary to avoid such homographs, hence, the application of *shin* for [dt] when writing the cardinal numbers whilst (probably) reserving letter 22 (*tau*) for the fractional equivalents. Therefore, the employment of *shin* to also represent [dt] may have been seen as the solution to avoiding certain homographs.[34]
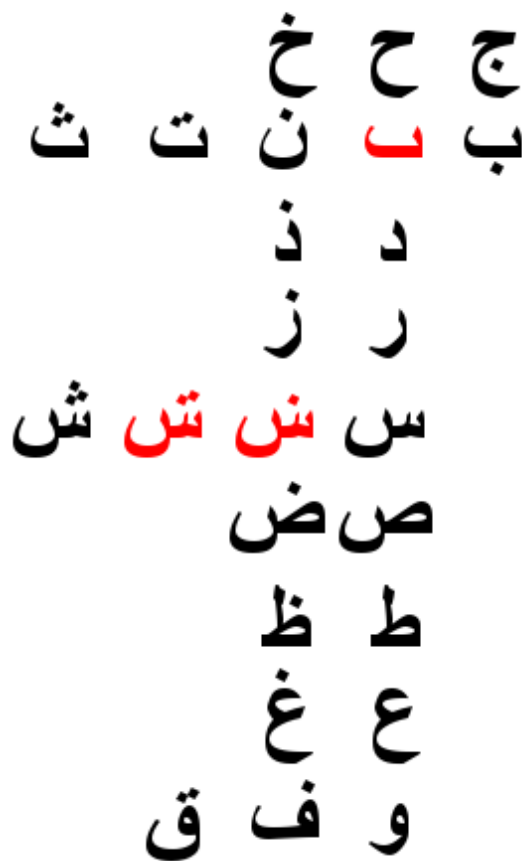
Figure 3: Letters (in red) which appear to be missing from the Modern Standard Arabic alphabet.

The duplicity regarding letters 6 and 10 (*waw* and *yodh*, respectively), appears to be analogous to the Arabic *waw* (و) and *ya'* (ي), respectively. Thus, it is very easy to argue

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34 Although it seems that this only applies to the cardinal numbers, it might also be applicable to other cases and may thus explain why some Lebanese today say [sɪ'dt–dtә] for "grand mother" whilst others say [dtєɪ –dteә].

that the Arab equivalents inherited their duplicity from their Phoenician ancestor whose *waw* also represented the phonemes [w] and [ʊ] whilst *yodh* also represented the phonemes [j] and [ɪə].

Letter 1, *aleph*, appears as: a vowel, or a vowel combined with another vowel or semi-vowel or a glottal stop. This is contrary to popular belief which suggests the *aleph* stood only for a glottal stop. To justify the observations made, one needs to only listen to spoken Lebanese to realise the exact pronunciation of certain words depends on how the word is used. The word "eat", for example, is spelt 𐤋𐤊𐤀 in Phoenician but is typically pronounced (in Lebanese) [jeə-kɔːl] in [bɪ-jeə-kɔːl] - "he eats" - but is then pronounced [ʔeə-kɔːl] in [ɪ'b-ʔeə-kɔːl] - "I eat". The change from the third person to the first person, therefore, has lead to a slight change in pronunciation - a change undoubtedly noticed by the creator of the alphabet who would have thus, included *aleph* so as to stand for all the various pronunciations of a given vowel from a particular word. *Aleph*, therefore, may have originally stood for vowels whose pronunciation was influenced by grammatical factors such as the person.

In further opposition to popular thought, it would seem sensible to suggest the aleph would have originally sounded very much or the same as what would become the Greek *alpha* (Α, α) - that is, a vowel. Further, if one considers the Arabic rendition of the Lebanese vernaculars, *alif* (ا, *aleph's* Arab equivalent) serves as a vowel and only acts as a vowel and glottal stop when written with a *hamza* (ء) above (أ) or below it (إ).[35] The addition of the *hamza* in Arabic, therefore, may have been devised so as to distinguish whether *alif* should be read as a vowel or a glottal stop and vowel. Thus, it may be fair to argue that the *aleph* (𐤀) always did represent vowels in general.

Letter 7, *zayin*, appears in place of the phoneme [z] (as popular thought suggests) but also for the phoneme [d]. The later case may seem rather strange, especially since the letter *daleth* (𐤃) already appears to adequately serve the phoneme [d]. However, those who are familiar with spoken Lebanese today and Modern Standard Arabic (MSA) might have also noticed that there does appear to be some interesting exchanges between equivalent words with [d] and [z] and their emphatic versions. For example, the verb "clean" is pronounced [nɑː-dɪf] in Lebanese but is pronounced [næ-zˤiːf] (نظيف) in MSA whilst the noun "back" is pronounced [dˤɑː-hɪ'r] in Lebanese but [zˤæ-hr] (ظهر) in MSA.[36] It might be possible that the Arabs or those before them, took the Phoenician words but chose to pronounce them by considering only one possible pronunciation. If *zayin* (𐤆) did in fact, represent both [z] and [d], one may wonder what motivation could be behind such ambiguity. Perhaps it may have been to avoid certain homographs for reasons similar to those discussed for shin.[37]

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35 Cowan, *op. cit.*, p. 3.

36 F. Mansouri, *Pocket Arabic Dictionary*, Periplus Editions, Singapore, 2004, pp. 48, 53.

37 Interestingly, the letter "*dhaľ*" (ذ) in Modern Standard Arabic is named "*za*" in the Lebanese Arabic alphabet and is typically read as [z] (by default) or [d] but never [ð]. This is interesting because one only needs to remove the diacritic above dhal to make it *dal* (د) which thus, emphasises the relationship between [d] and [z] when scripting the Lebanese vernacular.

Letter 13, *mem* (ㄅ), appears in place of the phonemes [m] and [n] when juxtaposed with the equivalent Lebanese. Interestingly, however, *mem* only seems to appear in place of the [n] when [n] is present at the end of a cardinal number. For example, the number forty is pronounced (more or less) [ər-bʕɪn] in Lebanese where as in Phoenician it is spelt ㄅOᗞ9⌻. Perhaps, therefore, *mem* typically represented [m] but also represented [n] when [n] was the final sound of a cardinal number. Again, the possible motivation behind such a convention may be related to avoiding certain homographs.

Letter 15, *samekh* (丰), was a relatively difficult character to decipher because of the relative few specimens discovered, only about two or three were comparable to an equivalent Lebanese word. Traditionally, this character is believed to stand for the phoneme [s] which seems fitting when one compares the Lebanese word [ħɪ's] with the Phoenician 丰⍍ - which both mean "feel". However, *samekh* also appears to take the place of [zˤ] in the word "remember" which is pronounced [zˤaː-kɪr] in Lebanese and is scripted 9ㄨ丰, in Phoenician. More comparable specimens will be required before a fair decipherment of samekh can be made. *Shin* (Ⓦ) already appears to adequately represent the phoneme [s], however, *samekh* may have also been used for this purpose for similar reasons given earlier - regarding homographs. Further, it would seem plausible for *samekh* to represent [zˤ], especially if one considers that the Phoenicians may have also wanted a letter to represent emphatic [z] (that is, [zˤ]), in the same way that *tsade* represented emphatic [s] and [d] ([sˤ] and [dˤ], respectively) whilst *teth* represented emphatic [t] (that is, [tˤ]).

Letter 17, *pe* (ᒣ), appears in place of the phonemes [b] and [f]. Traditional deciphering suggests *pe* represented [p] which is plausible given its alphabetic position when compared to the alphabets used in nearby cultures. Further, it would seem logical for the Phoenicians to possess the phoneme [p] just like their neighbouring communities across the Mediterranean – whom the Phoenicians often traded with.[38] The apparent shift of [p] in Phoenician to [b] in the Lebanese tongue could be attributed to the Arabization of the Lebanese vernaculars where, in this case, [p] is rendered as *ba'* (ب - phonetically [b]) due to the lack of a modern Arabic letter for [p].[39] In regards to the phoneme [f], the observations above suggest that pe could have also represented this sound hence, the scripting of the number "one thousand" - ᒣﾚ⌻ - which is (typically) pronounced [ə-leəf], in the Lebanese vernacular. If *pe simply* represented only [p] then ᒣﾚ⌻ would have probably been re-rendered as الب instead of its current form, ألف.[40]

<div style="font-size:smaller">

38 Fischer, *op. cit.*, p. 90.

39 This does not mean that [p] is never expressed by the Lebanese. In fact, the phoneme [p] is used often by the Lebanese for words inherited from European languages but also for some apparently exclusive Lebanese words like [psˤeɪ-naː] (cat) and [lʌp-kaː] (trouble).

40 The critical observer may also notice another broken pattern in the Modern Standard Arabic alphabet – this time, where there appears to be a missing letter in the set of "U" shaped letters. To elaborate, if one rearranges the "U" shaped letters so that each one proceeds the other – in a fashion exhibited by most other letter forms in Arabic – then

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Letter 19, *qoph* (𐤒), traditionally is believed to represent the phoneme [q] just like the equivalent character in Syriac (ܩ) and Modern Standard Arabic (ق). However, none of the comparable Lebanese pronunciations supported this claim but instead, suggest that the letter represented the phoneme [ʔ] (that is, the glottal stop).[41] [42] One may argue that the [q] in the Lebanese tongue could have fallen out of use over the centuries but such a theory would seem rather poor given that the Lebanese were constantly conquered by Aramean, Arab, and other middle eastern empires most of which also featured [q] in their dialog. Such an environment of [q] pronouncing communities would have most likely made it easier for the Lebanese to retain the [q] in their speech - if they ever possessed it. A more sensible argument, instead, would be that the Lebanese never did pronounce [q] – not even when they wrote in Phoenician. Thus, letter 19 would have most likely represented the glottal stop ([ʔ]), as supported by the observations above.

Duplicity is also apparent for letter 20, *resh* (𐤓), which exhibits the phonemes [r] and [l]. The latter case however, would most likely have been reserved for avoiding certain homographs. As an example, the word "root" is spelt 𐤔𐤓𐤔 in Phoenician and شرش in the Arabic rendition, in Lebanon.[43] However, the Lebanese (typically) pronounce "root" as [ʃɪ'–lɪ'ʃ]. Thus, if "root" were to be spelt the same way it was pronounced (consonants only) then it would look exactly like the cardinal number "three", 𐤔𐤋𐤔, which would be undesired. Thus, *resh* would have typically represented the phoneme [r] but would have

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the resultant series would be (from right to left): ب ن ت ث. Thus, it becomes apparent that there is a missing letter (ب) between *ba'* (ب) and *nun* (ن) and given the practice of representing [p] with ب, (typically for foreign words or names like Paris, باريس) it may be possible that such a missing letter was used to represent [p] until it was made redundant by Arab scribes. The removal of such a hypothetical letter may help explain why ب, rather than ڤ (as was the case with Syriac, ܦ), was and is used to represent the phoneme [p] – besides the argument of [b] sounding similar enough to [p]. On the contrary, one may observe the application of the letter *pe* (پ) to represent [p] for the Persian, Urdu and (prior to 1928) Turkish languages. Such a practice, however, can be explained by realising that such cultures only adopted the Arabic script after it had already been (relatively) standardised. Thus, speakers of Persian, Urdu and Turkish would have been more likely to add new letters to the standard Arabic alphabet rather than learn Arabic's hypothetical, archaic letter forms – which probably would have already been forgotten by the time of the Ottoman era. Similar arguments can be made for the letter *ve* - ڤ - which is occasionally used to represent [v], in the Lebanese vernaculars.

Further, the hypothetical omission of letters between س and ش and ب and ن raise the question as to whether the Modern Standard Arabic alphabet is a subset of a larger alphabet. Such a notion would suggest that the alphabet of the Arabs may not, necessarily be an Arab rendition but rather another community's – from which the Arab or Koranic scribes have drawn their own alphabet from.

41 With the exception of the Lebanese Druze community (See: M. Feghali, *Spoken Lebanese*, Parkway Publishers Inc., NC, 1999, p. vi.). This difference between the vernaculars of the Lebanese Maronites and Lebanese Druze adds credibility to the notion of the Druze community originating from [q] pronouncing Arabia - from where they spread to the world via Mesopotamia. Also, the maintenance of [q] in the vernacular of the Lebanese Druze community, may be partly attributed to the observance of the Druze laws which forbid interfaith marriages and proselytisation. See: P.Hitti, 'The Origins of the Druze People and Religion, Forgotten Books' in *forgottenbooks.org*, 2007, Internet, http://www.forgottenbooks.org/info/9781605060682, (18 May 2010).

42 In names, however, the Lebanese pronounce the Arabic *qof* as a [k] or a glottal stop or a vowel or as a silent letter.

43 Obviously a re-rendition of the Phoenician equivalent.

also represented [l] when avoiding homographs was desirable.

Finally, letter 22 (*tau*, ✚) appears in place of the phonemes [dt] (which more or less, agrees with traditional views) and [ndt]. The latter case would seem justified if one considers the apparent practice of ending a noun with *tau* so as to make that noun feminine.[44] As an example, the word "lord/citizen" is scripted as ᒷOᗩ whilst its feminine form is scripted ✚ᒷOᗩ. The same practice is observed for several other nouns like "priest" - ꚙᗭᐧ - and "priestess" - ✚ꚙᗭᐧ - or "man" - Wᐧ - and "woman" - ✚Wᐧ. Thus, if the word for "son" is pronounced along the lines of [bɪˈn] - spelt ꚙᗩ - then it would be fair to argue that the word for "daughter" would have been pronounced along the lines of [bɪˈndt] – as is the case with the Lebanese, today. Thus, the scripted word for "daughter" - ✚ᗩ - would have been read as [bɪˈndt] which suggests the letter *tau* (in this case) stood for [ndt]. Also, if *tau* was used to occasionally represent the sound [ndt] then it might also be possible that the scripted Phoenician word for "you", ✚ᐧ, could have been pronounced along the lines of [ɪˈndt] (or [ɪˈndt-dtɑː] if vowels are arbitrarily added) which is how it is pronounced (more or less) by the modern Lebanese. The possible motivation behind this hypothetical dual nature, like certain letters described earlier, may have been the avoidance of certain homographs[45] - especially when one realises that, certain Phoenician (and Lebanese) words are made plural by ending them with [dt].[46]

Before progressing, it is worth commenting that it may also be possible that scripted Phoenician employed silent letters. For example, the word for "this" is scripted as ᗭᛁᗭ but is (typically) pronounced [heə-deə], by the Lebanese. This suggests that the terminating ᗭ is silent, in this particular example. The motivation behind silent letters may have been to avoid certain homographs for similar reasons discussed when addressing character 21 (*shin*). Any, if not all Phoenician letters could have been employed as silent letters but to prove such a case would require a closer comparison between the Lebanese vernaculars and scripted Phoenician – even then it may not be easy to prove given the natural evolution of language which witnesses the coming of new words and the forgetting of old words.

The following analysis is in regards to the physical appearance of certain Phoenician letters.

Firstly, letter 5 (*he*, ᗭ) appears to be a graphical subset of letter 8 (*heth*, ᗭ). Interestingly, the proposed phonemes for each letter are arguably similar such that, *heth* (as [ħ]) is meant to be an emphatic version of *he* (i.e. [h]). Thus, it would seem as if *heth* was purposely designed so that it resembled *he* but appeared graphically heavier than *he* so as to emphasise that it is a phonetically stronger variant of *he*. Similarly, letter 18 (*tsade*, Ⲯ) looks like letter 21 (*shin*, W) only with an extra long, left-most stroke which extends downwards. Again, it appears as if the graphically heavier letter, *tsade*, is also a phonetically stronger variant (i.e. [sˤ]), of *shin* (for the case where shin represents [s]).

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44 Rawlinson, *op. cit*., p. 384.

45 Just for the record, ✚ꚙᗩ (as it is scripted) has been translated as "own". Phoenician scribes, therefore, may have wished to reserve this spelling only for this definition and hence, chose ✚ to also represent [ndt] in ✚ᗩ (i.e. daughter).

46 Rawlinson, *op. cit*., p. 383.

Similarly, the emphatic version of the the sound [dt] (represented by *tau*, ✚) is apparently represented by character 9 (*teth*, ⊕) – which looks like *tau* only that it has an extra stroke (an encircling ring). Thus, it appears as if the emphatic sounds of the Phoenician language are represented by letters which graphically appear like their non-emphatic counter parts but with an added stroke [see Figure 5].

Letter 15 (*samekh*, ≢), graphically appears like letter 7 (*zayin*, I) connected to letter 22 (*tau*, ✚) – at the bottom. If letter 15 was designed in this way on purpose then (based on similar arguments as above,) it might have been to suggest that it represented the sound [dtz] or [zdt] which arguably sound very much like an emphatic [z] (that is, [zˤ]). One may fairly argue, however, a *zayin* with an extra stroke could have easily been employed to represent an emphatic [z] – as appears to be the case with the previously discussed: *heth*, *tsade*, and *teth*. Also, although the observations presented give credit to the traditional view that *samekh* represented [s], it may also be worth knowing whether *samekh* (or any other character) also represented the phoneme [zˤ] – mainly because it is observed in the Lebanese vernaculars.[47]

The oldest, known inscriptions [see Appendix C] of letters 13 (*mem*, 𐤌) and 14 (*nun*, 𐤍) show that *mem* (archaically, 𐤋) graphically contains the letter *nun* (archaically, 𐤋). This may explain why *mem* appears to sometimes, behave as *nun* (as described earlier) and may also indicate that the Phoenicians recognised [m] and [n] as belonging to the same class of sounds - that is, the nasal consonants.[48]

Finally, the question as to whether *qoph* represented [q] or [ʔ] might be resolved by considering the graphical nature of the letter. Thus, in light of the graphical and phonetic relationship displayed by the previously described letters, it would have made sense for the Phoenicians to draw *qoph* (𐤒) like *kaph* (𐤊) but with an extra stroke because *qoph* was supposedly a guttural variant of *kaph*.[49] Instead, two very different characters are observed which suggests that *qoph* and *kaph* did not sound similar enough to the Phoenicians. Interestingly, the earliest inscriptions of *qoph* exhibit a vertical stroke emanating downward from the base of a circle (that is, 𐤒) which (with some imagination) resembles a person standing upright [see Figure 4]. Adding to this, the Lebanese word for "stand" (the verb) is [ʔɔːf] which is what "*qoph*" would sound like if the [q] was replaced with a [ʔ]. Thus, the original graphical representation of *qoph* suggests that it could have originally represented a person standing upright and this in turn suggests that *qoph* represented the phoneme [ʔ] - from [ʔɔːf] which means "stand".

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47 Feghali, *op. cit.*, pp. v-x.
48 Baker, *op. cit.*, p. 80.
49 Cowan, *op. cit.*, p. 4.

Figure 4: The Phoenician letter *qoph*, may have been derived from the word "stand" - [ʔɔːf].

Furthermore, letter 16 (*ayin*, O) appears to be a graphical subset of the earlier variant of letter 19 (archaic *qoph*, ⍾) which thus, suggests a phonetic relationship between these two letters - according to previously made arguments. Thus, in light of the proposed graphical and phonetical relationship between the Phoenician letters, the final assertion of *qoph* as a representative of the glottal stop comes from Patrick and Wright who affirm the close

phonetic relationship between "*hamza*" - ء - (that is, the glottal stop) and Arabic *ayin* - ع - (which is phonetically the same as the Phoenician *ayin*).[50]

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50 B. Patrick, W. Wright, *Lectures on the Comparative Grammar of the Semitic Languages*, Gorgias Press LLC, New Jersey, 2002, p. 44.

The Graphical and Phonetical Relationship Between Various Phoenician Letters
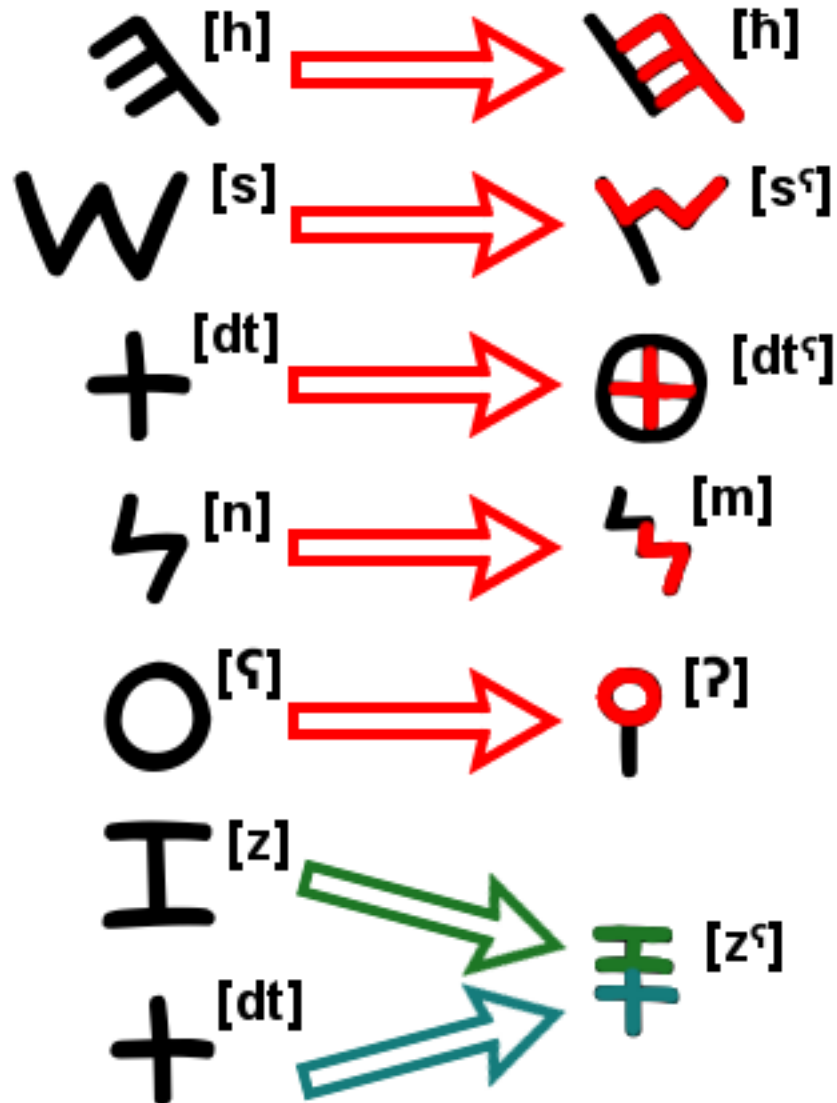
Figure 5: Non-emphatic letters appear as graphical subsets of their emphatic/guttural equivalents.

In response to the arguments regarding *qoph*, above, one may wonder how *qoph* could change from [ʔ] to [q] when the alphabet was spread to the nearby [q] pronouncing communities. To answer such a question, one only needs to remember how the Roman "h" came to represent a silent letter in French and Spanish whilst it came to (typically) represent [h] in English.[51] [52] [53] Thus, it is very possible that the neighbouring communities of Phoenicia changed the phonetic value of *qoph* from [ʔ] to [q] as it may have better suited their needs.

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51 E. de Saint-Martin, *French in Your Pocket*, New Holland Publishers, Sydney, 2004, p. 11.

52 C. Cortina, *Spanish in 20 Lessons*, Collins Clear-Type Press, London, 1978, p. 20.

53 Baker, *op. cit.*, p. 147.

The following will address the issue of the "missing" vowels.

Classing the Phoenician alphabet as an abjad would be an understatement, given the minimal vowel representation observed in the described results. Understanding, however, why this minimisation was employed is vital if one is to boast about completely understanding the mind of the alphabet's creator - who undoubtedly understood the role played by vowels in language, hence, the deliberate minimisation in presentation. Popular thought suggests minimisation was due to the interest in taking advantage of the triliteral root nature of the Semitic languages.[54] Alternatively, one may argue that vowel minimisation was yet another price that needed to be paid for confining the alphabet to 22 letters. Although both modes of thought seem credible, a more plausible explanation may be obtained by exploring the nature of vowels in spoken language.

In exploring the nature of the spoken vowel, it becomes clear that for any particular word of a given language, vowel pronunciation can vary whilst consonant pronunciation does not (generally speaking). This phenomena is implicitly exemplified by the song Let's Call the Whole Thing Off which contrasts: [tɪˈ-meɪ-təʊ] with[tuː-maː-təʊ] for the word "tomato", [bɪˈ-næ-nɜː] with [bɪˈ-nə-nə] for the word "banana", [iː-ðə] with [aɪ-ðə] for the word "either", and so on.[55] This variation in pronunciation can be observed by comparing the dialects of various cities, towns and villages which all speak the same language[56] - even in a relatively small country like Lebanon. Thus, it would be fair to say that, a dialect can be distinguished by the analysis of its (spoken) vowels for any given word of a given language. Therefore, minimising vowel representation in scripted words, minimises the hallmarks of a communities dialect on the scripted words and this in turn, results in a dialect free system of writing. A dialect free system of writing elevates no community's dialect higher than the dialect of any other community and thus, implicitly promotes the dignity and equality of all (spoken) dialects.[57] This humble ideology may have been the greatest motivator for vowel minimisation and if found to be true, highlights yet another belief of the alphabet's inventor and/or his/her clients - the Phoenician people.

Discussion

The observed results, as described previously, clearly suggest that several Phoenician letters represented more than one phoneme. More interestingly, as well, was the strong correlation between the Phoenician letters which exhibited phonetic ambiguity and the equivalent modern Arabic letters. This correlation identifies exactly why several Arabic letters look the same, save for the extra diacritic(s) which specify exactly which phoneme should be pronounced. Further, these findings discredit the popular belief which assumes the Maronites of the Lebanon mountains speak a dialect of Arabic because their modern vernacular features more than the 22 phonemes supposedly allowed by the Phoenician alphabet.[58] Moreover, this popular assumption always appeared flawed because of its failure to explain why the Lebanese vernacular supposedly inherited from Arabic, the phonemes: [x], [dˤ], [zˤ], and [ɣ] but then did not inherit from Arabic, the phonemes: [θ],

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54 Rawlinson, *op. cit.*, 'Chapter III – The People – Origin and Characteristics', Internet.

55 F. Astaire, 'Let's Call the Whole Thing Off' in *Romantic Love Songs Lyrics*, 2010, Internet, http://www.theromantic.com/lovesongs/letscallthewholethingoff.htm, (17 May 2010).

56 The word "dialect" is used loosely here, due to its inconsistent definition.

57 A distinction between spoken and literary "dialects" is made here because literary Arabic and Hebrew can also exhibit a dialect when printed with vowel points.

58 Mansouri, *op. cit.*, p. iv.

[ð], and [q]. This assumption also fails to explain how the Lebanese obtained the phonemes: [ʒ], [g], [v] and [p] - which do not appear in MSA [see Table 3 or Appendix D]. Hence, a more plausible explanation would be that, the phonics of the Lebanese vernacular have not been largely influenced by Arabic - or any other language, for that matter. Instead, the phonics of the Lebanese - in particular, the Maronites of the Lebanon mountains - have survived from the earliest of recorded time - if not earlier.

Table 3: Equivalent Phoenician and Arabic letters based on the results presented (earlier).

Phoenician	Arabic (MSA)	Arabic ("Lebanese")
𐤀	ا إ أ آ و ى ي	ا إ أ آ و ى ي
𐤁	ب	ب
𐤂	n/a	ج
𐤃	د	د
𐤄	ه	ه
𐤅	و	و
𐤆	د ز	د ذ ز
𐤇	ح خ	ح خ
𐤈	ط	ط
𐤉	ي	ي
𐤊	ك	ك
𐤋	ل	ل
𐤌	م ن	م ن
𐤍	ن	ن
𐤎	س	س ظ
𐤏	ع غ	ع غ
𐤐	ف	ب ف
𐤑	ص ض	ص ض
𐤒	ء	ء ق
𐤓	ر ل	ر ل
𐤔	س ش ت	ت ث س ش
𐤕	ت نت	ت نت

Consequently, the results described previously make necessary the reevaluation of the possible pronunciation of the various known (scripted) Phoenician words. One implication of this reevaluation would be the reassessing of the origins of the modern Arabic language. To demonstrate, the results described earlier suggest, the word for "earth" - ↗૧≮ - can now be pronounced [aː–redˤ] in Phoenician which is (more or less) the same as in Arabic - أرض. This suggests both Arabic and Phoenician inherited this particular word from a common ancestor or that, modern Arabic inherited this word from the older Phoenician - perhaps via a Hebrew or Nabataean intermediary. Regardless of how either language came to obtain this and many other common words, the Arabic rendition of the scripted word is undoubtedly derived from the Phoenician - the only differences being the font (obviously) and the diacritics added to the Arabic version [see Figure 6].[59] Thus, it would be fair to argue that, the modern Arabic vocabulary is partly inherited from older Semitic languages and these common words are generally scripted in the same way only that the Arab rendition adds diacritics to specify exact pronunciation.

Figure 6: Many "Arabic" words are scripted exactly like their Phoenician equivalents, save for the: font, diacritics, and (terminating) *ta'-marbuṭa* (ة).

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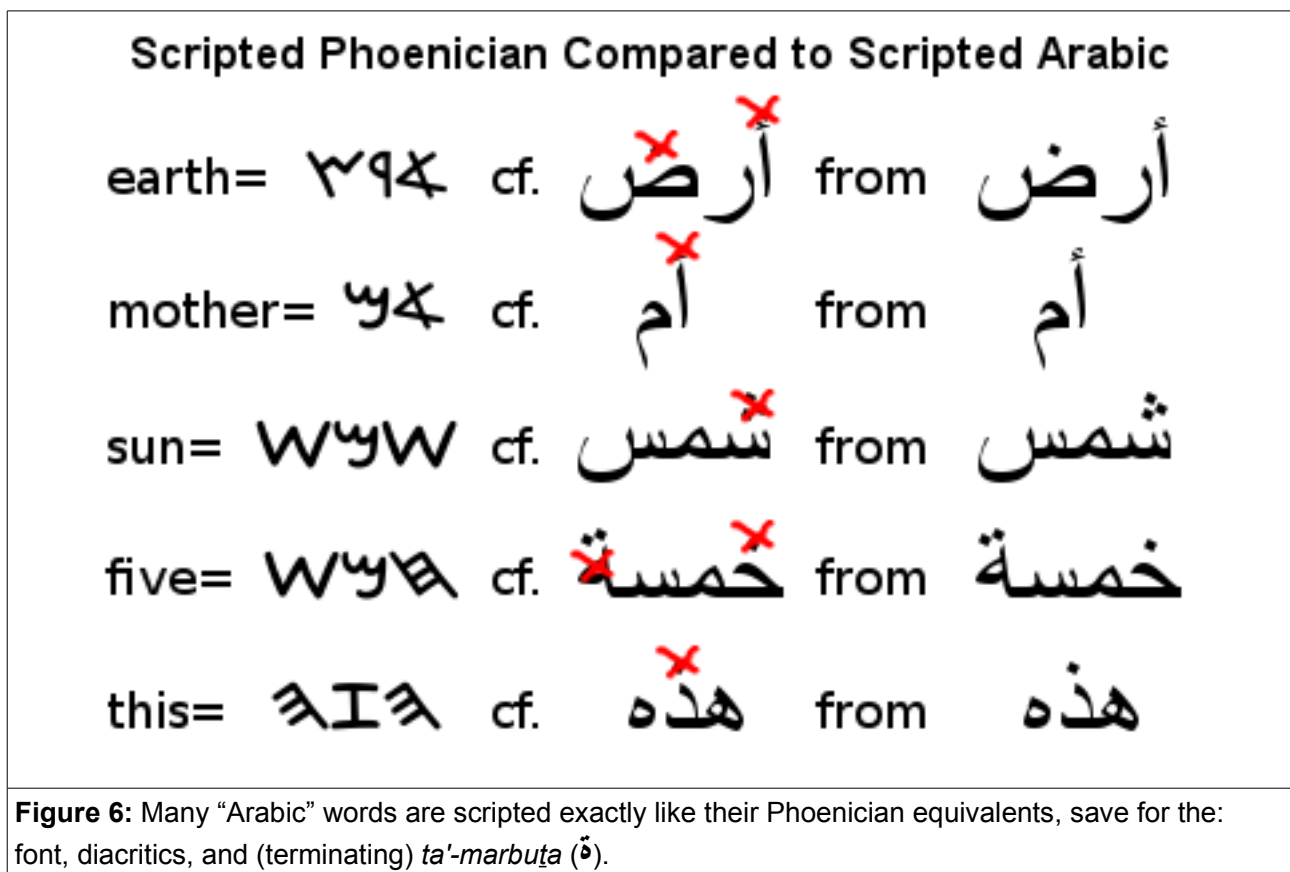
59 The very motivation for adding diacritics in Arabic, may have come from the wanting to preserve the "correct" pronunciation of the verses of the Koran and/or from the Koranic rejection of duality, triplicity, or any other polytypical nature as emphasised by Sura 4: 170-171 "... do not say "Trinity." Stop saying that ...". See: F. Malik, 'The Qur'an in English Translation Complete' in *MidEastWeb*, August 2007, Internet, http://www.mideastweb.org/mew-quran.pdf, (18 May 2010).

Conclusion

In conclusion, the Phoenician alphabet was not simply an alphabet with a one-to-one, letter to phoneme relationship. Instead, the Phoenician alphabet was a simple device with a relatively sophisticated nature in the sense that it utilised letters with a polytypical nature whilst at the same time, conveyed to the world the beliefs of the alphabet's creator.

Ideas for Related, Future Projects

The following aims are an invitation to current and would be researchers of Phoenician, Lebanese and other middle eastern studies.

1. Find the word origins of the modern Arabic vocabulary then determine what percentage is inherited from Phoenician, Hebrew, Nabataean, ancient Arabic, etc.

2. Find the word origins of the various Lebanese vernaculars then determine what percentage is inherited from Phoenician, Hebrew, Ugaritic, Aramaic, Arabic, Greek, Latin, Turkish, French, English, etc.

3. Reassess modern Hebrew (also known as Israeli), in light of the findings of this paper - especially given the criticisms against modern Hebrew for having lost much of its Semitic essence.[60]

4. Challenge the popular belief which assumes everybody in the Middle East speaks Arabic - especially given that, to ask the question "Do you speak English?", one would (typically) say:

> [bɪˈdt-dtɪˈħ-kə eən-glɪ-zə?] in Lebanon, but then (typically) say
>
> [bɪ-dtɪ-dteə-kʌl-lʌm eən-gɪ-lɪ-zɪ-jə?] in Egypt, but then (typically) say
>
> [hʌl tə-tə-ħʌdˤ-dˤʌθ ʌl ɪn-dʒɪ-lɪ-zɪ-jə?] (probably) in the gulf,
>
> [hʌl dtə-dtə-kʌl-ləm əl ɪn-dʒliː-zɪ-jə?] in Modern Standard Arabic,
>
> [tɪt-kæl-læm ɪn-gɪ-liː-zɪ?] in Iraq, and
>
> [wæʃ kæt-ʕrəf næg-lɪ-zɪ-jæ?] in Morocco.[61] [62] [63] [64] [65]

The simple and popular argument of attributing such differences to an "Arabic dialect" can be challenged by considering how one would pronounce the question, "Do you speak Arabic?" in the English speaking world. For example, in Australia one would (typically) ask

> [duː juː spiːk æ-ɹə-bɪk?], in England (typically)
>
> [dʊə jʊə spɪk ə-ɹə-bek?], in the US (typically)

60 G. Zuckermann, 'Abba, Why was Professor Higgins Trying to Teach Eliza to Speak Like Our Cleaning Lady?: Mizrahim, Ashkenazim, Prescriptivism and the Real Sounds of the Israeli Language' in *Ghil'ad Zuckermann, Associate Professor*, 2005, Internet, http://www.zuckermann.org/pdf/abba.pdf, (18 May 2010).

61 S. Jenkins, Egyptian *Arabic Phrasebook*, Lonely Planet Publications Pty Ltd, Victoria, 2001, p. 11.

62 'Hear Arabic Survival Phrases' in *Transparent Language*, 2010, Internet, http://www.transparent.com/learn-arabic/phrases.html, (18 May 2010).

63 D. DiMeo, *Arabic for Dummies Audio Set*, Wiley Publishing, Inc., New Jersey, 2008, p. 18.

64 Y. Alkalesi, *Iraqi Phrasebook*, McGraw Hill, Sydney, 2004, p. 25.

65 B. Andjar, D. Bacon, A. Benchehda, *Moroccan Arabic Phrasebook*, Lonely Planet Publications Pty Ltd, Victoria, 1999, p. 41.

[dʊəw jʊəw spiːk æ-ɹɜː-bɪk?], in (typical, English speaking) India
[dʊ jʊ ʃpɪk ə-ɾə-bɪk?].[66]

5. Challenge the popular belief which assumes everybody in the Middle East spoke Aramaic or Syriac before the Arab conquest. Assuming all Middle Easterners spoke Aramaic because of an Aramean or Assyrian conquest is no different to assuming that all Middle Easterners (save for Israeli Jews) speak Arabic today due to the Arab/Islamic conquest.

6. Standardise the definitions of language, dialect, and accent.

7. Explain why it is plausible to say everybody (excluding Israeli Jews) from Morocco to Iraq, inclusive, speaks a dialect of Arabic - even if the dialects are unintelligible from each other. Also, explain why it is plausible to classify the Romance languages as languages in their own right rather than dialects of Latin and then explain why such a classification is not a double standard when compared to the "dialects of the Arabic speaking world".

8. Reassess the possible phonics of the Ugaritic language, in light of this paper - especially given Ugarit was Phoenicia's neighbour to the north.

9. Reassess the possible phonics of the ancient Hebrew language, in light of this paper - especially given ancient Israel was Phoenicia's neighbour to the south.

10. Attempt to decipher the Byblos Syllabary, given the findings of this paper.

11. Reassess the link between Egyptian hieroglyphics and the Phoenician alphabet, in light of this paper.

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66 P. Heggarty, W. Maguire, A. McMahon, 'Accents of English from Around the World' in The University of Edinburgh, 2007, Internet, http://www.soundcomparisons.com/, (22 May 2010).

Appendix A

Twenty-Two letter alphabets of the ancient, North Semitic and neighbouring regions.

Hebrew

ט	ח	ז	ו	ה	ד	ג	ב/ב	א
טֵית	חֵית	זַיִן	וָו	הֵא (הֵי)	דָּלֶת (דָּלֶד)	גִּימֶל	בֵּית/בֵית	אָלֶף
tet	ḥet	zayin	vav	he	daled	gimel	bet	alef
t	ḥ/ch	z	v	h	d	g	b/v	'
[t]	[ħ, x]	[z]	[v]	[h]	[d]	[g]	[b, v]	[?, Ø]
9	8	7	6	5	4	3	2	1

ס	ן	נ	ם	מ	ל	ך	כ/כ	י
סָמֶך	נוּן סוֹפִית	נוּן	מֵם סוֹפִית	מֵם	לָמֶד	כַף סוֹפִית	כַּף/כַף	יוֹד (יוּד)
samekh	nun	nun	mem	mem	lamed	khaf	kaf	yod
s	sofit	n	sofit	m	l	sofit	k/kh	y/i
[s]	final nun	[n]	final mem	[m]	[l]	final kaf	[k, x]	[j]
60		50		40	30		20	10

ת	ש/שׂ	ר	ק	ץ	צ	ף	פ/פ	ע
תָּו/תָּף	שִׁין/שִׂין	רֵישׁ (רֵישׁ)	קוֹף (קוּף)	צָדִי סוֹפִית	צָדִי (צָדִיק)	פֵּא סוֹפִית	פֵּא (פֵּי)/פֵא	עַיִן
taw	shin	resh	qof	ẓadi	ẓadi	pe	pe	'ayin
t	s/sh	r	k	sofit	ẕ	sofit	p/f	'
[t]	[s, ʃ]	[ʁ]	[k]	final ẓadi	[t͡s]	final pe	[p, f]	[?, Ø]
400	300	200	100		90		80	70

Common orthography additions (mainly for foreign borrowings)

ת'	צ'	ע'	ח'	ז'	ד'	ג'
[θ]	[t͡ʃ]	[ɣ]	[x]	[ʒ]	[ð]	[d͡ʒ]

S. Ager, 'Hebrew' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/hebrew.htm, (22 May 2010).

Ancient Greek (Cretan)

labda	kappa	iota	theta	eta	zeta	ei	delta	gamma	beta	alpha
l	k	i	th	i	z	e/ē	d	g	b	a

chei	phei	u	tau	sigma	ro	pei	ou	xei	nu	mu
ch	ph	u/y	t	s	r	p	o	x	n	m

S. Ager, 'Ancient Greek alphabet' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/greek.htm, (22 May 2010).

Nabataean

S. Ager, 'Nabataean abjad' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/nabataean.htm, (22 May 2010).

Parthian

S. Ager, 'Parthian script' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/parthian.htm, (22 May 2010).

Samaritan

S. Ager, 'Samaritan alphabet' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/samaritan.htm, (22 May 2010).

Syriac (Estrangelo)

kap	yodh	ṭéith	ḥéith	zâyn	waw	hé	dalâth	gamâl	béith	alâp
k, ḵ/kh	y	ṭ	ḥ	z	w	h	d, ḏ/dh	g, ḡ/gh	b, ḇ/bh	'
[k, x]	[j]	[ṭ]	[ħ]	[z]	[w]	[h]	[d, ð]	[g, ɣ]	[b, v]	[ʔ]
20	10	9	8	7	6	5	4	3	2	1

taw	sheen	résh	qop	ṣadhé	pé	ʿain	simkâth	nun	meem	lamâdh
t, ṯ/th	sh	r	q	ṣ	p, p̄/ph	ʿ	s	n	m	l
[t]	[ʃ]	[r]	[q]	[s]	[p, f]	[ʕ]	[s]	[n]	[m]	[l]
400	300	200	100	90	80	70	60	50	40	30

S. Ager, 'Syriac script' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet,http://www.omniglot.com/writing/syriac.htm, (22 May 2010).

Syriac (Nestorian)

kap	yodh	ṭéith	ḥéith	zâyn	waw	hé	dalâth	gamâl	béith	alâp
k	y	ṭ	ḥ	z	w	h	d	g	b	'
[cʰ, c]	[j]	[ṭ]	[x]	[z]	[w]	[h]	[d, ð]	[ɟ, ʔ, ɣ, j]	[b, w]	[ʔ]
20	10	9	8	7	6	5	4	3	2	1

taw	sheen	résh	qop	ṣadhé	pé	ʿain	simkâth	nun	meem	lamâdh
t	sh	r	q	ṣ	p	ʿ	s	n	m	l
[tʰ, t, θ]	[ʃ]	[r]	[q]	[s]	[pʰ, p]	[ʔ, ʕ]	[s]	[n]	[m]	[l]
400	300	200	100	90	80	70	60	50	40	30

ḏ	ṯ	p̣	ṩ	ṭ̇	p	ž	ž	č	ǧ
[ð]	[θ]	[f]	[dˤ / ðˤ]	[dˤ / ðˤ]	[f]	[ʒ]	[ʒ]	[ʧ]	[ʤ]

Vowel diacritics

bă	ba	bĭ	be	û	ô	î
[ba]	[ba]	[bɪ]	[bi]	[uj, u]	[u]	[ij, i]

S. Ager, 'Syriac script' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet,http://www.omniglot.com/writing/syriac.htm, (22 May 2010).

Syriac (Serto)

											Consonants
kap	yodh	ṭéith	ḥéith	zâyn	waw	hé	dalâth	gamâl	béith	alâp	
k, ḵ/kh	y	ṭ	ḥ	z	w	h	d, ḏ/dh	g, ḡ/gh	b, ḇ/bh	'	
[k, x]	[j]	[ṭ]	[ħ]	[z]	[w]	[h]	[d, ð]	[g, ɣ]	[b, v]	[ʔ]	
20	10	9	8	7	6	5	4	3	2	1	
taw	sheen	résh	qop	ṣadhé	pé	'ain	simkâth	nun	meem	lamâdh	
t, ṯ/th	sh	r	q	ṣ	p, p̄/ph	ʻ	s	n	m	l	
[t]	[ʃ]	[r]	[q]	[s]	[p, f]	[ʕ]	[s]	[n]	[m]	[l]	
400	300	200	100	90	80	70	60	50	40	30	

Vowel diacritics

							Eastern
							Western
u, ū	o, ō	ā	a	e	ē	i, ī	

S. Ager, 'Syriac script' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/syriac.htm, (22 May 2010).

Appendix B

The International Phonetic Alphabet

Taken from: S. Ager, 'English' in *Omniglot Writing Systems and Languages of the World*, 1998, Internet, http://www.omniglot.com/writing/english.htm, (22 May 2010).

International Phonetic Alphabet (IPA) ˌɪntəˈnæʃn̩l fəˈnɛtɪk ˈælfəˌbɛt

Consonants (pulmonic)

	Bilabial	Labio-dental	Dental	Alveolar	Post-alveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	ɴ		
Trill	ʙ			r					ʀ		
Tap or flap		ⱱ		ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Consonants (non-pulmonic)

Clicks		Voiced implosives		Ejectives	
⊙	bilabial	ɓ	Bilabial	'	examples:
ǀ	Dental	ɗ	Dental / alveolar	p'	Bilabial
ǃ	(Post) alveolar	ʄ	Palatal	t'	Dental / alveolar
ǂ	Palatal-alveolar	ɠ	Velar	k'	Velar
ǁ	Alveolar lateral	ʛ	Uvular	s'	Alveolar fricative

Other symbols

ʍ w	Voiceless / voiced labial-velar approximants
ɥ	Voiced labial-palatal approximant
ʜ ʢ	Voiceless / voiced epiglottal fricatives
ʡ	Epiglottal plosive
ɕ ʑ	Voiceless / voiced alveolo-palatal fricatives
ɧ	simultaneous x and ʃ
k͡p	Affricatives and double articulations can be represented by two symbols
t͡s	and joined by a tie bar if necessary
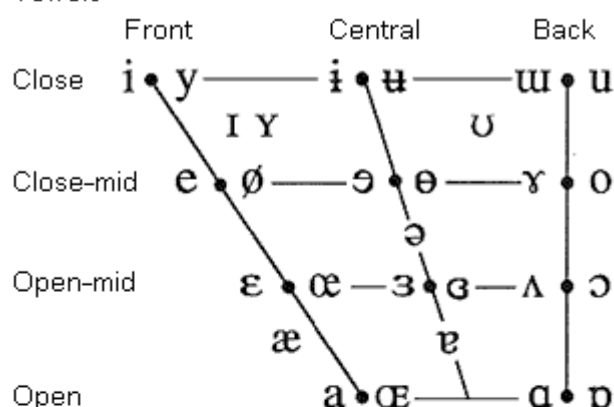
Vowels

Where symbols appear in pairs, the one to the right represents a rounded vowel.

Suprasegmentals

ˈ	Primary stress
ˌ	Secondary stress
eː	Long
eˑ	Half-long
ĕ	Extra-short
|	Minor (foot) break
‖	Major (intonation) break
.	Syllable break
‿	Linking (no break)

Tones and word accents

Level tones

e̋	or ˥	Extra high	
é	˦	High	
ē	˧	Mid	
è	˨	Low	
ȅ	˩	Extra low	

Contour tones

ě	or ⟋	Rising	
ê	⟍	Falling	
e᷄	⟋	High rising	
e᷅	⟋	Low rising	
↑	Upstep		
↓	Downstep		
ê	or ⟍	High falling	
ē	⟍	Low falling	
ê	⟍	Rising falling	
ẽ	⟍	Falling rising	
↗	Global rise		
↘	Global fall		

Diacritics

n̥ d̥	Voiceless	tˠ dˠ	Velarized	d̚	No audible release	e̘	Retracted tongue root
s̬ d̬	Voiced	tˤ dˤ	Pharyngealized	n̩	Syllabic	ɔ̹	More rounded
tʰ dʰ	Aspirated	b̤ a̤	Breathy voiced	ẽ	Nasalized	ɔ̜	Less rounded
t̪ d̪	Dental	b̰ a̰	Creaky voiced	ɚ	Rhoticity	u̟	Advanced
t̺ d̺	Apical	t̼ d̼	Linguolabial	e̯	Non-Syllabic	e̠	Retracted
t̻ d̻	Laminal	ɫ	Velarized / pharyngealized	e̝	Raised	ë	Centralized
tʷ dʷ	Labialized	dⁿ	Nasal release	e̞	Lowered	e̽	Mid-centralized
tʲ dʲ	Palatalized	dˡ	Lateral release	e̙	Advanced tongue root		

English in IPA

A a	B b	C c	D d	E e	F f	G g	H h	I i	J j	K k	L l	M m
a	bee	cee	dee	e	ef	gee	(h)aitch	i	jay	kay	el	em
[eɪ]	[biː]	[siː]	[diː]	[iː]	[ɛf]	[dʒiː]	[(h)eɪtʃ]	[aɪ]	[dʒeɪ]	[keɪ]	[ɛl]	[ɛm]

N n	O o	P p	Q q	R r	S s	T t	U u	V v	W w	X x	Y y	Z z
en	o	pee	cue	ar	ess	tee	u	vee	double-u	ex	wy(e)	zed/zee
[ɛn]	[oʊ]	[piː]	[kjuː]	[ɑː/ɑr]	[ɛs]	[tiː]	[juː]	[viː]	[ˈdʌbəljuː]	[ɛks]	[waɪ]	[zɛd/ziː]

	AmE	AuE	BrE	CaE	IrE	NZE	SAE	ScE	WeE
ash	æːʃ	æʃ	æʃ	aːʃ	ɛʃ	æˑʃ	æʃ	aʃ	äʃ
all	ɑːɫ	ɔːɫ	ɔːɫ	ɒːɫ	ɔːɫ	ɔːɫ	ɔ̈ːɫ	ɔːɫ	ɔːɫ
father	ˈfäðɚ	ˈfäːðʃ	ˈfɑːðə	ˈfɑˑðɪ	ˈfäːðɚ	ˈfäːðə	ˈfɑˑðʃ̆	ˈfäːðəɪ	ˈfɑːðʃ
better	ˈbɛɾɚ	ˈbɛɾɜ	ˈbɛtə	ˈbɛɾɪ	ˈbɛt͡ʔɚ	ˈbɪɾə	ˈbɛtɜ	ˈbɛtʰəɪ	ˈbɛtɜ
day	dɛ̞ɪ	dɛ̞ɪ	dɛ̞ɪ	dɛ̞ɪ	deː	dɛ̞ɪ	dɛ̞ˑɛ̞	deː	dɛ̞ɪ
earth	ɚˑθ	ɜ̞ːθ	ɜːθ	ɚˑθ	ɚˑθ	ɔ̈ˑθ	ɜ̞ˑθ	ɛˑɾθ	ɔ̈ːθ
drink	dɹɪŋkʰ	dzɪŋk	dɹɪŋkʰ	dɹɪŋkˀ	dɹïŋk̠ʰ	dzɪŋk	dɹɪŋk̠ʰ	dɹɪŋkʰ	dɹɪŋk
eat	itʰ	ɪit	itʰ	iˑt	it	ɪit	itʰ	itʰ	iˑt
top	tʰɑp	tʰɒp	tʰɔp	tʰɒpˀ	tʰɔːp	tʰɒp	tʰɒp	tʰɔpʰ	tʰɒp
four	fo̞ːɹ	foː	foː	fo̞ːɹ	foˑɚ	fo̞ˑə	foː	fo̞ˑəɪ	foː
foot	fʊt	fʊt	fʊtʰ	fʊt	fʏt	fʊt	fʊtʰ	fɐtʰ	fʊt
goose	guus	gÿˑs	guˑs	geʉs	gʏs	gʉˑs	gʉˑs	gʉs	guˑs
blood	bɫʌd	blɐd	blɐd	bɫÄd	bɫʌd	blɐd	blɐd	blÄd	bləd
bone	bʌˑʊn	bɜ̞ʉn	bəˑʊn	boʊn	boːn	bɜ̞ʉn	bɜ̞ʉn	boˑən	boːn
cow	kʰæˑʊ	kʰæʊ	kʰaʊ	kʰaʊ	kʰɐˑʏˑ	kʰaʊ	kʰa̠ö	k̠ʰɐˑʊ	kʰɐuˑ
nail	neˑÄɫ	nɛ̞ˑɪəɫ	nɛ̞ˑɪɫ	neˑəɫ	neˑəɫ	nɛ̞ɪʊ	neˑəɫ	neˑÄɫ	neːl
bite	bäitʰ	bäɪt	bäɪtʰ	bʌÄt	bɐɪt	bäɪt	bäetʰ	bÄ̈itʰ	bɐɪt
ear	iˑɚ	iˑɜ	ɪˑ̠ə	iˑɪ	iˑɚ	iˑɜ̆	iɜ̆ˑ	iˑɐɪ	jɐ̈ː

Key:

AmE = American English (General American), AuE = Australian English, BrE = British English (RP), CaE = Canadian English, IrE = Irish English, NZE = New Zealand English, SAE = South African English, ScE = Scottish English, WeE = Welsh English

Letters	IPA	Examples	Notes
b	[b]	bee, sob	
c/k/ck/q	[kʰ, k]	car, skill, quack	[kʰ] at the beginnings of words, [k] elsewhere
ch/t	[tʃʰ, tʃ]	chain, nature	[tʃʰ] at the beginnings of words, [tʃ] elsewhere
d	[d]	dog	
f/ff/gh/ph	[f]	faff, tough, photo	
g	[g]	grand	
h	[h]	hand	initial h's are not pronounced in some dialects
j/g/dg	[dʒ]	judge, gin	
l	[l]	laugh	
m	[m]	moon	
n	[n]	note	
ng/n	[ŋ]	sing, linger, drink	
p	[pʰ, p]	pig, spot, top	[pʰ] at the beginnings of words, [p] elsewhere
r	[ɹʷ, ɹ, ɾ]	read	varies considerably between dialects
s/ss/c	[s]	sock, lass, city	
sh/s/ti	[ʃ]	share, sure, emotion	
t	[tʰ, t]	tea, stick, let	[tʰ] at the beginnings of words, [t] elsewhere
th	[θ]	three, fifth	
th	[ð]	the, mother	
v/f	[v]	voice, of	
w/u	[w]	wet, quiet	
x	[ks, ɛks]	box, x-ray	
y	[j]	yacht	
z	[z, s]	zoo, prose	
s/ge/z	[ʒ]	measure, beige, seizure	
ch	[x]	loch	appears in Scottish English

Appendix C

The evolution of the Phoenician alphabet.

Hebrew letter	Hebrew	Phonetic value	Ahiram	Elibaal (Osorkon bust)	Shipitbaal	Mesha	Kara Tepe bilingual	Punic	Neo-punic	Early Greek	Modern Greek	Modern Roman	Greek letter
aleph	א	ʾ	KK	Ɀ	KK	Ɀ	Ɀ	Ɀ	Ꭓ	Ƴ	A	A	alpha
beth	ב	b	99	9	ℓ	9	9	9	℈	B	B	B	beta
gimel	ג	g	1	ʌ	∧	1	∧	ʔ	Λ	Γ	Γ	G	gamma
daleth	ד	d	⊲	Δ	◁	△	◁	▵	▵	Δ	Δ	D	delta
he	ה	h	ⱻⱻ			ⱻ	ⱻ	ⱻ	ⱴ	ⱻ	E	E	epsilon
waw	ו	w	ƳY	Y	ƳY	Y	Y	ч	ⱴ	F		V	digamma
zayin	ז	z	I		I	II	I	I	ᴨ	I	Z	Z	zeta
heth	ח	ḥ	ⱺⱨ		ⱨ	ⱨ	ⱨ	ⱨ	Ⱪ	ⱨ	H	H	eta
teth	ט	ṭ	⊕		⊖	⊗		⊙	ⱷ	⊗	Θ		theta
yodh	י	y	ⱬ	ⱬ	ⱬ	ⱬ	ⱬ	∿	∿	ⱬ	I	I	iota
kaph	כ	k	ⱴ	ⱴ	ⱴⱴ	ⱴ	ⱴ	Ƴ	ⱴ	K	K	K	kappa
lamedh	ל	l	L	L	L	6	ⱱ	ⱱ	ↄ	∧	L	L	lambda
mem	מ	m	ⱬⱬ	ⱬ	ⱬⱬ	ⱳ	ⱱ	ⱱ	×	Ɱ	M	M	mu
nun	נ	n	ⱶ	ⱶ	ⱶ	ⱶ	ⱶ	ⱶ	ſ	ⱴ	N	N	nu
samekh	ס	s	Ⱶ			Ⱶ		ⱪ	Ⱶ	Ⱶ	Ξ		xi
ayin	ע	ʿ	O	O	O	O	O	O	ⱷ	O	O	O	omicron
pe	פ	p	ⱶⱶ	ⱶ	ⱶⱶ	ⱶ	ⱶ	ⱶ	ⱶ	ⱴ	Π	P	pi
tsade	צ	ṣ				ⱱ	ⱱ	ⱳ	ⱳ	M			
qoph	ק	q			ⱷ	ⱷ	ⱷ	ⱷ	ⱷ	ⱷ		Q	
resh	ר	r	ⱬ	ⱬ	99	ⱴ	ⱴ	ⱴ	ⱴ	Ⱶ	P	R	rho
shin	ש	š	W	W	WW	W	W	ⱨ	ⱨ	ⱷ	Σ	S	sigma
tau	ת	t	+×	×	+×	×	×	ⱷ	ⱴ	T	T	T	tau
Probable dates of inscriptions			early 10th cent.	c.915	end of 10th cent.	c.830	8th cent. B.C.	5th cent. & later	2nd cent. & later	8th cent. B.C.			

Taken from: D. (Benjamin) Harden, *The Phoenicians*, Thames and Hudson, London, 1962, p. 117.

Appendix D
The Modern Standard Arabic Alphabet

Letter Name	Glyph	Value (IPA)
alif	ا	[ɑː]
ba'	ب	[b]
ta'	ت	[t]
tha'	ث	[θ]
jim	ج	[dʒ]
ḥa'	ح	[ħ]
kha'	خ	[x]
dal	د	[d]
dhal	ذ	[ð]
ra'	ر	[r]
zay	ز	[z]
sin	س	[s]
shin	ش	[ʃ]
ṣad	ص	[sˤ]
ḍad	ض	[dˤ]
ṭa'	ط	[tˤ]
ẓa'	ظ	[zˤ]
'ayn	ع	[ʕ]
ghayn	غ	[ɣ]
fa'	ف	[f]
qaf	ق	[q]
kaf	ك	[k]
lam	ل	[l]
mim	م	[m]
nun	ن	[n]
ha'	ه	[h]
waw	و	[w]
ya	ي	[j]

Adapted from Cowan, pp. 1-4.

N.B. The following sounds (from above) do not occur in English: [ħ]=emphatic '*h*', [x]=voiceless velar fricative (similar to German 'Ach'), [r]="rolling *r*", [sˤ] emphatic '*s*', [dˤ]=emphatic 'd', [tˤ]=emphatic '*t*', [zˤ]=emphatic '*z*', [ʕ]=guttural stop, [ɣ]= voiced velar fricative (like a gargling sound), [q]=guttural '*k*'.

The "Lebanese Arabic" Alphabet

Letter Name	Glyph	Value (IPA)
aleph	ا	[eə]
bea	ب	[b], [p]
tea	ت	[dt]
sea	ث	[s], [dt]
zhin	ج	[ʒ]
ḥea	ح	[ħ]
khea	خ	[x]
da	د	[d]
za	ذ	[z], [d]
rea	ر	[r]
zayne	ز	[z]
sin	س	[s], [ʃ]
shin	ش	[ʃ], [s]
ṣod	ص	[sˤ]
ḍod	ض	[dˤ]
ṭaḥ	ط	[dtˤ]
ẓaḥ	ظ	[zˤ]
'ayn	ع	[ʕ]
ghayn	غ	[ɣ]
fea	ف	[f], [v]
qoph	ق	[ʔ], [k]
kaf	ك	[k], [g]
lam	ل	[l]
mim	م	[m]
nun	ن	[n]
hea	ه	[h]
waw	و	[w]
lam-aleph	لا	[lə]
yea	ي	[j]

Connecting Arabic Letters

(Adapted from Cowan, pp. 1-2.)

standing alone	joined to: preceding letter	preceding and following letters	following letter only	standing alone	joined to: preceding letter	preceding and following letters	following letter only
ط	ط....	....ط....	....ط	ا	ا....	—	—
ظ	ظ....	....ظ....	....ظ	ب	...ب....	....ب....	...ب....
ع	ح...	...ع....	...ع..	ت	...ت....	....ت....	...ت....
غ	خ...	...غ....	...غ....	ث	...ث....	....ث....	...ث....
ف	...ف....	...ف....	...ف....	ج	ج... ج	ج.... ...جـ... ...ج	...ج..
ق	...ق....	...ق....	...ق....	ح	ح... ح	كـ... ...جـ... ...ح	...حـ...
ك	ك....	...كـ...	...كـ...	خ	خ... خ	كـ... ...خـ... ...خـ...	...خـ...
ل	...ل....	...لـ...	...لـ...	د	د....	—	—
م	م....	....م....	....م...	ذ	ذ....	—	—
ن	...ن....	...نـ...	...نـ...	ر	...ر....	—	—
ه	...ه....	...هـ....	...هـ...	ز	...ز....	—	—
و	...و....	—	—	س	...س....	....س....	....س....
ي ى	...ي... ...ىـ...	...يـ....	...يـ...	ش	...ش....	....ش....	...ش....
ء	—	—	—	ص	...ص....	...صـ....	...صـ...
				ض	...ض....	...ضـ....	...ضـ...

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