1 Introduction

This proposal is a revision and expansion of “Preliminary proposal to encode the Elymaic script in Unicode” (L2/17-055). It contains additional background details, an expansion of the character repertoire, notes on letters, and several new specimens. It also addresses comments provided in:

- L2/17-255: Recommendations to UTC #152 July-August 2017 on Script Proposals
- L2/17-384: Recommendations to UTC #153 November 2017 on Script Proposals

The ‘Elymaic’ script was allocated to the “Roadmap to the Supplementary Multilingual Plane” (v. 3.0) in 2001. It was identified as a suitable candidate for encoding by Michael Everson in “Roadmapping early Semitic scripts” (N2311). Although no proposal to encode the script has been submitted in the past sixteen years, there is current and active scholarly interest in the script and the associated history, culture, and language of Elymais.

2 Background

The proposed script was used in the ancient state of Elymais, located in the southwestern region of modern Iran at the head of the Persian Gulf (see figure 1). It flourished from the 2nd century BCE to the early 3rd century CE as a semi-independent polity that was intermittently under the control of the Parthian empire (247 BCE – 224 CE). The name ‘Elymais’ is a romanization of the Hellenic designation Ἐλυμαίς for the region known in Sumerian sources from the middle of the third millennium BCE as 𒉏市场价格 (NIM) elam; in Akkadian as elami and elammatu; and in the indigenous ancient Elamite language as ḫaltamti or ḫatamti (Poebel 1931). Known in English as ‘Elam’, the region lies in the present-day Iranian province of Khuzestan, the name of which derives from 𐎢𐎺𐎩 hūjiya, the Old Persian name for the area.

There is no attested native name for the script. It is referred to as ‘Elymaic’ and ‘Elymaean’ in English scholarly literature. It appears that ‘Elymaic’ is the more widespread name for the script today, cf. Naveh (1997), Häberl (2006), Gzella (2008); and ‘Elymaean’ was used earlier, cf. Henning (1952), Bivar and Shaked (1964). The term ‘Elymaic’ is also used in general works on writing systems, cf. Healy (1990), O’Connor (1996). Recent articles in the Encyclopaedia Iranica offer a distinction between the two terms:
they refer to ‘Elymaic’ inscriptions (Humbach 2011), but ‘Elymaean’ people and coinage (Hansman 2011). Based upon the prevalence of ‘Elymaic’, it is proposed as the identifier for the script in Unicode.

Elymaic is a right-to-left, non-joining abjad derived from the Aramaic script used by the Achaemenid chancellery. Although there is no evidence that the Aramaic language was spoken in Elymais, the local administration developed a regional variety of the script for writing standard Achaemenid Aramaic (Gzella 2008: 127). The script is best attested on stone inscriptions produced by local ruling dynasties, from the 1st through 3rd centuries CE. Some important epigraphical records are:

- **Tang-e Sarvak** This “valley of the cypresses” in eastern Khuzestan is considered to be the most important archaeological site in Elymais. It is believed to be a sacred grove used for the coronation of Elymaean kings. The site contains four free-standing monuments, with rock reliefs consisting of thirteen panels (Haeirinck 2005). The artefacts at the site are generally dated between the 1st century CE and the first quarter of the 3rd century. Six inscriptions are extant (see figures 7–13).

- **Tang-e Butan** There are five inscriptions on two large rock reliefs in the “valley of the idols” in the Shimbar valley in northeastern Khuzestan (see figures 14–18). The first relief depicts one individual and the second depicts twelve individuals (Bivar and Shaked 1964). The reliefs are dated between the 1st century BCE and the 3rd century CE.

- **Tang-e Chilau** A large triangular stone containing graffiti written in carbon ink. Bivar and Shaked note that “Elymaean script of the first and second centuries A,D., similar to that of the Tang-i Butān was especially prominent” here and that “[s]everal examples seemed to mark a stage transitional in the development from chancery Aramaic to Elymaean, and may be of the first century B.C. or even earlier” (1964: 283). In addition to the Elymaic graffiti (figures 19–21), there are also ink texts in the Parthian and Pahlavi scripts.

- **Hong-e Kamalwand** A relief at Hong-e Kamalwand in Susiana, east of Elymais, has one inscription in a script that closely resembles Elymaic (see figure 22). The inscription has been dated to 100 CE (Gzella 2008: 121).

- **Short inscriptions** have been identified at Bard-e Neshandeh, Masjed-e Soleyman, and Hong-e Yaralivand.

The script is also attested on coinage. There are several types of numismatic records from Elymais, bearing inscriptions in Greek, Parthian, and Elymaic. Coins with Elymaic legends were minted during the Arsacid period. The inscription from a tetradrachm of Kamnaskires Orodes is shown in figure 23. The script on this coin differs from that used on small copper coins struck by Orodes II and Kamnaskires, shown in figures 24–25. It appears that two scripts were used for coinage in Elymais: that of the tetradrachms resembles those of the stone inscriptions, while that of the small coppers has letters similar to Parthian forms (compare the letters, respectively, of the ‘grand module’ and ‘petit module’ coins in figure 26).

Elymaic is related to other Aramaic-based scripts of southern Mesopotamia, mostly closely to Parthian and Mandaic, and also to Characenean (see Coxon 1970, Häberl 2005, Naveh 1997, Rezakhani 2012). A comparison of these scripts is shown in table 1. There is some debate regarding the relationship of Elymaic and Mandaic. Some scholars are of the opinion that Elymaic is the ancestor or sibling of Mandaic, while others state that it is a descendant of the latter.
3 Approach to the Encoding

There is no standard form of Elymaic. For purposes of the encoding, the representative ‘Elymaic’ script is based upon that of the stone inscriptions. While there are differences in the shapes of some letters across the inscriptions, they may be considered stylistic or local variations. On the whole, the scripts on the inscriptions exhibit uniformity and convey the sense of a single writing system.

- Repertoire The proposed character repertoire is based upon the inscriptions at Tang-e Sarvak, in which all 22 letters of the Elymaic abjad are attested.

- Ordering The alphabetic order for Elymaic follows that of Aramaic.

- Character names Indigenous names for Elymaic letters are not attested. Therefore, this proposal adopts the Unicode naming convention for the ‘Imperial Aramaic’ block, which has also been used for Parthian and Pahlavi scripts. These names differ slightly from scholarly names for Aramaic letters. In this document, names in italics refer to names for graphemes while names in small capitals refer to proposed Unicode characters, eg. 𐻀 is aleph and ELYMAIC LETTER ALEPH. For sake of brevity, the descriptor ‘ELYMAIC’ is dropped when referring to Elymaic characters, eg. ELYMAIC LETTER ALEPH is referred to as ALEPH. Characters of other scripts are designated by their full Unicode names. Latin transliteration of Elymaic letters follows scholarly convention.

- Letterforms The representative glyphs are normalizations of forms used at Tang-e Sarvak. With regard to the letterforms in the Tang-e Sarvak inscriptions, Henning notes: “The writing is simply the same as that found on the coins which the kings of Elymais issued in Parthian times” and may be “allocated to the first and second centuries” CE (Henning 1952: 163). With regard to the script of Tang-e Butan, Bivar and Shaked write, “the Shīmbār inscriptions are very close from the point of view of palæography to the Elymaic script of Tang-i Sarvak” (1964: 271). Gzella writes: “The same script [as that of Tang-e Sarvak], with a few palæographic differences which might be due to local variation, has also been used for five inscriptions accompanying rock sculptures from Tang-e Butan in the Shimbar Valley” (2008: 119). Similarly, the inscription at Hong-e Kamalwand, although outside of Elymais proper, has more archaic forms, but has a a close resemblance to other Elymaic inscriptions (Gzella 2008: 121).

The proposed repertoire is certainly suitable for representing numismatic inscriptions, particularly those on tetradrachm coins. But, the script of some coins, particularly the small coppers, may be a separate script, perhaps Parthian or a form of it (see figure 27). For such coins, it may be practical to use the Inscriptional Parthian encoding.

The specific style of a particular inscriptions or coin is to be managed typographically through the selection of fonts designed specifically for each style.
### 4 Proposed repertoire

The proposed repertoire for Elymaic contains 23 characters: 22 letters and 1 ligature.

#### 4.1 Letters

<table>
<thead>
<tr>
<th>Glyph</th>
<th>Unicode character name</th>
<th>Variant</th>
<th>Aramaic</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ELYMAIC LETTER ALEPH</td>
<td></td>
<td>ālap</td>
<td>ˎ</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER BETH</td>
<td></td>
<td>bēth</td>
<td>b</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER GIMEL</td>
<td></td>
<td>gāmal</td>
<td>g</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER DALETH</td>
<td></td>
<td>dālath</td>
<td>d</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER HE</td>
<td></td>
<td>hē</td>
<td>h</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER WAW</td>
<td></td>
<td>waw</td>
<td>w</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER ZAYIN</td>
<td></td>
<td>zain</td>
<td>z</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER HETH</td>
<td></td>
<td>hēth</td>
<td>ḫ</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER TETH</td>
<td></td>
<td>Ŧēth</td>
<td>Ŧ</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER YODH</td>
<td></td>
<td>yodh</td>
<td>y</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER KAPH</td>
<td></td>
<td>kāp</td>
<td>k</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER LAMEDH</td>
<td></td>
<td>lāmadh</td>
<td>l</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER MEM</td>
<td></td>
<td>mem</td>
<td>m</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER NUN</td>
<td></td>
<td>nun</td>
<td>n</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER SAMEKH</td>
<td></td>
<td>semkath</td>
<td>s</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER AYIN</td>
<td></td>
<td>ʾē</td>
<td>ʾ</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER PE</td>
<td></td>
<td>pē</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER SADHE</td>
<td></td>
<td>šādēh</td>
<td>š</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER QOPH</td>
<td></td>
<td>qop</td>
<td>q</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER RESH</td>
<td></td>
<td>rēsh</td>
<td>r</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER SHIN</td>
<td></td>
<td>shin</td>
<td>š</td>
</tr>
<tr>
<td></td>
<td>ELYMAIC LETTER TAW</td>
<td></td>
<td>taw</td>
<td>t</td>
</tr>
</tbody>
</table>
Notes on the letters:

- The letters 𐻊 kaph and 𐻓 resh have a similar structure, but they are distinguished by their terminals. The terminal of kaph is written with a long descender, which stretches below the baseline, while that of resh is shorter and does not cross the baseline. Even in texts where letters are wander from the baseline and letter heights are inconsistent, the kaph differs from resh on account of its elongated tail. Inscriptions #1 and #2 from Tang-e Sarvak show the letters distinctively in the word 𐻀𐻉𐼂 kwsryʾ (figures 8, 9). The difference is also clear in the word 𐻅𐻊𐻅𐻓𐻔 šrwkw in Tang-e Butan inscription #2 (figure 15), as well as in 𐻀𐻓𐻌 xe kwmrʾ in the inscription at Hong-e Kamalwand (figure 22).

- The letters 𐻏 ayin and 𐻓 resh may appear similar, but they have distinctive shapes. The basic structure of both consists of one arc intersecting another. In ayin, the smaller left arc bisects the primary right arc; while in resh, the terminal of the left arc joins the origin of the right arc, or meets at a point close to the origin. Also, the terminal of the right stroke in ayin stops at the base line, while that of resh often curves at or along the baseline. The differences are apparent in Tang-e Butan inscription #4: compare the ayin in 𐻃𐻉 xe ʿtyd with the resh in 𐻓 xe br and 𐻓 xe yrsy (figure 17). See also Tang-e Sarvak inscription #3, in which the ayin in 𐻄 xe lyh and 𐻄 xe yʾbd are clearly different from the resh in xe br and xe wrwd (figure 10). Here, the appearance of the letters is quite rigid, but there is a sense of a deliberate differentiation between the letters by inscribing ayin with a prominent angular stroke.

- The letters 𐻆 zayin and 𐻋 lamedh are similar, but the latter has a longer ascender. In some inscriptions, the ascender of lamedh has a slight curve or ripple at top, ie. 𐻆, and zayin may have no curve, ie. 𐻆.

- The letters 𐻆 lamedh and _neighbors_ 𐻌 nun are also similar. The nun is written with an elongated descender and hook, while lamedh rests along the baseline.

- The letter yodh is represented in the majority of inscriptions using the dot form  Ấ, but it occurs as an elongated stroke .Widget in Tang-e Sarvak #3 (see figure 10). The form .Widget occurs in coinage. It is treated as a glyphic variant.

### 4.2 Ligature

<table>
<thead>
<tr>
<th>Glyph</th>
<th>Unicode character name</th>
<th>Variant</th>
<th>Aramaic</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>u</td>
<td>ELYMAIC LIGATURE ZAYIN-YODH</td>
<td><em>adjacent</em> 𐻆</td>
<td>𐻈</td>
<td>𐻈</td>
</tr>
</tbody>
</table>

In several inscriptions the Aramaic particle ʿ y is represented using the form  u, a ligature of 𐻆 zayin and  xe yodh. As Elymaic is a non-joining script the  xe ligature may be considered a special case. While it be may possible to represent the ligature using the control character  xe u+200D ZERO WIDTH JOINDER, it is practical to consider the ligature as an atomic character on account of the structure of Elymaic: the  xe ligature appears to be consistently joined while other letters are not. The proposed character is named after the letters that compose the ligature. This LIGATURE ZAYIN-YODH may correspond to  xe u+0856 MANDAIC LETTER DUSHENNA.
4.3 Other features

Punctuation There are no special signs for punctuation. Word boundaries are generally not indicated, but in some inscriptions it appears that spaces are used between words.

Digits Digits are not attested.

Line-breaking There are no formal rules for the breaking of words at end of line. In some inscriptions lines appear to be broken at phrase boundaries. In digital layouts line-breaks may occur after any character.

Cursive writing In the majority of inscriptions the letters are freestanding. In some sources, the strokes of adjacent letters of a word may connect or overlap, eg. Tang-i Butan #5 (see figure 18). But the script does not possess intrinsic conjoining or cursive behavior. The only evidence of deliberate cursive writing is the ligature zv.

4.4 Collation

The sort order for Elymaic letters follows the encoded order:

\[ \text{ﻷ} \text{ALEPH} < \text{ب} \text{BETH} < \text{گ} \text{GIMEL} < \text{د} \text{DALETH} < \text{ه} \text{HE} < \text{و} \text{WAW} < \text{ي} \text{ZAYIN} < \text{ذ} \text{HETH} < \text{ط} \text{TETH} < ' \text{YODH} < \text{پ} \text{KAPH} < \text{ل} \text{LAMEDH} < \text{م} \text{MEM} < \text{ن} \text{NUN} < \text{س} \text{SAMEKH} < \text{ای} \text{AYIN} < \text{ج} \text{PE} < \text{س} \text{SADHE} < \text{ئ} \text{QOPH} < \text{ش} \text{RESH} < \text{ش} \text{SHIN} < \text{ث} \text{TAW} \]

The ligature ZAYIN-YODH should be collated after the sequence \(<\text{ZAYIN}, '\text{YODH}\rangle\), for example:

\[ \rightarrow \ldots \text{ز} \text{ذ} < \text{ز} \text{ذ} < \text{ز} \text{ذ} < \text{ز} \text{ذ} \rightarrow \]

\[ \text{zI} \text{ZAYIN, TETH} \quad \text{zy} \text{ZAYIN, YODH} \quad \text{zy} \text{ZAYIN-YODH} \quad \text{zk} \text{ZAYIN, KAPH} \]

5 Character Properties

5.1 UnicodeData.txt

10EC0;ELYMAIC LETTER ALEPH;Lo;0;R;;;;;N;;;;;
10EC1;ELYMAIC LETTER BETH;Lo;0;R;;;;;N;;;;;
10EC2;ELYMAIC LETTER GIMEL;Lo;0;R;;;;;N;;;;;
10EC3;ELYMAIC LETTER DALETH;Lo;0;R;;;;;N;;;;;
10EC4;ELYMAIC LETTER HE;Lo;0;R;;;;;N;;;;;
10EC5;ELYMAIC LETTER WAW;Lo;0;R;;;;;N;;;;;
10EC6;ELYMAIC LETTER ZAYIN;Lo;0;R;;;;;N;;;;;
10EC7;ELYMAIC LETTER HETH;Lo;0;R;;;;;N;;;;;
10EC8;ELYMAIC LETTER TETH;Lo;0;R;;;;;N;;;;;
5.2 LineBreak.txt

6 References


7 Acknowledgments

I would like to thank Davide Salaris (Macquarie University) for providing information on the Elymaic script and history of Elymais. I express my gratitude to Charles Häberl for comments on this proposal as well as for sharing scholarly articles with me. I also thank members of the Unicode script ad hoc committee for providing feedback.

The project to encode Elymaic was funded in part by the Adopt-A-Character Program of the Unicode Consortium, and supervised by Deborah Anderson and Rick McGowan.
Figure 1: Map of the Parthian around the 1st century BCE showing the location of Elymais (near center). Source: Encyclopædia Britannica.
Table 1: Comparison of Elymaic, Mandaic, Inscriptional Pahlavi, Inscriptional Parthian, and Aramaic. Mandaic letters have unique names that differ from Aramaic names. Parenthesis indicate that a letter has been unified with another in the respective encoding. In Inscriptional Pahlavi, ayin and resh are unified with waw, and goph with mem.
### Proposal to encode the Elymaic script in Unicode

Anshuman Pandey

---

<table>
<thead>
<tr>
<th>3rd c. B.C.</th>
<th>Elymaic</th>
<th>Chaldean</th>
<th>Mandaic</th>
<th>Parallels</th>
<th>Nabataean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asoka inscr.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>z</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 119. Development of the South Mesopotamian scripts (in comparison with Nabataean). Key to the parallels: (1) a bulla from Babylon; (2) the Nash papyrus; (3) Hatra; (4) the Birecik inscription, Syriac of 6 A.D.; (4a) Syriac inscription of 165 A.D. from Samatar Harabesi (A raised x marks final forms)

Figure 2: Comparison of Elymaic, Mandaic, Nabataean, and other scripts (from Naveh 1997: 137).
Figure 3: Comparison of Aramaic and Parthian with Elymaic (from Henning 1952: 168).
Figure 4: Comparison of Elymaic letters in the inscriptions at Tang-e Sarvak and Tang-e Butan (from Bivar and Shaked 1964: 270).
The columns showing the Tang-i Sarvak and Shimbar forms are based on Bivar and Shaked’s table in B.S.O.A.S. xxvii (1964), 270; the Mandaic and Syriac bowl texts on Montgomery’s table in *Aramaic Incantation Texts from Nippur* (1913), plates xxxix and xl, and the Syriac inscription of the second century a.d. on Segal’s table in B.S.O.A.S. xvi (1954), 52.

Figure 5: Comparison of Elymaic and other scripts (from Coxon 1970: 21).
**Table 1. Comparison of Elymaic, Characene, Parthian, and Mandaic Scripts**

<table>
<thead>
<tr>
<th>Hebrew</th>
<th>Aramaic Values</th>
<th>Elymaic (Tang-e Sarvak)</th>
<th>Elymaic (Shimbar)</th>
<th>Characene Coins</th>
<th>Other Forms</th>
<th>Ironian Values</th>
<th>Nisa Ostraca</th>
<th>Parthian Inscriptions</th>
<th>Mandaic Values</th>
<th>Book Hand</th>
<th>Lead Amulets</th>
<th>Incantation Bowls</th>
</tr>
</thead>
<tbody>
<tr>
<td>א</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>ב</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>ג</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
<td>g</td>
</tr>
<tr>
<td>ד</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
<td>ה</td>
</tr>
<tr>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
</tr>
<tr>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
<td>ע</td>
</tr>
<tr>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
<td>ו</td>
</tr>
<tr>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
<td>ז</td>
</tr>
<tr>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
<td>ח</td>
</tr>
<tr>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
<td>ך</td>
</tr>
<tr>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
<td>ט</td>
</tr>
<tr>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
<td>י</td>
</tr>
<tr>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
<td>ת</td>
</tr>
</tbody>
</table>

Source: The Elymaic forms from Tang-e Sarvak and Shimbar forms have been adapted from Bivar and Shaked 1964: 270; the Characene coin legends are from Coxon 1970: 21; other Aramaic forms cited above are from Naveh 1997: 142 (a = Hatar, b = Armazi, c = Hartra, d = Hassan Kef, e = Garn); the forms from the Nisa ostraca and the Parthian inscriptions are from Skarve 1996: 518; the Mandaic book hand is based on Macuch and Drower 1963: xii; the forms from the lead amulets are based on Coxon 1970: 21, and the two sets of scripts from the incantation bowls are taken from bowl 079M (BM 117872) and 087M (BM 91779), respectively, in Segal and Hunter 2000: 237.
Figure 7: Renderings of Elymaic inscriptions at Tang-e Sarvak made by W. B. Henning (1952: 170). An analysis of inscriptions 1–3 is provided in the following figures.
Proposal to encode the Elymaic script in Unicode

Anshuman Pandey

This image is the one of Worōḏ, holder of the throne, the son of Bēldōšā(?), who is (my) lord, and Asīryā(?) and Antiochus, who is at the gate, the son of Bāsī, holder of the throne.

Figure 8: Tang-e Sarvak inscription #1. Facsimile from Henning (1952: 170); transliteration, transcription, and translation from Gzella (2008: 113).
Figure 9: Tang-e Sarvak inscription #2. Facsimile from Henning (1952: 170); transliteration, transcription, and translation from Gzella (2008: 114).
This image have cut
MD’N’M and Pā (?)
the son of BD’Q from Bān whe[n]
Worōḏ, holder of the throne
feeds Šēsā(?), bowing over him, performs (the ritual).

Figure 10: Tang-e Sarvak inscription #3. Facsimile from Henning (1952: 170); transliteration, transcription, and translation from Gzella (2008: 114).
Proposal to encode the Elymaic script in Unicode

Anshuman Pandey

Figure 11: Tang-e Sarvak inscription #4 (Henning 1952: 170).

Figure 12: Tang-e Sarvak inscription #5 (Henning 1952: 170).

Figure 13: Tang-e Sarvak inscription #6 (Henning 1952: 170).
Proposal to encode the Elymaic script in Unicode

Anshuman Pandey

Figure 14: Tang-e Butan inscription #1 (Facsimile from Bivar and Shaked (1964: 273 & plate III); transliteration, transcription, and translation from Gzella (2008: 119).

ʾwky gšyš (= qšyš ?) zy bšybh
br šwl

ʾŪkē qaššišā dī Ūkēthepriest(orelder), who is bšybh (or: of Ūkēthepriest(orelder)?)
the son of Ūkēthepriest(orelder).

Tang-i Butân, inscription no. I
Figure 15: Tang-e Butan inscription #2 (Facsimile from Bivar and Shaked (1964: 273 & plate IV); transliteration, transcription, and translation from Gzella (2008: 119).
Figure 16: Tang-e Butan inscription #3 (Facsimile from Bivar and Shaked (1964: 274 & plate V); transliteration, transcription, and translation from Gzella (2008: 120).
These images are the ones which has prepared ŠPTW the son of Šāš from Ŷršē(?).

Figure 17: Tang-e Butan inscription #4 (Facsimile from Bivar and Shaked (1964: 275 & plate VI); transliteration, transcription, and translation from Gzella (2008: 120).
Proposal to encode the Elymaic script in Unicode

Anshuman Pandey

Figure 18: Tang-e Butan inscription #5 (Facsimile from Bivar and Shaked (1964: 276 & plate VII); transliteration, transcription, and translation from Gzella (2008: 120).
Figure 19: Tang-e Chilau carbon ink graffiti #1 (Bivar and Shaked 1964: plate XI).
Figure 20: Tang-e Chilau carbon ink graffiti #2 (Bivar and Shaked 1964: plate XII).
Figure 21: Tang-e Chilau carbon ink graffiti #3 (Bivar and Shaked 1964: XIII).
Figure 22: Hong-e Kamalwand stone inscription. Facsimile from Hinz (1963); transliteration, transcription, and translation from Gzella (2008: 121).
Figure 23: Elymaic legend on the tetradrachm of Kamnaskires Orod (from Henning 1952: 164). The script differs from that on the small coppers shown in figures 24 and 25. It is of the type ‘grand module’ in figure 26.
Figure 24: Copper alloy coin of Orodes II, early 2nd to mid 2nd century CE. 16mm, 3.89g. British Museum. Registration number: 1900,0405.94. Department of Coins and Medals catalogue number: GC28p262.17.

Figure 25: Copper alloy coin of Kamnaskires Orodes, early 2nd to mid 2nd century CE. 16mm, 3.73g. British Museum. Registration number: 1909,0205.114. Department of Coins and Medals catalogue number: GC28p267.64.
Figure 26: Comparison of scripts on Elymaic coins with other scripts (from Allotte de la Fuye 1905: 53). The ‘grand module’ letters (column 2) resemble Elymaic forms, while the ‘petit module’ letters (column 1) resemble Parthian (see figure 27 for specimens of the latter).
Figure 27: Legends on Elymaean copper coins (from Allotte de la Fuye 1905: 72). These resemble the Parthian script.
## A. Administrative

1. **Title:** Proposal to encode the Elymaic script in Unicode  
2. Requester's name: Anshuman Pandey <pandey@umich.edu>  
3. Requester type (Member body/Liaison/Individual contribution): Expert contribution  
4. Submission date: 2017-10-23  
5. Requester's reference (if applicable):  
6. Choose one of the following: This is a complete proposal: Yes
   (or) More information will be provided later:

## B. Technical – General

1. Choose one of the following:  
   a. This proposal is for a new script (set of characters): Yes  
      Proposed name of script: Elymaic  
   b. The proposal is for addition of character(s) to an existing block:  
      Name of the existing block:  
2. Number of characters in proposal: 23  
3. Proposed category (select one from below - see section 2.2 of P&P document):  
   A-Contemporary ______ B.1-Specialized (small collection) ______ B.2-Specialized (large collection) ______  
   C-Major extinct ______ D-Attested extinct ______ E-Minor extinct ______  
   F-Archaic Hieroglyphic or Ideographic ______ G-Obscure or questionable usage symbols ______  
4. Is a repertoire including character names provided? Yes  
   a. If YES, are the names in accordance with the “character naming guidelines” in Annex L of P&P document? Yes  
   b. Are the character shapes attached in a legible form suitable for review? Yes  
5. Fonts related:  
   a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard? Anshuman Pandey  
   b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.): Anshuman Pandey  
6. References:  
   a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? Yes  
   b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? Yes  
7. Special encoding issues:  
   Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? Yes  
8. Additional Information:  
   Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.
C. Technical - Justification

1. Has this proposal for addition of character(s) been submitted before? No

2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)? Yes
   
   If YES, with whom?
   
   Charles Häberl <haberl@rutgers.edu>
   Davide Salaris <davide.salaris@hdr.mq.edu.au>

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?
   
   Reference: See text of proposal

4. The context of use for the proposed characters (type of use; common or rare)
   
   Reference: See text of proposal

5. Are the proposed characters in current use by the user community?
   
   Yes; Currently used by scholars of Eymais and Aramaic studies

6. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
   
   If YES, is a rationale provided? N/A

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)? Yes

8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? No

9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? No

10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to, or could be confused with, an existing character? No

11. Does the proposal include use of combining characters and/or use of composite sequences? No

12. Does the proposal contain characters with any special properties such as control function or similar semantics? No

13. Does the proposal contain any Ideographic compatibility characters? No