

Universal Multiple-Octet Coded Character Set  
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**Title: Proposal to encode characters for the English Phonotypic Alphabet (EPA) in the UCS**

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**Action: For consideration by JTC1/SC2/WG2 and UTC**

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*Major changes compared with Revision 1 from 2010-08-04 (submitted to the UTC as L2/10-229R):*

- *The section 2.3 “Casing issues” is completely rewritten (based on the UTC feedback on Rev. 1).*
- *The formal case pairing reflected in the character properties was rearranged considering the naming and the shape of the characters, rather than the special use in any EPA variant.*
- *Variation sequences are no longer proposed.*
- *In consequence of this, some characters were renamed, and the whole set was rearranged.*
- *Three lower case forms from other sources were added, to accomplish the case pairing in the light of the valid stability policies (see the detailed explanations in the new section 2.3).*
- *It is proposed to group capital letters without lowercase counterparts together, employing the otherwise unusable area in the “Alphabetic Presentation Forms” block.*
- *One punctuation mark was added (an “inverted wiggly exclamation mark” was found in the sources).*
- *In section 2.5 “Special issues on single characters”, paragraphs were added for characters where questions were raised in the UTC feedback.*
- *The code positions of the punctuation marks were shifted to prevent overlapping with other proposals.*
- *Proposed annotations regarding the special casing in the major EPA variants were dropped.*
- *The tables for these special casings are enumerated in a new informative section (3.6).*
- *Sections on confusability issues and punctuation mark properties were added (3.4, 3.5).*

## 1. Introduction

The English Phonotypic Alphabet is one attempt to give the English language a phonetic spelling and an alphabet which accomplishes this in a way that every sound is represented by a single letter (the words "phonetic" and "sound" translate in today's language roughly as "phonemic" and "phoneme"). The English language has experienced many of such experiments; e.g. William Bullokar's "Booke at Large" (London 1580), or Unifon (<http://www.unifon.org>). Some prominent examples, having their alphabets encoded in Unicode, are Deseret and Shavian.

The "English Phonotypic Alphabet", shortly referenced in the following as "EPA", stands out of these numerous experiments by these facts:

- It was propagated for more than 40 years, at least from 1847 to 1888.
- There were several thousands pages of text published using it.
- It is closely related to the widely used Pitman Shorthand (being based on the same phonemes, as its inventor was also one of the main contributors and propagators of EPA).
- It played a role in the history of IPA.

The EPA is an extension of the Latin alphabet, including some special punctuation marks. It also assigns special meanings of existing Latin characters and punctuation marks when used in its domain.

It was developed by Isaac Pitman (who also developed the Pitman shorthand) and Alexander Ellis in England since 1844; the first stable version was published 1847.

The term "phonotypic" was coined to distinguish the project from "phonographic" which then was used for the shorthand, referring to its design for lead *types* (while the other was designed for "graphics" done by hand). While the "English phonotypic alphabet" was called later "English phonetic alphabet" by its propagators, the original wording seems more appropriate now to name the alphabet, as the alphabet is not "phonetic" in the sense this term is used today.

Besides some hobbyist usage, texts published in the EPA are referenced and cited in discussions of details of English pronunciation of the 19th century. While EPA is (as outlined above) not phonetic in the modern sense, nevertheless the texts (which include self-referencing discussion texts) give hints for such pronunciation details.

Four main stages can be identified, by considerably different use of some single characters (however, the special punctuation marks devised for EPA were used unchanged throughout all EPA versions, see fig. 1848a, 1848e, 1848f).

### **1.1 EPA 1847**

The 1847 version of EPA (shortly referenced as "EPA 1847" in the following; see fig. 1847a) contained 40 letters, distinguishing between long and short vowels, but does not address the sound differences for stressed and unstressed syllables (thus, e.g. it ignores the schwa as an English phoneme). In this, it matches the Deseret alphabet, which was developed at the same time and possibly was in fact modeled according to the EPA 1847 version.

Together with the publishing of EPA 1847, some additional letters and many diacritical combinations were devised to write other languages than English (see fig. 1848a, 1848c).

### **1.1 EPA 1855 (the "Cincinnati alphabet")**

The EPA was adopted in the USA by a group of promoters mainly situated in Cincinnati, who in first line adopted the EPA 1847, but in 1855 published the "Cincinnati alphabet" (referenced as "EPA 1855" in the following, see fig. 1855a), which retained the consonants and diphthongs (except a glyph change for the "th" sound) but has revised the vocals, resulting in a total of 43 letters. This alphabet was in use at least until 1864 (see fig. 1864b).

### **1.3 EPA 1860**

Independent of the USA use, in England from 1852 on, Isaac Pitman tried to "improve" the EPA (see fig. 1852a) and started to publish several short-lived new versions. From 1860 on, a reduced version was used ("EPA 1860", see fig. 1860a) which lacked the diphthongs and characters for the compound consonants [tʃ] and [dʒ].

### **1.4 EPA 1868**

However, from 1868 on, a version ("EPA 1868"; see fig. 1868a, 1871a) was used which had restored most of the diphthongs and the consonant inventory from earlier versions (with the exception of replacing "c" by "k"). In 1888, the diphthongs are dropped again (see fig. 1888a).

## **2. Encoding considerations**

### **2.1 Scope of this proposal**

The proposal intends to include all EPA variants which were stable for at least some years, and which were used for publications beyond publishing the alphabet version itself. These are the aforementioned versions "EPA 1847", "EPA 1855", "EPA 1860", and "EPA 1868".

Not included are therefore:

- any experimental versions. These include the alphabets published by Pitman/Ellis before the final 1847 versions, and the "improvements" published by Isaac Pitman from 1852 on before there was stability again (the EPA 1860).
- any characters found only in discussions of the character forms themselves (a lot of such are found in the "Plowshare", see fig. 1853a; see also fig. 1852c).
- any competing alphabets from the same area (one of the more remarkable ones is the Comstock alphabet, see fig. 1855c).

However, such characters can be in principle subject of later proposals.

As an exception, such versions were used as source for lowercase counterparts of capital EPA characters, whenever elsewhere no lowercase form was found which fulfills the requirement for being a formal lowercase counterpart (see "casing issues" below; see fig. 1852b, 1852e, 1855c, and [using a completely different source] 2008a).

## 2.2 Character identity

During the history of EPA, some of the glyphs developed for the EPA as well as some standard Latin characters were used to denote different sounds/phonemes.

On the other hand, the used glyphs show a high grade of stability during their use in any EPA versions (compare fig. 1847a, 1855a, 1860a, 1868a, 1871a, 1888a).

This includes the italic forms which were deliberately designed, not simply being skewed forms of the Roman ones (see e.g. fig. 1888b for the lowercase a, i, and o forms).

Therefore, the character identities were devised by their glyphic appearance, rather than by the sounds/phonemes they denote. This is in accordance with the general encoding principle of Latin letters (e.g. the W/w is U+0057/0077 whether it denotes [w] in English, [v] in German, or [u] in Welsh).

This is done consequently. Therefore, the three different forms given for the lowercase th [θ] (the only phoneme addressed by different forms throughout the EPA history not resulting from an exchange of otherwise used glyphs) are encoded as different characters also.

To enable the exact reproduction of EPA texts by good typography, unifications with existing letters are selected with care. The principle is followed that EPA shall be displayable using multipurpose fonts, never needing to select a special EPA font only to get a recognizable high-quality representation of EPA texts.

## 2.3 Casing issues

A special phenomenon of EPA is that the combination of upper and lowercase letters is peculiar in EPA, and changes between the different EPA stages.

Especially in EPA 1847, the standard letter A and the already encoded small latin alpha are involved in this:

- the uppercase A is paired with the lowercase Latin alpha;
- the lowercase a is paired with the uppercase "roundtop A" (included in this proposal).

Therefore, the "canonical" casing mechanism of Unicode, defining a fixed casing counterpart in the character properties, cannot be employed in full on EPA text.

It would be possible to solve this by defining special casing rules in the Unicode data file "special-casing.txt", as it is done for Turkish to accomplish the casing I/İ İ/i).

However, the UTC gave some rules in the feedback to the first version of this proposal, which are followed in this revision.

- ▶ A formal case pairing in the character properties is only given if the form (of the representative glyph) and the naming of the capital and small letter correspond. (*Of course, no naming correspondence is proposed here whenever there is no form correspondence.*)
- ▶ If such a pairing is found, this has precedence over an actual case pairing found in a specific historical use, like EPA or only a specific variant of EPA.
- ▶ The actual case pairing in such a use has to be described elsewhere (e.g. in initiating a specific CLDR entry), and has to be accomplished by other means (like regarding such a CLDR entry).

Another fact to be regarded is a consequence of the current Unicode stability policies:

- ▶ Whenever a capital letter is encoded, a lowercase counterpart (by “canonical” casing reflected in the Unicode character properties) cannot be encoded later.  
(*This does not apply vice versa: for a lowercase letter, a capital counterpart in fact can be encoded later.*)

Based on this, the following rules were incorporated:

- Whenever a capital and a lowercase letter are found which match by form, they are proposed as “canonical” case pair, without regarding the actual use in any EPA variant.
- Whenever a lowercase letter is found without a capital letter matching by form, this letter is proposed as an unpaired lowercase letter.
- Whenever a capital letter is found without a lowercase letter matching by form in EPA, the following is done:
  - If an appropriate matching lowercase letter was found in an area otherwise not in the scope of this proposal, the latter is included, and the complete “canonical” case pair is proposed.  
*This is the case for: U+A7B3, U+A7BD, U+A7BF, U+A7CB.*
  - Otherwise, if the form of the lowercase letter is obvious but not found, but likely to be found when it comes to inspect the numerous historical, dialectological, etc. character sets out there, the lowercase form is included without proof of use.  
*This is done in two cases: U+A7B9 and U+A7C5.*
  - Otherwise, if there is no obvious form of a lowercase letter, or if such one exists but is already encoded and paired with another already encoded capital letter (*as it is the case for U+FB09 and U+FB0C*), the capital letter is proposed unpaired.

Such letters are “second class letters” in some sense: They will never get a lowercase counterpart (due to the aforementioned Unicode stability policies), and as they cannot be lowercased, they are excluded from the use in IDNs and identifiers.

Therefore, it seems appropriate to put these letters into a specific group.

In fact, they are proposed to be placed in the “**Alphabetic Presentation Forms**” block.

As true presentation forms (like U+FB06 LATIN SMALL LIGATURE ST) will no longer be encoded, the gaps in this block are considered to be the appropriate place for other “second class” letters now.

- A list of the case pairings deviating from the “canonical” pairings is given in an informative chapter (“3.6 Special case pairing within the main EPA versions” below), which can be used as an appropriate data source when it comes to define the special casing behavior for EPA variants elsewhere.

## 2.4 Duodecimal numbering

During some years about 1860, Isaac Pitman has propagated the duodecimal system along with EPA. As some publications are found using this system (see fig. 1860f, 1860g), the special digit forms used there for the digit values ten and eleven are included in this proposal.

## 2.5 Special issues for single characters

- A typical feature for some lowercase EPA letters is the “u-turned tail”, which always displays a 180° bend upward, of about half the length of the tail (see the proposed U+A7B4, U+A7B6, U+A7C9, and the italic form of U+A7C0; see fig. 1888b). These tails are straight prolongations of the right stem of the letter replacing the usual bend or serif at the bottom line, thus differing from an appended ogonek or retroflex hook, or the hook tail of U+024B.

A similar feature is seen with U+A7BC/A7BD, which therefore are not unified with the Latin iota.

- U+A7CE/A7CF LATIN CAPITAL/SMALL LETTER BABY GAMMA are named such, as the small form resembles the outdated but well-known phonetic letter “baby gamma” (see fig. 1996a).

The appearing of the letter is equidistant to similar ones:

U+0264 RAMS HORN: Normal height; arms bend about 90° outwards (see fig. 1996a).

Proposed BABY GAMMA: Normal height; arms are straight.

U+0194/0263 LATIN GAMMA: Extended height; arms are straight.

U+0222/0223 LATIN OU: Normal height; arms bend about 90° inwards, almost touching.

Thus, no one of the three other letters exploits a preference to be unified with the “baby gamma” proposed here. Each of them would be look equally wrong when used in EPA (especially, the Capital Latin Gamma would look weird, as no EPA capital letter extends below the baseline; even the Q is not used in any EPA variant).

The differences between the listed letters anyway are more prominent than e.g. between U+0075 u, U+1D1C u, U+028B v, U+0076 v, U+2C71 v.

Thus, any unification of the proposed “baby gamma” is considered inappropriate.

- U+2E4F PHONOTYPIC QUESTION MARK has a specific design, which in no case is a mirror image of the ordinary question mark (see fig. 1848e, 1853a, 1855a, 1864b). Therefore, and as its function differs from the reversed question mark in any case, it was given its own code point.
- U+218B TURNED EZH-SHAPED DIGIT THREE (duodecimal digit eleven in Pitman's notation) is no simple turned digit three, as fig. 1860f, 1860g clearly show. Therefore, a unification with 0190 LATIN CAPITAL LETTER OPEN E or A72B LATIN SMALL LETTER TRESILLO would be far more inappropriate, as an unification of the tresillo with the open E would have been. It can be speculated that Pitman wanted the digit to be clearly distinguishable from the open E which is a common letter in EPA.  
(In fact, other propagators of non-decimal numbering systems used a simple turned three, but then, this is another character, the unifiability of which has to be discussed in due course when those digit sets are proposed for encoding.)

### 3. Proposed characters

Annotations in parentheses address special issues for a character, or reference to figures where such special issues are discussed. These annotations are not intended to be retained in the character listings in the standard.

All letters (except when noted) are found in at least one of the figures:

EPA 1847 – fig. 1847a

EPA 1855 – fig. 1855a

EPA 1860 – fig. 1860a

EPA 1868 – fig. 1868a

The italic forms for some letters are found in fig. 1888a.

#### ***Block: Latin Extended-D***

##### **Additions for the English Phonotypic Alphabet**

Ω	U+A7AB	LATIN CAPITAL LETTER CLOSED OMEGA · lowercase is 0277 Latin small letter closed omega
⓪	U+A7AC	LATIN CAPITAL LETTER CLOSED OMEGA WITH LONG STEM
Ⓛ	U+A7AD	LATIN SMALL LETTER CLOSED OMEGA WITH LONG STEM
Ⓢ	U+A7AE	LATIN CAPITAL LETTER TURNED CLOSED OMEGA (see fig. 1848d, 1848i)
Ⓣ	U+A7AF	LATIN SMALL LETTER TURNED CLOSED OMEGA (see fig. 1848a, 1848d, 1848h, 1848i)
Ⓐ	U+A7B0	LATIN CAPITAL LETTER ROUNDTOP A
Ⓟ	U+A7B1	LATIN SMALL LETTER ROUNDTOP A · the italic form may resemble an unreversed Latin alpha with left notch
Ⓐ	U+A7B2	LATIN CAPITAL LETTER A WITH LOOP
Ⓟ	U+A7B3	LATIN SMALL LETTER A WITH LOOP (see fig. 1855c)
Ⓟ	U+A7B4	LATIN SMALL LETTER A WITH U-TURNED TAIL → 1D8F Latin small letter a with retroflex hook · in EPA 1855, uppercase is A7B2 latin capital letter a with loop
Ⓟ	U+A7B5	LATIN SMALL LETTER ALPHA WITH INSIDE BAR (see fig. 1848a, 1848h, 1848i)
Ⓟ	U+A7B6	LATIN SMALL LETTER ALPHA WITH U-TURNED TAIL → 024B Latin small letter q with hook tail → 1D90 Latin small letter alpha with retroflex hook
Ⓟ	U+A7B7	LATIN SMALL LETTER PHONOTYPIC DH
Ⓔ	U+A7B8	LATIN CAPITAL LETTER E WITH TOP RIGHT HOOK

Ǝ	U+A7B9	LATIN SMALL LETTER E WITH TOP RIGHT HOOK (see 2.3 "Casing issues" above)
Ǝ	U+A7BA	LATIN CAPITAL LETTER OPEN EI
ɛ	U+A7BB	LATIN SMALL LETTER OPEN EI
Ɔ	U+A7BC	LATIN CAPITAL LETTER I WITH RIGHT U-TURN AT BOTTOM → 0196 Latin capital letter iota
ɪ	U+A7BD	LATIN SMALL LETTER I WITH RIGHT U-TURN AT BOTTOM (see fig. 1852a, 1852b)
Ǝ	U+A7BE	LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY = Latin capital letter I with serifed crossbar → 0197 Latin capital letter I with stroke → 2629 cross of Jerusalem → 2720 Maltese cross (see fig. 1848b)
ɪ	U+A7BF	LATIN SMALL LETTER I WITH LONG STROKE OVERLAY (see fig. 2008a)
ɪ	U+A7C0	LATIN SMALL LETTER I WITH SPIRAL TAIL · the italic form usually has a u-turned tail
ɪ	U+A7C1	LATIN SMALL LETTER I WITH PIGTAIL AT BOTTOM → 0279 Latin small letter turned r · the italic form usually shows the pigtail at bottom to the right (see fig. 1848c, 1873a, 1880a)
Ɔ	U+A7C2	LATIN CAPITAL LETTER O WITH CURL · the italic form usually has the curl directed to the left (see fig. 1888b)
σ	U+A7C3	LATIN SMALL LETTER O WITH CURL
Ɔ	U+A7C4	LATIN CAPITAL LETTER REVERSED ESH → 01A9 latin capital letter esh
Ɔ	U+A7C5	LATIN SMALL LETTER REVERSED ESH → 0283 Latin small letter esh → 01AA Latin letter reversed esh loop (see 2.6 "Casing issues" above)
Ɔ	U+A7C6	LATIN SMALL LETTER PHONOTYPIC TH FIRST FORM
Ɔ	U+A7C7	LATIN SMALL LETTER PHONOTYPIC TH SECOND FORM
Ɔ	U+A7C8	LATIN SMALL LETTER PHONOTYPIC TH THIRD FORM
Ɔ	U+A7C9	LATIN SMALL LETTER U WITH U-TURNED TAIL → 1D99 latin small letter u with retroflex hook

Ɔ	U+A7CA	LATIN CAPITAL LETTER U WITH INSIDE BAR = Latin capital letter turned roundtop A → A7B0 Latin capital letter roundtop a (see fig. 1868a)
ɹ	U+A7CB	LATIN SMALL LETTER U WITH INSIDE BAR (see fig. 1852e)
Ʊ	U+A7CC	LATIN CAPITAL LETTER U WITH NOTCH AT BOTTOM
ɯ	U+A7CD	LATIN SMALL LETTER U WITH NOTCH AT BOTTOM
Ɔ	U+A7CE	LATIN CAPITAL LETTER BABY GAMMA → 0194 latin capital letter gamma → 0222 latin capital letter ou · in EPA, usually it denotes the diphthong [au]
ɹ	U+A7CF	LATIN SMALL LETTER BABY GAMMA → 0263 latin small letter gamma → 0264 latin small letter rams horn · in modern phonetics, U+0264 is the preferred character (see fig. 1996a)

### **Block: Alphabetic Presentation Forms**

#### **Latin Historical Capital letters**

In their historical context, these letters are used with lowercase counterparts which are formally paired with other capital letters, or are not formally paired to them due to other reasons.

Thus, these letters have no formal lowercase counterpart.

In consequence, these letters are not intended to be used in identifiers or IDNs.

Ȧ	U+FB07	LATIN CAPITAL LETTER A WITH TOPBAR
Ɔ	U+FB08	LATIN CAPITAL LETTER REVERSED SCRUPLE → 2108 scruple
Ʊ	U+FB09	LATIN CAPITAL LETTER PHONOTYPIC ENG → 014A Latin capital letter eng
Ɔ	U+FB0A	LATIN CAPITAL LETTER PHONOTYPIC TH
Ʊ	U+FB0B	LATIN CAPITAL LETTER U WITH CURL
Ʊ	U+FB0C	LATIN CAPITAL LETTER DOUBLE U → 019C Latin capital letter turned m

### **Block: Supplemental Punctuation**

#### **Punctuation used with the English Phonotypic Alphabet**

Ɔ	U+2E4F	PHONOTYPIC QUESTION MARK → 2E2E reversed question mark · used at the start of a question or a question-like subclause
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- the glyph always shows an open circle with a sharp kink into the vertical bar (see fig. 1848e, 1852d, 1853a, 1855a, 1864b)

𐄀	U+2E50	WIGGLY EXCLAMATION MARK = smile mark, mirth mark, laughter mark · wiggles are broader at top than at bottom (see fig. 1848e, 1851b, 1852c)
𐄁	U+2E51	INVERTED WIGGLY EXCLAMATION MARK · indicates sarcasm when used in sequence with U+2E50 · used at the end of sentences, unlike U+00A1 inverted exclamation mark (see fig. 1852d)
𐄂	U+2E52	LEFT PARENTHESIS WITH MIDDLE RING → FD2E ornate left parenthesis (see fig. 1848f, 1855b, 1860d, 1868a)
𐄃	U+2E53	RIGHT PARENTHESIS WITH MIDDLE RING

### Block: Number Forms

#### Turned Digits *(see fig. 1860f, 1860g)*

*These were devised as digits for the duodecimal system by Isaac Pitman in 1857.*

𐄄	U+218A	TURNUED DIGIT TWO = duodecimal digit ten in Pitman's notation
𐄅	U+218B	TURNUED EZH-SHAPED DIGIT THREE = duodecimal digit eleven in Pitman's notation

### Proposed primarily in L2/10-357 (N3914)

*For the code point and its block, see that document.*

*This character is part of the character set proposed here. It is not counted in the "Number of characters in proposal" in the submission form here.*

𐄆	U+AB80	LATIN SMALL LETTER C WITH PALATAL HOOK
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### 3.2 Properties for the proposed characters

218A;TURNED DIGIT TWO;No;0;ON;;;10;N;;;;  
 218B;TURNED EZH-SHAPED DIGIT THREE;No;0;ON;;;11;N;;;;  
 2E4F;PHONOTYPIC QUESTION MARK;Po;0;ON;;;N;;;;  
 2E50;WIGGLY EXCLAMATION MARK;Po;0;ON;;;N;;;;  
 2E51;INVERTED WIGGLY EXCLAMATION MARK;Po;0;ON;;;N;;;;  
 2E52;LEFT PARENTHESIS WITH MIDDLE RING;Ps;0;ON;;;Y;;;;  
 2E53;RIGHT PARENTHESIS WITH MIDDLE RING;Pe;0;ON;;;Y;;;;  
 A7AB;LATIN CAPITAL LETTER CLOSED OMEGA;Lu;0;L;;;N;;;0277;  
 A7AC;LATIN CAPITAL LETTER CLOSED OMEGA WITH LONG STEM;Lu;0;L;;;N;;;A7AD;  
 A7AD;LATIN SMALL LETTER CLOSED OMEGA WITH LONG STEM;Ll;0;L;;;N;;;A7AC;;A7AC;  
 A7AE;LATIN CAPITAL LETTER TURNED CLOSED OMEGA;Lu;0;L;;;N;;;A7AF;  
 A7AF;LATIN SMALL LETTER TURNED CLOSED OMEGA;Ll;0;L;;;N;;;A7AE;;A7AE;  
 A7B0;LATIN CAPITAL LETTER ROUNDTOP A;Lu;0;L;;;N;;;A7B1;  
 A7B1;LATIN SMALL LETTER ROUNDTOP A;Ll;0;L;;;N;;;A7B0;;A7B0;  
 A7B2;LATIN CAPITAL LETTER A WITH LOOP;Lu;0;L;;;N;;;A7B3;  
 A7B3;LATIN SMALL LETTER A WITH LOOP;Ll;0;L;;;N;;;A7B2;;A7B2;  
 A7B4;LATIN SMALL LETTER A WITH U-TURNED TAIL;Ll;0;L;;;N;;;;

A7B5;LATIN SMALL LETTER ALPHA WITH INSIDE BAR;Ll;0;L;N;N;  
 A7B6;LATIN SMALL LETTER ALPHA WITH U-TURNED TAIL;Ll;0;L;N;N;  
 A7B7;LATIN SMALL LETTER PHONOTYPIC DH;Ll;0;L;N;N;  
 A7B8;LATIN CAPITAL LETTER E WITH TOP RIGHT HOOK;Lu;0;L;N;N;A7B9;  
 A7B9;LATIN SMALL LETTER E WITH TOP RIGHT HOOK;Ll;0;L;N;N;A7B8;A7B8  
 A7BA;LATIN CAPITAL LETTER OPEN EI;Lu;0;L;N;N;A7BB;  
 A7BB;LATIN SMALL LETTER OPEN EI;Ll;0;L;N;N;A7BA;A7BA;  
 A7BC;LATIN CAPITAL LETTER I WITH RIGHT U-TURN AT BOTTOM;Lu;0;L;N;N;A7BD;  
 A7BD;LATIN SMALL LETTER I WITH RIGHT U-TURN AT BOTTOM;Ll;0;L;N;N;A7BC;A7BC  
 A7BE;LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY;Lu;0;L;N;N;A7BF;  
 A7BF;LATIN SMALL LETTER I WITH LONG STROKE OVERLAY;Ll;0;L;N;N;A7BE;A7BE  
 A7C0;LATIN SMALL LETTER I WITH SPIRAL TAIL;Ll;0;L;N;N;  
 A7C1;LATIN SMALL LETTER I WITH PIGTAIL AT BOTTOM;Ll;0;L;N;N;  
 A7C2;LATIN CAPITAL LETTER O WITH CURL;Lu;0;L;N;N;A7C3;  
 A7C3;LATIN SMALL LETTER O WITH CURL;Ll;0;L;N;N;A7C2;A7C2;  
 A7C4;LATIN CAPITAL LETTER REVERSED ESH;Lu;0;L;N;N;A7C5;  
 A7C5;LATIN SMALL LETTER REVERSED ESH;Ll;0;L;N;N;A7C4;A7C4;  
 A7C6;LATIN SMALL LETTER PHONOTYPIC TH FIRST FORM;Ll;0;L;N;N;  
 A7C7;LATIN SMALL LETTER PHONOTYPIC TH SECOND FORM;Ll;0;L;N;N;  
 A7C8;LATIN SMALL LETTER PHONOTYPIC TH THIRD FORM;Ll;0;L;N;N;  
 A7C9;LATIN SMALL LETTER U WITH U-TURNED TAIL;Ll;0;L;N;N;  
 A7CA;LATIN CAPITAL LETTER U WITH INSIDE BAR;Lu;0;L;N;N;A7CB;  
 A7CB;LATIN SMALL LETTER U WITH INSIDE BAR;Ll;0;L;N;N;A7CA;A7CA  
 A7CC;LATIN CAPITAL LETTER U WITH NOTCH AT BOTTOM;Lu;0;L;N;N;A7CD;  
 A7CD;LATIN SMALL LETTER U WITH NOTCH AT BOTTOM;Ll;0;L;N;N;A7CC;A7CC  
 A7CE;LATIN CAPITAL LETTER BABY GAMMA;Lu;0;L;N;N;A7CF;  
 A7CF;LATIN SMALL LETTER BABY GAMMA;Ll;0;L;N;N;A7CE;A7CE  
 AB80;LATIN SMALL LETTER C WITH PALATAL HOOK;Ll;0;L;N;N;  
 FB07;LATIN CAPITAL LETTER A WITH TOPBAR;Lu;0;L;N;N;  
 FB08;LATIN CAPITAL LETTER REVERSED SCRUPLE;Lu;0;L;N;N;  
 FB09;LATIN CAPITAL LETTER PHONOTYPIC ENG;Lu;0;L;N;N;  
 FB0A;LATIN CAPITAL LETTER PHONOTYPIC TH;Lu;0;L;N;N;  
 FB0B;LATIN CAPITAL LETTER U WITH CURL;Lu;0;L;N;N;  
 FB0C;LATIN CAPITAL LETTER DOUBLE U;Lu;0;L;N;N;

### 3.3 Properties to be changed for already encoded characters

0277;LATIN SMALL LETTER CLOSED OMEGA;Ll;0;L;N;N;A7AB;A7AB

### 3.4 Line breaking and text delimitation properties of punctuation marks

U+2E4F PHONOTYPIC QUESTION MARK behaves like  
 U+00BF INVERTED QUESTION MARK, as it introduces questions (rather than terminating them).

U+2E50 WIGGLY EXCLAMATION MARK and  
 U+2E51 INVERTED WIGGLY EXCLAMATION MARK both behave like  
 U+0021 EXCLAMATION MARK, as both terminate sentences (U+2E51 is not an “Iberian counterpart” of U+2E50; both are terminating sentences, exploiting different meanings.)

U+2E52 LEFT PARENTHESIS WITH MIDDLE RING and  
 U+2E53 RIGHT PARENTHESIS WITH MIDDLE RING behave like other recently encoded parenthesis pairs, like

U+2E28 LEFT DOUBLE PARENTHESIS  
 U+2E29 RIGHT DOUBLE PARENTHESIS.

### 3.5 Confusability issues

The following confusables exist:

(The first line of each paragraph shows a proposed letter, followed by lines containing similar already encoded letters.)

A7AD LATIN SMALL LETTER CLOSED OMEGA WITH LONG STEM  
0277 LATIN SMALL LETTER CLOSED OMEGA

A7B3 LATIN SMALL LETTER A WITH LOOP  
0061 LATIN SMALL LETTER A

A7B6 LATIN SMALL LETTER ALPHA WITH U-TURNED TAIL  
024B LATIN SMALL LETTER Q WITH HOOK TAIL

A7B7 LATIN SMALL LETTER PHONOTYPIC DH  
0111 LATIN SMALL LETTER D WITH STROKE

A7BB LATIN SMALL LETTER OPEN EI  
0061 LATIN SMALL LETTER A

A7BD LATIN SMALL LETTER I WITH RIGHT U-TURN AT BOTTOM  
0269 LATIN SMALL LETTER IOTA

A7C5 LATIN SMALL LETTER REVERSED ESH  
01AA LATIN LETTER REVERSED ESH LOOP  
0285 LATIN SMALL LETTER SQUAT REVERSED ESH

A7CB LATIN SMALL LETTER U WITH INSIDE BAR  
0289 LATIN SMALL LETTER U BAR

A7CD LATIN SMALL LETTER U WITH NOTCH AT BOTTOM  
026F LATIN SMALL LETTER TURNED M

A7CF LATIN SMALL LETTER BABY GAMMA  
0223 LATIN SMALL LETTER OU  
0263 LATIN SMALL LETTER GAMMA  
0264 LATIN SMALL LETTER RAMS HORN

The proposed capital letters without lowercase counterparts, placed in the “Alphanumeric Presentation form” block, are explicitly not intended for use in identifiers and IDNs. Therefore, they cannot raise any confusability issues.

### 3.6 Special case pairing within the main EPA versions

This part is informative, regarding to this proposal.

If it is decided to include such data into the CLDR or to document them elsewhere, these tables can be used as data source.

# English Phonotypic Alphabet, final 1847 Pitman/Ellis version ("Original EPA")

# (see fig. 1848a)

0041 LATIN LETTER CAPITAL A  
0251 LATIN SMALL LETTER ALPHA

A7B0 LATIN CAPITAL LETTER ROUNDTOP A  
0061 LATIN SMALL LETTER A

FB07 LATIN CAPITAL LETTER A WITH TOPBAR  
A7B6 LATIN SMALL LETTER ALPHA WITH U-TURNED TAIL

FB08 LATIN CAPITAL LETTER REVERSED SCRUPLE  
AB80 LATIN SMALL LETTER C WITH PALATAL HOOK

018B LATIN CAPITAL LETTER D WITH TOPBAR  
 A7B7 LATIN SMALL LETTER PHONOTYPIC DH  
  
 A7BE LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY  
 A7C0 LATIN SMALL LETTER I WITH SPIRAL TAIL  
  
 FB09 LATIN CAPITAL LETTER PHONOTYPIC ENG  
 014B LATIN SMALL LETTER ENG  
  
 A7C4 LATIN CAPITAL LETTER REVERSED ESH  
 0292 LATIN SMALL LETTER EZH  
  
 A780 LATIN CAPITAL LETTER TURNED L  
 A7C6 LATIN SMALL LETTER PHONOTYPIC TH FIRST FORM  
  
 FB0B LATIN CAPITAL LETTER U WITH CURL  
 A7C9 LATIN SMALL LETTER U WITH U-TURNED TAIL  
  
 FB0C LATIN CAPITAL LETTER DOUBLE U  
 026F LATIN SMALL LETTER TURNED M  
  
 # English Phonotypic Alphabet, 1855 version ("Cincinnati alphabet")  
 # (see fig. 1855a)  
  
 A7B0 LATIN CAPITAL LETTER ROUNDTOP A  
 A7B6 LATIN SMALL LETTER ALPHA WITH U-TURNED TAIL  
  
 A7B2 LATIN CAPITAL LETTER A WITH LOOP  
 A7B4 LATIN SMALL LETTER A WITH U-TURNED TAIL  
  
 FB08 LATIN CAPITAL LETTER REVERSED SCRUPLE  
 AB80 LATIN SMALL LETTER C WITH PALATAL HOOK  
  
 018B LATIN CAPITAL LETTER D WITH TOPBAR  
 A7B7 LATIN SMALL LETTER PHONOTYPIC DH  
  
 A7B8 LATIN CAPITAL LETTER E WITH TOP RIGHT HOOK  
 0065 0323 LATIN SMALL LETTER E with COMBINING DOT BELOW  
  
 A7BE LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY  
 A7C0 LATIN SMALL LETTER I WITH SPIRAL TAIL  
  
 FB09 LATIN CAPITAL LETTER PHONOTYPIC ENG  
 014B LATIN SMALL LETTER ENG  
  
 A7C4 LATIN CAPITAL LETTER REVERSED ESH  
 0292 LATIN SMALL LETTER EZH  
  
 FB0A LATIN CAPITAL LETTER PHONOTYPIC TH  
 A7C7 LATIN SMALL LETTER PHONOTYPIC TH SECOND FORM  
  
 FB0B LATIN CAPITAL LETTER U WITH CURL  
 A7C9 LATIN SMALL LETTER U WITH U-TURNED TAIL  
  
 # English Phonotypic Alphabet, 1860 Pitman version ("Reduced EPA")  
 # (see fig. 1860e)  
  
 FB08 LATIN CAPITAL LETTER REVERSED SCRUPLE  
 AB80 LATIN SMALL LETTER C WITH PALATAL HOOK  
  
 018B LATIN CAPITAL LETTER D WITH TOPBAR  
 A7B7 LATIN SMALL LETTER PHONOTYPIC DH  
  
 A7BE LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY  
 A7C1 LATIN SMALL LETTER I WITH PIGTAIL AT BOTTOM  
  
 FB09 LATIN CAPITAL LETTER PHONOTYPIC ENG  
 014B LATIN SMALL LETTER ENG

FB0A LATIN CAPITAL LETTER PHONOTYPIC TH  
 A7C7 LATIN SMALL LETTER PHONOTYPIC TH SECOND FORM  
  
 FB0C LATIN CAPITAL LETTER DOUBLE U  
 026F LATIN SMALL LETTER TURNED M  
  
 # English Phonotypic Alphabet, 1868/1871/1888 Pitman version ("Final EPA")  
 # (see fig. 1868a)  
  
 FB08 LATIN CAPITAL LETTER REVERSED SCRUPLE  
 AB80 LATIN SMALL LETTER C WITH PALATAL HOOK  
  
 018B LATIN CAPITAL LETTER D WITH TOPBAR  
 A7B7 LATIN SMALL LETTER PHONOTYPIC DH  
  
 A7BC LATIN CAPITAL LETTER I WITH RIGHT U-TURN AT BOTTOM  
 A7C1 LATIN SMALL LETTER I WITH PIGTAIL AT BOTTOM  
  
 A7BE LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY  
 A7C0 LATIN SMALL LETTER I WITH SPIRAL TAIL  
  
 FB09 LATIN CAPITAL LETTER PHONOTYPIC ENG  
 014B LATIN SMALL LETTER ENG  
  
 A7C4 LATIN CAPITAL LETTER REVERSED ESH  
 0292 LATIN SMALL LETTER EZH  
  
 FB0A LATIN CAPITAL LETTER PHONOTYPIC TH  
 A7C8 LATIN SMALL LETTER PHONOTYPIC TH THIRD FORM  
  
 A7CA LATIN CAPITAL LETTER U WITH INSIDE BAR  
 0252 LATIN SMALL LETTER TURNED ALPHA  
  
 FB0B LATIN CAPITAL LETTER U WITH CURL  
 A7C9 LATIN SMALL LETTER U WITH U-TURNED TAIL  
  
 FB0C LATIN CAPITAL LETTER DOUBLE U  
 026F LATIN SMALL LETTER TURNED M

## 4. Acknowledgements

Special thanks for Google and Microsoft for providing scans of numerous 19th century books and publications accessible on the Internet. Without access to these sources, this proposal could not have been made within considerable time.

In fact, only fig. 1880a and fig. 1888a/b/c were made from original paper material. All other figures are excerpts from scans found by Internet search.

## 5. Examples and figures

The figures are numbered by the year of the publication of the book from where the scan is taken, following by a letter.

Remarkable occurrences of characters mentioned in the figure descriptions are marked by a colored circle.

*Disclaimer:* The religious, philosophical, or ideological views expressed in some of the text specimens are not necessarily the ones of the author of this proposal.

**Fig. 1847a:** The Gospel according to Matthew, in Phonotypy and Heterotypy. Interlinear Edition; London/Bath, 1847; p.4, showing the EPA 1847.

THE ENGLISH PHONOTYPIC ALPHABET.

VOWELS.			CONSONANTS.		
No.	Type.	Example of its sound.	No.	Type.	Example of its sound.
LONG.			20	P p	rope rop
1	Ɛ ε	eel el	21	B b	robe rob
2	ʌ a	ale al	22	T t	fatē fat
3	ʌ q	alms qmz	23	D d	fade fad
4	Θ e	all el	24	Ɔ c	etch ec
5	Ō o	ope op	25	J j	edge ej
6	W u	food fud	26	C c	leek lec
SHORT.			27	G g	league leg
7	I i	ill il	28	F f	safe saf
8	E e	ell el	29	V v	save sav
9	A a	am am	30	ʼ t	wreatʰ ret
10	O o	olive oliv	31	ʼ d	wreatʰe red
11	U u	up up	32	S s	his his
12	W u	foot fut	33	Z z	his hiz
DIPHTHONGS.			34	Σ f	vicious vijus
13	ʼ i	isle il	35	Ʒ z	vision vijun
14	Ɔ e	oil ol	36	R r	for fer
15	Ɔ ɜ	owl ol	37	L l	fall fel
16	U u	mule mul	38	M m	seem sem
COALESCENTS.			39	N n	seen sen
17	Y y	yea ya	40	Ƶ ŋ	sing siŋ
18	W w	way wa			
ASPIRATE.					
19	H h	hay ha			

**Fig. 1847b:** *ibid.*, excerpt from p.10.

**MATU 3.14—4.9.**

**MATU.**

**MATTHEW 3.14—4.9.**

him. <sup>14</sup> But Jon forbad him, sayiŋ, ʼ hav nɛd tu bɛ baptizd ov ʼ, and  
 him. <sup>14</sup> But John forbad him, sayiŋ, I have need to be baptized of thee, and  
 ʼ cumest ʼs tu mɛ. <sup>15</sup> And Jezus anseriŋ sed untu him, Sufer it tu bɛ  
 comest thou to me? <sup>15</sup> And Jesus answering said unto him, Suffer it to be  
 so nɛ: for ʼs it becumet us tu fulfil ɛl riʼtusnes. ʼen hɛ suferd him.  
 so now; for thus it becumeth us to fulfil all righteousness. Then he suffered him.  
<sup>16</sup> And Jezus, hwen hɛ woz baptizd, went up stratwa ɛt ov ʼ wɛtɛr: and,  
<sup>16</sup> And Jesus, when he was baptized, went up straightway out of the water: and,  
 lo, ʼ hev'nz wer op'nd untu him, and hɛ sɛ ʼ Spirit ov God dɛsendiŋ  
 lo, the heavens were opened unto him, and he saw the Spirit of God descending  
 liʼc a duv, and liʼtiŋ upon him: <sup>17</sup> and lo a vɛs from hev'n, sayiŋ, ʼis iz mi  
 like a dove, and lighting upon him: <sup>17</sup> and lo a voice from heaven, saying, This is my

**Fig. 1848a:** The Phonetic Journal (Vol. 7) from 1848, ed. by Alexander Ellis, London 1848. Inner cover page; showing the EPA 1847, additional special letters devised for foreign language and dialect writing use (marked by red circles), and special punctuation marks.

AN EXPLANATION OF  
THE ENGLISH PHONETIC ALPHABET,

FOR THE USE OF THOSE WHO CAN READ THE HISTORICAL ORTHOGRAPHY.

[Columns 1 and 2 contain the phonotypic letters, capital and small, each representing a certain sound, or modification of sound, which constitutes the *power* of the letter; the other columns show what that power is. For further information, see *January Journal*, pages 17—20.]

LONG VOWELS.	STOPPED VOWELS.	EXPLODENTS.	CONTINUANTS.
Sounded as	Sounded as	Sounded as	Sounded as
Ɔ ε ee in eel	I i i in ill	P p p in rope	F f f in safe
Ń a a .. ale	E e e .. ell	B b b .. robe	V v v .. save
Ā q a .. alms	A a a .. am	T t t .. fate	Ƨ t th .. wreath
Ɔ e a .. all	O o o .. olive	D d d .. fade	Ƨ d th .. wreath
Ɔ o o .. ope	U u u .. up	Ɔ ç ch .. cheer	S s ss .. hiss
W u oo .. food	W u oo .. foot	J j j .. jeer	Z z s .. his
DIPHTHONGS.			
Ƨ j i in isle	Ƨ ɣ ow in owl	C c c .. came	Σ f sh .. mesh
Ɔ œ oi .. oil	Ƨ u u .. mule	G g g .. game	Ƨ z s .. measure
COALESCENTS.			
Y y y in yea	W w w in way	LIQUIDS.	
		R r r in for	L l l in fall
NASALS.			
ASPIRATE.		M m m in seem	Ƨ ŋ ng in sing
H h h in hay		N n n .. seen	

The sign (') is prefixed to *l, m, n*, to shew when they form syllables by themselves; as, *dub'l, dubliŋ; rit'm, ritmic; ev'n, evniŋ*; and the compound symbols '*l, 'm, 'n*, are then called "vocals."

*Additional Symbols* are used for foreign sounds, as may be seen by the following examples. See p. 21.

*French.*—fān, pāt, pat, bon, vü, hüt, zön, zön, zë  
chéne, pāte, patte, bonne, vü, hutte, jeüne, jeune, je  
fañ, foñ, œuñ, boñ, fɛlʃ, räuj  
fin, champ, aucun, bon, fille, règne

*German.*—cünste, cünste, Göte, böce, ik, ak, zɛq, tqg, vān  
kühnste, künste, Goethe, böcke, ich, ach, sieg, tag, wann

*New Orthographical Signs*:—(‡) *query*, placed at the commencement of interrogative clauses; (|) *sigh*; (‡) *smile*; { } *obsolescent parentheses*, used to inclose words which are not spelt phonetically. See pp. 24, 25.

**Fig. 1848b:** *ibid.*, excerpt from p.10.

*This shows an earlier development stage of the EPA 1847. This stage is not subject of this proposal. However, it proves that the U+A7BE LATIN CAPITAL LETTER PHONOTYPIC I was considered different from U+0197 LATIN CAPITAL I WITH STROKE, as these letters are both included in that draft as different letters (see circle markings).*

### 5. *Ögust*, 1844.

**I** I, **E** D, **A** A, **O** O, e u, **U** U; **Æ**, **Ɔ**, **W**; Y, W, H,  
=e i, a e, q a, o o, [ë]u, o, u u; i, s, y; y, w, h, ov 1847.

**P** B, **T** D, **E** J, **C** G; **F** V, **I** A, **S** Z, **Σ** Z; L, R; M, N, **И**,  
=p b, t d, g j, c g; f v, t d, s z, f z; l, r; m, n, y, ov 1847.

Dis woz avædli onli a temporeri alfabet.

**Fig. 1848c:** *ibid.*, excerpt from p.10.

*This shows another earlier development stage of the EPA 1847. This stage also is not subject of this proposal. However, it shows U+A7C1 LATIN SMALL LETTER I WITH PIGTAIL AT BOTTOM together with an uppercase form which is not included in later stages of the EPA development (and therefore not proposed here).*

*This form, together with the asymmetric serif at the top below the dot of U+A7C1 itself, which is typical for the small letter i, proves that that an unification of that letter with 0279 0307 "small letter turned r with dot above" would be inappropriate.*

### 7. *October*, 1844.

**I** I, **E** E, **A** A, **O** O, **U** U, **U** U; **Æ**, **Φ**, **И**, **W**; Y, W, H,  
**i** i, e e, a a, o o, c u, o, u u; i, q, u, u; y, w, h,  
=e i, a e, q a, o o, [ë]u, o, u u; i, v, s, y; y, w, h, ov 1847.

**P** B, **T** D, **E** J, **K** G; **F** V, **I** A, **S** Z, **Σ** Z; L, R; M, N, **И**,  
p b, t d, g j, k g; f v, t d, s z, f z; l, r; m, n, y,  
=p b, t d, g j, c g; f v, t d, s z, f z; l, r; m, n, y, ov 1847.

Dis iz ðe ferst "lœer-cas" er smel-leter alfabet, and it wil be sæn ðat ðe cónsonants wer næ priti wel set'ld. Prjur tu ðe adopsun ov ðis alfabet,



Fig. 1848d: *ibid.*, excerpt from p.21.

*Part of the list of additional symbols for foreign sounds.*

*Mostly, diacritical marks are used which are already encoded. For the right dot on small u and o (No. 15 and 16), U+0358 COMBINING DOT ABOVE RIGHT seems appropriate.*

*No. 14 (marked red) shows the letter pair U+A7AE/A7AF LATIN CAPITAL/SMALL LETTER TURNED CLOSED OMEGA, which is not listed in the alphabet shown in fig. 1848a.*

§ 8. II. ADIEUNAL SIMBULZ FØR FOREN SÆNDZ.

- 1    <sup>ˆ</sup>I <sup>ˆ</sup>i    Æ Polif *y*; it iz ðe proper loŋ vsel ov Ingliŋ 7.
  - 2    <sup>ˆ</sup>A <sup>ˆ</sup>ā    Æ German *ä*, Freng *é*; ðe proper sænd ov Ingliŋ 2<sup>2</sup>.
  - 3    <sup>ˆ</sup>A <sup>ˆ</sup>ā    Æ Frif *a*, az distingwiŋt from eðer *q* er *a*; it iz ðe tru loŋ vsel ov Ingliŋ 9.
  - 4    <sup>ˆ</sup>A <sup>ˆ</sup>ā    Freng *a*; muŋ breðer ðan Ingliŋ 3, but not so bred az Ingliŋ 4.
  - 5    <sup>ˆ</sup>O <sup>ˆ</sup>ó    Italian *o quarto*; not cwjt so bred az Ingliŋ 4, but breðer ðan ā.
  - 6    <sup>ˆ</sup>O <sup>ˆ</sup>o    Italian *o cizo*; betwen Ingliŋ 5 and 6, but incljnd tu ðe later.
  - 7    <sup>ˆ</sup>U <sup>ˆ</sup>ü    Loŋ German *ü*, Freng *u*; færd bj an atemt tu prænæns Ingliŋ 1 and 6 simultaniusli. Ingliŋmen hu can not caŋ ðe sænd, ma substitut *y* in Freng, and *e* in German wurdz.
  - 8    <sup>ˆ</sup>O <sup>ˆ</sup>ö    Loŋ German *ö*, Freng *œ*; færd bj atemtiŋ tu prænæns Ingliŋ 2 and 5 simultaniusli. Ingliŋmen hu can not caŋ ðe sænd, ma substitut *e*.
  - 9    <sup>ˆ</sup>E <sup>ˆ</sup>ë    Freng *e müe* (muet); jenerali a bref vsel. ðe Ingliŋ 9 bref haz veri nerli ðe sam sænd. Sum Fonetifanz consider ðat Ingliŋ 36<sup>3</sup> and 36<sup>4</sup> wud be mæ corectli rit'n *ër*.
  - 10   <sup>ˆ</sup>I <sup>ˆ</sup>ï    Æ Freng stopt *i*; a muŋ brjter sænd ðan ðe Ingliŋ 7. Ingliŋmen, hwen speciŋ Freng, jenerali uz "e" er "i" insted ov *ï*. We hav herd it prænænst in ðe wurd (been) = "bin," insted ov "ben."
  - 11   <sup>ˆ</sup>E <sup>ˆ</sup>ë    Æ Freng *é*; ræðer tiner, and mæ ljç 7 ðan 8. Ingliŋmen jenerali uz *e* insted ov it.
  - 12   <sup>ˆ</sup>A <sup>ˆ</sup>a    Stopt *a* in el Foren langwejez, hwar it replæsez *æ* Ingliŋ 9. ðe sænd ljz betwen Ingliŋ 9 and 10, and aproceŋ ðe later veri nerli. It iz herd in ðe nort ov Ingland and Scotland in plas ov Ingliŋ 9. It iz elso veri nerli ðe sænd hwiŋ meni Ingliŋ specerz giv tu ðe Ingliŋ 3<sup>2</sup>, tu avod a çans ov prænænsiŋ "ā" er "æ" fer *a*.
  - 13   <sup>ˆ</sup>O <sup>ˆ</sup>ö    Stopt Italian *o quarto*; scarsli distingwiŋab'l from Ingliŋ 10.
  - 14   <sup>ˆ</sup>O <sup>ˆ</sup>o    Æ tru fert vsel ov Ingliŋ 5, az in Freng (bonne) = "bon." It iz stil herd in America, hwar (stone) = "ston;" but it iz elwaz replast in Ingland bj "o" er "u," ðus "a ston, tre stun wat."
  - 15   <sup>ˆ</sup>U <sup>ˆ</sup>ü    Stopt German *ü*, Freng *u*, ðus (künste, hatte) = "cünstë, hüt."
  - 16   <sup>ˆ</sup>O <sup>ˆ</sup>ó    Stopt German "ö," Freng *eu*, ðus (böcke, jeune) = "böcë, zön."
  - 17   <sup>ˆ</sup>O <sup>ˆ</sup>o    Æ Oriéntal compresun, az "oqin."
  - 18   X x    Æ Oriéntal çlef-hamza, er soft breðiŋ.
  - 19   <sup>ˆ</sup>V <sup>ˆ</sup>v    Æ German *w*, intermediet tu ðe Ingliŋ "w" and Ingliŋ "v;" ðe lær lip duz not tuŋ ðe tet az fer "v," but preseŋ ðe uper lip mæ flatli ðan fer "w."
  - 20   K k    Æ German *ch*, æfter paletal vselz er liewidz, ðus (ich) = "ik;" hwen printed in italics, it reprezents ðe harf sænd ov German *ch*, herd æfter el uðer vselz, az (auch, ach) = "auk, æt. Ingliŋmen hu can not caŋ ðe sænd, ma uz ðe hwisperd *y* fer "k," and *c* fer *k*.
  - 21   Q q    Æ German *g* fjnal æfter paletal vselz, ðus (sieg) = "zeq," er mæ açretli = "szeqk," and veri freewentli = "szek" onli; hwen printed in italics, it haz ðe harfer sænd ov ðe Duç *g* and ðe fjnal German *g* æfter uðer vselz, az (tag) = "taq." Ingliŋmen hu can not caŋ ðe sænd, ma uz "y" fer "q," and "g" fer "q."
2. *Ögzilyeri Sjnz.*
- [ Tu prevent ðe nsesiti ov çæstiŋ a number ov nu tjpz, a fu ögzilyeri sjnz qr emplød, tu modifi ðe non valuz ov ðe leterz tu hwiŋ ða qr subjønd er præfiçst.]
- 22   î    Sjn ov *nazdiliti*. Hwen jønd tu eni vsel, it fæz ðat it must be spoc'n

Fig. 1848e: *ibid.*, excerpt from p.24.

Showing the "Expressional Signs" (i.e. punctuation marks).

Note that No. 11 ("the Query", red) is not a mirror image of No. 12 (it is narrower, and the kink at the vertical stem is about 135°, while the kink at No. 12 ("the Doubt", obviously a reuse of U+003F QUESTION MARK) is below 90°. Therefore, No. 11 is proposed as U+2E4F PHONOTYPIC QUESTION MARK, instead of being unified with U+2E2E REVERSED QUESTION MARK (whose representative glyph is even smoother than the No. 12 form).

No. 13 ("Call") and 14 ("Sigh") obviously are the exclamation marks U+0021 and U+00A1. No. 14 ("Smile", green) shows U+2E50 WIGGLY EXCLAMATION MARK (in a bad type).

### 3. ECSPREUNAL SĚNZ.

- 11 (¶) Æ *Cweri*. Æis iz plast befor eni wurdz er clezez bj hwiġ a cwesġun iz aġct.
- 12 (?) Æ *Dst*. Æis iz plast after eni wurd er statment, conserniġ hwiġ Æe rġter felz sum dġt, er hwiġ he wifex tu cel in cwesġun. Obzerv Æe diferens betwen Æe dġstful incwġri "U cam laġt nġt?" and Æe uġual interogafun "¶ Did u cum laġt nġt."
- 13 (!) Æ *Col*; a mġrc ov eesclamaġun, er simpli surprġz. Dub'ld (!), it indicats grat astoniġment.
- 14 (i) Æ *Sġ*; a mġrc ov gref er soro: plast after a statment hwiġ givz Æe rġter pan. Dub'ld (i), it indicats grat afflieġun.
- 15 (!) Æ *Smġl*; a mġrc ov mert er pleġur: plast after a statment hwiġ givz Æe rġter pleġur, or produsez in him a felġ ov amuzment; and hens uzd in plas ov Æat eespreġun in Æe specer hwiġ in comun intercors iz ment tu indicat "i woz onli in joc." Æe dub'l smġl (!) iz a dġnrġt loġ.  
[ Æl Æez sġnz qr uzd tu indicat Æe felġ ov Æe rġter er specer: Æa hav no referens tu Æe reder, hu iz cwġt at liberti tu sġ over a smġl, er smġl over a sġ.]

Fig. 1848f: *ibid.*, excerpt from p.25.

Showing the "Obsolescent Parentheses" as No. 19 (U+2E52 LEFT PARENTHESIS WITH MIDDLE RING and its right counterpart).

### 4. PARENTETICAL SĚNZ.

- 16 ( ) Æ *Parġntesis*, er in Æe plural *Parġntesez*; uzd tu incloz eni wurd er cloz hwiġ iz inserted in Æe bodi ov a sentens, wiġ huuz gramatical construeġun it sumhwot interferz. It iz elsø uzd tu incloz eni lit'l mġrcs er sġnz hwiġ mġt uderwġz be overluct, er not hav sufġsent impertans giv'n tu Æem bj Æe reder. Fer instans, we hav fer Æis rez'n, incløzd Æe ortogrfical sġnz l tu l5 in Æe marġin ov Æe abuv eesplanaġunz betwen parentesez.
- 17 { } *Bracez*, uzd az a variaġun ov Æe parenthesis; Æe ferst haf { iz elsø uzd tu conect er liġc tugeġer several lġnz.
- 18 [ ] *Bracets*; uzd az a variaġun ov parenthesis, and elsø tu incloz høl sentensez hwiġ interfġr wiġ Æe jeneral aranġment ov a paragraġ, and consecwentli hav raġder Æe aperans ov nots. Obzervaġunz mad bj Æe sġter, in Æe cors ov a sġtaġun, qr jenerali sø incløzd, tu distġngwiġ Æem from Æe wurdz ov Æe etur sġted.
- 19 { } *Obšolġsent Parentesez*; uzd tu incloz wurdz hwiġ qr not egzibited Foneticali.
- 20 (" ") *Invertġd Comaz er Mġrcs ov Sġtaġun*, incløz wurdz cwoted from anuder etur, er put intui Æe mst ov Æe specer. Wurdz tu hwiġ particuler impertens iz ataġt, tecnicel eespreġunz, ets., qr of'n sø incløzd.

**Fig. 1848g:** *ibid.*, excerpt from p.122.

Showing some of the special punctuation marks (in red circles).

Also, showing some examples of the elision dot (in green circles), which is constantly shown at x-height within EPA.

☞ Hwiꝝ lucest ðæt so wiꝝldli. ☞ Hwot seeꝛst ðæt afqr.

☞ A specter, ☞ a gøst from ðe ded.

*Prins.*—It iz not ðe bodiles færm ov ðe ded,

Ner ðe specter ov det, ðat afriꝛts,

Ɔ cwæl at a spirit tu moneres mæꝛ dred,

ðe spirit, in loꝝ-enslavd naꝝunz hæf bred

ðe boldness tu çalenj ðær riꝛts.

It bursts from ðe dept ov ðe priz'n-hæꝛs, hwar

It hæz lan in stroꝝ çanz, wo iz mæꝝi

☞Tiz a hundred-ꝝd, hundred-qꝛmd ꝝꝝant, huꝝl dar

ðe strug'l, o Fredum, wið ðe.

M. P.

1. ðis lit'l pœm iz a tranalafun ov *Cloꝝflocs* "Fürst und zꝝn Cebꝛtꝝb" ☞ *Fürst und sein Kebꝛweib*, hwiꝝ woz compozd in 1789, wið referens tu ðe ferst Freng revolufun.

**Fig. 1848h/i:** *ibid.*, excerpts from p.276/280.

Excerpt from an article "The Pronunciation of Lowland Scots", showing the letters not listed in the alphabet table in fig. 1848a: U+A7AF LATIN SMALL LETTER TURNED CLOSED OMEGA, U+A7B5 LATIN SMALL LETTER ALPHA WITH INSIDE BAR. The second figure shows an interlinear sample, (F) being the claimed Scots pronunciation, (E) the claimed Standard English one.

ðe complæt Scoꝝ alfabet apæꝛz tu bæ :

<i>Loꝝ Vselz</i>	e — a ä q e ô o u ü ö
<i>Ɔort Vselz</i>	ĩ i ẽ e a o — o u ú ó u
<i>Diftoꝝz</i>	ui, ai, oi, au, ẽu
<i>Coalésents and Bredij</i>	y w, h
<i>Ecsplodents</i>	p b, t d, cꝝ —, c g
<i>Continuants</i>	f v, t ð, s z, f ʒ, k —, k
<i>Licwidz</i>	r l, m n ꝝ.

ðe çef pœnts tu bæ noted bi an Inglijman ar :

ðe prezens ov ðe vselz ó, ù, ô, ẽ, ẽ, a, o, u, ó, hwiꝝ duu not ocúꝛ in Inglijf ; ðe natur ov ðe diftoꝝz, espesali ðe diftoꝝz ui, ai, næder ov hwiꝝ ocúꝛ in Inglijf, and hwiꝝ replás ðe Inglijf i at diferent tꝝmz. Ov ðis, ui iz veri nerli ðe tru Inglijf i, and Inglijmen ma ðarfor substitut i fœꝛ it, hwil ai veri nerli = ai, ðe sꝛnd giv'n in Ingland tu ðe sing'l wurd (*aye*). ðe Scoꝝ,

*Duncan Gray came here to woo,*

(F) duꝝcan gra cam her tu wuu,

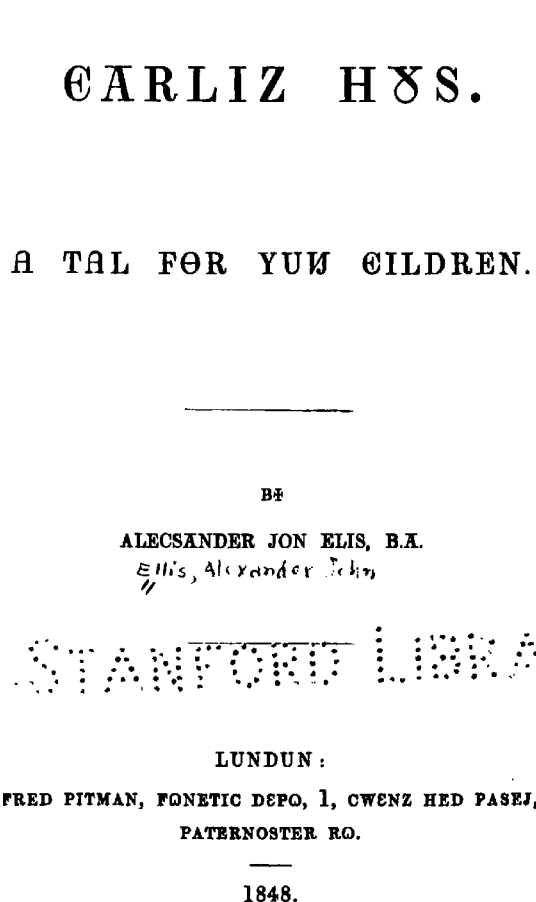
(E) Duꝝcan Gra cam her tu wuu,

*On blithe yule night when we were fou,*

(F) on blait yul nœkt hwen wæ wer fu,

(E) On blait yul nikt hwen wæ wer fu,

Fig. 1848j: Charlie's house - a tale for young children. Alexander John Ellis, London 1848: Title page; p.39 (as an example for a publication printed in EPA 1847).



tu cum tu super, becez it woz ðe ferst tjm in ðe nu, hÛs. So Jan went tu ðe dør tu cøl Çarli in.

“Çarli! Çarli!” but nò wun cam, and nò wun anserd.

Of set Jan abÛt ðe gard'n tu fjnd Çarli, but je luct fer a loŋ tjm wiðÛt seiŋ him, so je cam in tu her muðer, and sed; “Mamá, j canot fjnd Çarli eni hwar. ?Wil u help me tu luc fer him.”

Den Mister BrÛn, huu woz in ðe rum tú, and had just sat dÛn tu rest himsèlf, and enjør hiz tÛ, sed: “HwÛ, ðe bÛ haz ben runiŋ abÛt øl ðe aŋternun, and j nò he wud not go beyond ðe gard'n. Briŋ me mj cap, Jan, j wil go aŋter him misèlf.

So Jan and her papá set of tugéðer; wun went tu ðe riŋt, and ðe uðer tu ðe left, and ða cept celiŋ øt, “Çarli! Çarli!” but nò Çarli anserd. At laŋt Jan tet je herd a fant “Her, Jini!” but je cud not mac øt hwar it cam from.

“Dont hjd, Çarli,” sed je; “?Hwar qr u. Papá iz luciŋ everi hwar fer u.”

Fig. 1848k: Shakespeare, Macbeth, phonetic edition London 1848, excerpt from p.11/12:

Sen 8.] *Macbét.* 11

ør memorjz anúder Golgota,  
 j canot tel:—  
 but j am fant, mj gafez cri fer help.  
 8 *Dyc.* So wal ðj wurdz becúm ðé, az ðj wunðz;  
 ða smac øv onur bot.—Go, get him surjuuz.  
 [*exit Soljer, aténded.*]

*Enter Ros and Angus.*

9 *Húí* cumz her.  
 9 *Mal.* ðe wurði tan øv Ros.  
 10 *Len.* Hwot hast luca truu hiz fz! So juð hé ðat semz tu speo tijnz stranj. [*luc*]

11 *Ros.* God sav ðs ciŋ!  
 12 *Dyc.* ? Hwens cam'øt ðs, wurði tan.  
 13 *Ros.* From Fjð, grat ciŋ,  
 hwar ðe nørwaan banerz fløt ðe scj,  
 and fan ør pep'l cold.

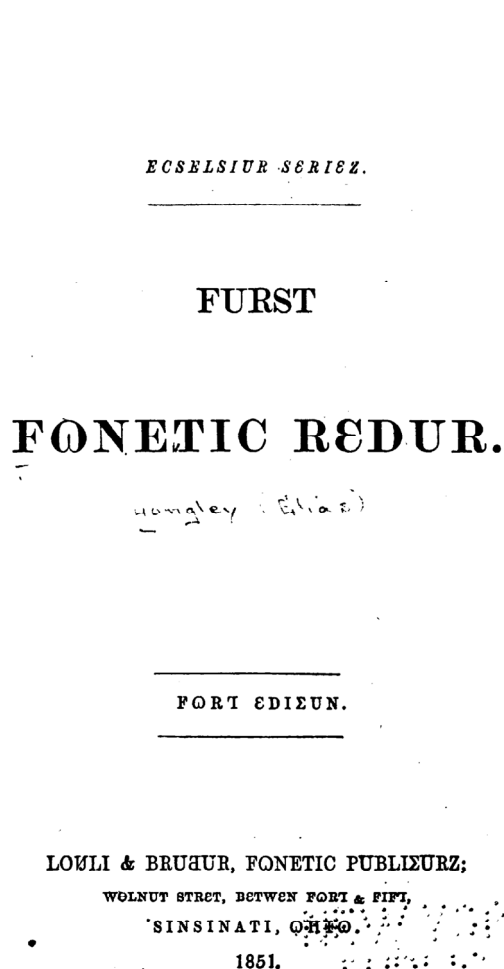
12 *Macbét.* [*Act 1.*]

15 *Ros.* Hat nÛ,  
 Swenø, ðe Nørwaz ciŋ, cravz compozifun;  
 nør wud we ðan him berial øv hiz men,  
 'til he disbársed, at Sant Colmez Ing,  
 ten tÛzend dolerz tu ør jeneral us.  
 16 *Dyc.* Nò mør ðát tan øv Cedur sal ðesév ør buzum interest.—Go, prønÛs hiz det,  
 and wið hiz fermer tjt'l gret Macbét.  
 17 *Ros.* ?l se it dun.  
 18 *Dyc.* Hwot-he hat løst, nob'l Macbét hat wun. [*ecsiunt.*]

SEN 3.—*A Hel. Tander. Enter tre Wigcz.*

1 *Ferst Wig.* ? Hwar hast ðs ben, sister.  
 2 *Secund Wig.* Ciliŋ swjn.

**Fig. 1851a:** First phonetic reader, Cincinnati 1851. Title page; p.6.  
 Showing that the EPA 1847 alphabet was used unchanged in Cincinnati for a time.



**PHONETIC ALPHABET.**

*Phonetically Arranged.*

The Phonetic letters have the value of the *italicized* letters in the illustrative words.

Letters.	Illustrative words.	Names.	Letters.	Illustrative words.	Names.
<i>Long Vowels.</i>			<i>Explodents.</i>		
Ɛ	<i>ε</i> . . . eel . . . . .	<i>ε</i>	P	<i>p</i> . . . pole . . . . .	<i>pe</i>
ʌ	<i>a</i> . . . ale . . . . .	<i>a</i>	B	<i>b</i> . . . bowl . . . . .	<i>be</i>
Ǽ	<i>q</i> . . . arms . . . . .	<i>q</i>	T	<i>t</i> . . . toe . . . . .	<i>te</i>
Ɔ	<i>o</i> . . . all . . . . .	<i>e</i>	D	<i>d</i> . . . doe . . . . .	<i>de</i>
Ɔ	<i>o</i> . . . oak . . . . .	<i>o</i>	Ɔ	<i>g</i> . . . cheer . . . . .	<i>ga</i>
Ɔ	<i>u</i> . . . ooze . . . . .	<i>u</i>	J	<i>j</i> . . . jeer . . . . .	<i>ja</i>
<i>Short Vowels.</i>			C	<i>c</i> . . . came . . . . .	<i>ca</i>
I	<i>i</i> . . . ill . . . . .	<i>it</i>	G	<i>g</i> . . . game . . . . .	<i>ga</i>
E	<i>e</i> . . . ell . . . . .	<i>et</i>	<i>Continuants.</i>		
A	<i>a</i> . . . am . . . . .	<i>at</i>	F	<i>f</i> . . . fear . . . . .	<i>ef</i>
O	<i>o</i> . . . on . . . . .	<i>ot</i>	V	<i>v</i> . . . veer . . . . .	<i>ve</i>
U	<i>u</i> . . . up . . . . .	<i>ut</i>	T	<i>t</i> . . . thigh . . . . .	<i>it</i>
U	<i>u</i> . . . wood . . . . .	<i>ut</i>	Ɔ	<i>d</i> . . . thy . . . . .	<i>de</i>
<i>Diphthongs.</i>			S	<i>s</i> . . . seal . . . . .	<i>es</i>
Ɔ	<i>j</i> . . . ice . . . . .	<i>j</i>	Z	<i>z</i> . . . zeal . . . . .	<i>ze</i>
Ɔ	<i>o</i> . . . oil . . . . .	<i>o</i>	Ɔ	<i>ʃ</i> . . . shall . . . . .	<i>if</i>
Ɔ	<i>o</i> . . . owl . . . . .	<i>o</i>	Ɔ	<i>ʒ</i> . . . vision . . . . .	<i>ze</i>
U	<i>u</i> . . . use . . . . .	<i>u</i>	<i>Liquids.</i>		
<i>Coalescents.</i>			R	<i>r</i> . . . rare . . . . .	<i>ar</i>
Y	<i>y</i> . . . yea . . . . .	<i>ya</i>	L	<i>l</i> . . . lull . . . . .	<i>el</i>
W	<i>w</i> . . . way . . . . .	<i>wa</i>	<i>Nasals.</i>		
<i>Breathing.</i>			M	<i>m</i> . . . mum . . . . .	<i>am</i>
H	<i>h</i> . . . lay . . . . .	<i>ha</i>	N	<i>n</i> . . . nun . . . . .	<i>en</i>
			Ɔ	<i>ŋ</i> . . . sing . . . . .	<i>in</i>

(\*) *vocal*, showing when *l, m, n*, make syllables of themselves.

**Fig. 1851b:** *ibid.*, excerpt from p.53.  
 Showing an example of U+2E50 WIGGLY EXCLAMATION MARK (encircled).  
 Also, this book being a primer using large types, giving a good example for U+A7C0 LATIN SMALL LETTER I WITH SPIRAL TAIL, displaying clearly its unique spiral tail.

Mj Slat.  
 Pra giv mē mj nū slat, j  
 wif tu drø on it. Mj slat  
 haz a fjn red ej. Ɔ wil drø  
 a bø. Hwot a loj nōz he  
 haz, and but wun qrm **Ɔ** NƆ  
 j wil drø a cƆ, and a milc

**Fig. 1852a/b:** The Phonetic Journal, Vol. 7, London 1852. Excerpts from p.5 and p.23. In 1852, Isaac Pitman began to try to "improve" the EPA, changing letterforms several times (the forms beyond Jan. 1852 not shown here). While these letterforms are not subject of this proposal, one of them (see red circle) was used as the source for the canonical lowercase form to U+A7BC LATIN CAPITAL LETTER I WITH RIGHT U-TURN AT BOTTOM. The complete U-turn together with the thick dot at its end distinguish this letter from the Latin iota, which usually has a 90° turn without a distinctive closing.

No. 4, Jan., 1847.	No. 5, Proposed Jan., 1852.	No 6, Romanic Alphabet.
e a q e o u, i e a o u u, j e s u, w y h, p b t d g j c g, f v t d s z j z, l r, m n y.	i e a q e o u, i e a o u u, j s u, w y h, p b t d g j c g, f v t d s z j z, l r, m n y.	aa, bb, cc, dd, ee, ff, gg, hh ii, jj, kc, ll, mm, nn, oo, pp, qc, rr, ss, tt, uu, vv, ww, xcs, yy, zz.
<i>Specimen.</i>	<i>Specimen.</i>	<i>Specimen.</i>
Nutij hwotever iz mor tu be dezjrd, or mor delijful, dan de lit ov truit: for it iz de sors ov wiz- dum. Hwen de mjnd iz harast wid obscuriti, distracted bj dsts, renderd torpid or sad'nd bj ignor- ans or felsitiz, and truit emerjez az from a dare abis, it sjnz fort instantaniusli, lj e de sun dispersij mists and vapurz, or lj e de den dispelij de sadz ov darcnes.	Nuðij hwotever iz mor tu bi dezjrd, or mor delijful, dan de lit ov truð: for it iz de sors ov wiz- dum. Hwen de mjnd iz harast wid obscuriti, distracted bj dsts, renderd torpid or sadend bj ignor- ans or folsitiz, and truð emerjez az from a dare abis, it sjnz forð instanteniusli, lj e de sun dispersij mists and vepurz, or lj e de den dispelij de fedz ov darcnes.	Nothing whatever is more to be desired, or more delightful, than the light of truth: for it is the source of wisdom. When the mind is harassed with obscurity, dis- tracted by doubts, rendered torpid or saddened by ignorance or falsi- ties, and truth emerges as from a dark abyss, it shines forth instan- taneously, like the sun dispersing mists and vapours, or like the dawn dispelling the shades of darkness.

**PHONETIC ALFABET WIH SICS LOW  
VSELZ AND FOR DIFOOVZ.**

**LONG VOWELS.**  
 U i, E e, A a, O o, U u;  
 eat, age, air, alms, all, ope, food;

**SHORT VOWELS.**  
 I i, E e, A a, O o, U u, U u:  
 it, edge, err, at, are, pass, not, nor, cut, cur, foot:

**DIPHTHONGS.**  
 F j, O o, Y y, U u:  
 pine, oil, owl, you, new:

**CONSONANTS.**  
 C c, O o, T t, S s, Z z, W w,  
 such, thin, then, she, vision, sing,

together with the consonants of the old alphabet, except k, g, x, which are rejected.

**Fig. 1852c:** The American Reporter, Vol. 5, No. 26; Washington (DC) Nov. 1852; excerpt from p.40. *This was one of the magazines which used and discussed the EPA, including proposals for change of letterforms. In doing so, the letterforms changed between single issues and even between articles within the same issue. These letterforms are not subject of this proposal. However, this excerpt shows one of the rare examples of U+2E50 WIGGLY EXCLAMATION MARK in a context not addressed to children.*

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**PHONETICAL**

Ɔ wil lev Dr Ston tu t4c c4r ov hiz 4n reput4sen. It wud be l4f4bl f4r ms tu testif4 d4t j hav sen him rjt 120 wurdz a minit Ɔ  
 Ɔ hav ritn 201 wurdz in a minit wid ez, bef4r witnesez, but did not tac d4s trubl tu get a sertificat d4rf4r, f4r d4 simpl rezn d4t an 4biliti tu rjt rapidli duz not pr4v an 4biliti tu report wel.

**Fig. 1852d:** The American Reporter, Vol. 5, No. 16; Washington (DC) 1852; p.43. Showing U+2E51 INVERTED WIGGLY EXCLAMATION MARK to denote different levels of sarcasm.

upon mj c4r, wid d4 4surans d4t d4 cud rjt 60 wurdz per minit, and after m4r practis cud undowtedli rjt faster Ɔ A jentlman woz introdust to me bj Mr L4ngli az bei4 wun ov d4r fastest rjterz hwjl h4 cud not rjt m4r d4n 60 4r 70 wurdz per minit !!Ɔ A western f4nografer woz told bj wun ov d4 l4din f4nograferz oy d4

**Fig. 1852e:** The Ploughshare, Vol. 4, No. 13; Washington (DC) March 1852; p.9. Showing a proposal of letterforms which were used for a short time before the finalizing of EPA 1855 (the Cincinnati alphabet) in the USA: These intermediate forms are not subject of this proposal. However, this is used as source as U+A7CB LATIN SMALL LETTER U WITH INSIDE BAR for the canonical lowercase form of U+A7CB LATIN CAPITAL LETTER U WITH INSIDE BAR, which is used in EPA 1868 employing a special case pairing.

**ƆE TWELV V8EL SCAL.**

Ɔ	i	u	u	fit	pin	[y4zd in frenç]
Ɔ	e	w	e	r4n	wet	clerc f4d4r
Ɔ	a	Ɔ	a	har	hat	Frans p4s
Ɔ	o	Ɔ	q	c4t	cot	c4r Ɔjng
Ɔ	o	Ɔ	u	h4ld	hol	h4rt hut
u	u	u	u	ful	fut	t4n regular





**Fig. 1854a:** American Manual of Phonography (Elias Longley; Cincinnati 1854): excerpt from p.10. The alphabet shown here resembles EPA 1855 (the "Cincinnati alphabet"; see fig. 1855a), only missing some letters, and using one letterform (for "oo") from EPA 1847 which was replaced in EPA 1855. Regarding the case pairing, this alphabet version is compatible with EPA 1855.

### THE ENGLISH PHONETIC ALPHABET.

The letter written		The letter prntd		is always sounded as	The letter written		The letter prntd		is always sounded as
<i>E</i>	<i>E</i>	<i>E</i>	<i>e</i>	<i>ee</i> in <i>eel</i>	<i>P</i>	<i>p</i>	<i>P</i>	<i>p</i>	<i>p</i> in <i>pole</i>
<i>A</i>	<i>a</i>	<i>A</i>	<i>a</i>	<i>a</i> .. <i>ale</i>	<i>B</i>	<i>b</i>	<i>B</i>	<i>b</i>	<i>b</i> .. <i>bowl</i>
<i>H</i>	<i>h</i>	<i>H</i>	<i>h</i>	<i>a</i> .. <i>alms</i>	<i>T</i>	<i>t</i>	<i>T</i>	<i>t</i>	<i>t</i> .. <i>toe</i>
<i>O</i>	<i>o</i>	<i>O</i>	<i>o</i>	<i>a</i> .. <i>all</i>	<i>D</i>	<i>d</i>	<i>D</i>	<i>d</i>	<i>d</i> .. <i>doe</i>
<i>W</i>	<i>w</i>	<i>W</i>	<i>w</i>	<i>o</i> .. <i>ope</i>	<i>C</i>	<i>c</i>	<i>C</i>	<i>c</i>	<i>ch</i> .. <i>cheer</i>
<i>U</i>	<i>u</i>	<i>U</i>	<i>u</i>	<i>oo</i> .. <i>food</i>	<i>J</i>	<i>j</i>	<i>J</i>	<i>j</i>	<i>j</i> .. <i>jeer</i>
<i>I</i>	<i>i</i>	<i>I</i>	<i>i</i>	<i>i</i> .. <i>ill</i>	<i>K</i>	<i>k</i>	<i>K</i>	<i>k</i>	<i>c</i> .. <i>came</i>
<i>E</i>	<i>e</i>	<i>E</i>	<i>e</i>	<i>e</i> .. <i>ell</i>	<i>G</i>	<i>g</i>	<i>G</i>	<i>g</i>	<i>g</i> .. <i>game</i>
<i>A</i>	<i>a</i>	<i>A</i>	<i>a</i>	<i>a</i> .. <i>am</i>	<i>F</i>	<i>f</i>	<i>F</i>	<i>f</i>	<i>f</i> .. <i>fear</i>
<i>O</i>	<i>o</i>	<i>O</i>	<i>o</i>	<i>o</i> .. <i>olive</i>	<i>V</i>	<i>v</i>	<i>V</i>	<i>v</i>	<i>v</i> .. <i>ucer</i>
<i>U</i>	<i>u</i>	<i>U</i>	<i>u</i>	<i>u</i> .. <i>up</i>	<i>Z</i>	<i>z</i>	<i>Z</i>	<i>z</i>	<i>th</i> .. <i>thigh</i>
<i>U</i>	<i>u</i>	<i>U</i>	<i>u</i>	<i>oo</i> .. <i>foot</i>	<i>D</i>	<i>d</i>	<i>D</i>	<i>d</i>	<i>th</i> .. <i>thy</i>
<i>I</i>	<i>i</i>	<i>I</i>	<i>i</i>	<i>i</i> .. <i>isle</i>	<i>S</i>	<i>s</i>	<i>S</i>	<i>s</i>	<i>s</i> .. <i>seal</i>
<i>O</i>	<i>o</i>	<i>O</i>	<i>o</i>	<i>oi</i> .. <i>oil</i>	<i>Z</i>	<i>z</i>	<i>Z</i>	<i>z</i>	<i>z</i> .. <i>zeal</i>
<i>W</i>	<i>w</i>	<i>W</i>	<i>w</i>	<i>ow</i> .. <i>owl</i>	<i>J</i>	<i>j</i>	<i>J</i>	<i>j</i>	<i>c</i> .. <i>vicious</i>
<i>U</i>	<i>u</i>	<i>U</i>	<i>u</i>	<i>u</i> .. <i>mule</i>	<i>Z</i>	<i>z</i>	<i>Z</i>	<i>z</i>	<i>s</i> .. <i>vision</i>
<i>Y</i>	<i>y</i>	<i>Y</i>	<i>y</i>	<i>y</i> .. <i>yea</i>	<i>R</i>	<i>r</i>	<i>R</i>	<i>r</i>	<i>r</i> .. <i>rar</i>
<i>W</i>	<i>w</i>	<i>W</i>	<i>w</i>	<i>w</i> .. <i>way</i>	<i>L</i>	<i>l</i>	<i>L</i>	<i>l</i>	<i>l</i> .. <i>tull</i>
<i>H</i>	<i>h</i>	<i>H</i>	<i>h</i>	<i>h</i> .. <i>hay</i>	<i>M</i>	<i>m</i>	<i>M</i>	<i>m</i>	<i>m</i> .. <i>mum</i>
					<i>N</i>	<i>n</i>	<i>N</i>	<i>n</i>	<i>n</i> .. <i>nun</i>
					<i>W</i>	<i>w</i>	<i>W</i>	<i>w</i>	<i>ng</i> .. <i>sing</i>

**Fig. 1855a:** American Phonetic Journal (ed. Randall P. Prosser), Cincinnati (Ohio) 1853, p.12. This is the first complete listing of EPA 1855 (the "Cincinnati alphabet"), the version which was propagated by a group of supporters in Cincinnati. This alphabet was used there without any changes at least until 1864 (see fig. 1864b). The punctuation marks are the same as in EPA 1847 (see again U+2E4F PHONOTYPIC QUESTION MARK not being a mirror image of the "ordinary" question mark). The elision dot is called here "inverted period", which obviously refers to the application of the lead type. The missing uppercase form for  $\eta$  (last line of the table, right part) is considered being a typo, as the usual EPA form is found in other documents using the Cincinnati alphabet (see fig. 1864b).

12 AMERICAN PHONETIC JOURNAL.					
THE PHONETIC ALPHABET.					
The Phonetic letters in the first column are pronounced like the italic letters that follow. The last column contains the names of the letters.					
LETTERS	ILLUSTRATIVE WORDS	NAME	LETTERS	ILLUSTRATIVE WORDS	NAME
<i>Long Vowels.</i>			<i>Explosives.</i>		
E e	.....eel	.....e	P p	.....pale	.....pe
E e	.....earth	.....er	B b	.....bale	.....be
A a	.....ale	.....a	T t	.....tame	.....te
A a	.....air	.....ar	D d	.....dame	.....de
A a	.....arms	.....a	C c	.....cheer	.....ca
O o	.....all	.....o	J j	.....jeer	.....ja
O o	.....oak	.....o	K k	.....came	.....ka
O o	.....ooze	.....o	G g	.....game	.....ga
<i>Short Vowels.</i>			<i>Continuants.</i>		
I i	.....ill	.....it	F f	.....fain	.....ef
E e	.....ell	.....et	V v	.....vain	.....ve
A a	.....am	.....at	H h	.....thigh	.....it
A a	.....ask	.....at	A a	.....thy	.....de
O o	.....on	.....ot	S s	.....seal	.....es
U u	.....up	.....ut	Z z	.....zeal	.....ze
U u	.....wood	.....ut	S s	.....shall	.....if
<i>Diphthongs.</i>			K k	.....vision	.....ze
F f	.....ice	.....i	<i>Liquids.</i>		
C c	.....oil	.....c	L l	.....lull	.....el
S s	.....owl	.....s	R r	.....rare	.....ar
U u	.....dupe	.....u	<i>Nasals.</i>		
<i>Coalescents.</i>			M m	.....maim	.....am
Y y	.....yca	.....ya	N n	.....nine	.....en
W w	.....way	.....wa	N n	.....sing	.....ij
<i>Breathing.</i>					
H h	.....hay	.....ha			

The marks of punctuation are the same as in the Romanic orthography, excepting the following changes and additions: the mark of interrogation  $\text{?}$  is placed before the first word of a question;  $\text{?}$  is placed at the end of a sentence, and indicates doubt;  $\text{f}$  indicates laughter;  $\text{!}$  sorrow;  $\text{j}$  sorrow; the inverted period  $\text{.}$  signifies the omission of a letter.

Fig. 1855b: ibid., p.31. Showing a sample of the use of EPA 1855.

ded tu ðe tøm we kan not n̄ spek konfidentli; bød d̄id in 1777—Mr Gwinet, Ma 22; ðe da er munt ov Mr. Mertonz ðeð kan not n̄ be korekth asertand. C̄qr̄lz Karol standz f̄orð wið m̄qrkt pekuliariti on ðis list. Not onli iz he ðe onli wun h̄o givz hiz plas ov rezidens, but he woz ðe last survivor ov ðe ilustrius band, and els̄o atand tu a grater aj ðan eni ov ðe rest, h̄e beip, at ðe t̄im ov hiz ðeð, N̄ovember 14th, 1832, n̄jnti-fj̄v. Tomas Ling, wun ov ðe t̄o yungest at ðe t̄im ov s̄j̄niq, woz els̄o ðe yungest in ðeð: he d̄id ab̄st 1780, ajed t̄erti-wun. Tomas Jeferson and Jon Adamz bød d̄id on ðe f̄orð ov Jul̄i, ov ðe sam yer, 1826; ðe f̄ormer at ðe aj ov ati-tre, ðe later n̄jnti-wun.

We hav bin abl tu asertan ðe several ajez ov fifti-tre ov ðez distipgwiðt men at ðe t̄im ða s̄j̄nd ðe Deklarafon. Ðar yun̄ted ajez prezent an agregat ov t̄o t̄szand tre hundred and t̄erti siks yerz, givip an agregat tu eç ov f̄orti-f̄or yerz and twenti-sevn daz. Ðe agregat yerz at ðeð ov fifti-t̄o ov ðis number, (ðe ajez ov ðe uðer f̄or we hav n̄o menz ov korekth asertanip,) iz tre t̄szand tre hundred and n̄jnti-wun; averaj, siksti-fj̄v. Fire ov ðez livd tu be m̄or ðan n̄jnti; twelv, m̄or ðan ati; twenti-wun atand tu m̄or ðan sevnti. ¶ Hw̄ar els fal we luk f̄er suç instansez ov lonjeviti. It wil be sen at wuns dat ðe ðarip ðed ða had komited did not “f̄rijn ðem tu ðeð.”

M̄ost ov ðem livd tu se sum ov ðe rezulth ov ðis f̄erst des̄isiv bl̄o f̄er ðe komplet redemf̄on ov ðar kuntri. Sum ov ðem livd meni yerz tu enj̄e sivil and relijus blesipz, suç az ðe yun̄iversal Kreator never yet v̄oçsaft tu eni uðer pepl he haz mad.

Yer after yer k̄elz us agen tu komemorat ðar nobl ðed. Hw̄il we rever, gerif and emb̄qm ðar mem̄oriz, let us m̄ost dev̄stli þ̄ank, ador and serv ðat God h̄o gav ðem f̄er x̄r kuntriz resku in t̄im ov h̄er gratest peril. “He had not ðelt so wið eni nañon, and az f̄er hiz jujments we hav not non ðem. Praz ye ðe Lord.”  
Nafonal Magazen.

JERMAN SILVER.

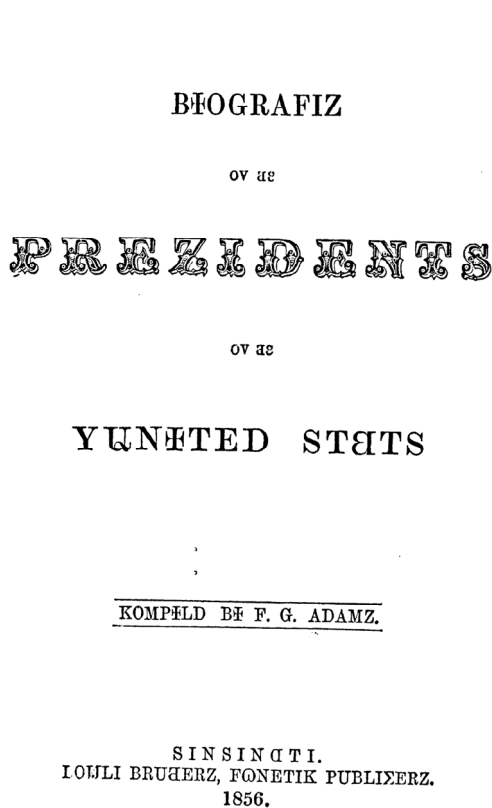
F̄u ov x̄r rederz qr probabli aw̄ar h̄e meni aplikafonz qr n̄s-a-daz mad ov ðis yusful kompozifon. We k̄el it kompozifon, elðo ðe majoriti ov ðe pepl imajin ðat it iz a metal (sui generis)—but suç iz not ðe fakt. It iz kompoz̄d ov wun p̄qrt nikel, wun p̄qrt ov spelter ov zirk, and tre p̄qrts ov koper; but el ðez substansez hav tu be pur, and eksp̄oz̄d tu a grat het bef̄or ða miks amug ðemselvz. Ðe zirk metal, hw̄ig iz ov a volatil natyur, iz not put in ðe pot until ðe f̄erst t̄o qr wel yun̄ted tugeder. Ðe refrakt̄ori natyur ov ðe nikel, and ðe difikulti ov obtanip ðe metal fr̄e from qrsenik, iron and kobelt, qr ðe k̄oz ðat not unfr̄ekwentli we se J̄erman silver sp̄onz ov a gold yel̄o kulor, hw̄il J̄erman silver prepārd. from pur metalz, wil ekwal in hw̄itnes sterlij silver, and wil not tq̄rnif. Te and tabl sp̄onz, n̄jvz and ferks, f̄j̄rmen and f̄ip kaptenz spekiq trumpets, poket-buk klasps, te sets, lamps and gun m̄entipz qr n̄s m̄ostli mad ov J̄erman silver. Upwardz ov fifti t̄szand p̄szndz ov ðis kompozifon iz manyufaktyurd in ðis kuntri anyuoli, f̄er hw̄ig ðe nikel iz imported from J̄ermani and Ipgland. Ðar qr but tre l̄okalitiz ov nikel or in ðis kuntri:—Catham, Konektikut; La Mot, Miz̄ori, and Lak Superior.

**Fig. 1855c:** Andrew Comstock: A Treatise on Phonology; Philadelphia (PA)1855; p.16  
*The alphabet shown here is one of the competitors of the EPA, published in the same era (promoted by the author in exactly this form at least from 1846 to 1858). While this alphabet is not subject of this proposal, it is the source of the lowercase letterform U+A7B3 LATIN SMALL LETTER A WITH LOOP. The EPA uses its canonical uppercase complement U+A7B2 LATIN CAPITAL LETTER A WITH LOOP only, pairing it with U+A7B4 LATIN SMALL LETTER A WITH U-TURNED TAIL. Making the latter two a canonical case pair is considered an error, as it would prevent the "obvious" case pairing being canonical, in the case the Comstock alphabet or something similar will be encoded in the future.*

A PHONETIC ALPHABET FOR THE ENGLISH LANGUAGE.								
BY ANDREW COMSTOCK, M. D.								
<p>In this Table there is a letter for each of the 38 elementary sounds of the English Language; and, for the sake of brevity, there are 6 compound letters, each to be used, in particular instances, to represent two elementary sounds. There are also tone-marks, to represent accent, inflection, and intonation.</p>								
THE 38 SIMPLE LETTERS.								
15 Vowels.			14 Subvowels.			9 Aspirates.		
E	e	ale	B	b	bow	P	p	pit
A	a	arm	D	d	day	T	t	tin
Q	o	all	G	g	gay	K	k	kite
A	ⓐ	an	V	v	vile	F	f	fame
I	i	eve	Δ	δ	then	Θ	θ	thin
Ε	ε	end	Z	z	zone	S	s	sin
I	i	île	J	j	azure	C	c	shade
I	ι	in	L	l	light	H	h	hut
Ω	ω	old	R	r	roll	Q	q	what
Υ	υ	lose	M	m	met	<p>Tone-marks to represent Accent, Inflection, and Intonation.</p>		
O	o	on	N	n	not			
W	w	tube	Ŋ	ŋ	song			
U	u	up	W	w	wo			
U	υ	full	Y	y	yoke			
Φ	φ	out						
THE 6 COMPOUND LETTERS.								
Α	α	oil	D	d	job	Ɔ	ć	etch
Θ	θ	air	G	g	tugs	X	x	oaks

(16)

Fig. 1856a: Biographies of the Presidents of the United States (F. G. Adams); Cincinnati (Ohio) 1859; title and p.35 (showing another publication using EPA 1855).



JON ADAMZ.

35

hints,' az he kēlz ċem, ov hwot he ċet wud be proper tu be dun, and konklūded wiċ ċez wurdz: 'after ol, we must fjt.' Ċis leter j red tu Mr Henri, hō lisnd wiċ grat atenjon; az sōn az j had pronōnst ċe wurdz, 'after ol, we must fjt,' he razd hiz hed, and, wiċ an enerji and vēhemens ċat j kan never forgēt, brok st wiċ an oċ, 'Ē am ov ċat manz mjnd.'

"Henri went hom tu Verjnia tu reiterat ċis langwej. Īn hiz sēlebrated speċ in ċe Verjnia Konvenjon, in 1775, he sez: 'In van, after ċez ċinz, ma we indūlj in ċe fond hop ov pes and rekonsiliajon. Ċar iz no lonċer eni rōm fer hop. If we wij tu be fre; if we men tu prezērv invōlat, ċoz inēstimabl prīvilejez, fer hwiċ we hav bin sō loċ kontēndij; if we men not basli tu abāndon ċe nobl strugl in hwiċ we hav bin sō loċ engājđ, and hwiċ we hav plejđ sēsēlvz never tu abāndon untīl ċe glorijs objekt ov sĀ kontest jal be obtānd—we must fjt! Ē repēt it, sĀ, we must fjt!"

Jon Adamz woz bern in Kwinsi, Masaċūsets, on ċe 19ĥ ov Oktōber, 1735. He woz ċe forċ in desēnt from Henri Adamz, hō, akērdij tu ċe inskripton ov hiz tōmston, "tak hiz fljt from ċe Drakon persekūjon, in Devonser, Ingland, and aljtēd wiċ at sunz ner Mōnt Welston." Hiz fqċterz nam woz Jon Adamz. He grādyuāted at Hqrvard Yūni-

Fig. 1860a: The Phonetic Journal (ed. Isaac Pitman, London 1860); excerpt from p.1 This shows EPA 1860, a state where the letters denoting diphthongs and consonant clusters are dropped; while some of the letterforms were reused to denote simple vowels.

VOWELS.									
Name.	ah,	eh,	ee;	awe,	oh,	oo;	ut:		
Phonotype.	Ā a,	Ē e,	Ī i;	Ō o,	Ō o,	U u;	Ū ū;	Ŷ ŷ;	
Script.	<i>A a</i>	<i>E e</i>	<i>I i</i>	<i>O o</i>	<i>O o</i>	<i>U u</i>	<i>U u</i>	<i>Ŷ ŷ</i>	
Example.	alma,	age, air,	eat;	all,	ope,	food;	son,	bat	
Phonetic form.	ams,	edj, er,	it;	ol,	op,	fud;	sɔn,	bɔt	

DIPHTHONGS.	CONSONANTS.
ai,    i,    oi,    ow.	ih,    thee,    ing.
si,    ei,    oi,    ou.	h d,    t d,    w y.
ai    ei    oi    ou	<i>h d</i> <i>t d</i> <i>w y</i>
ay,    by,    boy,    now.	thin,    then,    sing.
si,    bei,    boi,    nou.	bin,    den,    sip.

*U*, as in *unit*, *unite*, *duty*, *value*, is a double letter, and is written thus: "yunit, yuneit, diunti, valiu."

Fig. 1860b/c: *ibid.*, excerpts from p.15 and p.24.  
 Showing sample texts of EPA 1860, one of them in a script font.

inventer hu iz dis ivniy amsy ʒs—Mr Eizak Pitman ov Bab—iz az wʒrdi ov de onor and de respekt ov de men ov everi edj, az de inventerz ov de elektʒo-telegrafi and fotografi.

And ʒ hwei. Bikoz hiz art, tu de sem degri az derz, mits dis wont ov hiumaniti in everi edj. It parteks indid ov de natiur ov beb elektʒo-telegrafi and fotografi, and der iz a konsiderabel amount ov analodji bitwin it and dem, az tu its histori az an invencon, mauer ov its opereconz, and de valiu ov its rezalts. Az beb elektʒo-telegrafi and fotografi ar not sʒ mʒte niu eidiaz, az an impruvment spon eld wʒnz, sʒ iz fonografi an impruvment spon kaligrafi and stenografi hwite wer in ekzistens bifʒr it.

Fonografi sʒstenz a relecon tu sound veri similar tu dat hwite Fotografi heldz tu form. It iz a korekt reprezentacon ov it, and de pʒses iz instantenizsli efekted bei beb. It dsz not rekweir a log and wirisʒm aprentiscep tu master eider art, and hwen wʒns atend, its yusez ar manifold, and ar avelabel bei everibodi. A man meit mek a veri pur portret-penter, hu wud mek a veri gud fotografer; and a veri moderet skolar me bikʒm a gud fonografer; and dsʒder, der iz nʒ limit—ʒnles it iz self-impepd—tu de ekserseiz ov hiz art.

ilodjikal. Ei woz reversiy de order ov der relativ importans, and komperiy de greter bei de les. Ei du not klem for bot fotografi az mʒte atencion and regard az hav bin biʒted spon de Fotografi ov Form, bʒt ei klem for it mʒr atencion—imejurabli mʒr. Inazmʒte az de meind itself iz siupirior tu mater, bei sʒ mʒte de mʒr iz de fotografi ov meind siupirior tu de fotografi ov mater. Mater iz ʒnsʒstancal, flitig, evanesent. De mest solid bloks ar krʒmbliig awe everi moment bei de akcon ov disintegrestig edjensiz, hwite rob dem ov der sʒbetans. Meind iz mʒr sʒstancal dan sʒbstans itself, for it never deiz; its bʒts wil out-liv teim, and rʒn paralel wid eterniti. ʒ Hu kan limit de bʒt or de dijker, or estimet de magnitud and de importans ov its pouer. Impirial Rom woz wʒns de mistres ov de wʒrld. Her gets wer de sentral fʒsei ov de wʒrld's welb, and pomp, and magnifisens, bʒt her dominion in de proudest dez ov her empeir, never ekstended tu de limits dat hav bin atend bei de filosoferz ov Gris, hwen her Aristotelz and her Platerz ruuld de meindz ov men hu demselvz ruuld de wʒrld. Ei fil ei am ʒnli reiziy tu de digniti ov mei sʒbdjekt, de az yet ei bʒt dimli dizeru ol its veital importans. Hwen brenz and empeirz hwite nou rul de wʒrld hav krʒmbeld intu ruinz, de bʒts hwite

LITERARI GLÆNIWZ.

Everi trʒif hwite wi no' and aknoledj in dis leif, bʒt du not relidjʒsli obe, ij teken awe from ʒs hwen wi enter de spirital wʒrld. It iz teken awe from ʒs bikʒz wi hav no rial afekcon far it; hav nʒfij in our harts tu reten it; for nʒfij kan abeid wid ʒs bʒt hwot haz enterd intu our leif's br.

A gud man's frendz me forsech him, or me dei and liv him tu morn. Hiz fortium me fel, or hiz helf deho. Halsmni and reprotc me vndjʒsli atak hiz karakter. In serkʒmʒstansʒ ov dis

*Bʒt hwen dou moh'st dei pʒezens fell,  
 and hwen de sol haf graspt di veit,  
 hou fast de diiri cadʒz mell  
 bʒnd de worm and liviy leit!  
 In di ei feind a nobler berf,  
 a glori o'r de wʒrld ei si!  
 and Paradise retrʒny tu erf,  
 and blumz agen for ʒs in di.*

*Hou stray and liviy In ov Man,  
 Pʒedi mer from de bandz ov sin,  
 'sez Hou de liviy spark drʒt fan  
 dat sets mei hart on feir wedin.*

Fig. 1860d: *ibid.*, excerpt from p.129.  
 Showing an example of the parentheses with middle ring, to resolve an ambiguity.

elongetij der bodiz. Wʒns in de dismis der telz az yusles apendedjez, and bigin hwot iz kold de pʒses ov insistij (incysting) dat iz, ov relig demselvz ʒp intu a bʒl, and sekritij a miukʒs over its sʒrfes, hwite in teim develops intu a flei, hoverz ʒver de pond, and iz swolʒd bei sʒm berd. De flei iz didjested, and de libereted serkeria feindz itself in kʒmfortabel kworterz; its cel iz brʒken, and its pʒses tu matiuriti iz ritct.—Dj. Luis in "Kornhil Magazin."

Fig. 1860e: A triple (twelve gross) Gems of Wisdom (ed. Isaac Pitman); London 1860; title and p.5. Showing the EPA 1860 version.

A T R I P E L  
(TWELV GROS)

**DJEMZ OV WIZDOM,**

ON  
MORAL AND SPIRITUAL SÛBDJEKTS.

SELEKTED FROM ÆE BEST ÆORZ.

SECOND EDITION.

LONDON:  
FRED. PITMAN, 20 PATERNOSTER RO, E.C.  
W. HWEIT, 36 BLUMZBERI STRAT, W.C.  
BAR (BATH): EIZAK PITMAN, FONETIK INSTITIUT.

1860.

**THE PHONETIC ALPHABET.**

*The phonetic letters in the first column are pronounced like the italic letters in the words that follow. The last column contains the names of the letters.*

CONSONANTS.

*Guttural.*

K k .. leek..... kē  
G g .. league... gē  
H h .. hay..... etg  
Y y .. yet..... yē

*Lingual.*

T t .. fate ..... ti  
D d .. fade..... di  
C ç .. vicious... iç  
J j .. vision... ji  
S s .. hiss..... es  
Z z .. his..... zi  
R r .. wreath... iŕ  
Ď ě .. wreathe.. ěi

*Labial.*

P p .. rope..... pi  
B b .. robe..... bi  
F f .. safe..... ef  
V v .. save..... vi  
W w .. wet..... we

LIQUIDS.

Ŵ ŵ .. sing..... iŵ  
N n .. seen..... en  
M m .. seem..... am  
L l .. fall..... el  
R r .. rare..... ar

VOWELS.

*Guttural.*

A a .. am..... at  
H h .. alms..... s  
E e .. ell..... et  
Ë ë .. ale..... e  
I i .. ill..... it  
F i .. eel..... i

*Labial.*

O o .. on..... ot  
Ō ō .. all..... o  
X x .. up..... xt  
Œ œ .. ope..... o  
U u .. full..... ut  
W u .. food..... u

DIPHTHONGS: si, ei, oi, ou.  
as heard in ay, by, voice, now.

Fig. 1860f: ibid., excerpt from p.8. — Around 1860, Isaac Pitman propagated the duodecimal system, and in fact used it in some publications like the one shown here. He used turned and (in the case of the 3) modified forms of the digits 2 and 3 as digits for ten and eleven (U+218A TURNED DIGIT TWO, U+218B TURNED EZH-SHAPED DIGIT THREE).

De namberij ov de paragrafs bei dszenz and grösez iz a kontribiucion twardz a yuniversal sistem ov kountij, mæni, wets, and mejurz, best on de namber *twelv* and its mæltipelz. De seinz “**2**,” “**3**” represent de namberz *ten* and *eleven*, and “**10**” represents wæn dszen; “**16**,” wæn dszen and siks; **453**, for grös, feiv dszen, and dri; **7,819**, seven tripelz, et grös, wæn dszen and nein; and sē on. It gud bi konsiderd a stroj argument for a *twelv* sistem ov notegon dat ðē wi profes tu rekon bei *tenz*, yet wi kount artikelz in tred, djen-erali, bei de *dszen* and de *grös*; mek de giliij konsist ov twelv pens; mejur bei de fut kontenij twelv inçez; and diveid de de intu tu dszen ourz.

**Fig. 1860g:** *ibid.*, excerpt from p.12 (noted as "10" in the duodecimal system).  
*The encircled duodecimal number shows clearly that the shape of the duodecimal digit eleven is based on an ezh-shaped digit three is intentional, as the first digit, an "ordinary" unturned digit three, is not ezh-shaped.*

10 *Djemz ov Wizdom.*

38. Lǽv iz ðe leif ov relidjon, and ov ðe sæl, and ov ðe tǽsrtǽ.

39. ðe færst mǽçon ov relidjon iz tu ʒnderstand hwot iz tru ov God; and ðe sekond iz tu ekspres it in our leivz, and tu kopi it out in our wǽrks: ðe former iz our wizdom, and ðe later iz our gudnes.

3ǫ. ðer iz nǽ strongger simpabi ðan ðát bitwin truþ and gud.

3ǫ. Ol mei leif loj,  
 ei hav biheld wið mǽst respekt ðe man  
 hu niú himself, and niú ðe wǽz bifǽr him,  
 and from amǽjst ðem tǽçǽz konsideretli,  
 wið a klir fǽrseit, not a bleindfǽld kǽredj;  
 and haviǽ tǽçǽzen, wið a stedfast meind  
 pǽrsiuð hiz pǽrpos.

40. ðe biǽz ov ðe bodi mǽst in a mejur dei, bifǽr man kan bi born aniu, or ridjenereted. ðe bodi itself mǽst

**Fig. 1864a:** *The Reporting Magazine; Vol. 3, 1864: Appendix "Key to the Reporting Magazine", excerpt from p.1: Showing the use of EPA 1860 in 1864.*

**THE PHONETIC ALPHABET.**

The Phonetic Alphabet consists of 34 letters, namely, the 23 useful letters of the common alphabet (*e, q* and *x* being rejected,) and the 11 new ones below. *J* is used for the French *j* (*zh*), or *g* in *edge*, or *s* in "vision;" hence *dh* represents *J* in *John*, and *dg* in *edge*. *Tç* (*t sh*) represents *ch* in *chess*, and *tch* in *catch*. *Y* and *w* are consonants; *wh* being replaced by *hw*. The vowels *a, e, i, o, u*, have invariably their short sounds, as in *pat, pet, pit, pot, put*. All the other old letters have their usual signification. The italic letters in the words in the third line denote the sounds of the letters.

VOWELS.

<i>Phonotypic.</i>	A s, E s, H i — O o, O s, U u — ʒ s.
<i>Script.</i>	<i>A s E s H i — O o O s U u — ʒ s</i>
<i>Example.</i>	alms, age, air, eat — all, ope, food — son, but.
"	sms, edj, er, it — ol, sp, fud — esn, bst

DIPHTHONGS.

si, ei, oi, ou.		Œ ç, R ð, Œ d, W ŷ.
<i>se ei oi ou</i>		<i>Œ ç R ð Œ d W ŷ</i>
ay, by, boy, now.		she, thin, then, sing.
si, bei, boi, nou.		çi, ðin, ðen, siŷ.

The double letter *u*, as in *unit unite, duty, value*, is written thus: "yunit, yuneit, diunti, valiu." When *ai, oi*, make a *dissyllabic* diphthong, the second letter is marked with a diæresis; thus, *solfaïy, soïy*.

The order of the Phonetic Alphabet, and the names of the letters are:

CONSONANTS.

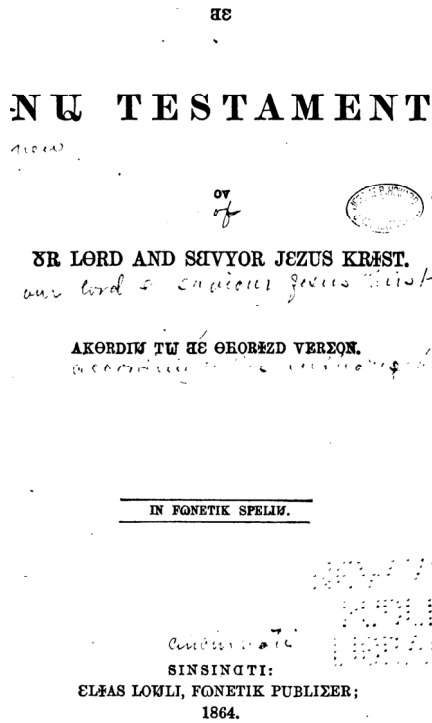
k, g; h; y: t, d; ç, j; s, z; ð, d:  
*kay, gay; aitch; gay: tee, dee; ish, zhee; ee, zee; ith, thee:*  
 p, b; f, v; w: ŷ, n, m; l, r.  
*pee, bee; ef, vee; way: ing, en, am; oi, ar.*

VOWELS.

a, s; e, e; i, i: o, o; ʒ, s; u, u.  
*at, ah; et, eh; it, ee: ot, awe; ut, ok; oot, oo.*



Fig. 1864b: The New Testament, in phonetic spelling; Cincinnati (Ohio) 1864. title; pp. v, viii, 21. Giving an example of the unchanged use of EPA 1855 in Cincinnati for at least 10 years.



PHONETIC ALPHABET OF THE ENGLISH LANGUAGE.

Each letter has the sound of the italicized letter or letters in the illustrative words.

Letters.	Illustrative Words.	Name.	Letters.	Illustrative Words.	Name.
<i>Long Vowels.</i>					
E e	.....eel	.....e	P p	.....pale	.....pe
E e	.....earth	.....e	B b	.....bale	.....be
A a	.....ale	.....a	T t	.....tame	.....te
A a	.....air	.....a	D d	.....dame	.....de
A a	.....arms	.....a	C c	.....cheer	.....ce
O o	.....all	.....o	J j	.....jeer	.....ja
O o	.....oak	.....o	K k	.....king, came	.....ka
O o	.....ooze	.....o	G g	.....game	.....ga
<i>Short Vowels.</i>					
I i	.....ill	.....it	<i>Continuants.</i>		
E e	.....ell	.....et	F f	.....fain	.....ef
A a	.....am	.....at	V v	.....vain	.....ve
A a	.....ask	.....at	H h	.....thigh	.....ih
O o	.....on	.....ot	H h	.....thy	.....de
U u	.....up	.....ut	S s	.....seal	.....es
U u	.....wood	.....ut	Z z	.....zeal	.....ze
<i>Diphthongs.</i>					
E i	.....ice	.....i	Z j	.....shall	.....ij
O e	.....oil	.....o	K s	.....vision	......s
S s	.....soul	.....s	<i>Liquids.</i>		
U u	.....duple	.....u	L l	.....lull	.....el
<i>Coalescents.</i>					
Y y	.....yea	.....ya	R r	.....rare	.....qr
W w	.....way	.....wa	<i>Nasals.</i>		
<i>Breathing.</i>					
H h	.....hay	.....ha	M m	.....main	.....am
<i>Finals.</i>					
			N n	.....nine	.....en
			K p	.....sing	.....ip

The marks of punctuation are the same as in the old orthography, excepting the following changes and additions: the mark of interrogation ? is placed before the first word in a sentence that indicates a query, ? at the end of a sentence indicates doubt, ! laughter, ! surprise, ! sorrow, the inverted ' signifies the omission of a letter.

Rules of Accent.

1. Words of two syllables are accented on the first.
2. Words of three or more syllables are accented on the third from the end; Unless the last syllable but one contain a long vowel or diphthong, or the last syllable begin with f, s, or y,—in which case the accent falls on the last syllable but one.

Exceptions to these rules are marked with the sign ' placed over the vowel to be accented.

Words wholly printed in capitals, and French words, (which have no regularly accented syllables,) are not thus marked.

viii INTRODUKTORI REMARKS.

As it <i>is</i> tu be.	As it <i>is</i> no.	As it <i>is</i> tu be.
This apyrings of the birthe tonge is by cause of tweye things: con is forechildren in scole, as enes the usage and maner of alle other nacions, both com- pelled for to leve her owne langage, and for to kon- strowe her lessons and her things a Frensche, and haveth siththe that the Normans come first into England. Also gentil men- nes children both ywant for to speke Frensche, from the tyme that thei both rokked in her cradde, and kunneth speke, and playe with a childes brooch.— <i>Higden</i> , who died about 1360.	This appearing of the birth tongue, is because of two things: one is for [because] children in school, against the usage and manner of all other nations, be [are] compelled [for] to leave their own language, and [for] to con- strowe their lessons and their things on [into] French, and have [done so] since [that] the Normans come [into] England. Also gentlemen's children [same] first into England. Also gentlemen's children be [are] taught [for] to speak French, from the time that they be [are] rokked in their cradle, and can speak, and play with a child's brooch.	His aperiv ov de berb tuj, is bekés ov to tips; wun is for [bekés] gildren in skol, agénst de yusej, and maner ov ol uder na- jons, be [qr] kompéid [for] tja lev dar on laggewj, and [for] tja konstré dar- reons and dar tips on [inta] sins [dat] de Normans kum [kum] fjerst intja In- gland. Also jentilmens gil- dren be [qr] lot [for] tja dren be [are] taught [for] da be [qr] rok in dar kradl, and kaa spek, and pla wid a gilds broe.

De ganjes in ortografi sins 1360 hav bin nqmerus, and de printij ov de Bjbl has verid wid dem ol. His last qan, from románik tu fonetík speliq, as has bin sen abáv, is not so difíikult for de reder tu master as de transijon bak tu Higdens tju, and is but a turo komplejon ov de wurk dat has bin grádyqall progrésij for severál sentris, namli, de konsistent and filsofikal representajon ov spoken laggewj.

3. In regírd tja de pronunsijon indikated, we hav endávord tu konfórm tu Amerikan yusej as defind bj Webster and Wuster in dar pronunsiq dikjonaris. At de tju ov asteriskijng des pajes, dar is no fonetík dikjonari in print, tu hwij tu refér as a gid so dat de Testament ma agré wid uder wurks in fonetík speliq; but befór da se de publik [suq] a fonetík standard wil be komést, and rapídlí hurid tru de pres. Zhad dar be diskrepansis betwén dis and uder publikajons ílyqd from tr ofis, on de njeer pensis ov ortospi, dis statement wil eks- plán de kas.

De anjent stjil ov pronunsiq a serjen klas ov wurds, hwij is still praktisk bj meni reders from de pulpit, namli, *lwood, greeed, praed, luked, bleesed*, has so jénérali bin diskontinjyrd in de órdinari redij ov de skriptjurs, dat we felt full woranted in printij *lwood, greeed, praed, luket, bleest*. But we hav not gon so fqr as tu modernis de laggewj in de kas ov verbs téjminatij in (th) - des wa

BE GOSPEL AKORDIÄ TU SÄNT MARU.

CHAPTER I.

1. De buk ov de jenerafon ov Jezus Krjst, de sun ov David, de sun ov Abraham.
2. Abraham begát Ezak; and Ezak begát Jakob; and Jakob begát Jüdas and hiz bredren;
3. And Jüdas begát Farez and Zara ov Hamar; and Farez begát Ezrom; and Ezrom begát Elram;
4. And Elram begát Aminadab; and Aminadab begát Naáson; and Naáson begát Salmon;
5. And Salmon begát Booz ov Rakab; and Booz begát Obed ov Rab; and Obed begát Jese;
6. And Jese begát David de kíp; and David de kíp begát Sólomon ov hér [dat had bin de wijf ov Yurjas];
7. And Sólomon begát Roboam; and Roboam begát Abja; and Abja begát Eisa;
8. And Eisa begát Josafat; and Josafat begát Joram; and Joram begát Ozjas;
9. And Ozjas begát Joatham; and Joatham begát Elkaz; and Elkaz begát Ezekjas;
10. And Ezekjas begát Manáez; and Manáez begát Umón; and Umón begát Josjas;
11. And Josjas begát Jekonjas and hiz bredren, abót de tju da wér karid awá tu Babilon;
12. And after da wér brot tu Babilon, Jekonjas begát Salatiel; and Salatiel begát Zerobabel;
13. And Zerobabel begát Abjüd; and Abjüd begát Eljakim; and Eljakim begát Elzer;
14. And Elzer begát Sadok; and Sadok begát Elkim; and Elkim begát Eljüd;
15. And Eljüd begát Eleazar; and Eleazar begát Mañan; and Mañan begát Jakob;
16. And Jakob begát Jozef de huzband ov Mari, ov hom woz born Jezus, ho iz keld Krjst.
17. So ol de jenerafon from Zara ov Hamar; and Farez begát Ezrom; and Ezrom begát Elram; and Aminadab begát Naáson; and Naáson begát Salmon; and Booz ov Rakab; and Booz begát Obed ov Rab; and Obed begát Jese; and David de kíp begát Sólomon ov hér [dat had bin de wijf ov Yurjas]; and Sólomon begát Roboam; and Roboam begát Abja; and Abja begát Eisa; and Josafat begát Joram; and Joram begát Ozjas; and Joatham begát Elkaz; and Elkaz begát Ezekjas; and Manáez begát Umón; and Umón begát Josjas; and Jekonjas and hiz bredren, abót de tju da wér karid awá tu Babilon;
18. ¶ Ns de hért ov Jezus Krjst woz on dis wij: Hwen az hiz muđer Mari woz eapzéd tu Jozef, befór da kam tuzéde, se woz frnd wid qld ov de Holi Gost.
19. Ien Jozef hér huzband, bep ip a just [man,] and not wiliq tu mak her a publik egzämpl, woz mjnded tu put her awá privili.
20. But hwil he bet on dez tipz, behóld, de anjel ov de Lord apérd untu him in a drem, saiq, Jozef, ds sun ov David, fer not tu tak untu de Mari dj wijf: fer dát hwij iz konsévd in hér iz ov de Holi Gost.
21. And se jal brig forb a sun, and ds jalt kel hiz nam JEZUS: fer he jal sav hiz pepl from dar sinz.
22. Ns ol dis woz dun, dat it me be fullíld hwij woz spoken ov de Lord bj de profet, saiq,
23. Behóld, a wéjij jal be wid qld, and jal brig forb a sun, and ds jal kel hiz nam Emanyqal, hwij beip ínterpretd iz, God wid us. [Ez. 7: 14.]

**Fig. 1868a:** The Trial of William Rodger (Isaac Pitman; London 1868); p. vi and p.3. Showing the EPA 1868, which reintroduces single letters for some diphthongs and consonant clusters.

The encircled letter introduced here (U+A7CA LATIN CAPITAL LETTER U WITH INSIDE BAR) is in fact a TURNED ROUNDTOP A (see the proposed U+A7B0 LATIN CAPITAL LETTER ROUNDTOP A).

Therefore, a unification with U+0244 LATIN CAPITAL LETTER U BAR is inappropriate, as this letter has a protruding bar. The difference is comparable to:

U+019F LATIN CAPITAL LETTER O WITH MIDDLE TILDE (which, as the reference glyph in the Standard shows, is in fact an O with non-protruding bar; this letter is common in EPA), vs. U+A74A LATIN CAPITAL LETTER O WITH LONG STROKE OVERLAY, showing a protruding bar.

### THE PHONETIC ALPHABET.

The phonetic letters in the first column are pronounced like the italic letters in the words that follow. The last column contains the names of the letters.

CONSONANTS.		
<i>Mutes.</i>		<i>Liquids.</i>
P p...rope, post.....pi	B b...robe, boast.....bi	L l...fall, light.....el
T t...fate, tip.....ti	D d...fade, dip.....di	R r...more, right...ar
Ç ç...cheap, fetch.....çe	J j...jump, bridge.....je	<i>Coalescents.</i>
K k...leek, cane.....ke	G g...league, gain.....ge	W w...wet, quit.....we
<i>Continuants.</i>		Y y...yet, young.....ye
F f...safe, fat.....ef	V v...save, vat.....vi	<i>Aspirate.</i>
H h...wreath, thigh....it	Æ æ...wreathe, thy.....æi	H h...hay, house.....eg
S s...hiss, seal.....es	Z z...his, zeal.....zi	<i>VOWELS.</i>
Σ f...vicious, she .....if	Ξ z...vision, pleasure...zi	<i>Guttural.</i>
<i>Nasals.</i>		A a...am, fast, far...at
M m...seem, met.....em	N n...seen, net.....en	Æ æ...alms, father...s
Ū ū...sing, long.....ij		E e...ell, any, her...et
		Ë ë...ale, fair, bear...e
		I i...ill, pity, filial...it
		Ï ï...eel, eat, mere...i
		<i>Labial.</i>
		O o...on, not, nor...ot
		Ō ō...all, law, ought...o
		⓪ ⓪...up, son, cur...vt
		Ⓢ Ⓢ...ope, coat, pour...o
		U u...full, foot.....ut
		U u...do, food, tour...u
DIPHTHONGS: Ɔ ɔ, Ɔ ɔ, Ɔ ɔ.		
as heard in by, now, new.		

“William Rojer (Rodger); ker ov Mesierz Tinli (Tinley) and Spnz, 7 Water strit, Liverpool,” woz dupli enterd in de *Fonotipik Journal* for Februari, 1848, pej 72. Hi enterd de servis ov dis ferm in 1844, at de ej ov fiftin.

Wi hav no rekord ov him durig 1849, hwen hi woz droig nir de ekspirejon ov hiz fiv yirz' aprentisip; bot durig dis yir it apirz dat hi formd de dezjn ov bikomig a travelij profefonol fonografik lekturor and tigor. Hi komenst in de tsnz ov Edinbore and Dalkit (Dalkeith). Or ferst konsjament ov fonografik instrokjon buks for hiz pupilz, woz med tu him in Februari, 1850, and forwarded in Edinbore. Hi woz snplid wid instrokjon buks for tuf yirz and a hsf: de aksnt had den inkrist tu P 67. Az wi kud get ne remitansez, bot onli promisez tu pe, de aksnt woz klezd in Julij, 1852. Bot biadz promisez, hi sent kopiz ov som titel didz ov properti hwiç wud sun fol intu hiz pozesjon, in order tu ale sr firz dat wi wer inkorij a bad det. Diz peperz wer mir fabrikejonz, az wi afterwardz lernd, on bikomig akwented wid hiz famili, hu ar ol respektabel and wordi pipel.

Hi kontinud tu lektur and tigor Fonografi in Edinbore and Dalkit for mer dan a yir. An entri in hiz aksnt respektig a parsel ov instrokjon buks sent 26 Julij, 1851, “tu remen at de stefon (Edinbore) til kold for,” natyrali eksjted ne spapifon, it biig a kompon okprens. Wi hav in dis prezent yir lernd de rizon for dis prekojon tu prevent hiz adres from biig non.

Sodenli sr talented and suksesful lekturor adrest us from Berik-on-Twid (Berwick-on-Tweed), and eksplend de koz ov hiz krosij de border—ov kors hi did not intimet dat der woz enidig ov de karakter ov a “sijt” in it—hij seig dat hi kud perfekt hiz Edinbore and Dalkit pupilz tru de post, hwil hi rezd and tot fref klasez in Berik;—a veri ekselent arenjment wi tot.

Durig de foleig tri yirz hi wrkt hiz we sst tru de tsnz ov Nordumberland and Dyrham, lekturij on Fonografi, and tigiç de art in Anik (Alnwick), Morpet, Nord

Fig. 1871a: The Other Life (William Holcombe); London 1871; p.2 and p.8.

Showing the 1871 form of EPA 1868.

Compared with the original EPA 1868, one character is dropped, and for one character another meaning is assigned. From an encoding point of view, this version has no features (esp. case mapping) which must be handled differently from EPA 1868; therefore it is subsumed under EPA 1868.

## THE PHONETIC ALPHABET.

The phonetic letters in the first column are pronounced like the italic letters in the words that follow. The last column contains the names of the letters.

CONSONANTS.	
<i>Mutes.</i>	
P p... <i>rope, post</i> .....pi	B b... <i>robe, boast</i> .....bi
T t... <i>fate, tip</i> .....ti	D d... <i>fade, dip</i> .....di
Q q... <i>cheap, fetch</i> .....qs	J j... <i>jump, bridge</i> .....js
K k... <i>leek, cane</i> .....ke	G g... <i>league, gain</i> .....gs
<i>Continuants.</i>	
F f... <i>safe, fat</i> .....ef	V v... <i>save, vat</i> .....vi
H h... <i>wreath, thigh</i> .....hf	th... <i>wreath, thy</i> .....thi
S s... <i>hiss, seal</i> .....es	Z z... <i>his, zeal</i> .....zi
sh... <i>vicious, she</i> .....shif	zh... <i>vision, pleasure</i> .....zhi
<i>Nasals.</i>	
M m... <i>seem, met</i> .....em	N n... <i>seen, net</i> .....en
W w... <i>sing, long</i> .....iw	
DIPHTHONGS: <i>ƒ</i> j, <i>u</i> u, OU ou, OI oi.	
<i>as heard in by, now, now, boy.</i>	

Liquids.	
L l... <i>fall, light</i> .....el	R r... <i>more, right</i> .....ar
<i>Coalescents.</i>	
W w... <i>wet, quit</i> .....ws	Y y... <i>yet, young</i> .....ys
<i>Aspirate.</i>	
H h... <i>hay, house</i> .....eq	
VOWELS.	
<i>Guttural.</i>	
A a... <i>am, fast, far</i> .....at	ʌ s... <i>alms, father</i> .....s
E e... <i>ell, head, any</i> .....et	ɛ s... <i>ale, air, bear</i> .....s
I i... <i>ill, pity, filial</i> .....it	ɪ i... <i>eel, eat, mere</i> .....i
<i>Labial.</i>	
O o... <i>on, not, nor</i> .....ot	o... <i>all, law, ought</i> .....o
ʊ s... <i>up, son, cur</i> .....st	σ... <i>ope, coat, pour</i> .....σ
U u... <i>full, foot</i> .....ut	U u... <i>do, food, tour</i> .....u

nomena ekzist in ƒe Ɔder wƆrld, j du not nƆ, nor iz it esenjal ƒat j sud inkwƳr.”

. And sƆ men pas from a temporal tu an eternal stet ov biig in a strenj apafi respekƒij sƆbjekts ov suprim valq, az ignorant ov ƒe futƳr ƒat awets ƒem az ƒe Ɔnborn beb iz ov ƒe wƆrld intu whiq hi wil bi Ɔferd.

Iz ƒis rij? Iz it nesesai? Iz it inevitabel?

ƒe skeptikal filsofer afermz ƒat ƒer ar pozitiv limitefonz tu human ƒot; ƒat nƆ posibel sjentifik development or reserq kan ever lid Ɔs tu a nolej ov ƒe sƆl and its destiniz; ƒat ƒe ekzistens ov a spirital wƆrld iz a mir hipotesis, and ol ƒioloji ƒe ofsprig ov drimi abstrakƒon and jdel spekulƒon.

ƒe Kristian konsidz ƒe sƒijtnes and fibelnes ov ƒe human Ɔnderstandij, and korekƒli inferz from it ƒe nesesity ov reveleƒon. Hi aksepts ƒe WƆrd ov God az ƒe reveleƒon ov a moral lƆ. Afurd ov a blesed immortaliti, hi asks for nƆ spejal Ɔnfƒelij ov ƒe lif tu kƆm. Indid hi perswedz himself ƒat God haz intenƒionali and wizli kept Ɔs in ignorans ov ƒe lƆz and fenomena ov ƒe spirital wƆrld: and ƒat it iz best for Ɔs tu nƆ litel and ƒiqk litel ov whot simz tu bi konsild and forbiden ground.

Iz not ƒis a hesti konkluzon, an Ɔnfounded asƆm-

**Fig. 1873a:** The Future of the English Language: An Argument for a Spelling Reform; William E. A. Axon, London 1874 (reprinted from the "Quarterly Journal of Science" for July 1873); p.12/13.  
 Showing the 1871 subset of EPA 1868 in different fonts and styles. Apparently, two lines are lost in the scanning process where the image shows a white gap in the middle.

**A VIEW OF THE PHONETIC ALPHABET,  
 IN VARIOUS STYLES OF WRITING AND PRINTING.**

CONSONANTS.							VOWELS.						
Examples	Roman.	Old English.	Italic.	Script	Short-hand.	Name.	Examples	Roman.	Old English.	Italic.	Script.	Short-hand.	Name.
peep	P p	Þ þ	P p	P p	∩	pe	pat	Λ a	Α a	A a	Α a		at
bib	B b	B b	B b	B b	∩	bee	alms	Α a	Α a	Α a	Α a		ab
right	T t	T t	T t	T t		tee	pet	E e	E e	E e	E e		et
doed	D d	D d	D d	D d		dee	age	E e	E e	E e	E e		eh
church	C c	C c	C c	C c	/	chay	pit	I i	I i	I i	I i		it
judge	J j	J j	J j	J j	/	jay	eat	I i	I i	I i	I i		eo
cake	K k	K k	K k	K k	—	kay	pot	O o	O o	O o	O a		ot
gig	G g	G g	G g	G g	—	gay	all	O o	O o	O o	O a		aw
faith	F f	F f	F f	F f	∩	ef	but	U u	U u	U u	U u		ut
bathe	Æ æ	Æ æ	Æ æ	Æ æ	(	thee	ooze	U u	U u	U u	U u		oo
sauce	S s	S s	S s	S s	o	ess	<i>DIPHTHONGS.</i>						
size	Z z	Z z	Z z	Z z	o	zee	my	E i	E i	E i	E i	v	eye
ship	Σ s	Σ s	Σ s	Σ s	∩	ish	new	U u	U u	U u	U u	∩	you
azure	Z z	Z z	Z z	Z z	∩	zhee	The diphthongs in "ay (yes), boy, boil, now, noun," are written by the single letters that represent their elements, thus: ai   oi   ou						
main	M m	M m	M m	M m	(	em							
noon	N n	N n	N n	N n	∩	en							
sing	U u	U u	U u	U u	∩	ing	The Phonetic Alphabet consists of 38 letters, namely, the 23 useful letters of the common alphabet (c, g, and x being rejected,) and 15 new ones. The vowels a, e, i, o, u have invariably their short sounds, as in pat, pet, pit, pot, put. All the other old letters have their usual signification.  SPECIMEN OF PHONETIC PRINTING.  Bj de Fonetik Alfabet eni person, old or ysjj, me bi tot tu rid, bof in fonetik and in ordinari buks, in dri menss,—ai, ofen in twenti ourz' instrskjon,—a task whiq iz rerli akomplijst in dri yirz ov toil bj de old alfabet. What fader or tiger wil not hel dis gret bum tu edukejon?—dis pouerful masin for de difuzjon ov nolej!						
lull	L l	L l	L l	L l	(	el							
roar	R r	R r	R r	R r	∩	ar							
way	W w	W w	W w	W w	∩	way							
yea	Y y	Y y	Y y	Y y	∩	yea							
hay	H h	H h	H h	H h	∩	aitch							

**Fig. 1880a:** Das Buch der Schrift, enthaltend die Schriftzeichen und Alphabete aller Zeiten und aller Völker des Erdkreises (Carl Faulmann, Wien 1880; reprint Nördlingen 1985; ISBN 392156851X); p.240. Showing the 1871 subset of EPA 1868.

I. PITMAN'S ENGLISCHE PHONOGRAPHIE.

Vokale.

Antiqua	Cursiv	Schreib-schrift	Steno-graphie	Antiqua	Cursiv	Schreib-schrift	Steno-graphie	Antiqua	Steno-graphie	Antiqua	Steno-graphie
Ä ä	<i>H a</i>	<i>A a</i>	·	A a	<i>A a</i>	<i>A a</i>	·	i, ay	·	woh	·
É é	<i>E e</i>	<i>E e</i>	·	E e	<i>E e</i>	<i>E e</i>	·	oi, oy	·	woo	·
Ĭ ĭ	<i>I i</i>	<i>I i</i>	·	I i	<i>I i</i>	<i>I i</i>	·	ow	·	yah	·
Ō ō	<i>O o</i>	<i>O o</i>	·	O o	<i>O o</i>	<i>O o</i>	·	wah	·	yeh	·
Ū ū	<i>U u</i>	<i>U u</i>	·	U u	<i>U u</i>	<i>U u</i>	·	weh	·	yee	·
Ŵ ŵ	<i>W w</i>	<i>W w</i>	·	U u	<i>U u</i>	<i>U u</i>	·	wee	·	yaw	·
Ƴ Ƴ	<i>F i</i>	<i>F i</i>	·	U u	<i>U u</i>	<i>U u</i>	·	waw	·	yoo	·

Konsonanten.

Antiqua	Cursiv	Schreib-schrift	Steno-graphie	Antiqua	Cursiv	Schreib-schrift	Steno-graphie	Antiqua	Cursiv	Schreib-schrift	Steno-graphie
P p	<i>P p</i>	<i>P p</i>	∖	F f	<i>F f</i>	<i>F f</i>	∖	M m	<i>M m</i>	<i>M m</i>	∖
B b	<i>B b</i>	<i>B b</i>	∖	V v	<i>V v</i>	<i>V v</i>	∖	N n	<i>N n</i>	<i>N n</i>	∖
T t	<i>T t</i>	<i>T t</i>		H h	<i>H h</i>	<i>H h</i>	(	W w	<i>W w</i>	<i>W w</i>	∖
D d	<i>D d</i>	<i>D d</i>		Æ æ	<i>Æ æ</i>	<i>Æ æ</i>	(	L l	<i>L l</i>	<i>L l</i>	∖
G g	<i>G g</i>	<i>G g</i>	/	S s	<i>S s</i>	<i>S s</i>	)o	R r	<i>R r</i>	<i>R r</i>	∖
J j	<i>J j</i>	<i>J j</i>	/	Z z	<i>Z z</i>	<i>Z z</i>	)o	W w	<i>W w</i>	<i>W w</i>	∖
K k	<i>K k</i>	<i>K k</i>	—	Σ s	<i>Σ s</i>	<i>Σ s</i>	)	Y y	<i>Y y</i>	<i>Y y</i>	∖
G g	<i>G g</i>	<i>G g</i>	—	Ƴ Ƴ	<i>Ƴ Ƴ</i>	<i>Ƴ Ƴ</i>	)	H h	<i>H h</i>	<i>H h</i>	∖

Nach dem Standard-Alphabet bedeuten obige Zeichen: *ā, ē, ī, ō, ū, ei, ū, ē, ĭ, ō, ū, yu, p, b, t, d, tš, dž, k, g, f, v, h, ō, s, z, š, ž, m, n, ŋ, l, r, w, y, h.*

**Fig. 1880b:** On Spelling (M. Müller, London 1880); p.46: Showing an example using the 1871 subset of EPA 1868. The text claims that Isaac Pitman's "Phonetic Journal" is distributed by 12,400 copies in 1880.

If ei hav spoken stroglī in sɔpɔrt ov Mr Pitman'z sistem, it iz not bekɔz on ol points ei konsider it siu-pjior tu de sistemz prepɛrd bei vder reformɛrz, hu ar deli inkɛrsij in nɛmber; bst gifi bekɔz it haz bjn tested sɔ larjli, and haz stud de test vel. Mr Pitman'z *Fonetik Jsɛnɔl* haz nou [1880] bjn psblist terti-et yjrz, and if it iz nou dat it iz psblist wjkli in 12,400 kopiz, jg kopi reprezentij at ljt for or feiv rjderz, it mɛ not sijn sɔ veri fulif, after ol, if wj imajin dat đer iz sɛm veital pouer in đat insignifikant jerm.

**Fig. 1888a:** The Phonetic Journal, vol. 47 (London 1888); excerpt from p.1.  
 Showing an again reduced version of EPA 1868 (however with no new case pairings; thus this stage can still be subsumed under EPA 1868).

### THE PHONETIC ALPHABET.

The Phonetic Alphabet consists of 36 letters, namely, the 23 useful letters of the common alphabet (*c, q, and x* being rejected,) and the 13 new ones below. The vowels *a, e, i, o, u* have invariably their short sounds, as in *pat, pet, pit, pot, put*. All the other old letters have their usual signification. The italic letters in the words in the fourth line denote the sounds of the letters.

VOWELS.							CONSONANTS.						
A a,	E e,	(E e)	Ɔ ɔ,	Ɔ σ,	Ɔ u:	Ɔ x.	Ɔ ç,	Ɔ ʃ,	Ɔ ʄ,	Ɔ ʒ,	Ɔ ʒ,	Ɔ ʒ.	
A a,	E e,	(E e)	Ɔ ɔ,	Ɔ σ,	Ɔ u:	Ɔ x.	Ɔ ç,	Ɔ ʃ,	Ɔ ʄ,	Ɔ ʒ,	Ɔ ʒ,	Ɔ ʒ.	
<i>A a,</i>	<i>E e,</i>	<i>(E e)</i>	<i>Ɔ ɔ,</i>	<i>Ɔ σ,</i>	<i>Ɔ u:</i>	<i>Ɔ x.</i>	<i>Ɔ ç,</i>	<i>Ɔ ʃ,</i>	<i>Ɔ ʄ,</i>	<i>Ɔ ʒ,</i>	<i>Ɔ ʒ,</i>	<i>Ɔ ʒ.</i>	
alms,	age, air,	pet,	eat:	all,	ope,	food:	son, but.	chair,	thin,	then,	shoe,	vision, sing.	
smz,	ej, er,	pet,	jt:	ol,	op,	fud:	sxn, bst.	çer,	ʃin,	ʄen,	ʒu,	vigon, .sing.	

The order of the Phonetic Alphabet, and the names of the letters are,

CONSONANTS:—p, b; t, d; ç, j; k, g: f, v; ʃ, ʄ; s, z; ʒ, ʒ: m, n, ʒ: l, r: w, y: h.  
*pee, bee; tee, dee; chay, jay; kay, gay: ef, vee; ith, thee; es, zee; ish, zhee: em, en, ing: el, ar: way, yay: aitch.*

VOWELS:—a, a; e, e; i, i; o, o; x, σ; u, u.      DIPHTHONGS:—ei, iu, ou, ai, oi.  
*at, ah; et, eh; it, ee: ot, awe; ut, oh; üt, oo.*      as in by, new, now, ay, boy.

**Fig. 1888b/c:** *ibid.*, enlarged parts from the same excerpt (to show the exact letterforms).

A a,	E e,	(E e)	Ɔ ɔ:	Ɔ σ,	Ɔ u	
A a,	E e,	(E e)	Ɔ ɔ:	Ɔ σ,	Ɔ u	
<i>A a,</i>	<i>E e,</i>	<i>(E e)</i>	<i>Ɔ ɔ:</i>	<i>Ɔ σ,</i>	<i>Ɔ u</i>	
alms,	age, air,	pet,	eat:	all,	ope,	food:
smz,	ej, er,	pet,	jt:	ol,	op,	fud:

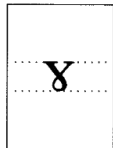
### CONSONANTS.

Ɔ x.	Ɔ ç,	Ɔ ʃ,	Ɔ ʄ,	Ɔ ʒ,	Ɔ ʒ,	Ɔ ʒ.
Ɔ x.	Ɔ ç,	Ɔ ʃ,	Ɔ ʄ,	Ɔ ʒ,	Ɔ ʒ,	Ɔ ʒ.
Ɔ x.	Ɔ ç,	Ɔ ʃ,	Ɔ ʄ,	Ɔ ʒ,	Ɔ ʒ,	Ɔ ʒ.
son, but.	chair,	thin,	then,	shoe,	vision,	sing.
sxn, bst.	çer,	ʃin,	ʄen,	ʒu,	vigon,	sin.

**Fig. 1996a:** Pullum, Geoffrey K., and Ladusaw, William A.: *Phonetic Symbol Guide* (second edition). Chicago and London 1996, ISBN 0-226-68536-5, p. 69 and 71.

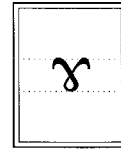
The left picture shows the “Baby gamma” as a phonetic symbol (p. 69), while the right one shows the “ram’s horns” (U+0264), which is the preferred character to be used in phonetics.

However, by proposing U+A7CF LATIN SMALL LETTER BABY GAMMA here as a letter for EPA, it is not intended to recommend its use for modern phonetics where the use of the “ram’s horns” is established. This done by an annotation in the list of proposed letters.



Baby Gamma

RAM’S HORNS



*IPA Usage:* Not currently used (superseded by Ram’s Horns), but encountered in pre-1989 IPA transcriptions for Cardinal 15, a close mid back unrounded vowel. *American Usage:* When used, denotes an upper mid back rounded vowel. *Comments:* This character was well established in earlier IPA usage (see *Principles* (p. 6)), but it has often

IPA USAGE

Cardinal Vowel No. 15: close mid back unrounded. The secondary cardinal vowel corresponding to Cardinal 7, [o].

AMERICAN USAGE

When used, same as IPA.

**Fig. 2008a:** George, Dieter: *Historisches Ortsnamenbuch von Bayern, Oberfranken Band 6: Lichtenfels*. München 2008, p.96.

While this work is completely unrelated to EPA, it shows U+A7BF LATIN SMALL LETTER I WITH LONG STROKE OVERLAY as the canonical lower case form for U+A7BE LATIN CAPITAL LETTER I WITH LONG STROKE OVERLAY. This work uses the long stroke overlays to indicate centralized articulation of a vowel. (More details will be given in a future proposal about characters used in German dialectology.)

113. Modschiedel [j/10], Gde. Modschiedel, Pfd., 188 Einw., 40 Wgb., kath. Pf. (Dek. Weismain), ev.l. Pf. Azendorf (Lkr. Kulmbach); Stand 1987: Stadt Weismain, Pfd., 172 Einw., 41 Wgb.; ma. mōdšīl.  
1293 Rinold Ritter v. *Mudschitl*<sup>1</sup>. – 1300-1321 Gebr. Hermann, Otto, Eberhard und

**ISO/IEC JTC 1/SC 2/WG 2  
PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS  
FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646<sup>1</sup>**

**Please fill all the sections A, B and C below.**

Please read Principles and Procedures Document (P & P) from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html> for guidelines and details before filling this form.

Please ensure you are using the latest Form from <http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html>.

See also <http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html> for latest Roadmaps.

**A. Administrative**

1. Title:	<i>Proposal to encode characters for the English Phonotypic Alphabet (EPA) in the UCS</i>
2. Requester's name:	<i>Karl Pentzlin</i>
3. Requester type (Member body/Liaison/Individual contribution):	<i>Expert contribution</i>
4. Submission date:	<i>2010-07-12, revised 2010-10-20</i>
5. Requester's reference (if applicable):	
6. Choose one of the following:	
This is a complete proposal:	<i>Yes</i>
(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):	<i>No</i>				
Proposed name of script:					
b. The proposal is for addition of character(s) to an existing block:	<i>Yes</i>				
Name of the existing block:	<i>Latin Extended-D; Supplemental Punctuation; Number Forms; etc.</i>				
2. Number of characters in proposal:	<i>50</i>				
3. Proposed category (select one from below - see section 2.2 of P&P document):					
A-Contemporary	<input type="checkbox"/>	B.1-Specialized (small collection)	<input checked="" type="checkbox"/>	B.2-Specialized (large collection)	<input type="checkbox"/>
C-Major extinct	<input type="checkbox"/>	D-Attested extinct	<input type="checkbox"/>	E-Minor extinct	<input type="checkbox"/>
F-Archaic Hieroglyphic or Ideographic	<input type="checkbox"/>	G-Obscure or questionable usage symbols	<input type="checkbox"/>		
4. Is a repertoire including character names provided?	<i>Yes</i>				
a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?	<i>Yes</i>				
b. Are the character shapes attached in a legible form suitable for review?	<i>Yes</i>				
5. Fonts related:					
a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?	<i>TBD</i>				
b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.):	<i>TBD</i>				
6. References:					
a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?	<i>Yes</i>				
b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?	<i>Yes</i>				
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)?	<i>Yes</i>				
	<i>Special casing of Latin letters (see text)</i>				

**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 <http://www.unicode.org/Public/UNIDATA/UCD.html> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

<sup>1</sup> Form number: N3702-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11)



**C. Technical - Justification**

1. Has this proposal for addition of character(s) been submitted before? If YES explain	<i>No</i>
<i>(one character proposed simultaneously in another document is referred)</i>	
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.)? If YES, with whom? If YES, available relevant documents:	<i>No</i>
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included? Reference:	<i>Yes</i>
<i>see text</i>	
4. The context of use for the proposed characters (type of use; common or rare) Reference:	<i>Rare</i>
<i>see text</i>	
5. Are the proposed characters in current use by the user community? If YES, where? Reference:	
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? If YES, reference:	<i>Yes</i>
<i>To keep them in line with similar characters</i>	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?	<i>Yes</i>
8. Can any of the proposed characters be considered a presentation form of an existing character or character sequence? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>No</i>
9. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>No</i>
10. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character? If YES, is a rationale for its inclusion provided? If YES, reference:	<i>No</i>
11. Does the proposal include use of combining characters and/or use of composite sequences? If YES, is a rationale for such use provided? If YES, reference: Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided? If YES, reference:	<i>No</i>
12. Does the proposal contain characters with any special properties such as control function or similar semantics? If YES, describe in detail (include attachment if necessary)	<i>No</i>
13. Does the proposal contain any Ideographic compatibility character(s)? If YES, is the equivalent corresponding unified ideographic character(s) identified? If YES, reference:	<i>No</i>