Universal Multiple-Octet Coded Character Set
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Document L2/22-097 (2022-03-10) by Denis Moyogo Jacquerye requested a change to the glyphs used for U+AB43 ʟᴀᴛɪɴ ꜱᴍᴀʟʟ ʟᴇᴛᴛᴇʀ ᴛᴜʀɴᴇᴅ ᴏ ᴏᴘᴇɴ-ᴏ and for U+AB44 ʟᴀᴛɪɴ ꜱᴍᴀʟʟ ʟᴇᴛᴛᴇʀ ᴛᴜʀɴᴇᴅ ᴏ ᴏᴘᴇɴ-ᴏ ᴡɪᴛʜ ꜱᴛʀᴏᴋᴇ. The suggestion should *not* be accepted.

The characters were originally proposed in *Revised proposal to encode "Teuthonista" phonetic characters in the UCS* (N4081, L2/11-202) for the use of Germanic dialectologists and was approved by a large group of them.

It absolutely does not matter what Bremer had in his mind in 1893 when he described "Ligaturen von *a* und *e*, *o*, *ö*". He may have imagined ligatures of a+e (æ, *æ*), a+o (ꜳ, *ꜳ*), and a+ö/ø (ꜳ̈/ꜵ, *ꜳ̈/ꜵ*). That is not, however, what was set in type and published later. And whatever Bremer may have said, the actual letters used are the facts, and Bremer's letters have to co-exist with the standard in general.

With regard to the UCS, the letters "a" and "script ɑ" have been encoded for a long time. The Uralic Phonetic Alphabet (UPA) uses both letters, and like Bremer, sets transcriptions in italic. It has long been pointed out that the practice of the Uralicists is to distinguish a and ɑ in italics with the conventional round a and with an italic glyph taken from Greek alpha.

$$A\ a\ ɑ\ ɑ\ \mathit{A}\ \mathit{a}\ \mathit{ɑ}\ \mathit{ɑ}$$

Jacquerye suggests that "it is not clear if a is strictly a cursive a or not, especially since Bremer distinguishes cursive a from slanted a in Bremer 1898". Well, in the context of the UCS we have "a" and "script a" and we have no mechanism to distinguish "slanted a" (*a*) from "italic a" (*a*) in plain text. So one may take Bremer's "slanted a" to be an italic "a" and that where he distinguishes the two the second is "script a". Thus Bremer has *a* and *a* for the more typical shapes *a* and *ɑ*.

Medieval ligatures of a+o and o+o exist in the standard (U+A734..A735, U+A74E..A74F). These are italicized in the usual way. The lower-case italics are quite similar, but are distinguishable.

$$Ꜵ\ ꜳ\ Ꝋ\ ꝏ\ \mathit{Ꜵ}\ \mathit{ꜳ}\ \mathit{Ꝋ}\ \mathit{ꝏ}$$

In Jacquerye's figure showing characters from Bremer 1898:6, the glyphs for U+AB43 and U+AB44 are clearly not made out of either *a* or *α* + *o* or *ø*. The glyphs are open at the top, and I stand by the 2011 analysis of these glyphs. Note, for instance that the name of the character "turned o open-o" means that the unturned version (not encoded) is "o open-o". Shown below is that basic ligature without modification for legibility, then with the tail of the open o shaved (as the 19th-century typesetters did it), and then the two shown "turned".

$$\text{ꝏ ꝏ} \rightarrow \text{ꝏ ꝏ}; \text{ꝏ ꝏ} \rightarrow \text{ꝏ ꝏ}$$

And that last one is essentially what we see in Bremer.

Jacquerye then asks whether the three ligatures are made out of "a" or of "latin alpha" and discusses the merits of both. He suggests an annotation "*This is based on a ligature of a and o*" or "*This is based on a ligature of latin alpha and o*" but I think this is quite misleading, and indeed damaging to the standard. The *sounds* represented by the letters may be the same (beginning either with *a* or with *α* (or with the corresponding *a* and *a*) but the glyphs used in the characters are absolutely not.

Moreover, an attempt to try to shoehorn these two characters into "script a" is doomed to failure. Even if in Roman type a *script-a + o* were to be considered legible and distinctive, it's just impossible to do this in italic. It is hard enough to distinguish *a + o* and *o + o* in italic, never mind adding *α + o* into the mix. Here are the overlapped base glyphs, showing the letters without erasing the lower tail of either the a or the alpha. There is really no way to keep *a* and *α* distinctive.

$$\text{a+o ꜳ o+o ꝏ ɑ+o ꝏ o+ɔ ꝏ}$$

$$\text{a+o ꜳ o+o ꝏ α+o ꝏ o+ɔ ꝏ}$$
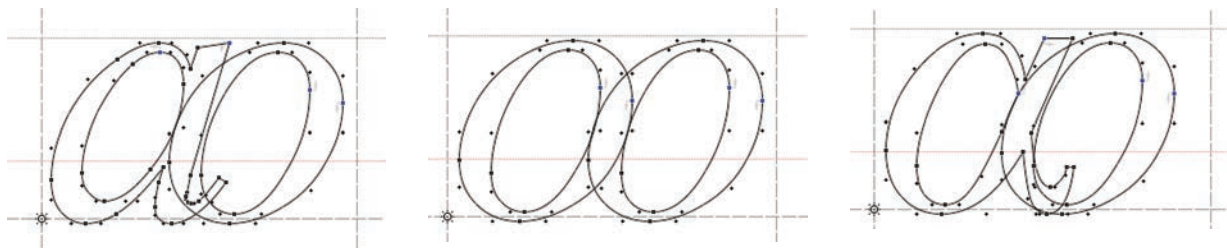
It would not benefit the standard to have the descriptive name TURNED O OPEN-O described as an error, and the evidence in Bremer 1893 and 1898 does not lead to the conclusive determination that it is one. Since an *ordinary* a+o ligature and an *ordinary* ɑ+o ligature look practically identical, it is no surprise that Bremer or his typesetters opted for the more distinctive o+ɔ ligature (subsequently turned).

I give here the chart from Bremer 1898:6. The fact that Bremer 1898 draws the glyphs for *a/α* as *a/a* suggests simply that people who want the latter glyphs make sure their font has them, whether on

their own or in ligature with a second letter. In my view, the normal modern pair a/ɑ (italic *a/α*) is the most sensible modernization.

ĕ e ϵ æ,   ŏ o ɔ ɷ,   ŏ ø ʒ ⱺ
e ϵ æ ɐ,   o ɔ ɷ a,   ø ʒ ⱺ ⱥ
ê ē ϵ̄ ǣ,   ô ō ɔ̄ ɷ̄,   ø̂ ø̄ ʒ̄ ⱺ̄
ē ϵ̄ ǣ ā,   ō ɔ̄ ⱺ̄ ā,   ø̄ ʒ̄ ⱺ̄ ā.

ĕ e ϵ æ,   ŏ o ɔ ɷ,   ŏ ø ʒ ⱺ
e ϵ æ ɐ,   o ɔ ⱺ a,   ø ʒ ⱺ ⱥ
ê ē ϵ̄ ǣ,   ô ō ɔ̄ ɷ̄,   ø̂ ø̄ ʒ̄ ⱺ̄
ē ϵ̄ æ ɐ̄,   ō ɔ̄ ⱺ̄ ā,   ø̄ ʒ̄ ⱺ̄ ā.

It is not unusual either to find older lead-type glyphs modernized. The modern eng for instance has a variety of older or variant forms.

ŋ ᵹ ꬶ ŋ̊

In any case I'm afraid I disagree profoundly with Jacquerye's analysis, and advise against glyph changes or the annotations he proposes, apart from cross-references which can be useful. The characters were correctly identified and named by myself together with the Teuthonista team.