



Junicode

the font for medievalists

by Peter S. Baker

specimens and user's guide



The design of Junicode is based on scans of George Hickes, *Linguarum vett. septentrionalium thesaurus grammatico-criticus et archaeologicus* (Oxford: Sheldonian Theatre, 1703–5). This massive two-volume folio is a fine example of the work of the Oxford University Press at this period: printed in multiple types (for every language had to have the type that was proper to it) and lavishly illustrated with engravings of manuscript pages, coins and artifacts. An excellent facsimile of volume two of this work, the famous (to medievalists) catalogue of manuscripts containing Anglo-Saxon by Humfrey Wanley, can be seen at the Hathi Trust.

The type used for Hickes's Thesaurus may be one of those assembled by John Fell (1625–86) and bequeathed by him to the University of Oxford. To my eye, however, this type looks more like the “Pica Roman” purchased by the University in 1692 than like any of those bequeathed by John Fell. For printing in Old English, this type was supplemented by

ἵπε θυμός· ἐπ' αὐτὰ
ῥάων καὶ Ἀχαιῶν· ἔ
τόρυσαν, ἀνὴρ δ' ἄνδρ
ἰνθεμίωνος υἱὸν Τέλε
ερὸν, Σιμοείσιον· ὃν
σα, παρ' ὀχθήσιν Σι
ῥα τοκεῦσιν ἄμ' ἔσπ
κάλεον Σιμοείσιον· ἔ

the “Pica Saxon” commissioned by the early Anglo-Saxonist Franciscus Junius (1591–1677) and bequeathed by him to the University. Specimens of both can be found in *A Specimen of the Several*

Sorts of Letter Given to the University by Dr. John Fell, Sometime Lord Bishop of Oxford. To Which Is Added the Letter Given by Mr. F. Junius (Oxford, 1693). It seems likely that Junius's Pica Saxon was mixed pretty freely with Pica Roman in printing the *Thesaurus*.

The Foulis Greek font has a different origin from Junicode's Latin (though it harmonizes well), being based on type designed by Alexander Wilson (1714–86) of Glasgow and used in numerous books published by the Foulis Press, most notably the great Glasgow Homer.

B E ð E ß T E R.

um rice cýning nam cuð
lndian oð Eþiopian lande
þam ðilheappum.

ʒ rihtrij. ʒ ræðfært on ʒ
m pelpillenban ʒobe. Se þe

otius Homilia, scripta est

Hierosolymitano, Saxonice

þe ʒemýnt þ he polbe :
im ræbe þurh his riðe ʒa
beon for fæder ʒ him :

Brittania Oceani insula, cui quondam Albion nomen fuit, inter septentrionem et occidentem locata est, Germaniae, Galliae, Hispaniae, maximis Europae partibus, multo interuallo aduersa. Quae per miliapassuum DCCC in Boream longa, latitudinis habet milia CC, exceptis dumtaxat prolixioribus diuersorum promonteriorum tractibus

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jabai auk hvas gasaihviþ þuk þana habandan kunþi in galiuge stada anakumbjandan, niu miþwissei

is siukis wisandins timrjada du galiugagudam gasaliþ matjan? fraqistniþ auk sa unmahteiga ana þeinamma witubnja broþar in þize Xristus gaswalt. swaþþan frawaurkjandans wiþra broþruns, sla-handans ize gahugd siuka, du Xristau frawaurkeiþ.

With ss19: ԶԱՅԼԻ ԼՈՒԿ ՕՒՏ ԴՆՏԼԻՈՒՓ ՓՈՒԿ ՓԼՈՒԼ ԿԼԵԼՆԸԼՆ ԿՈՆՓԻ ԻՆ ԴԼԼԻՆԴԵ ՏԴԸԼ ԼՆԼԿՈՄԵԶԼՆԸԼՆ, ՈՆԻ ՄԻՓՎԻՏՏԵԻ ԻՏ ՏԻՈՒՏ ՎԻՏԼՆԸԼԻՆՏ ԴԻՄԿԶԸԼԸ ԸՆ ԴԼԼԻՆԴԼԴՈԸԼՄ ԴՆՏԼԼԻՓ ՄԼԴԶԼՆ? ԶԱՅԼԻ ԼՈՒԿ ՕՒՏ ԴՆՏԼԻՈՒՓ ՓՈՒԿ ՓԼՈՒԼ ԿԼԵԼՆԸԼՆ ԿՈՆՓԻ ԻՆ ԴԼԼԻՆԴԵ ՏԴԸԼ ԼՆԼԿՈՄԵԶԼՆԸԼՆ, ՈՆԻ ՄԻՓՎԻՏՏԵԻ ԻՏ ՏԻՈՒՏ ՎԻՏԼՆԸԼԻՆՏ ԴԻՄԿԶԸԼԸ ԸՆ ԴԼԼԻՆԴԼԴՈԸԼՄ ԴՆՏԼԼԻՓ ՄԼԴԶԼՆ? **ΛΒΓΔΕΖΗ ΛΒΓΔΕΖΗ.**

Sanskrit Transliteration

mānaṁ dvividhaṁ viṣayadvai vidyātsāktyasaktitaḥ
arthakriyāyāṁ keśadīrṇārtho 'narthādhimokṣataḥ
sadṛśāsadrśatvācca viṣayāviṣayatvataḥ
śabdasyānyanimittānāṁ bhāve dhīśadasattvataḥ

International Phonetic Alphabet

hwan θat a:pril wiθ is ju:rəs so:tə θə druxt ɔf martʃ haθ pe:rsəd to: θə ro:te and ba:ðəd evri væin
in swiʃf liku:r ɔf hwiʃf vertiu endʒendred is θə flu:r hwan zefirus e:k wiθ his swe:tə bræ:θ

Greek

Foulis Greek font: βίβλος γενέσεως ἰησοῦ χριστοῦ υἱοῦ δαυὶδ υἱοῦ ἀβραάμ. ἀβραάμ ἐγέννησεν τὸν ἰσαάκ, ἰσαάκ δὲ ἐγέννησεν τὸν ἰακώβ, ἰακώβ δὲ ἐγέννησεν τὸν ἰούδαν καὶ τοὺς ἀδελφοὺς αὐτοῦ, ἰούδας δὲ ἐγέννησεν τὸν φάρες καὶ τὸν ζάρα ἐκ τῆς θαμάρ, φάρες δὲ ἐγέννησεν τὸν ἑσρώμ, ἑσρώμ δὲ ἐγέννησεν τὸν ἄράμ, ἄράμ δὲ ἐγέννησεν τὸν ἀμιναδάβ, ἀμιναδάβ δὲ ἐγέννησεν τὸν ναασσών, ναασσών δὲ ἐγέννησεν τὸν σαλμών, σαλμών δὲ ἐγέννησεν τὸν βόες ἐκ τῆς ραχάβ, βόες δὲ ἐγέννησεν.

With Stylistic Alternates and Historic Ligatures: Ͳλος γενέσεως ἰησ̄ χρῑτ̄ υἱ̄ δαυιδ̄ υἱ̄ ἀβραάμ. ἀβραάμ ἐγέννησεν τὸν ἰσαάκ, ἰσαάκ δὲ ἐγέννησεν τὸν ἰακώβ, ἰακώβ δὲ ἐγέννησεν τὸν ἰούδαν καὶ τ̄ς ἀδελφ̄ς αὐτ̄ς, ἰούδας δὲ ἐγέννησεν τὸν φάρες καὶ τὸν ζάρα ἐκ τῆς θαμάρ, φάρες δὲ ἐγέννησεν τὸν ἑσρώμ, ἑσρώμ δὲ ἐγέννησεν τὸν ἄράμ, ἄράμ δὲ ἐγέννησεν τὸν ἀμιναδάβ, ἀμιναδάβ δὲ ἐγέννησεν τὸν ναασσών, ναασσών δὲ ἐγέννησεν τὸν σαλμών, σαλμών δὲ ἐγέννησεν τὸν βόες ἐκ τῆς ραχάβ, βόες δὲ ἐγέννησεν

Lithuanian

Visa žemė turėjo vieną kalbą ir tuos pačius žodžius. Kai žmonės kėlėsi iš rytų, jie rado slėnį Šinaro krašte ir ten įsikūrė. Vieni kitiems sakė: Eime, pasidirbkime plytų ir jas išdekime. – Vietoj akmens jie naudojo plytas, o vietoj kalkių – bitumą. Eime, – jie sakė, – pasistatykime miestą ir bokštą su dangų siekiančia viršūne ir pasidarykime sau vardą, kad nebūtume išblaškyti po visą žemės veidą.

Polish

Mieszkańcy całej ziemi mieli jedną mowę, czyli jednakowe słowa. A gdy wędrowali ze wschodu, napotkali równinę w kraju Szinear i tam zamieszkali. I mówili jeden do drugiego: Chodźcie, wyrobimy cegłę i wypalmy ją w ogniu. A gdy już mieli cegłę zamiast kamieni i smołę zamiast zaprawy

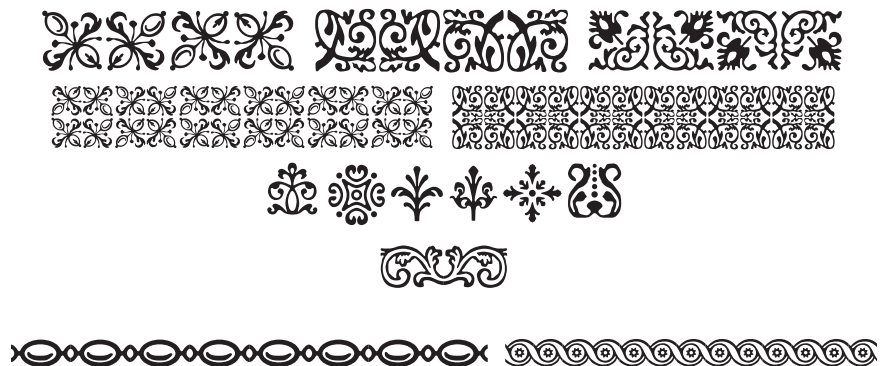
murarskiej, rzekli: Chodźcie, zbudujemy sobie miasto i wieżę, której wierzchołek będzie sięgał nieba, i w ten sposób uczynimy sobie znak, abyśmy się nie rozproszyli po całej ziemi.

Czech

Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon prikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla obět do chrámu. Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon prikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla obět do chrámu. *Pojďme do Betléma a přesvědčme se o tom, co nám anděl oznámil. Mojžíšův Zákon prikazoval, aby každá žena čtyřicátý den po narození chlapce přinesla obět do chrámu.*

Fleurons

Unicode contains a number of fleurons (floral ornaments) copied from a 1785 Caslon specimen book. This document contains a number of examples. Fleurons may be found at these code-points: E270, E27D, E670, E67D, E68A, E736, E8B0, E8B1, EF90–EF9C, EF9F, F011, F014, F018, F019, F01B, F01D, F01E.



OpenType Features

Following is a list of the OpenType features in Junicode. For instructions on applying OpenType features, consult the documentation for your preferred application. Note that you should turn on the following features, if they are not on by default: liga (Standard Ligatures), ccmp (Glyph Composition/Decomposition), calt (Contextual Alternates), kern (Horizontal Kerning).

Standard Ligatures (liga)

Like many old-style fonts, Junicode contains the most common f-ligatures (first flight offer office afflict fjord) and some that are less common (e.g. thrift fifty afraid für fördern). It also has long-s ligatures (e.g. affert ftart flick omiffion).

Contextual Alternates (calt)

When this feature is on (as it is by default in most applications, though it must be turned on explicitly in Microsoft Word), Junicode will avoid unsightly collisions between neighboring characters such as f and vowels with diacritics, e.g. fêler fif fül. If you find that f collides with some other character, you can select the narrower f via the OpenType salt feature.

Stylistic Alternates (salt)

This feature gives you direct access to a number of alternates that are available via other features. Some of these (for example the narrow f) may be useful to avoid collisions that the font designer has not anticipated. In FoulisGreek, a number of alternative letter shapes can be accessed in this way: e.g. βεγ[͂]ρ[͂]ε[͂]τ[͂]φ[͂].

Kerning (kern)

In most text-based applications, kerning is on by default, but in Microsoft Word it must be turned on explicitly. Turn kerning off for an antique look.

Discretionary Ligatures (dlig)

This feature will give you fancy ligatures, e.g. aċt star track bitten attraċt, and also connected Roman numbers (I II III IV V VI VII VIII IX X XI XII—regular and italic faces). Use it also for circled numbers and letters: [1] = ①; [A] = Ⓐ; [a] = ⓐ; [[1]] = ①; <1> = ➊.

Historical Ligatures (hlig)

Nearly all of MUFI's ligatures are accessible via “Historical Ligatures” (hlig). Even if you are not a medievalist, you may still be amused by the strange effects you can achieve by turning on this feature: egg track caught fan sock book sæ ardvak chaos Æ ÆO AU V. This feature will also permit you to access a large number of historical ligatures in FoulisGreek, e.g. *ἰφθίμης ἐπελείετο διασῆτην μάχεσθαι χαλίσμη*.

Historical Forms (hist)

This feature provides long s (f). In keeping with the usage of early printers, round s is preserved at the ends of words: “When to the feffions of fweet filent thought.”

Mark Positioning (mark and mkmk)

Where no precomposed character is available, combining marks should still be correctly positioned, and marks can be “stacked” via “Mark to Base” (mark) and “Mark to Mark” (mkmk): \acute{o} (o + U+304 + U+301); \ddot{i} (i + U+304 + U+306). The dot of an i or j followed by a diacritic will generally be removed: \dot{i} . If your application supports these features, they are probably on by default. Mark positioning is supported best in the Regular and Italic faces.

Small Capitals (smcp and c2sc)

Use “Small Caps” (smcp) to change lower-case letters to small caps; add “Caps to Small Caps” (c2sc) for text entirely in small caps. UNICODE HAS TRUE SMALL CAPS RATHER THAN SCALED CAPITALS. Special small cap versions of common combining diacritics are available, and these should be positioned correctly relative to the base characters: $\grave{A}\grave{C}\acute{E}$. Regular, Italic, and Bold faces.

Old-Style Numbers (onum)

You have a choice of either standard “lining” figures or old-style figures, selected by “Old-Style Numbers” (onum): 0123456789 $\text{o}\text{i}\text{2}\text{3}\text{4}\text{5}\text{6}\text{7}\text{8}\text{9}$.

Superscripts and Subscripts (sups, subs)

Superscript numbers are rendered with “Superscripts” (sups): 0123456789 . Subscript numbers are rendered with “Subscripts” (subs): $_{0123456789}$. In the regular and italic styles there is a complete alphabet of superscripts (e.g. abcxyz).

Fractions (frac)

A sequence of number + slash + number is rendered by a fraction if the fraction has a Unicode encoding and this feature is on: $\frac{1}{2}$ $\frac{1}{4}$ $\frac{2}{3}$ $\frac{3}{4}$ (complete set of Unicode fractions in regular and italic).

Letters with flourishes (swsh)

For letters with flourishes (sometimes used for setting Middle English texts), use “Swash” (swsh): c d f g k n r . Some capital swashes are also available in the italic face, based on those in Hickes’s *Thesaurus*: A D f Q E .

Mirrored runes (rtlm)

In the regular and italic faces Junicode contains mirrored versions of runes. To access these, use Right-to-Left Mirroring (rtlm): $\text{†} \text{†} \text{†} \text{†} \text{†} \text{†}$. This feature will not reverse the order of the runes, but only the shapes of the characters.

Greek letters in IPA

Earlier versions of Junicode contained an awkward workaround for the problem of IPA characters based on Greek together in a font with a complete Greek character set in a different style. Now that Junicode's Greek has been moved to the FoulisGreek font, IPA characters based on Greek have been moved to the Greek range, and no special coding is needed to access them.

Nordic letter-shapes (ss01)

The default shapes of ð and þ in Junicode are English: this is unusual in modern fonts. For the shapes used in Icelandic, specify the Icelandic language, if your application has good language support, or select “Style Set 1” (ss01): ðþ.

Insular letter-shapes (ss02)

Use “Style Set 2” (ss02) for insular letter-forms: abcðefg.

Overlined characters (ss04, ss05)

Use “Stylistic Set 4” (ss04) for roman numbers with high overline ($\overline{\text{viii}} \overline{\text{XCXV}}$) and “Stylistic Set 5” (ss05) for lower-case roman numbers with medium-high overline ($\overline{\text{viii}} \overline{\text{dctx}}$). These Stylistic Sets will work only with letters used in Roman numbers.

Enlarged minuscules (ss06)

“Style Set 6” (ss06) produces enlarged minuscules, thus: abcdefg. Since the underlying text remains unchanged, enlarged text can be searched like normal text. Regular and Italic faces.

Deleted text (ss07)

In medieval manuscripts, text is often deleted by placing a dot under each letter. Both Unicode and MUFI define many characters with dots below: if possible, you should avoid hard-coding these and instead use “Style Set 7” (ss07).

Alternate yogh (ss08)

For Middle English, always use the yogh at U+021C and U+021D (ȝȝ). Unicode also has an alternative yogh, which in Junicode has a flat top. If you prefer this, leave the underlying text the same and specify “Style Set 8” (ss08): ȝȝ.

Retired letter-shapes (ss09)

The design of a few Junicode characters has changed since the font was introduced. The original designs, if you prefer them, will always be available via “Style Set 9” (ss09). Currently there are just a few such alternates: Ȯ for ð, T for T, ƚ for ɾ.

Long slashes (ss10)

Some users prefer slashes and backslashes that are longer than usual. Use Stylistic Set 10 to access

these: a/a, a/a.

Alternative italic æ (ss11)

In texts that contain both æ and œ, the two may be confused in the italic face: *æ* *œ*. In this case, use Stylistic Set 11 to substitute *æ* for *œ*.

E caudata (ss15)

Medieval Latin texts often use an *e* with tail, called *e caudata*; this represents Latin *ae* or *oe*. Polish, Lithuanian, and several other languages also use this letter. While in modern editions of medieval texts the *cauda* (or in Polish, the *ogonek*) is often attached to the very bottom of the letter, in modern Polish and Lithuanian printing it is attached to the end of the bottom stroke: Polish *ę*, medieval Latin *ĕ*. The modern Polish version of the letter is acceptable for medieval Latin; however, if you prefer a centered *cauda*, use “Style Set 15” (ss15).

Linguistic alternates (ss17)

One character (ʔ, U+0294) has an alternate shape used in phonetic transcription (ʔ). Access this with ss17.

Old-Style Punctuation (ss18)

Old books generally set extra space before the heavier punctuation marks (; : ! ?); they also leave extra space inside quotation marks and parentheses (compare “here” and “here”). For a similar effect, use Stylistic Set 18 (ss18). Make sure that Contextual Alternates are also on so that Junicode can correct the spacing in certain environments.

Latin-to-Gothic Transliteration (ss19)

As transliteration of Latin to Gothic characters is straightforward, it can easily be handled with OpenType features. Note that the Gothic alphabet has no distinction between upper- and lower-case, so capitals and lower-case letters are transliterated the same way: *m̃l̃ht̃ẽd̃i s̃ỹẽf̃l̃ñh g̃l̃h iñn m̃l̃ns l̃ẽik̃.*

Gothic-to-Latin Transliteration (ss20)

The same as ss19, but in reverse. It produces all lower-case letters. Thus *g̃l̃d̃g̃b̃ ññ ṽl̃s m̃l̃is f̃l̃ns s̃ỹẽs̃ṽl̃m̃m̃l̃* becomes “gadob nu was mais þans sweswamma.”



Other Features

Treatment of Obsolete Characters

A number of medieval characters originally assigned by MUFI to the Unicode Private Use Area have been accepted into the Unicode standard. For several years Junicode retained the obsolete characters, adding a mark to warn document maintainers to reencode their documents. Beginning with version 0.7.3 obsolete MUFI characters have been removed from the font.

Character Protrusion

For XeLaTeX users who use the Microtype package for character protrusion, a configuration file (`mt-Junicode.cfg`) is provided for Junicode. Users of XeLaTeX will need Microtype version 2.5 or higher. The configuration file is designed for XeLaTeX, but it can easily be edited to work with LuaTeX.



Miscellanea

The Junicode font is available at <http://junicode.sourceforge.net/>. You can also find it in the repositories of many Linux distributions and via CTAN. Visit the Junicode Project Page at SourceForge to leave feature requests and bug reports. Suggestions and Contributions are welcome: if you wish to contribute to Junicode, leave a patch at the Project Page or contact the developer. Feature requests can be left in the same place.

Junicode comes in Regular, Italic, Bold and Bold Italic faces, but the Regular and Italic faces have the fullest character set and are richest in OpenType features. The font implements most of the recommendation of the Medieval Unicode Font Initiative (version 3.0—compliance with version 4.0 is in progress). Look for special MUFI characters (those not in the Unicode standard) in the Private Use Area (U+E000 and above). Download the complete recommendation at <http://www.mufi.info/>.

Junicode is licensed under the SIL Open Font License: for the full text, go to <http://scripts.sil.org/OFL>. Briefly: You may use Junicode in any kind of publication, print or electronic, without fee or restriction. You may modify the font for your own use. You may distribute your modified version in accordance with the terms of the license.

