DEALING WITH VARIANTS IN HISTORIC SCRIPTS

OR, MAKING OLD ITALIC AND CUNEIFORM GREAT AGAIN

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FORMAT FOR THIS SESSION

Case studies:

- Adam Anderson on Cuneiform

- Debbie Anderson on Old Italic

Viewpoint from Kamal Mansour, Monotype

DEALING WITH VARIANTS IN HISTORIC SCRIPTS – OLD ITALIC

- Debbie Anderson
  - 2002- Script Encoding Initiative (Dept. of Linguistics, UC Berkeley)
  - UC Berkeley representative to Unicode Consortium
  - Unicode Technical Director
  - Background: Ph.D. Indo-European Studies (Linguistics)

DEALING WITH VARIANTS IN HISTORIC SCRIPTS – OLD ITALIC

- This presentation is based on work of David Perry, developer of Italica Vetus font (available at: http://www.scholarsfonts.net/)

OLD ITALIC

- "Old Italic" block unifies various related alphabets of Italy

- Used by various languages

- Ultimately derives from a form of 8c BCE Greek (Euboean Greek used in area of Bay of Naples)

OLD ITALIC
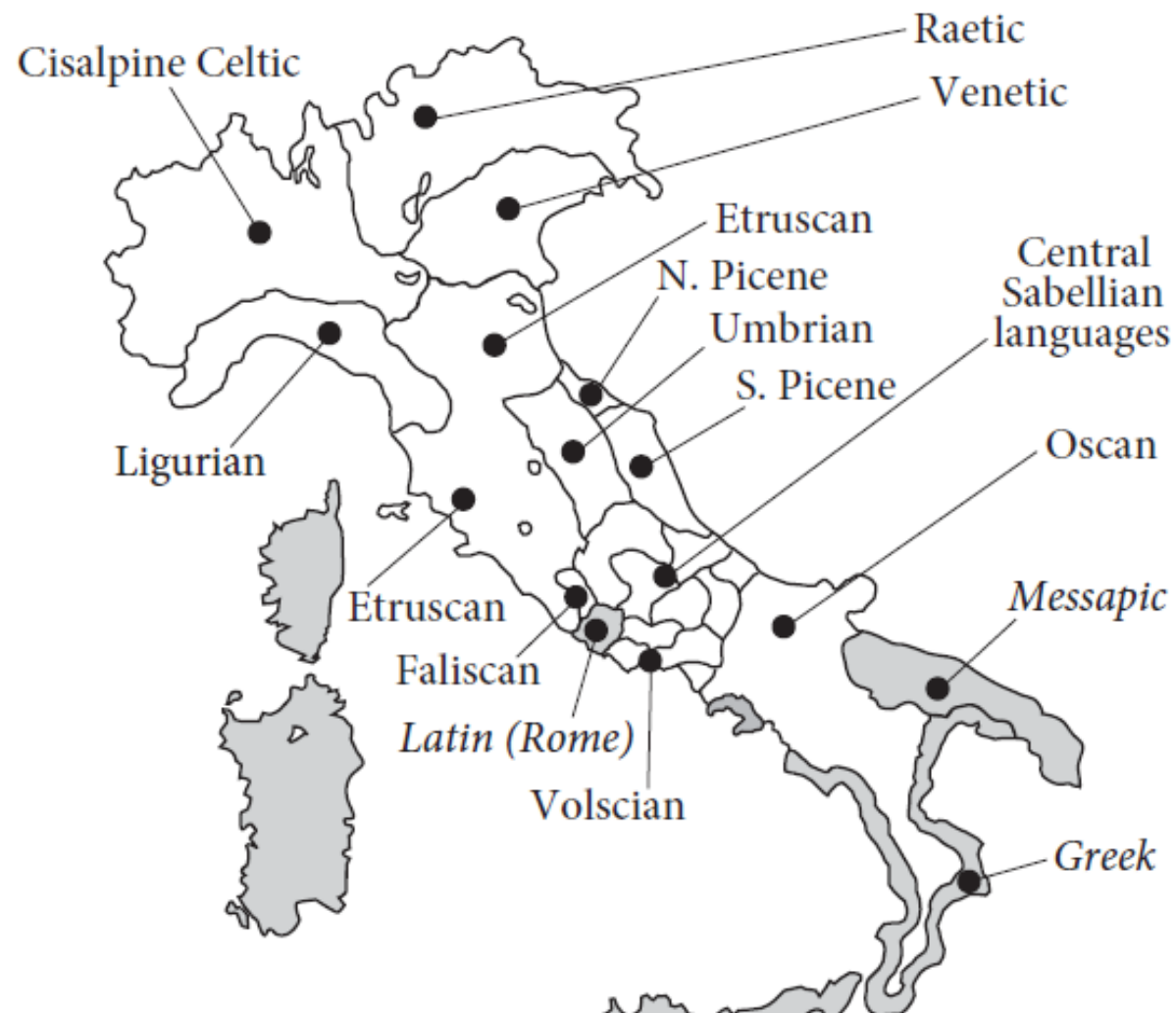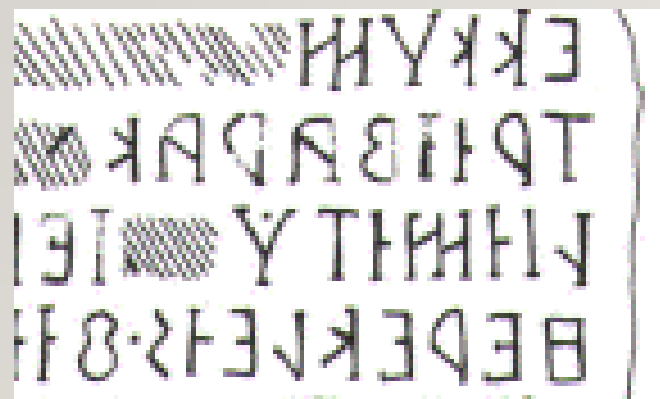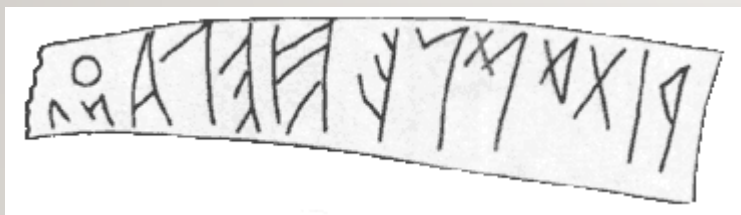
OLD ITALIC FEATURES

- Many glyph variants within languages and across languages
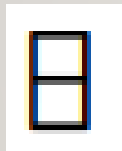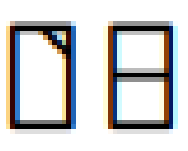
  ⬚ HE in Code Chart   ⬚ ⬚ Faliscan
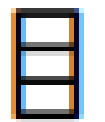
  ⊘ Umbrian   ⬚ Archaic Etruscan

- Default direction in Unicode is strong left-to-right, but many inscriptions are right-to-left

OLD ITALIC – IN UNICODE

- Script block approved in Unicode 3.1 in 2001

- "The unification of these alphabets into a single Old Italic script requires **_language-specific fonts_** because glyphs most commonly used may differ somewhat depending upon the language being represented" – The Unicode Standard

OLD ITALIC – IN UNICODE

- Range of glyphs increased in 2015, when the definition of "Old Italic" expanded to include a few additional alphabets of northern Italy

- Expanded set of glyphs made available in Unicode Technical Note #40: Old Italic Glyph Variation (August 2015)

UTN 40: OLD ITALIC GLYPH VARIATION (AUG. 2015)

OLD ITALIC GLYPH VARIATION – RAETIC

OLD ITALIC – DEVELOPMENT AND PROBLEMS

Fonts
- Past: "Hacked" fonts for variants (Etruscan from Altsys, Etruscotutto, Linguist's Software Archaic Alphabets)
- Recently: Unicode font but PUA for variants (Alphabetum)

    Note: Noto Sans Old Italic and Windows Segoe UI Historic: support Unicode Old Italic chart characters, but don't include variants

Software
Slow software support for OpenType features + Plane 1 characters

OLD ITALIC – REQUIREMENTS FROM USERS

1. Access to large number of variant glyphs
2. Font that works with off-the-shelf applications
3. Ability to represent text as R-to-L in some situations

OLD ITALIC – OPTIONS FOR ACCESSING VARIANTS

Based on comments from David Perry

OPTIONS: PUA

Pros: Can add large # of glyphs

No gate-keeper (such as UTC) restricting which characters can be included

Cons: Not reliable for general interchange

OPTIONS: VARIATION SEQUENCES

Variation sequences: can be used where different shapes of characters are not predictable

Pros: Captures variation in plain-text

Supported in many applications

Cons: Need to be approved by UTC

Large # of glyphs would require a large # of VSes

OPTIONS: OPENTYPE FEATURE CHARACTER VARIANTS

Character variants: designed to apply one of many variants to a single character at a time

Pros: Can support a large number of variants

Cons: Few applications support this feature

OPTIONS: OPENTYPE FEATURE STYLISTIC ALTERNATES

Stylistic alternates: provide access to aesthetic variants

Pros: Can include more than one alternate shape/character

Supported in more applications than Character Variants

Cons: Challenging for a user when there are large numbers of variants to pick from

OPTIONS: OPENTYPE FEATURE STYLISTIC SETS

Stylistic set: a group of shapes that typically appear together

Pros: Fairly well supported in software

Cons: Doesn't work as well when large numbers of variants are

involved

OPTIONS: OPENTYPE FEATURE LOCALIZED FORMS

Localized forms: for text tagged as a specific language, this feature substitutes shapes as appropriate

Pros: Could be useful if there were few variants to pick from

Cons: Not a good option when user needs to pick from a variety of forms

APPROACHES

- Pan-Old Italic font by David Perry "Italica Vetus" with variants accessible both in PUA and via OpenType Character Variants feature (but recommends eschewing PUA)

- Language-specific fonts possible (and may allow use of different OpenType features to access variants)

Q: Will there be good support of OT features coming?

SIDE ISSUE: OLD ITALIC R-T-L SUPPORT: PROBLEMS IN OVERRIDING DIRECTIONALITY

- Unicode Bidirectional Algorithm enables directional overrides through the override controls (RLO and LRO)

  - many programs ignore these controls

- The OpenType spec says that mirrored glyphs should be applied when a run of text requires them (such as when the user inserts an RLO)

  - most programs do not apply OT features enabling this to work (<rtla> and <rtlm>)

VIEWS FROM KAMAL MANSOUR
(LINGUISTIC TYPOGRAPHER, MONOTYPE)

QUESTIONS?

OTHER TALKS OF INTEREST
(*   WILL DISCUSS VARIANTS)

TODOAY: TRACK 1 Session 5 Crowdsourcing cuneiform

               TRACK 1 Session 6 Digitizing Ethiopic

               TRACK 3 Session 6 An Overview of Variable Fonts*

TOMORROW: TRACK 1 Session 7 Implementing Adlam: What Happens After Unicode Adds the Script

               TRACK 3 Session 7 Creating OpenType fonts for Egypt. Hieroglyphs

               TRACK 1 Session 8 I thought we were done! – Osage

               TRACK 1 Session 9 Beyond Unicode Proposals*