



That annoying noise around letters
Latin diacritic character design

Adam Twardoch (*here*) & Victor Gaultney (*elswhere*)

Zwei Boxkämpfer jagen
Victor quer durch Sylt.

[Two boxers hunt Victor all the way through Sylt.]

Chytrí čtou knihy, jen
ťululum čučí na televizi.

[The smart ones read books, the dumb ones watch TV.]

Árvíztűrő tükörfúrógép.

[Flood-proof mirror-drilling machine.]

Książęcych spóźnień czułość.

[The tenderness of princes being late.]

à á â ã ä å

àáâãäå

ħibutżżejt

àáâãäå

ħiġbużżid

$\zeta = c + \varsigma$?

domini in munus
mirabilia die fūrsten

g̥ēt̪d̥h

ä

Some diacritics are not diacritics

Similar does not mean identical

ť'

óó

Be aware of cultural preferences

Harmonise size, shape, alignment

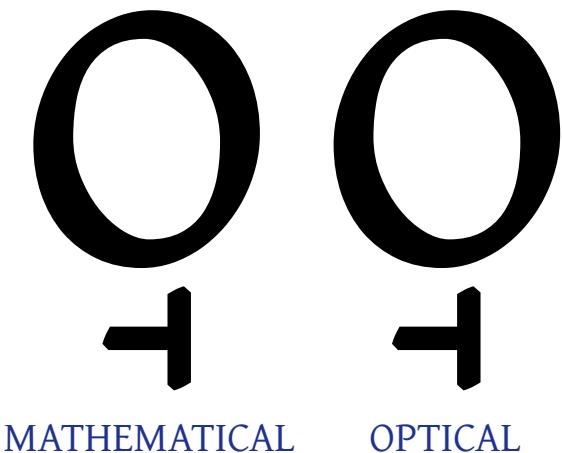
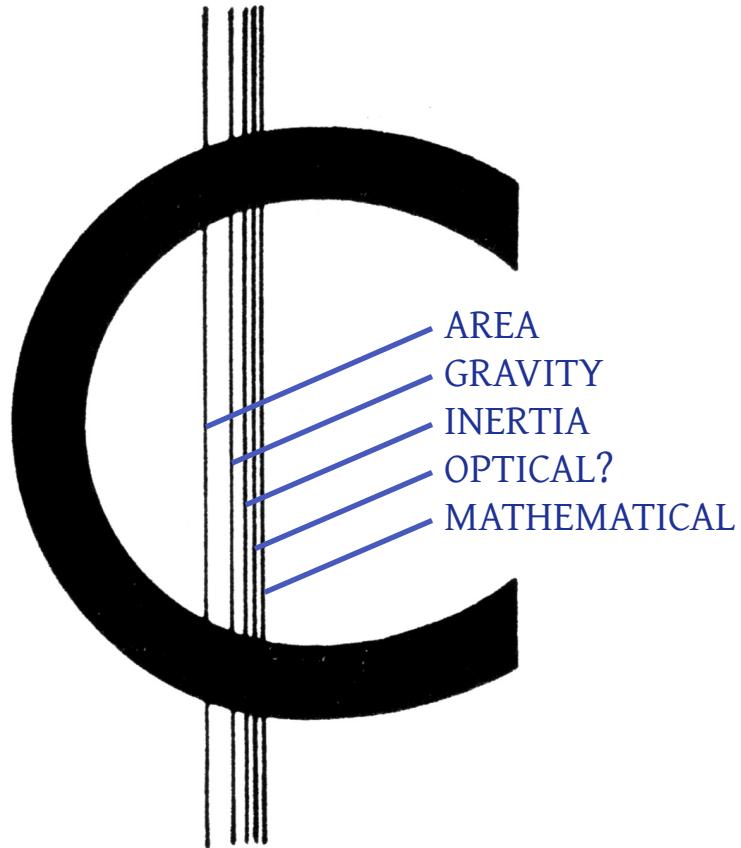
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Asymmetry
Width Harmony
Vertical Spacing
Capitals
Cultural Preferences

Summary of Design Challenges

Asymmetry
Width Harmony
Vertical Spacing
Capitals
Cultural Preferences

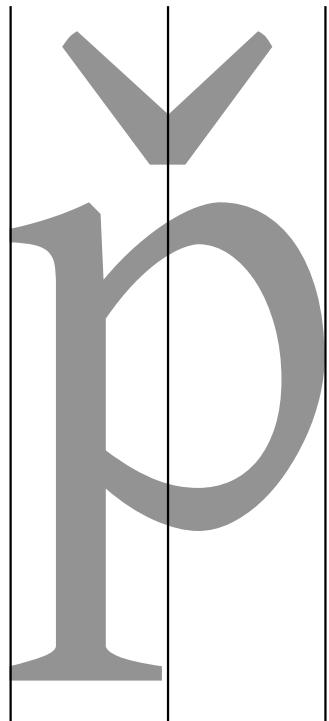
Summary of Design Challenges



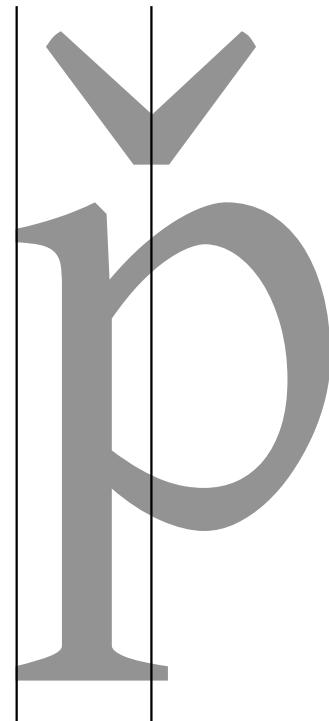
Asymmetry: Optical Alignment

Kindersley optical centres

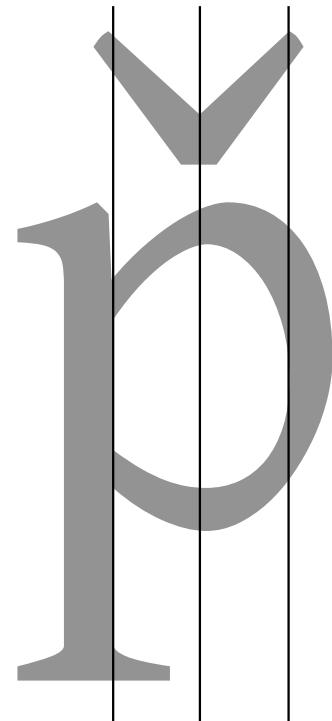
MATHEMATICAL



OPTICAL



COUNTER OPTICAL



Asymmetry: Optical Alignment

Three different centres

AaEeOo

æœøðž

Asymmetry: Base Glyphs

Ogonek and rhotic hook

Asymmetry: Diacritics

A variety of accent shapes and placement

Asymmetry
Width Harmony
Vertical Spacing
Capitals
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Summary of Design Challenges

kêfî kêfî kêfî

dîb dîb dîb dîb
dîb dîb dîb

mandible
mandible
mandible

Asymmetry
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Summary of Design Challenges

lälëlililölül
lälëlililölül
lälëlililölül
lälëlililölül

GALLIARD
useful difference, intentional?

GILL SANS LIGHT
diaeresis lower and different

GILL SANS REGULAR
heights reversed

GILL SANS BOLD
middle ground

àáâãäå

àáâãäå

àáâãäå

àáâãäå

ARIAL

bottom aligned

TIMES NEW ROMAN

PALATINO LINOTYPE

centre aligned

CHARTER

mixed strategy

Asymmetry
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Summary of Design Challenges

ÉÈÊÈèéê
ÉÈÊÈèéê
ÉÈÊÈèéê

ADobe Garamond
Minion
Palatino Linotype

Capitals: Difference from Lower Case

Traditional styles

ÉÈÊÈèéê
ÉÈÊÈèéê
ÉÈÊÈèéê

ADOBE GARAMOND
MINION
PALATINO LINOTYPE

ÉÈÊÈéèê
ÉÈÊÈéèê
ÉÈÊÈéèê

SABON (metal)
Adobe (digital)
Monotype (digital)

Ä Ö Ü

SCHADOW-ANTIQUA

É Ê Ë

ANTIQUE OLIVE

A A A A

TIMES NEW ROMAN | GEORGIA | ARIAL | VERDANA

PALATINO LINOTYPE

ÄÖÜËË

TRUMP MEDIAEVAL

ÄÖÜËË

ÄÖÜËË

ÄÖÜËË

OPTIMA

FUTURA

Ä Ä Ö Ö Ü

FUTURA (10pt, 1928)
included both versions

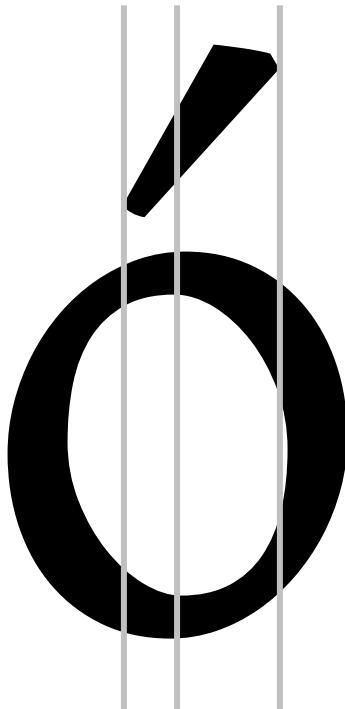
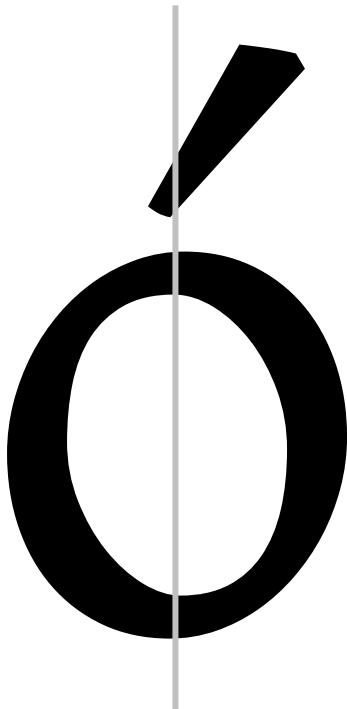
Über Élève

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Asymmetry
Width Harmony
Vertical Spacing
Capitals
Cultural Preferences

Summary of Design Challenges

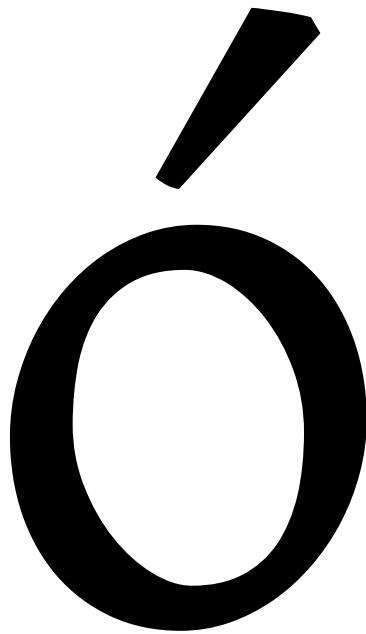
JUST
THROUGH
RULE



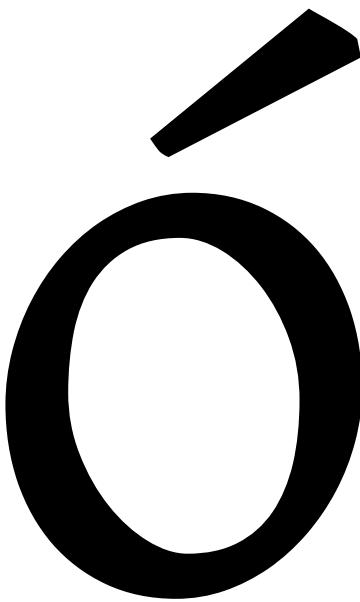
ONE
THIRD
TWO
THIRDS
RULE

Asymmetry: Acute & Grave

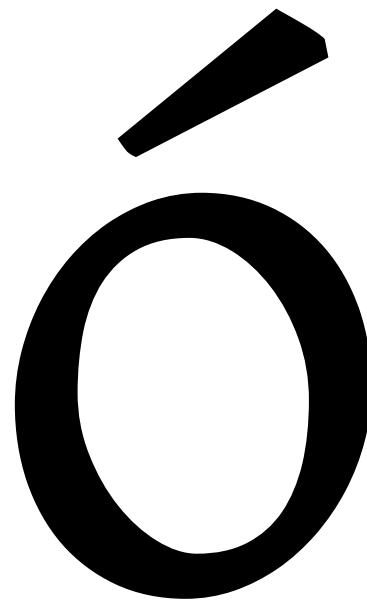
Two methods of alignment



STEEP ANGLE
TYPICAL ALIGNMENT



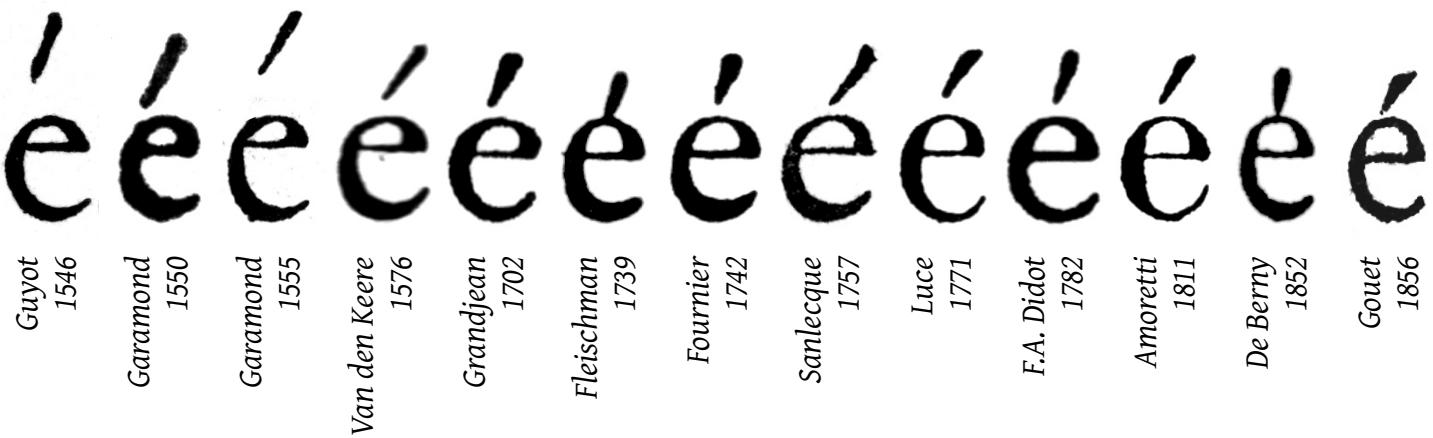
SHALLOW ANGLE
TOO FAR RIGHT



SHALLOW ANGLE
MUCH BETTER

Asymmetry: Acute & Grave

Alignment depends on slope



Asymmetry: Acute & Grave

Acute examples from before 1900

éèê

MONOPHOTO PHOTINA

ééé

THREE VERSIONS OF CALEDONIA

ééèè

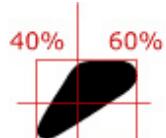
GENTIUM WITH ALTERNATES

Asymmetry: Acute & Grave

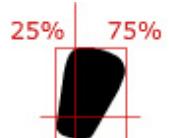
Acutes through technology transition

áéíóú
ćńósź

ACUTE | KRESKA — Twardoch



acute

A large black letter 'O' with a vertical white bar through its center, representing the acute accent (kreska) character.

kreska

A large black letter 'O' with a vertical white bar through its center, representing the acute accent (kreska) character.

BODONI | EMPIRIANA — Hlavsa

ňůýž ňůýž

Cultural Preferences: Similar But Different

Polish and Czech accents

ćńósź

PALATINO LINOTYPE

óó

nós vós

wóz kóz

oacute

oacute.salt

...provide alternates and localized forms...

Á Ä Ç Č Ď Ě É
Ň Ô Ö Ŕ Š Ť Ú Ü Ÿ Ž
á ä č ç d' é ě íň ó ö ô ř š
ť ú ū ü ý ž

FIGURAL — Menhart

Different angles

Optically centred (vertically)

七

Llt

fl

Width may increase

Contrast with t

Calligraphic variant

Stroked letters

Helvetica Linotype, Fenway, Zapfino

Dd' Ll' Tt'

Letters with ‘apostrophe’

Usually different size

With different positioning

d' d' d' d'

Ideally a different shape, between curved and straight

Dd' Ll' Tt'

Letters with ‘apostrophe’

Helvetica (L), Fedra, Walbaum (STF), Maiola

Vertical position can vary

L' l' L'l' L' l'

ď d' L'l' ď t'

Capital equivalents

Walbaum, Maiola, Helvetica, Gentium

Aa

Smooth connections

Ee

Not centered, but not too far right

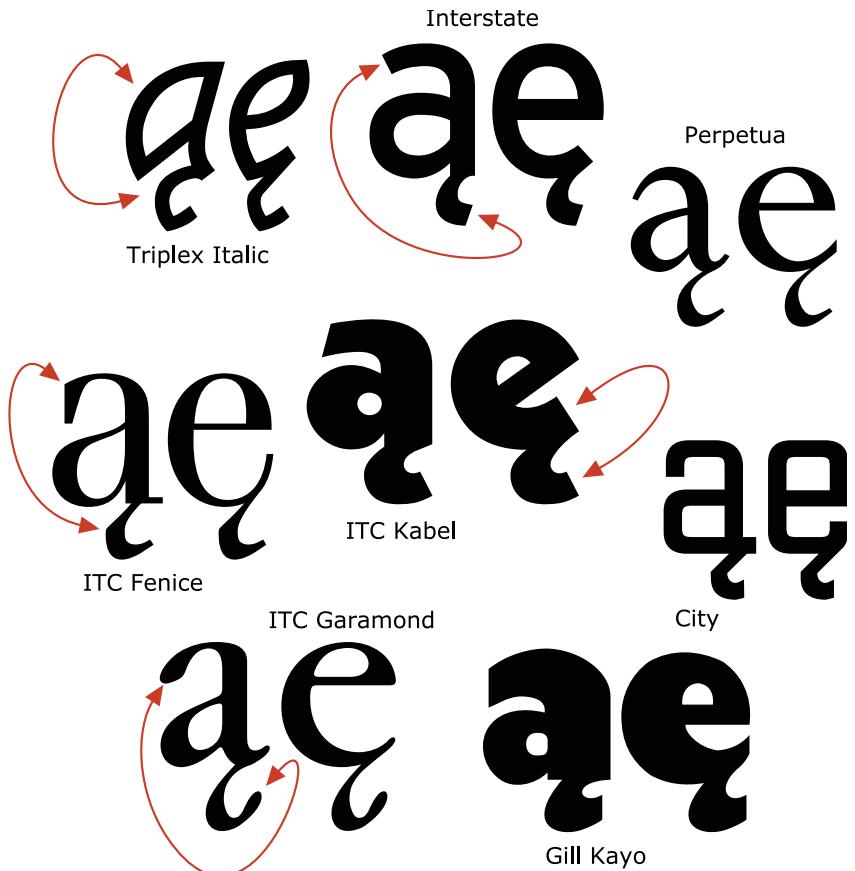
Ii

Not too small

Uu

Matching general weight and stress

Aa
Ee
Ii
Uu



Ogoneks

Valletta, others

ÇŞŦ

ŞŦ

çşŧ

şŧ,

Smaller than comma,
but not too weak

č ď ě ň ř š ť ž

Traditional european symmetric design

č ď ě ň ř š ť ž

Alternative design

äöëüü iěz

Consistency in size, shape, alignment

äiz äiz äiz

Unnecessary
Differentiation

Stylistic
Variation

Subtile
Changes

Character and Glyph Set Designing the Shapes Kerning Resources

Part I — Basic principles of design

Ter Tèr Těr

-150

-80

-70

t' tloušťka

tloušťka tloušťka

t' tloušťka

positive
kerning

orły orły
orły orły

adjust
RSB

Character and Glyph Set

Designing the Shapes

Kerning

Resources

Part I — Basic principles of design

Alphabets of Europe—*Everson*
[evertype.com]

Letter Database—*Estonian Language Institute*
[eki.ee/letter]

MyFonts.com International section
[myfonts.com/International]

Ethnologue—*SIL International*
[ethnologue.org]

Codepages and Unicode ranges
[unicode.org]
also shipping with FontLab Studio

Language Culture Type — *ATypI/Graphis*
[atypi.org]

Diakritická znaménka — *Filip Blažek, TYPO 10*
[magtypo.cz]

Ph.D. thesis — *Petra Černe Oven*
University of Reading

ParaType catalog ed. 2004
[paratype.com]