

BBN-ANG-183 Typography

Lecture 8: Diacritics and ligatures

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outline

introduction

diacritics one by one

- acute accent

- grave and double acute accent

- breve, caron

- circumflex, macron

- dieresis and umlaut

- dot, ring

- cedilla, comma, ogonek

- tilde, bar

diacritics in Arabic scripts

ligatures

- character ligatures

- stylistic ligatures

- suppression of stylistic ligatures

sample exam questions

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- ▶ a site devoted to diacritics: <http://diacritics.typo.cz/>

diacritics one by one

acute accent



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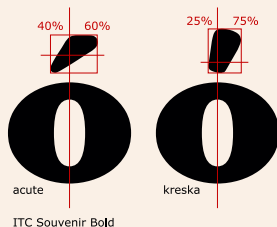
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some Polish typographers insist that the acute accent in Polish (a.k.a. kreska) is different from the acute accent — this is probably a source of national pride 😊
(cf. <http://www.twardoch.com/download/polishhowto/kreska.html>)



diacritics one by one

grave (/grɑ:v/) accent



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- ▶ before the 19th c. a combination of acute and umlaut was used: *ő* (cf. <http://www.font.hu/hrant.html>)



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- ▶ also used for extra high tone (Tanacross), *ø̊* is used to replace *ø* in Faroese; in linguistic publications a double **grave** accent is used to indicate short low vowels, e.g., *ạ̀*, in South Slavic



diacritics one by one

breve



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Č č Ě ě Š š Ť ť Ď ě Ľ ľ

diacritics one by one

circumflex or caret



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- ▶ on vowels: marks length (Latin, Latvian, Lithuanian), mid tone (Mandarin)
- ▶ on consonants: in medieval scripts it marks doubling: *m̄*, *n̄*, in handwriting it may be used to distinguish *u* and *n*



diacritics one by one

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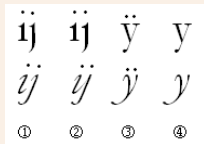
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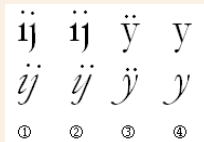


ij, ij-ligature, ÿ, y

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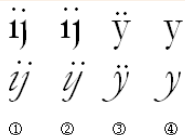
ij	ij	ÿ	y
<i>ij</i>	<i>ij</i>	<i>ÿ</i>	<i>y</i>
①	②	③	④

ij, ij-ligature, ÿ, y schoen, schön, schön

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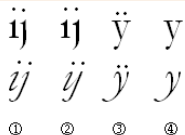


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Deutsche Kurrentschrift (1865)

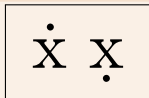
a	<i>a A</i>	j	<i>j J</i>	s	<i>s SP</i>
b	<i>b B</i>	k	<i>k K</i>	t	<i>t T</i>
c	<i>c C</i>	l	<i>l L</i>	u	<i>u U</i>
d	<i>d D</i>	m	<i>m M</i>	v	<i>v V</i>
e	<i>e E</i>	n	<i>n N</i>	w	<i>w W</i>
f	<i>f F</i>	o	<i>o O</i>	x	<i>x X</i>
g	<i>g G</i>	p	<i>p P</i>	y	<i>y Y</i>
h	<i>h H</i>	q	<i>q Q</i>	z	<i>z Z</i>
i	<i>i I</i>	r	<i>r R</i>	tz	<i>tz</i>

ä Äu ö Öu ü Üu
ch ck th sch sz st

= ch, ck, th, sch, sz, st

diacritics one by one

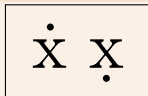
dot



diacritics one by one

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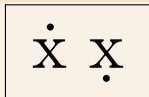
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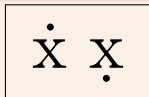
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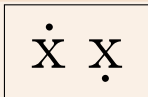
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- ▶ the **tittle** of lowercase i and j is taken off when these letters get an upper diacritic: $i \rightarrow \text{ı} \rightarrow \hat{\text{ı}}$ (not \hat{i})



diacritics one by one

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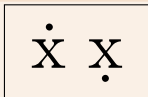
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- ▶ in transliterations of Semitic scripts *ḏ*, *ṭ*, *ẓ*, *ṣ* represent emphatic (pharyngealized) consonants
- ▶ the tittle of lowercase *i* and *j* is taken off when these letters get an upper diacritic: *i* → *ı* → *î* (not *î*)
- ▶ in Turkish *ı* and *İ* are different characters ([*i*] and [*u*]), their uppercase pairs are *İ* and *I*: cf. *İstanbul*, *İzmir*, *Niğde*, *Ağrı*, *İğdir*, *kapı*



diacritics one by one

dot

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- ▶ in Turkish *ı* and *İ* are different characters ([*i*] and [*u*]), their uppercase pairs are *İ* and *I*: cf. *İstanbul*, *İzmir*, *Niğde*, *Ağrı*, *Iğdır*, *kapı*



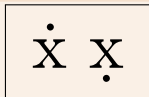
ring



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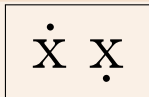
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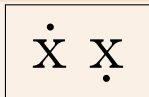
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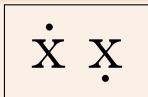
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diacritics one by one

cedilla



diacritics one by one

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ç

ș

ogonek

Ń

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ogonek

- ▶ Polish **ą, ę** and Lithuanian **ą, ę, j, y** represent historically nasalized vowels; today they are simply long in Lithuanian, variably nasalized in Polish



diacritics one by one

tilde or swung dash



X̃

diacritics one by one

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Ñ

bar or slash

ł Ł ð đ Đ ø Ø

diacritics one by one

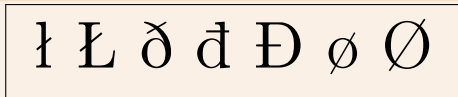
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- ▶ **ł** is [w] in Polish (historically coming from a dark l)



diacritics one by one

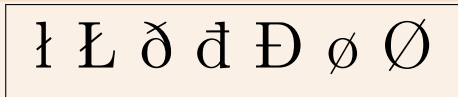
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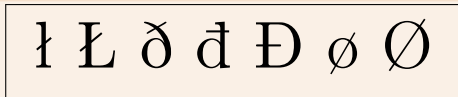
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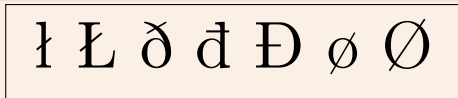
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- ▶ in Danish, Faroese, and Norwegian **ø** is [ø] (real close 😊)



the first seven lines of Homer's Iliad

Μῆνιν ἄειδε θεὰ Πηληϊάδεω Ἀχιλλῆος
οὐλομένην, ἣ μυρί' Ἀχαιοῖς ἄλγε' ἔθηκε,
πολλὰς δ' ἰφθίμους ψυχὰς Ἄϊδι προΐαψεν
ἡρώων, αὐτοὺς δὲ ἐλώρια τεῦχε κύνεσσιν
οἴωνοῖσί τε πᾶσι, Διὸς δ' ἐτελείετο βουλή,
ἔξ οὔ δὴ τὰ πρῶτα διαστήτην ἐρίσαντε
Ἄτρείδης τε ἄναξ ἀνδρῶν καὶ δῖος Ἀχιλλεύς.

diacritics in Arabic scripts

short vowels may be rendered by diacritics

بُو	بِي	بَا	بُ	بِ	بَ	بْ
bū	bī	bā	bu	bi	ba	b

diacritics in Arabic scripts

short vowels may be rendered by diacritics

بُ بِ بَا بُ بِ بَا ب

individual consonants are often distinguished by diacritics

Near East

Arabic: standard alphabet in which letters of similar shape are brought together:

ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص
ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص
ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص
ب	ت	ث	ج	ح	خ	د	ذ	ر	ز	س	ش	ص

اب پ ت ط ث
 ج چ ح خ د ذ
 ر ز ر ز س ش ص
 ظ ع غ ف ق ک گ
 ل م ن و ه ه ی

more and more diacritics



1. Basic letterforms



2. Diacritic Dots



3. Vocalization marks in form of vowels



4. Decorative elements (without mentioning the numerals, punctuation marks and symbols).

more and more diacritics

قواعد الخط العربي

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“Allahu akbar” — Allah is great

types of ligature

character ligatures

etymologically ligatures, but today considered as a single character

types of ligature

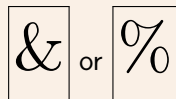
character ligatures

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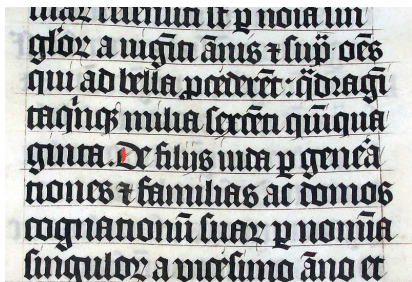
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some scribal abbreviations



suarum recensiti sunt per nomina singularum a viginti annis et supra omnes qui ad bella procederent: quadraginta quinque milia sexcenti quinquaginta. De filiis iuda per generationes et familias ac domos cognationum suarum per nomina singularum a vicesimo anno et

Tironian et



survives in

- ▶ Irish
- ▶ the abbreviation *viz.* ← vi+et ← videlicet

Tiro was Cicero's scribe; he developed an elaborate system of shorthands, later used by medieval scribes

some character ligatures

- ▶ **&**: ampersand

& **Et-Et-Et-Et-Et**

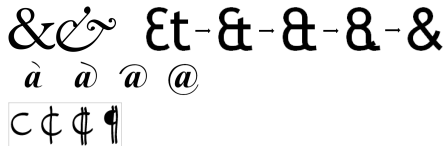
some character ligatures

- ▶ &: ampersand
- ▶ @: at-sign

& *&* £t-£t-£t-£t-&
à à â @

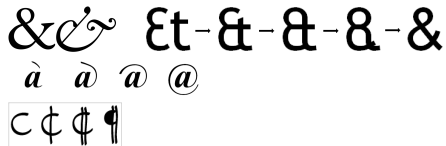
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- ▶ &: ampersand
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- ▶ ¶: pilcrow



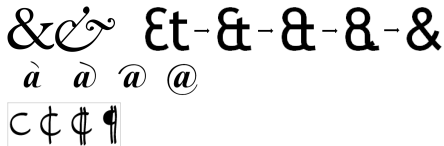
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some character ligatures

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- ▶ @: at-sign
- ▶ ¶: pilcrow
- ▶ §: section sign
- ▶ %: percent sign
- ▶ ‰: permille sign
- ▶ ‰‰: permyriad sign
(basis point)



some character ligatures

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(basis point)
- ▶ ſ: scharfes S, Eszett

& ™ £ ¤ ¥ &

à â á @

ç ¢ € ¶

ſ + s → ß

ſ + ſ → ſſ

ſ + ð → ſþ



DER
GROßE
DUDEN

some character ligatures

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- ▶ w/W: double U (or V)

& ™ £ ¤ ¥ &

à â á @

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f + ſ → ß

f + ð → ß



DER
GROSSE
DUDEN

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DER
GROßE
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- ▶ w/W: double U (or V)
- ▶ æ/Æ, œ/Œ
- ▶ я/Я, ю/Ю: from I + A,
I + O(Y)

& ™ £ ¤ ¥ &

à â ã @

ç ¢ € ¶

l + s → ß

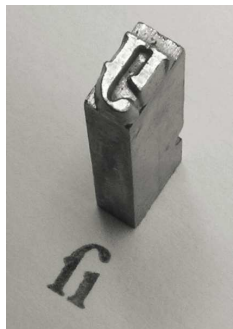
l + ſ → ſ

l + ð → ð



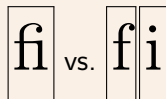
DER
GROSSE
DUDEN

types of ligature



stylistic ligatures

glyphs intruding in each other's bounding box were cast as one glyph (one piece of lead) in the printing press, e.g.,



stylistic ligatures

Five standard latin based ligatures found in most good serif character sets.



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"Flow's fine beans" logotype set in un-kerned Mrs Eaves Roman and Italic with no ligatures. Note the collision between the 'fl' of 'flow's' and the 'fi' of 'fine'. Also poor kerning between the apostrophe and letter's either side of it.

flow's fine beans

stylistic ligatures

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The logotype is now kerned and includes ligatures for the 'fl' and the 'fi'. The apostrophe is comfortably set between the w and s and an overall balance is created with the ligatures.

flow's fine beans

flow's fine beans

further stylistic ligatures

fb	fk	ffh	→	fb	fk	ffh		
ff	fl	ffi		ff	fl	ffi		
fh	fr	ffk		fh	fr	ffk	<i>st</i>	<i>as</i>
fi	ft	ffl		fi	ft	ffl	<i>ct</i>	<i>es</i>
fj	ffb	ffr		fj	ffb	ffr	<i>ty</i>	<i>is</i>
							<i>ns</i>	<i>nt</i>
							<i>tt</i>	<i>tt</i>

The first Manhattan succinct
spelling interpretation contest

æ fb ct fy ee ff gi fh it fj fh it fj ky fl
 gg gy oe sp ggy fr st ft ip py tw tt tw tty
 AA MB © MD ME FF © HE FI UB NK FL LA
 NT © MP E R UD TT UP VA TW UL TY UR
 ffb ffi ffh ffj cky ffl ffr
 fft ffy fi N js fs æ TE Æ

extreme cases of stylistic ligatures

Theremin actress Spokesperson
Krafft risked mistflower octagon
Gottfried outflanked satisfying
Luskin refine bachelor ersatz
Bakerfield jetty factfinding
Nottingham surfboard kaftan
Affects packing offices fjords
Eastfield transforming quota
Vestfjorden Sauerstoffflaschen

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TE AARDVARK GØGGLES
Deconstructivist theorists be freeky
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Władystaw
Jagiello
Władystaw
Jagiello

a printer's case with ligatures

A														B															
A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	D	E	F	G		
H	I	K	L	M	N	O	H	I	K	L	M	N	O	H	I	K	L	M	N	O	H	I	K	L	M	N	O		
P	Q	R	S	T	V	X	P	Q	R	S	T	V	X	P	Q	R	S	T	V	X	P	Q	R	S	T	V	X		
â	è	î	ô	û	Y	Z	â	è	î	ô	û	Y	Z	J	U	Æ	Æ	ſ	Y	Z	J	U	Æ	Æ	ſ	Y	Z		
á		í	ó	ú	;	ſb	á		í	ó	ú	;	ſb	ffl	ſ	Œ	œ	+	[]	!	ffl	ſ	Œ	œ	+	[]	!		
à	è	ì	ò	ù	ſt	ſl	à	è	ì	ò	ù	ſt	ſl	ſl	Ç	ç	W	w	()	?	ſl	Ç	ç	W	w	()	?		
*	ct	J	U	j	ſt	ſſ	*	ct	J	U	j	ſt	ſſ	ff	ë	ï	ü	É	É	”	ff	ë	ï	ü	É	É	”		
a														b															
o	c	é	-	,		e	1	2	3	4	ſ	6	7	8	o	c	é	-	,		e	1	2	3	4	ſ	6	7	8
&	b	c	d			e	s	f	f	g	h	9	o	&	b	c	d			e	s	f	f	g	h	9	o		
z						i					ff	ff	k	z						i					ff	ff	k		
y	l	m	n			i	o	p	q		ſ	ſ	:	y	l	m	n			i	o	p	q		ſ	ſ	:		
x	v	u	t			<i>Espaces</i>	a	r			.	,	<i>Quadrats</i>	x	v	u	t			<i>Espaces</i>	a	r			.	,	<i>Quadrats</i>		
D														E															

avoiding collision

fújhatta magában a csavargók dalát, amly-
gy:

*Teremtette faszekere,
Se feneke, se kereke.
Ne ülj bele, feldűlsz vele.
Sáron-vízen lábad viszen,
Rúgjad a port máris,
Így fut a szamár is.*

stylistic ligatures suppressed

some authorities claim that a stylistic ligature must not span across a word/morpheme boundary, e.g.,

- ▶ Sauerstoffflaschen

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- ▶ Sauerstoffflaschen
- ▶ selfish vs. shellfish

sample exam questions

Which is the cedilla?

1. ç
2. ô
3. č
4. q

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Which is not a character ligature?

1. &
2. w
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