



‘Unicode Glagolitic Pe’ - Fact or Fiction?

SEBASTIAN KEMPGEN
UNIVERSITY OF BAMBERG,
GERMANY



GLAGOLICA IN UNICODE



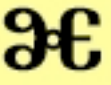


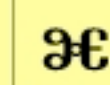


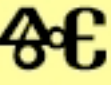


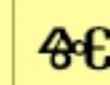


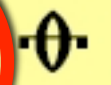


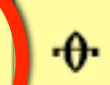





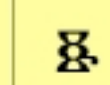


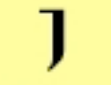


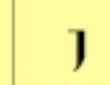





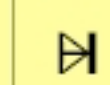





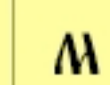






4.1, 2005

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1	Ⱪ 2C01	ⱪ 2C11	Ⱬ 2C21	Ⱪ 2C31	ⱪ 2C41	Ⱬ 2C51
2	ⱬ 2C02	Ɑ 2C12	Ɱ 2C22	ⱬ 2C32	Ɑ 2C42	Ɱ 2C52
3	Ɐ 2C03	Ɒ 2C13	ⱱ 2C23	Ɐ 2C33	Ɒ 2C43	ⱱ 2C53
4	Ⱳ 2C04	ⱳ 2C14	ⱴ 2C24	Ⱳ 2C34	ⱳ 2C44	ⱴ 2C54
5	Ⱶ 2C05	ⱶ 2C15	ⱷ 2C25	Ⱶ 2C35	ⱶ 2C45	ⱷ 2C55
6	ⱸ 2C06	ⱹ 2C16	ⱺ 2C26	ⱸ 2C36	ⱹ 2C46	ⱺ 2C56
7	ⱻ 2C07	ⱼ 2C17	ⱽ 2C27	ⱻ 2C37	ⱼ 2C47	ⱽ 2C57
8	Ȿ 2C08	Ɀ 2C18	Ⳁ 2C28	Ȿ 2C38	Ɀ 2C48	Ⳁ 2C58

8	Ȿ 2C08	Ɀ 2C18	Ⳁ 2C28	Ȿ 2C38	Ɀ 2C48	Ⳁ 2C58
9	ⳁ 2C09	Ⳃ 2C19	ⳃ 2C29	ⳁ 2C39	Ⳃ 2C49	ⳃ 2C59
A	Ⳅ 2C0A	ⳅ 2C1A	Ⳇ 2C2A	Ⳅ 2C3A	ⳅ 2C4A	Ⳇ 2C5A
B	ⳇ 2C0B	Ⳉ 2C1B	ⳉ 2C2B	ⳇ 2C3B	Ⳉ 2C4B	ⳉ 2C5B
C	Ⳋ 2C0C	ⳋ 2C1C	Ⳍ 2C2C	Ⳋ 2C3C	ⳋ 2C4C	Ⳍ 2C5C
D	ⳍ 2C0D	Ⳏ 2C1D	ⳏ 2C2D	ⳍ 2C3D	Ⳏ 2C4D	ⳏ 2C5D
E	Ⳑ 2C0E	ⳑ 2C1E	Ⳓ 2C2E	Ⳑ 2C3E	ⳑ 2C4E	Ⳓ 2C5E
F	ⳓ 2C0F	Ⳕ 2C1F		ⳓ 2C3F	Ⳕ 2C4F	

"GLAGOLITIC PE"



8	 2C08	 2C18	 2C28	 2C38	 2C48	 2C58
9	 2C09	 2C19	 2C29	 2C39	 2C49	 2C59
A	 2C0A	 2C1A	 2C2A	 2C3A	 2C4A	 2C5A
B	 2C0B	 2C1B	 2C2B	 2C3B	 2C4B	 2C5B
C	 2C0C	 2C1C	 2C2C	 2C3C	 2C4C	 2C5C
D	 2C0D	 2C1D	 2C2D	 2C3D	 2C4D	 2C5D
E	 2C0E	 2C1E	 2C2E	 2C3E	 2C4E	 2C5E
F	 2C0F	 2C1F		 2C3F	 2C4F	

PE - SOME FACTS



PE

- SOME

FACTS

NO TEXTS

“GLAGOLITIC PE”

OTHER FACTS?

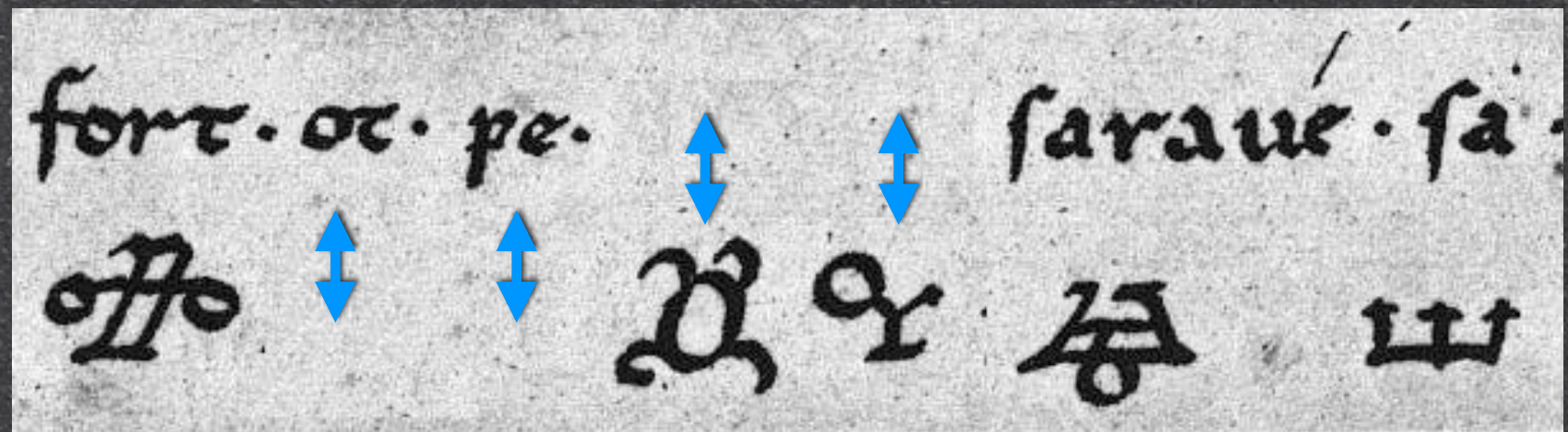
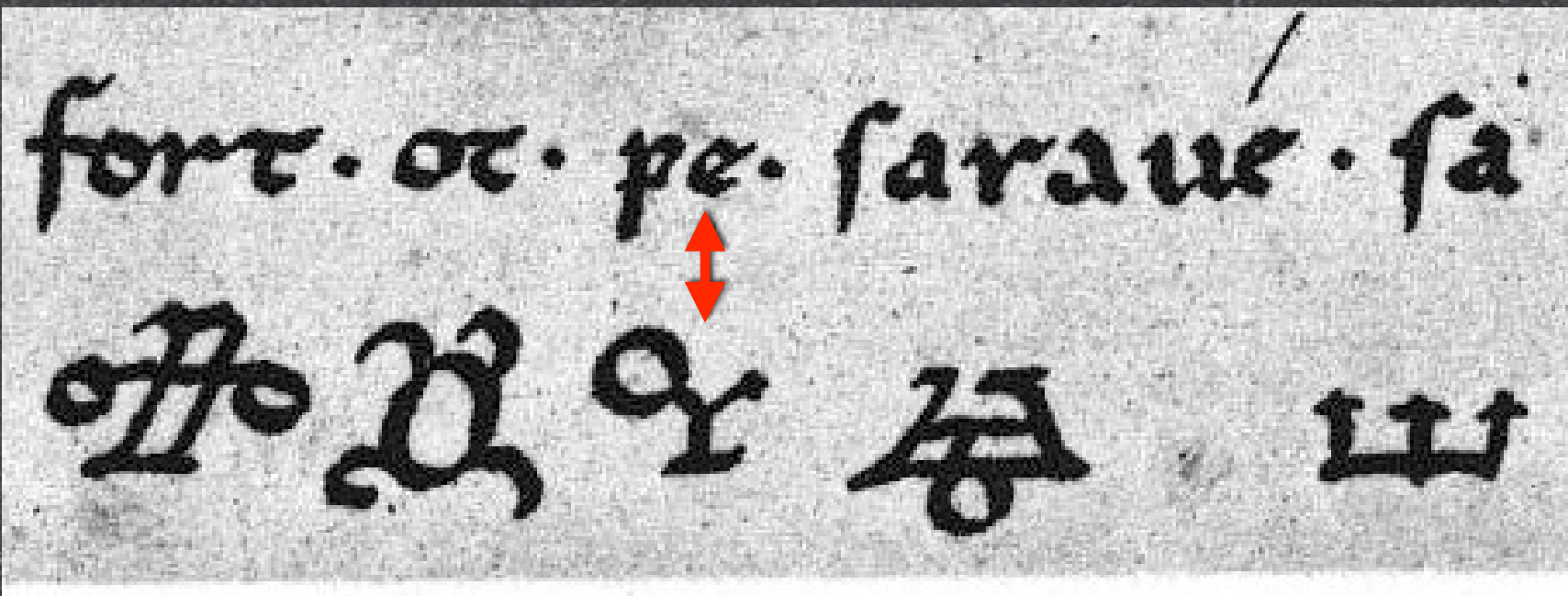
PARIS ABECEDARIUM

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MISTAKES,
MISTAKES

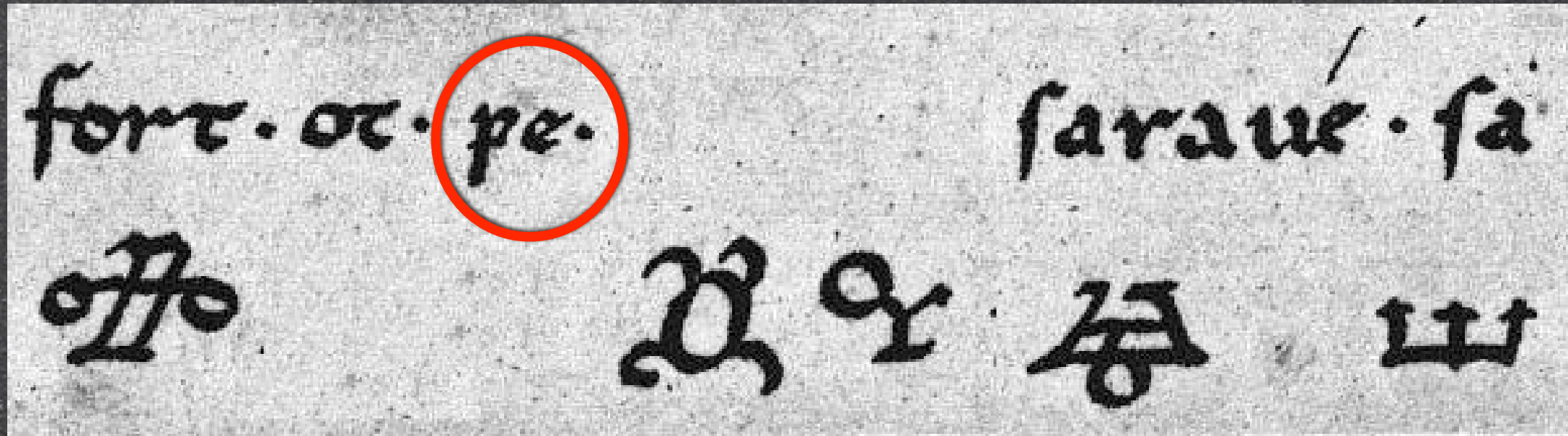
af. bocobi. uedde. glagoli. dobro. hiest. giuete. zello. zemia. ise. iser. caco. ludde. muselite. nas. on. pocor. reci. cslouo
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PARIS ABECEDARIUM



MISTAKES
CORRECTED

PARIS ABECEDARIUM



A NAME, BUT NO
SHAPE

MUNICH ABECEDARIUM

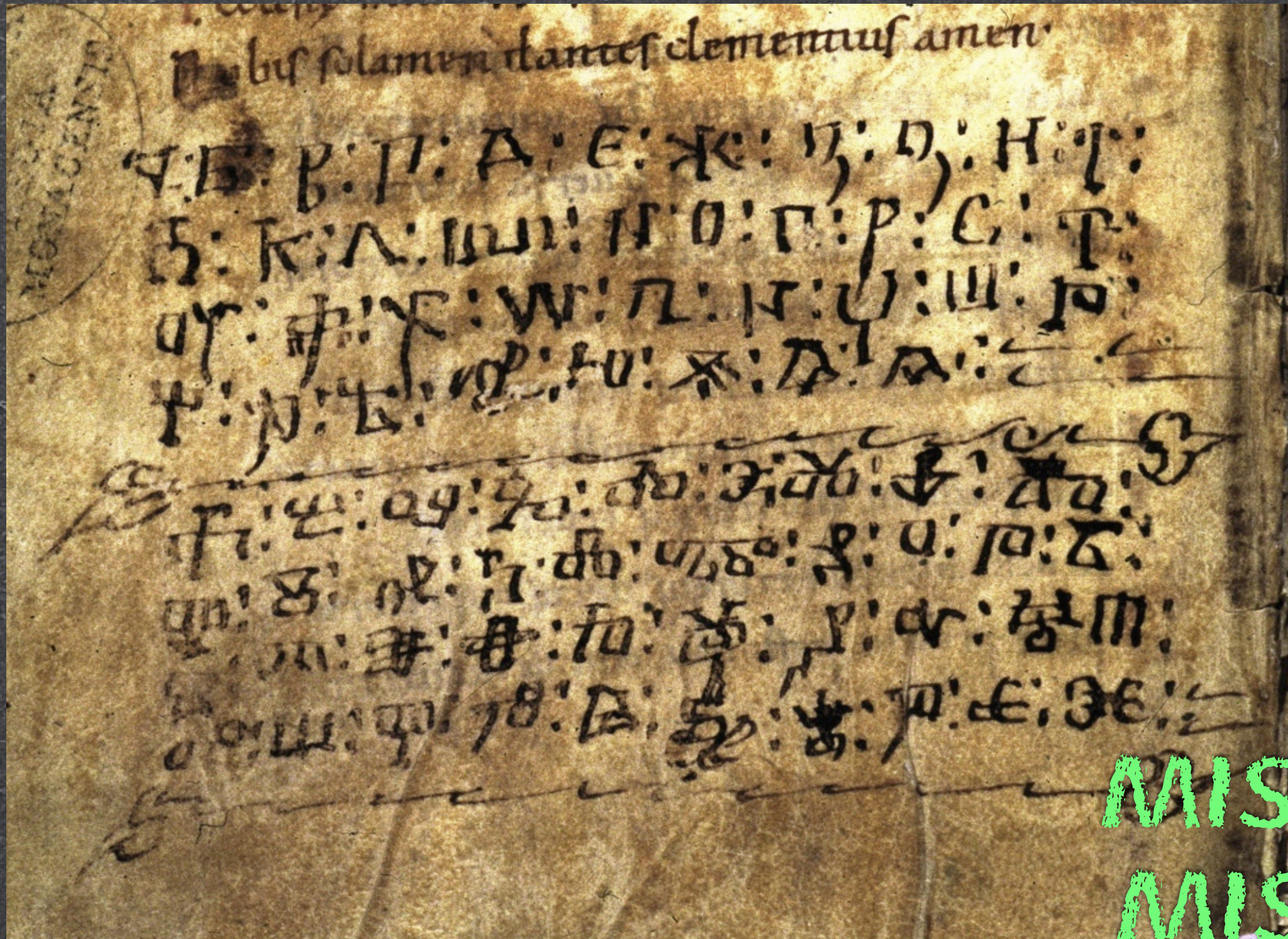
Probus solamen stantes clementius amen

A: B: C: D: E: F: G: H: I:
K: L: M: N: O: P: Q: R:
S: T: U: V: W: X: Y: Z:
aa: bb: cc: dd: ee: ff: gg:

hh: ii: jj: kk: ll: mm: nn:
oo: pp: qq: rr: ss: tt: uu:
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NEW
EDITION

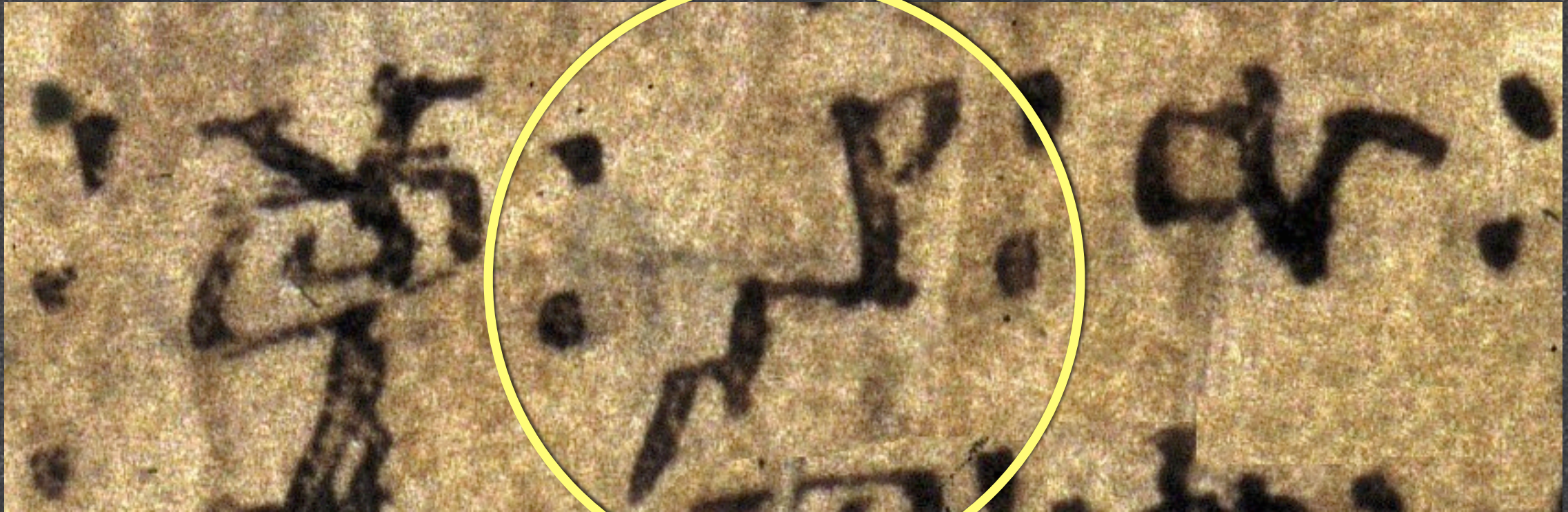
MUNICH ABECEDARIUM



MISTAKES,
MISTAKES

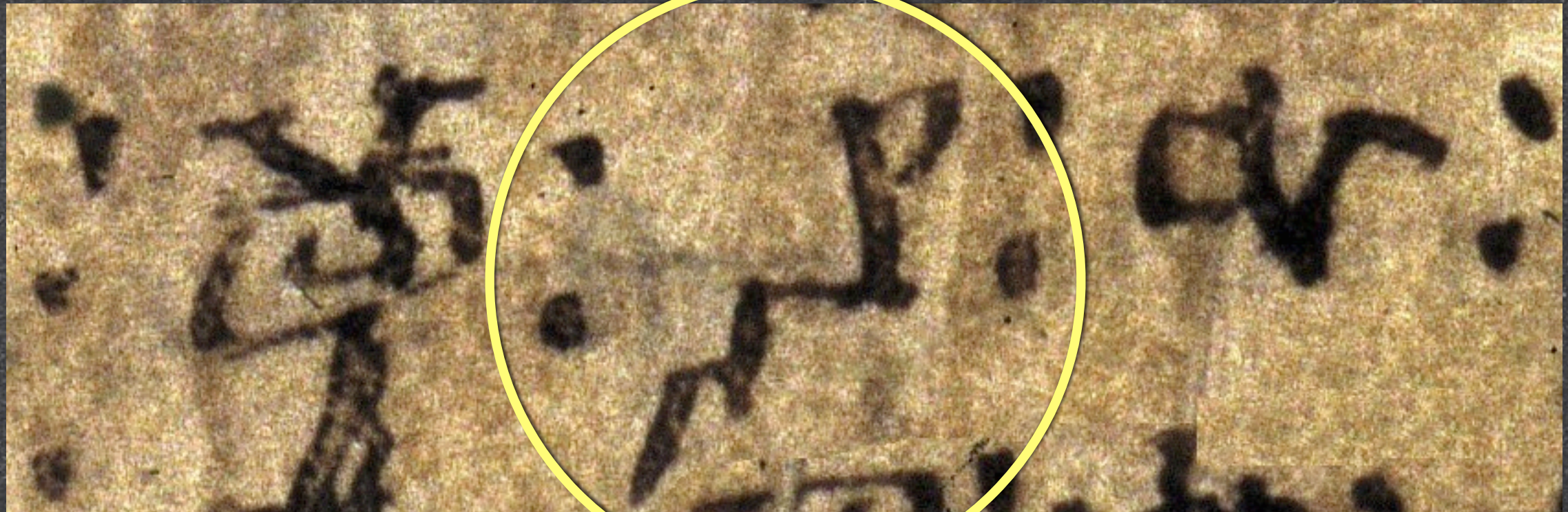
MUNICH ABECEDARIUM

GLAGOLITIC PART



MUNICH ABECEDARIUM

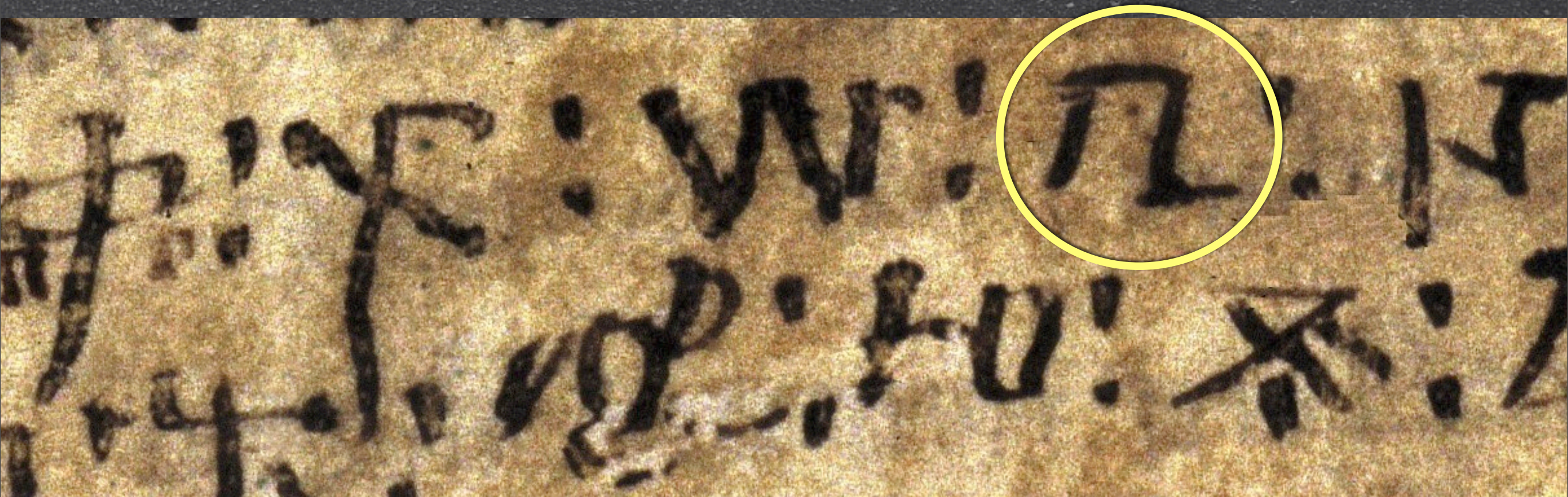
GLAGOLITIC PART



PRAGUE FRAGMENTS

MUNICH ABECEDARIUM

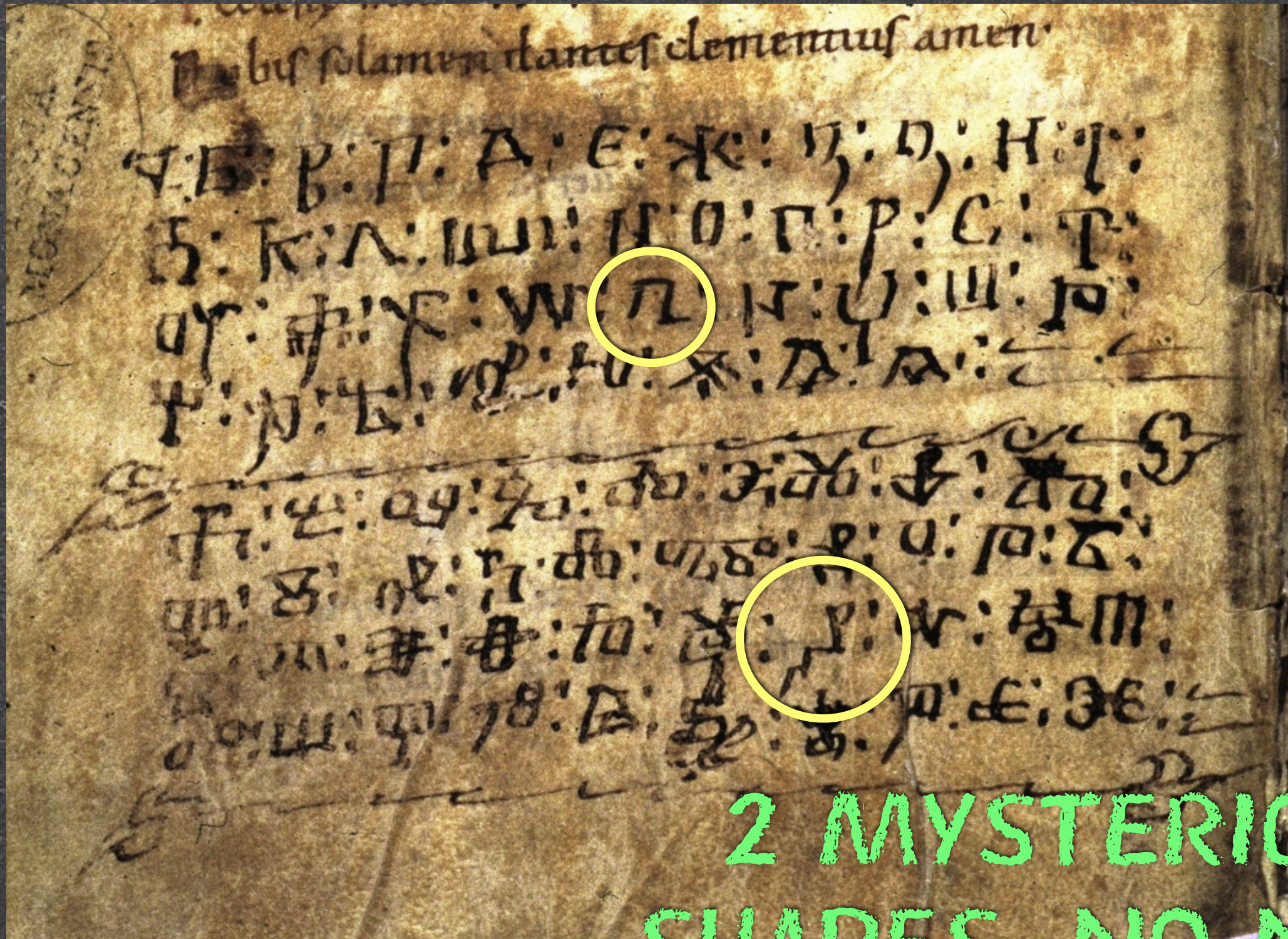
CYRILLIC PART



“SECOND P”

2C1A

MUNICH ABECEDARIUM



2 MYSTERIOUS
SHAPES, NO NAME

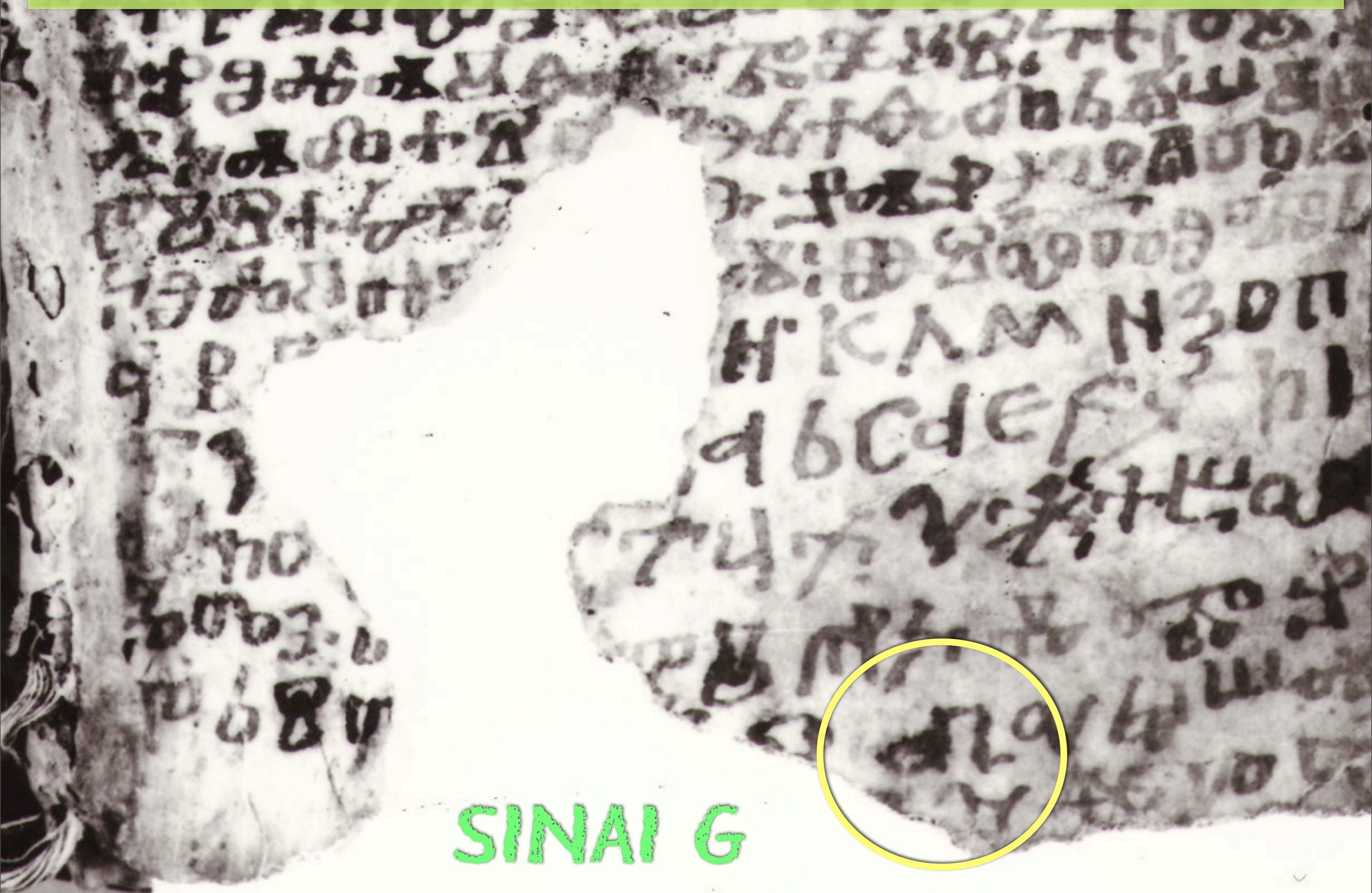
ABECEDARIA SINAITICA

Sin. Slav. 3/N.

15



ABECEDARIA SINAITICA



SINAI G

"PE GLAGOLITIC"

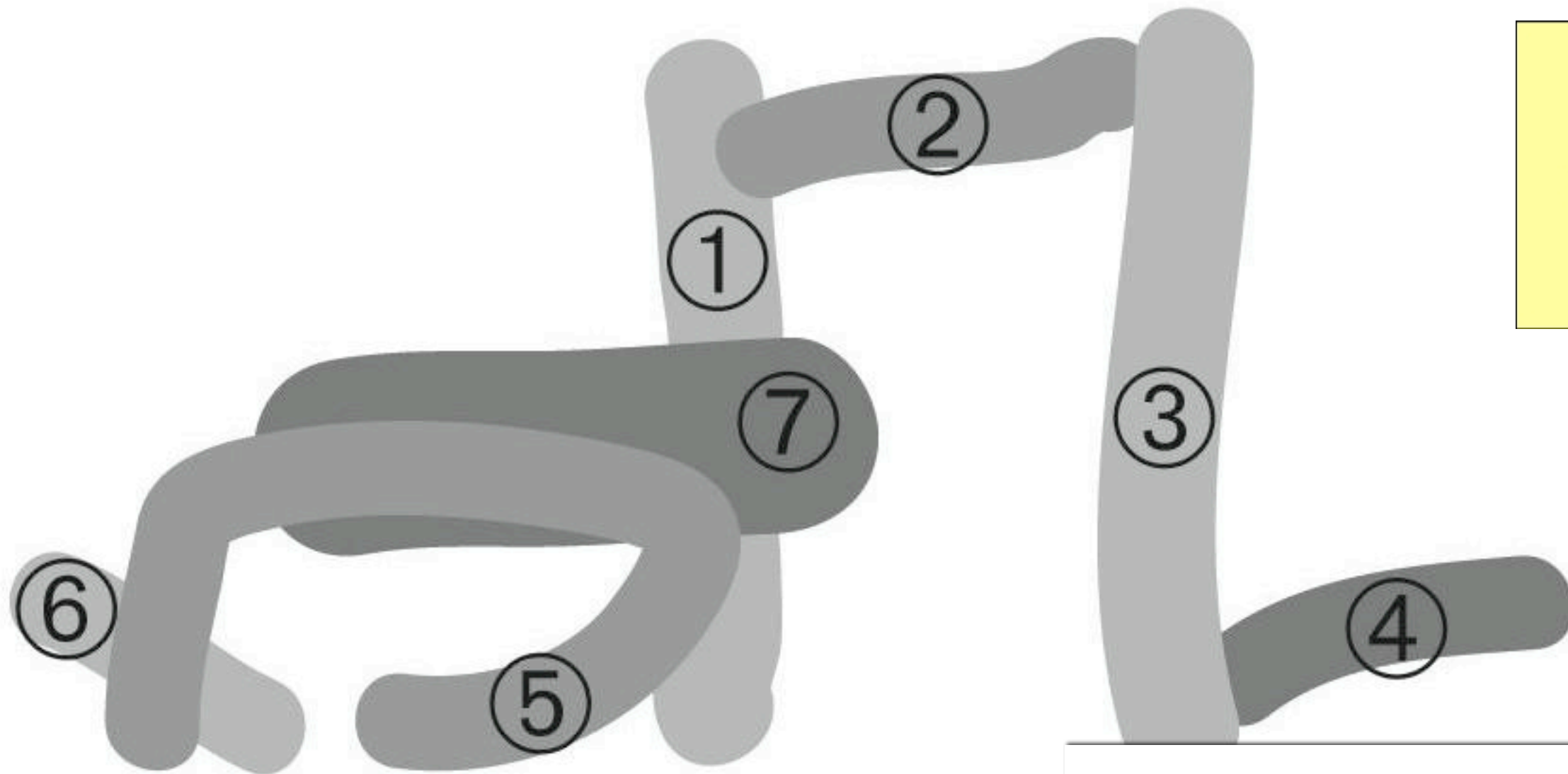


SINAI G



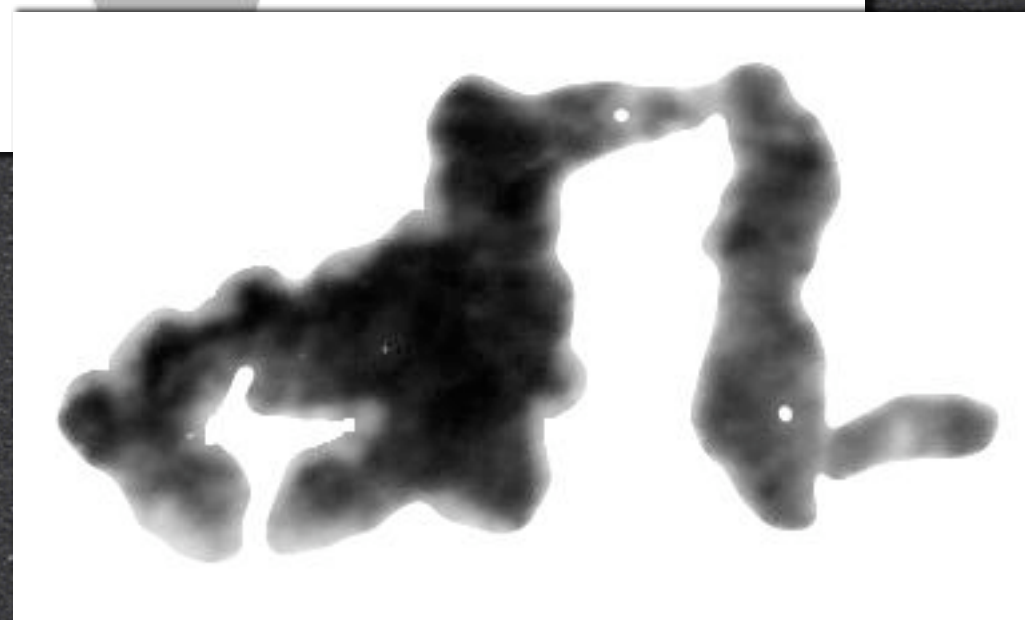
2C1A

"PE GLAGOLITIC"

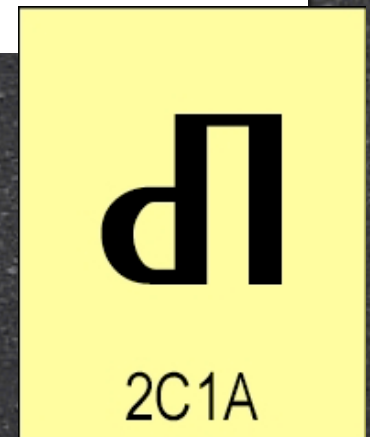
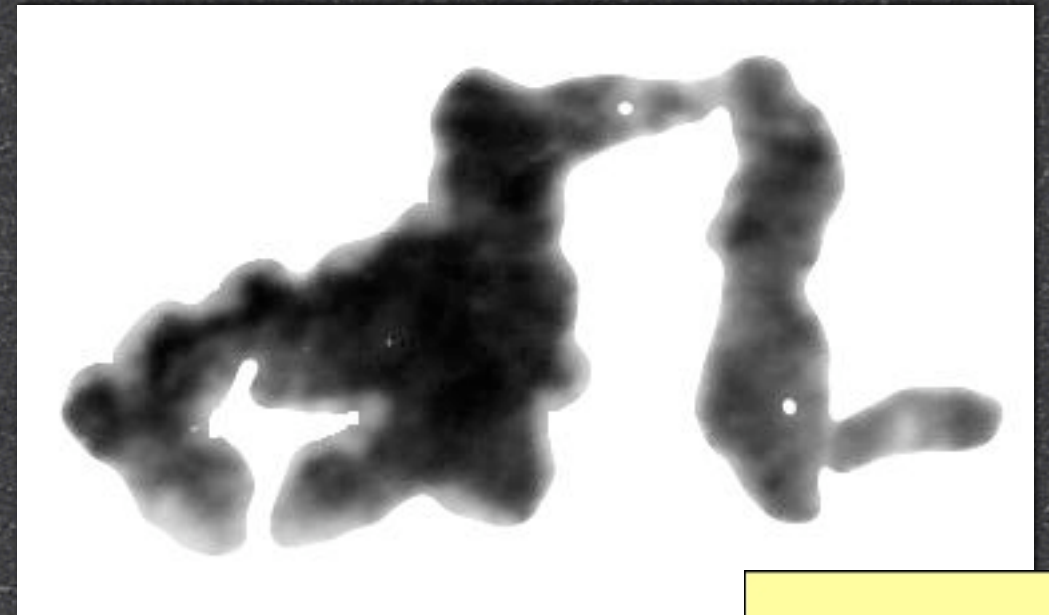


Ɱ
2C1A

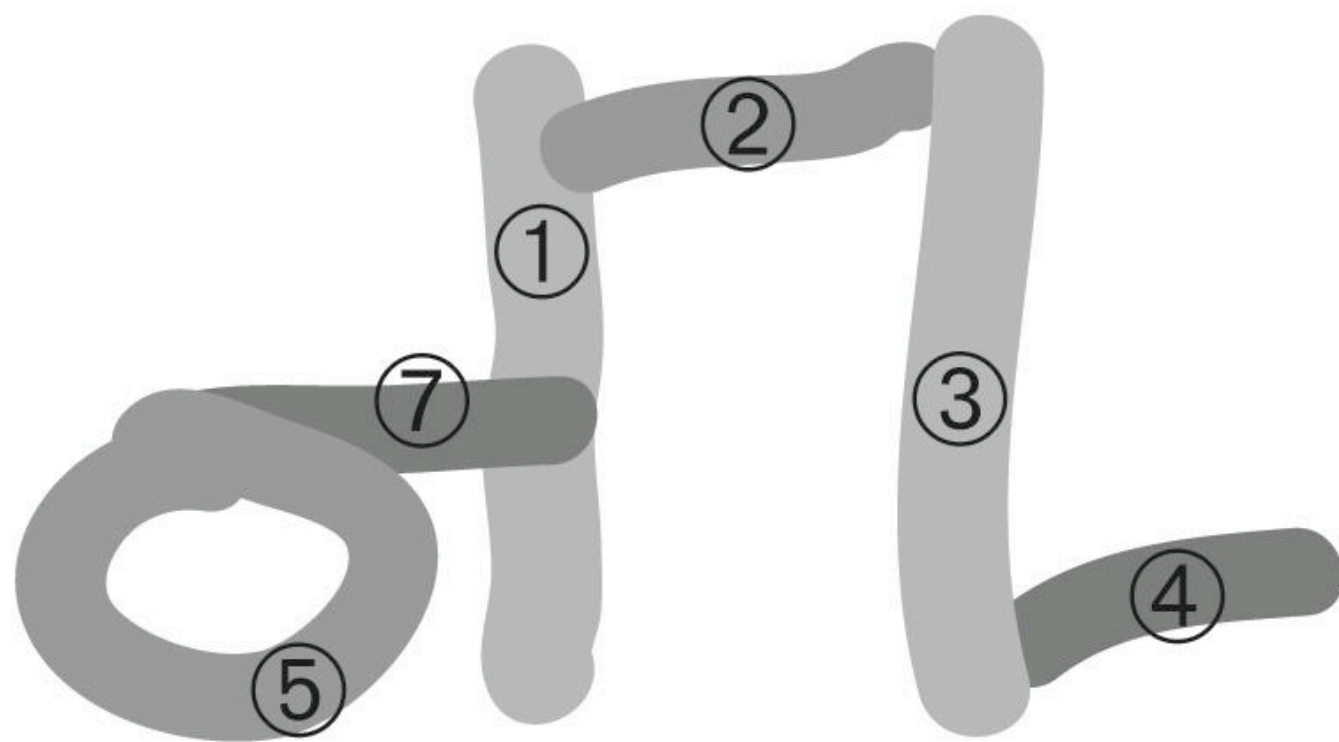
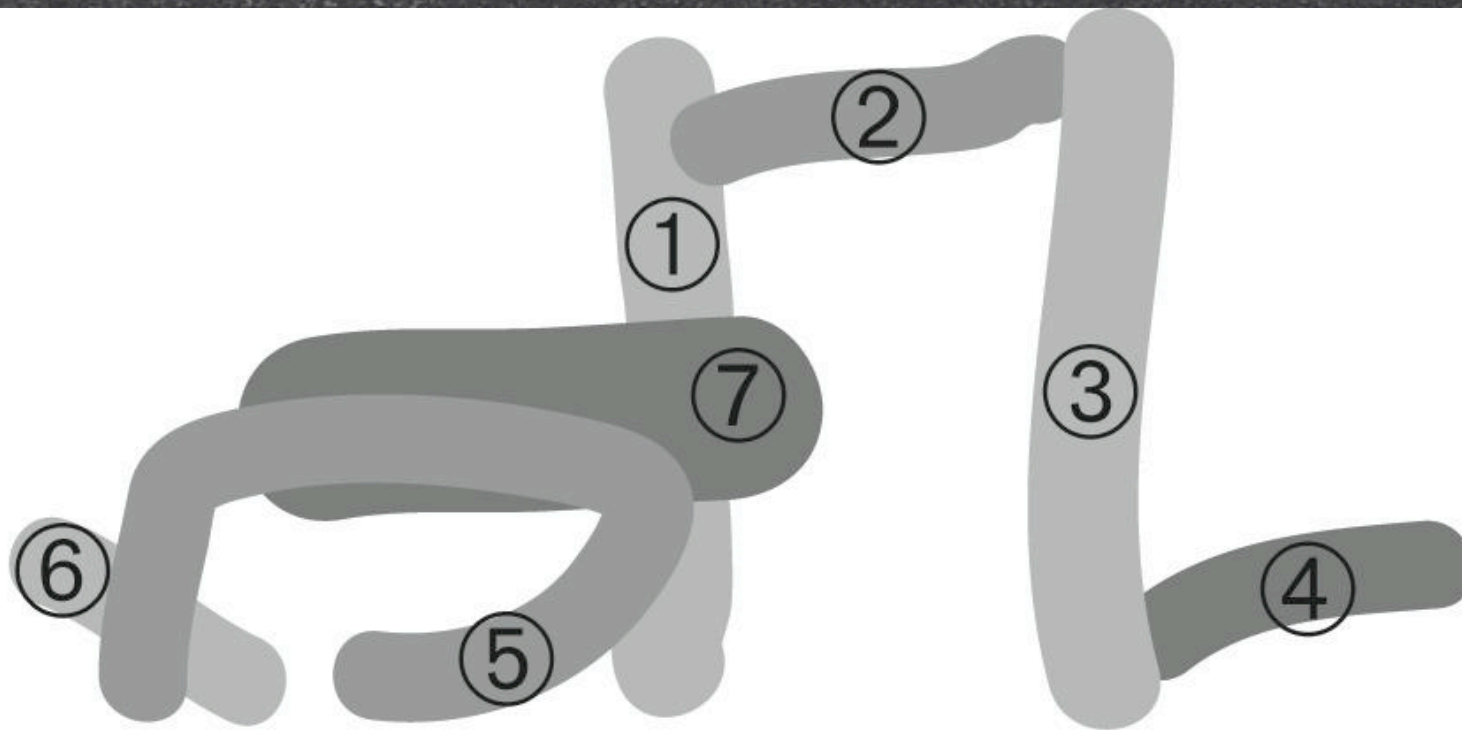
SINAI G •
STROKES



PE GLAGOLITIC



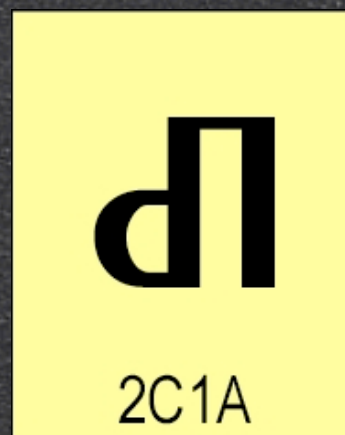
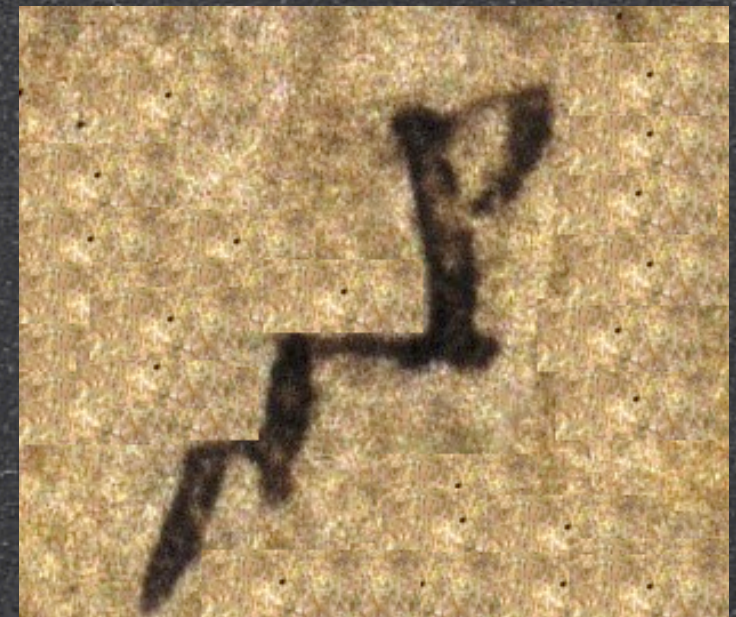
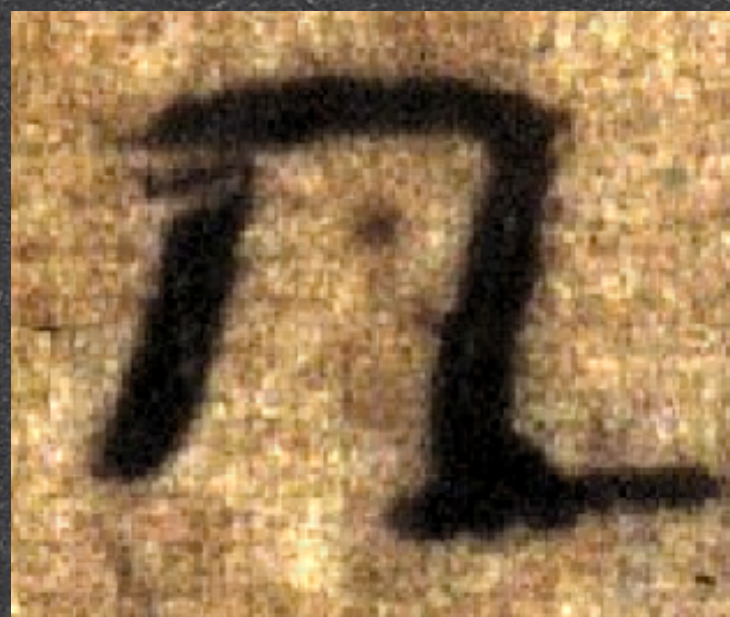
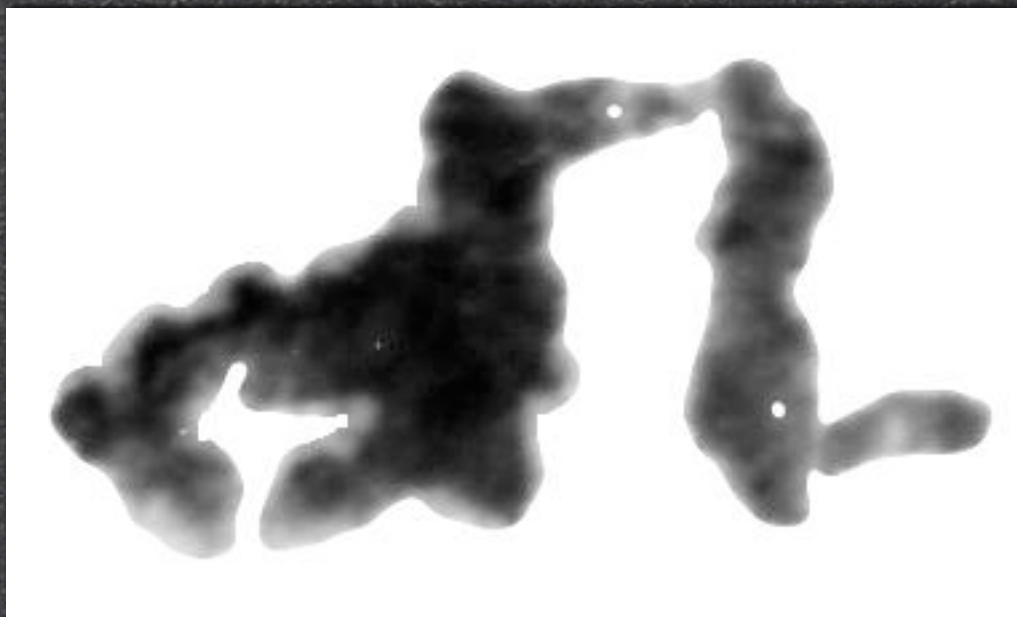
SINAI G •
STROKES



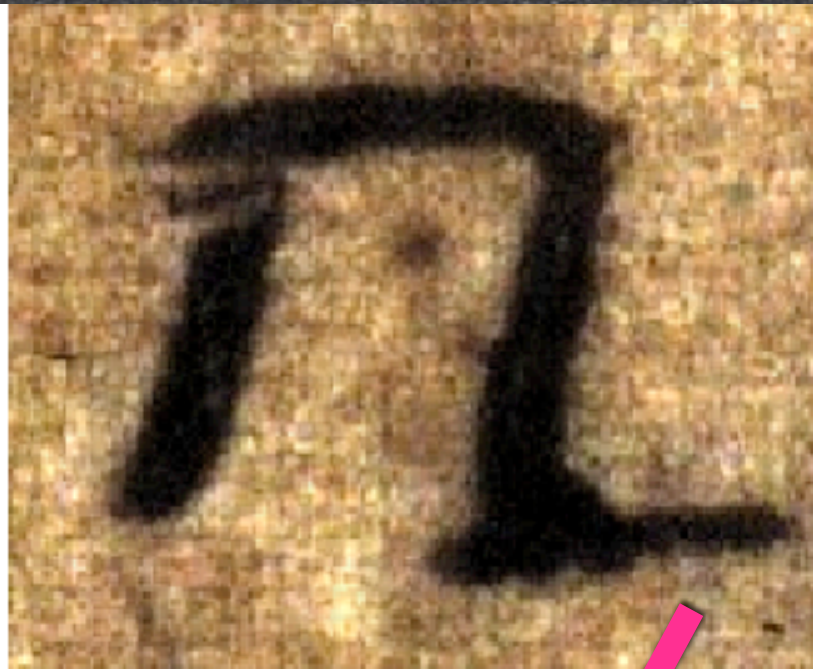
FACTS SO FAR

A NAME („PE“, PARIS ABC + ...)

TWO (OR THREE?) GLYPHS



MINOR RESULT

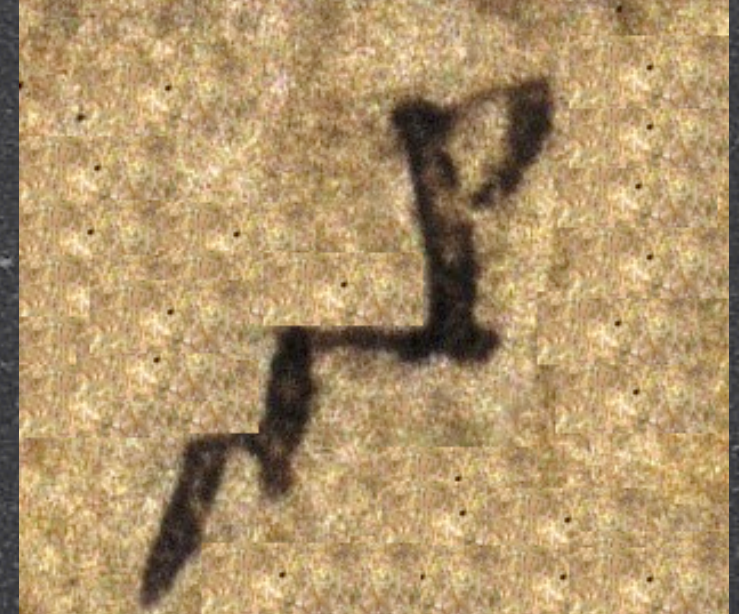
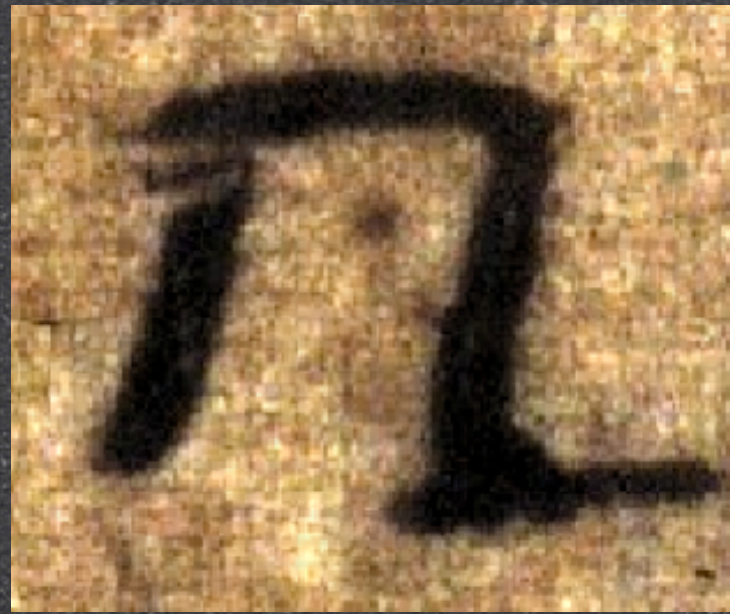
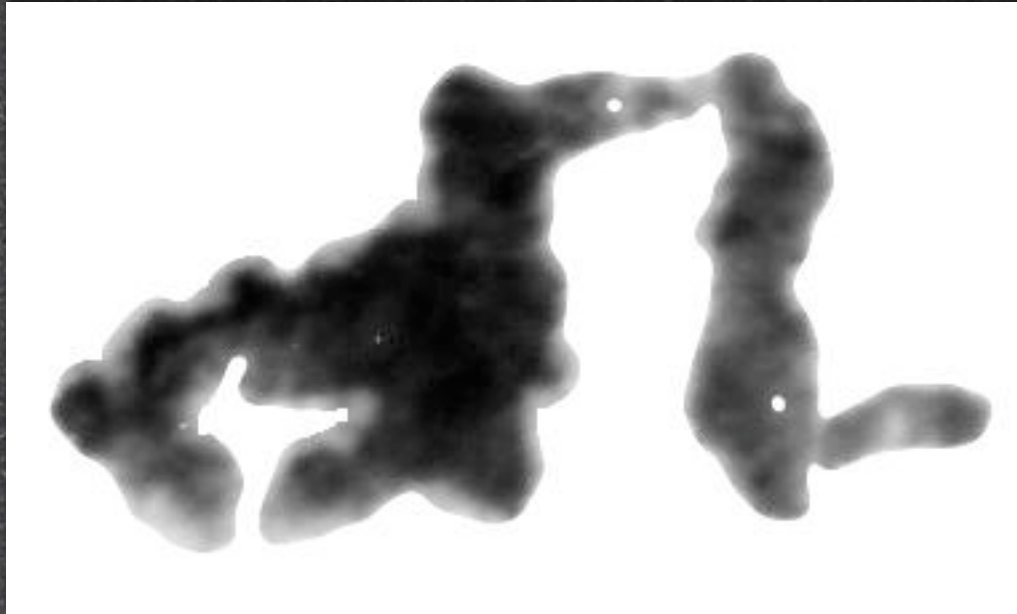


SINAI PE

RE-DESIGN
OF UC CHAR



GENERAL PROBLEM



WHICHEVER GLYPH IS CHOSEN
FOR UNICODE PE GLAGOLITIC,
IT WILL REPRESENT EITHER
NONE OF THE ACTUAL GLYPHS
OR AT MOST ONLY ITSELF

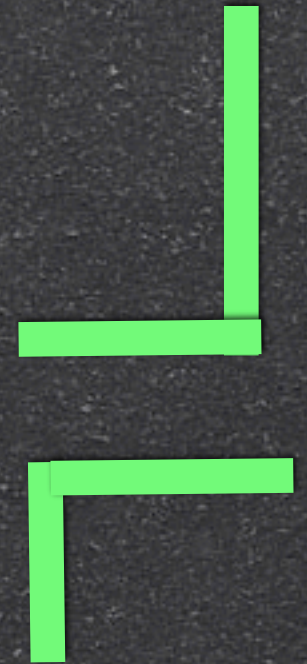
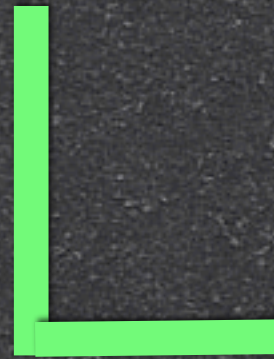
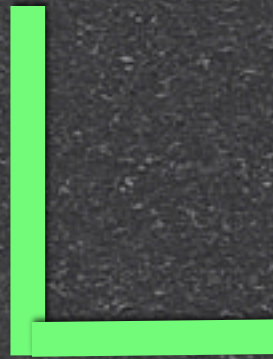
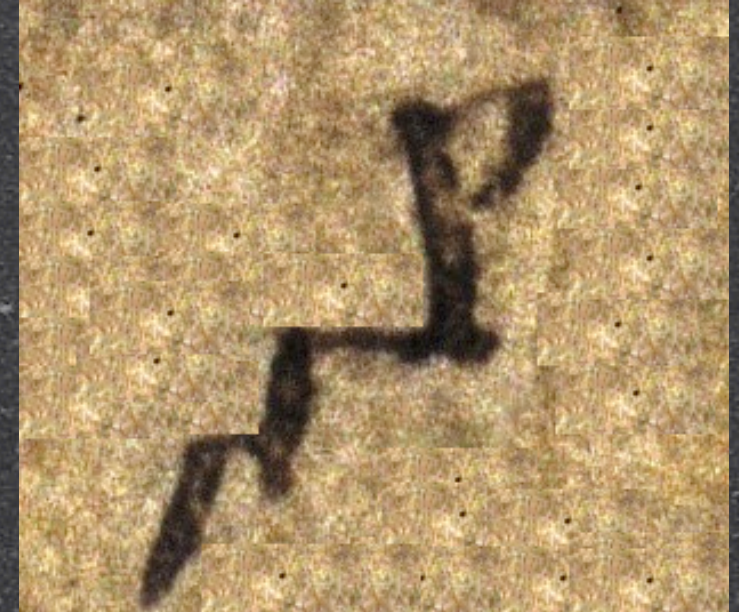
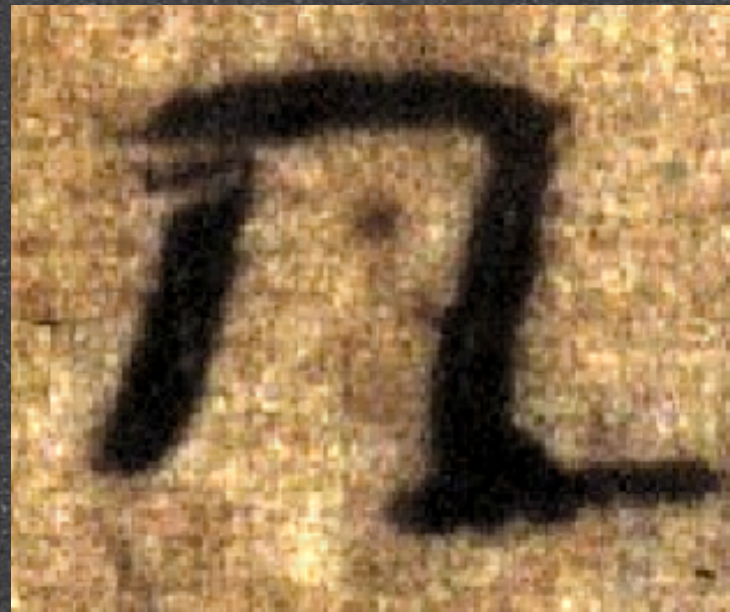
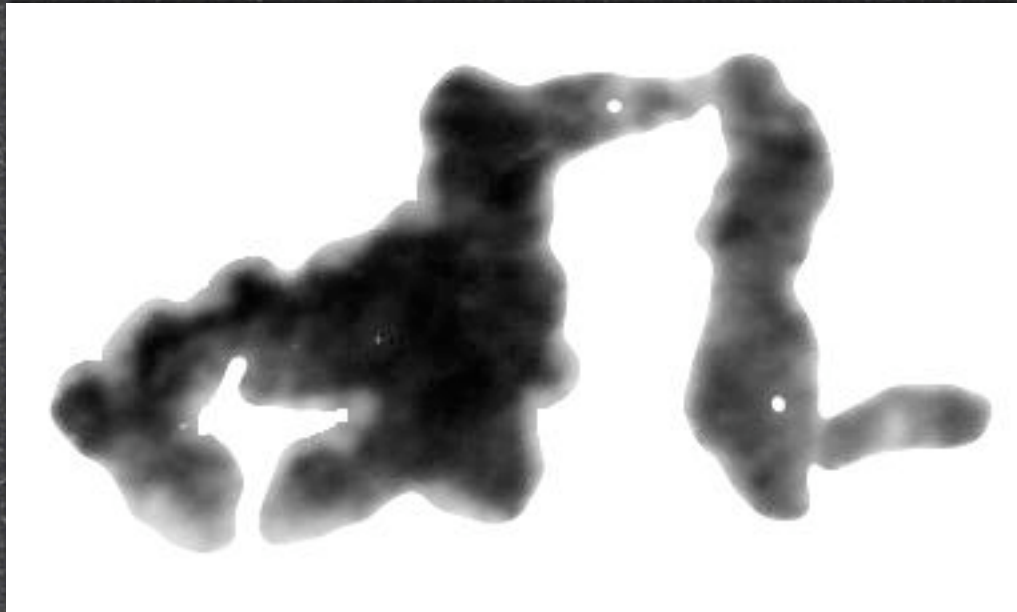
PRINCIPAL PROBLEM

α α α α λ λ λ λ α α α α

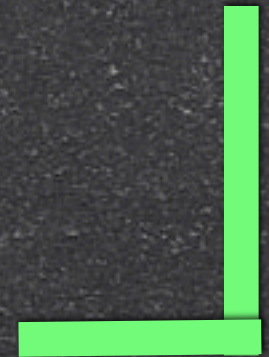
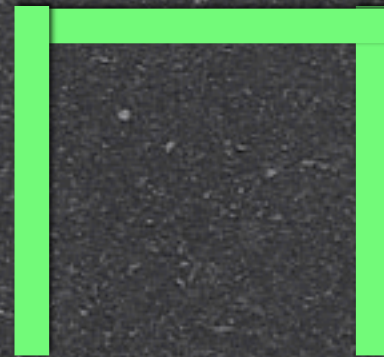
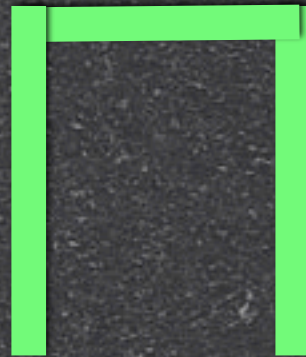
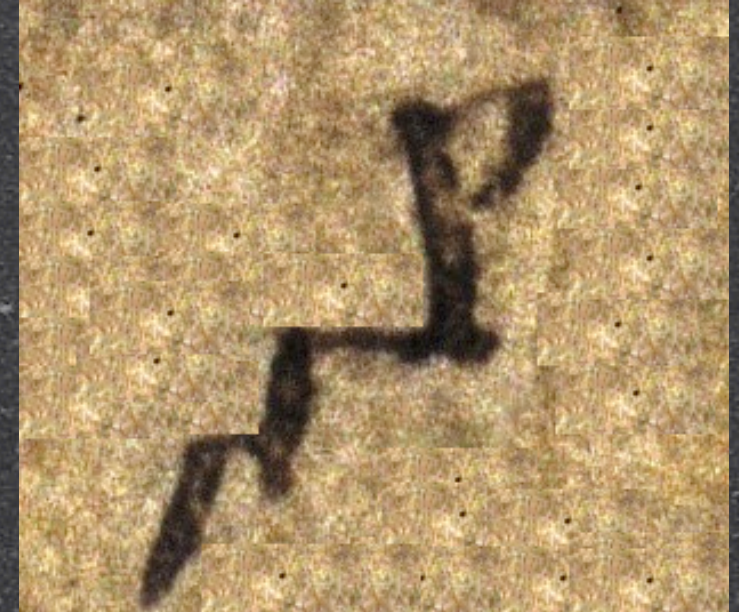
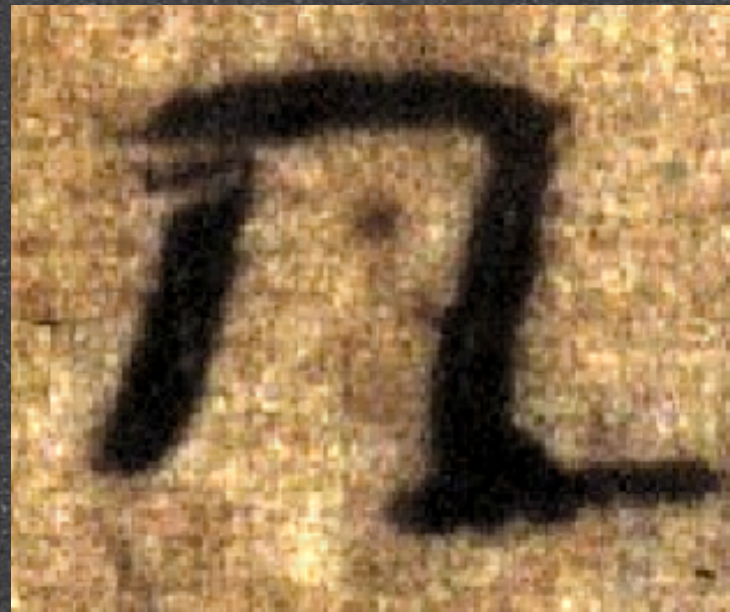
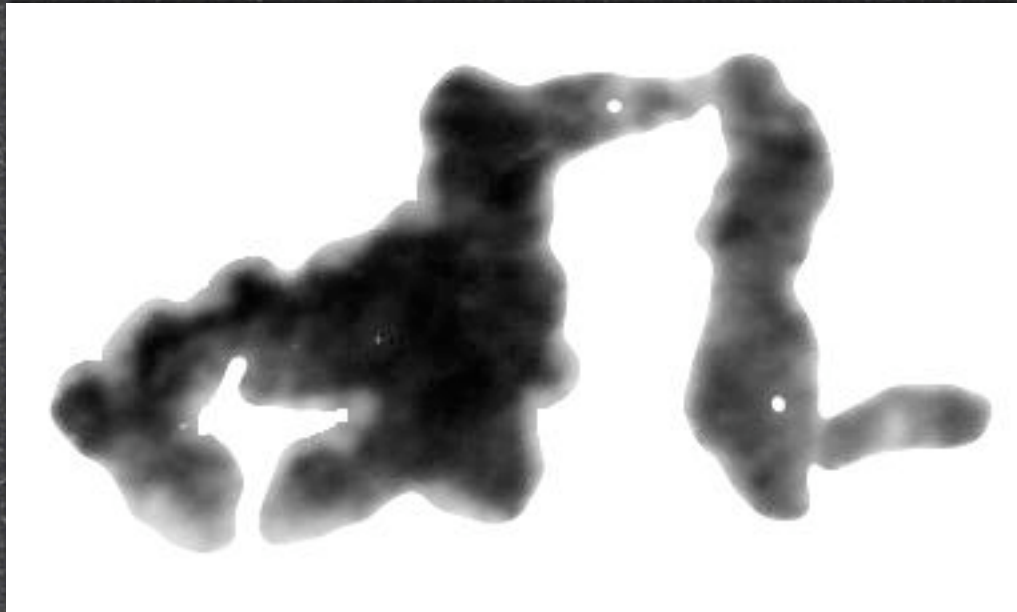
GLYPHIC VARIATION

HOW TO DERIVE A
CANONICAL SHAPE?

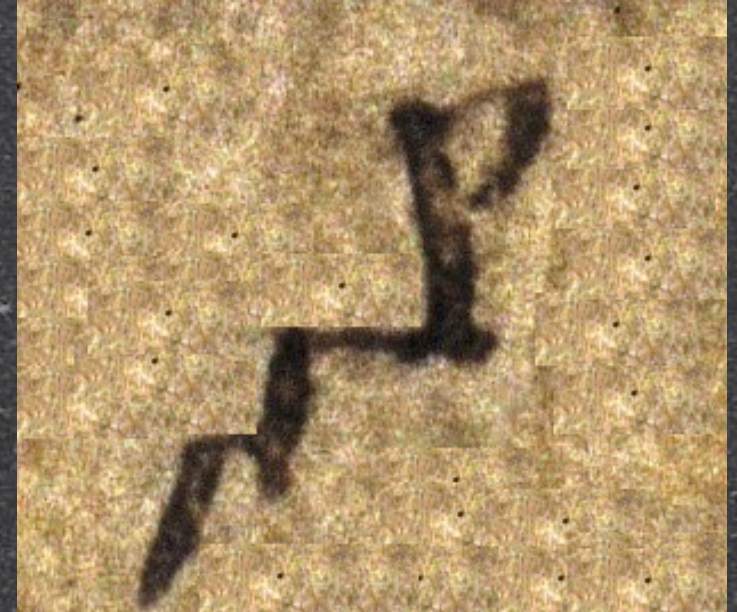
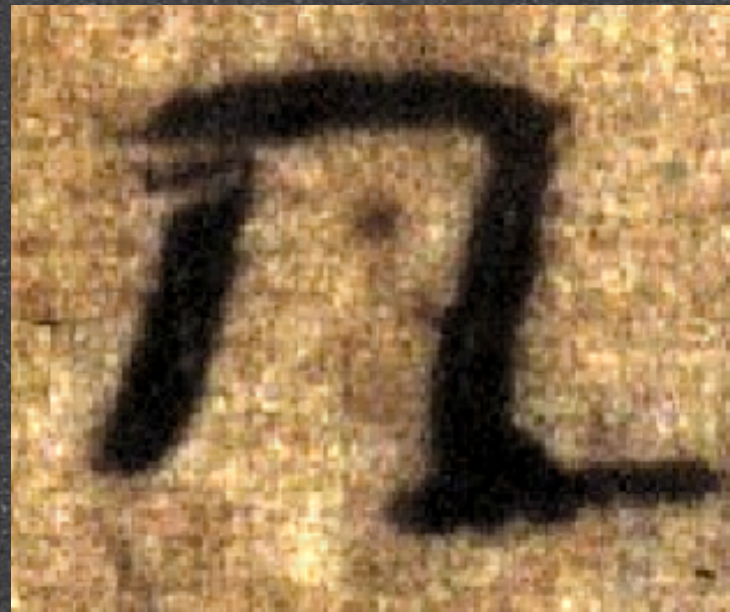
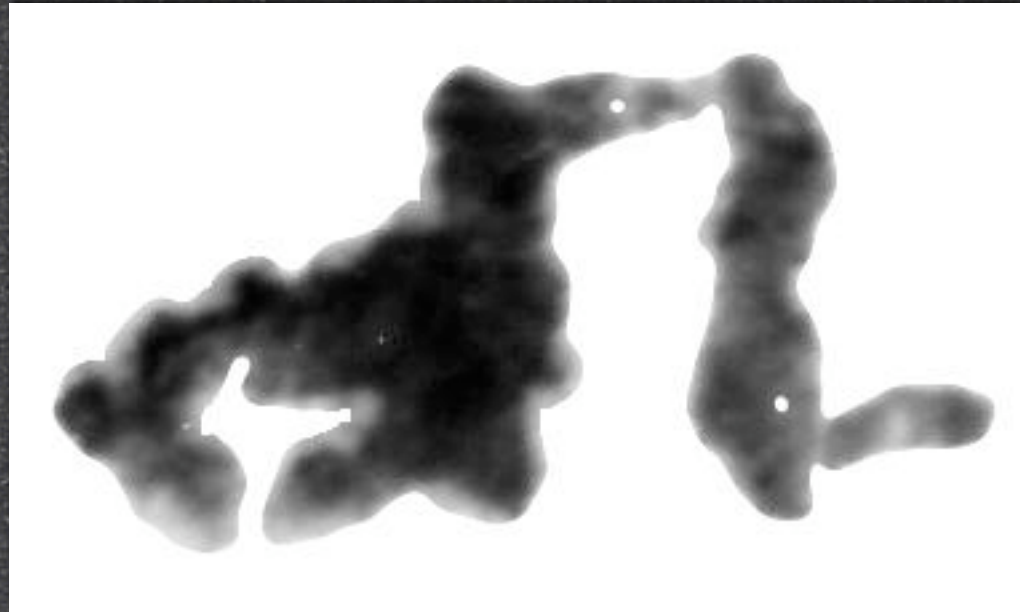
COMMON TRAITS



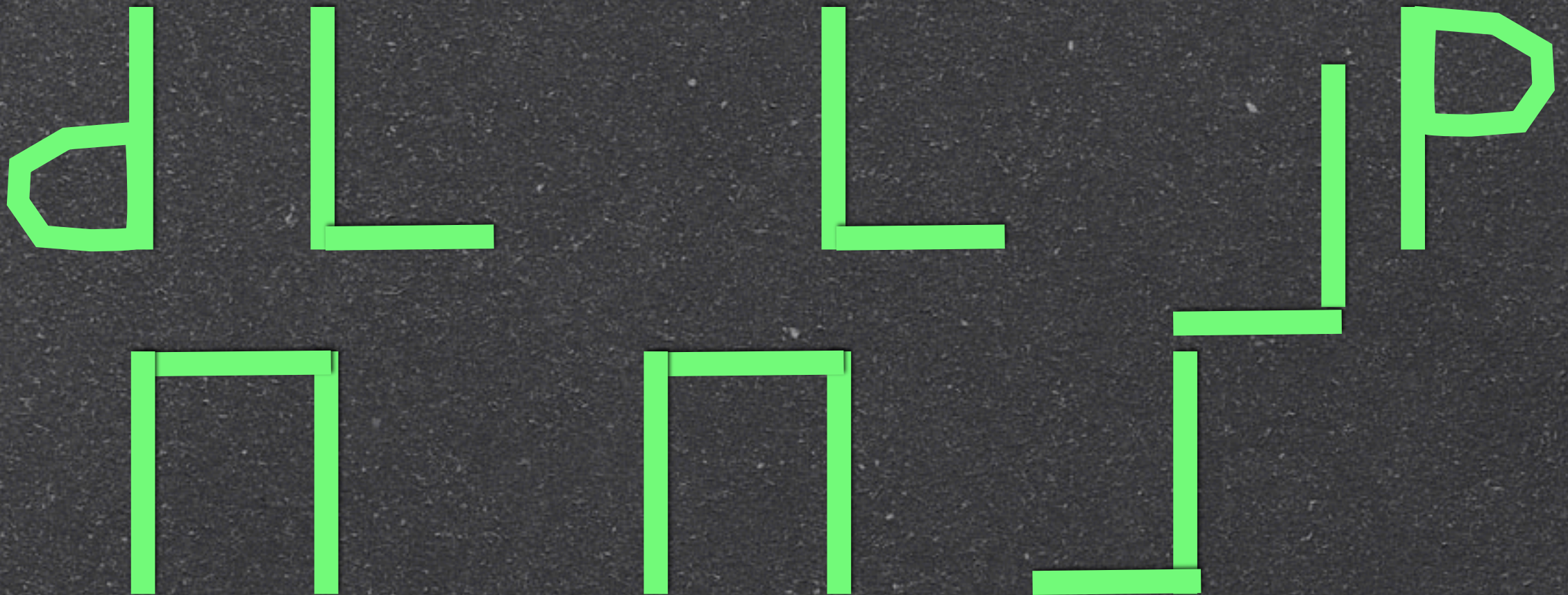
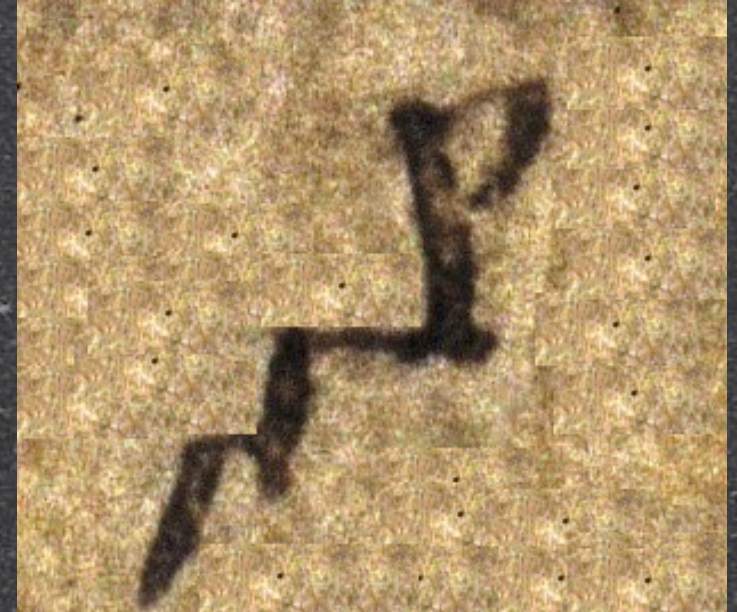
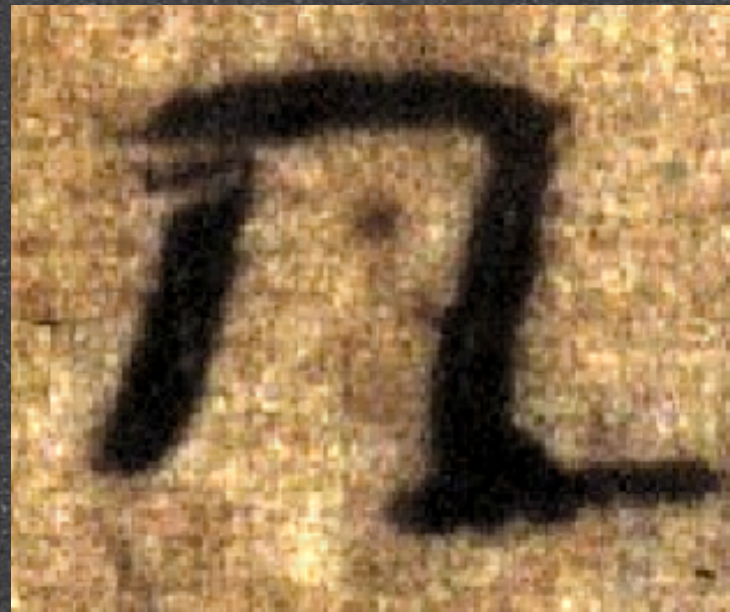
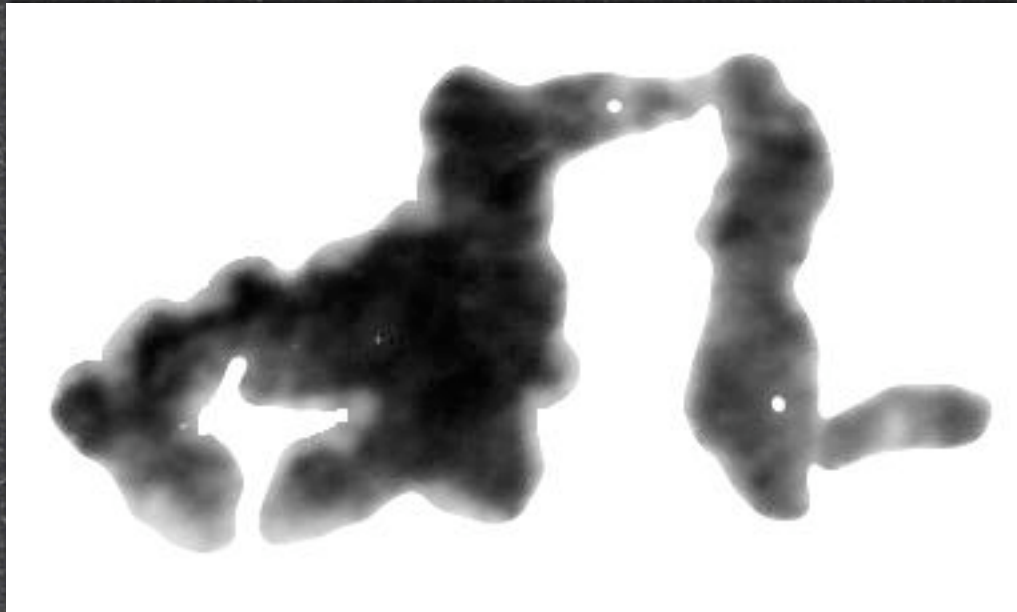
COMMON TRAITS



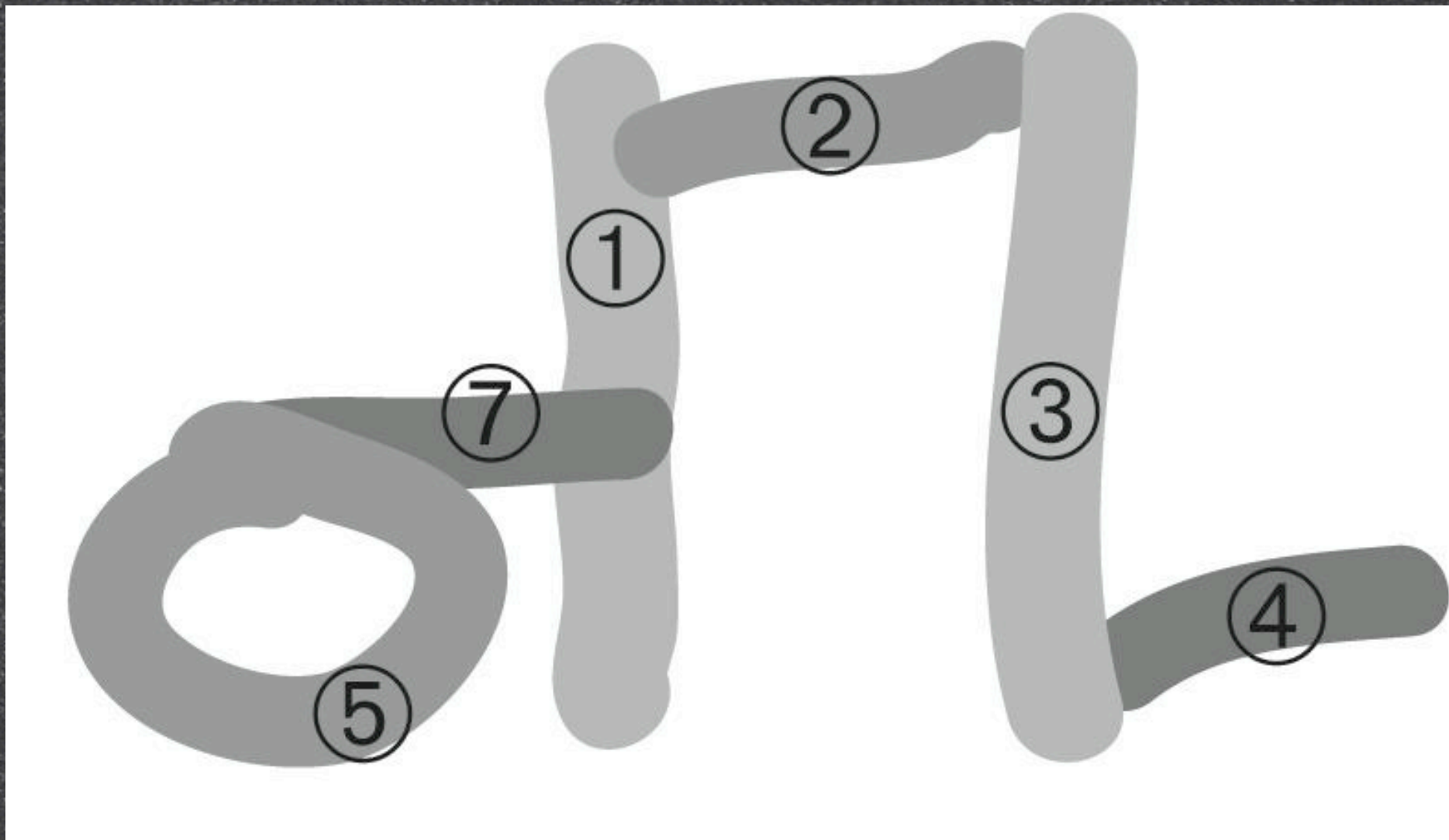
COMMON TRAITS



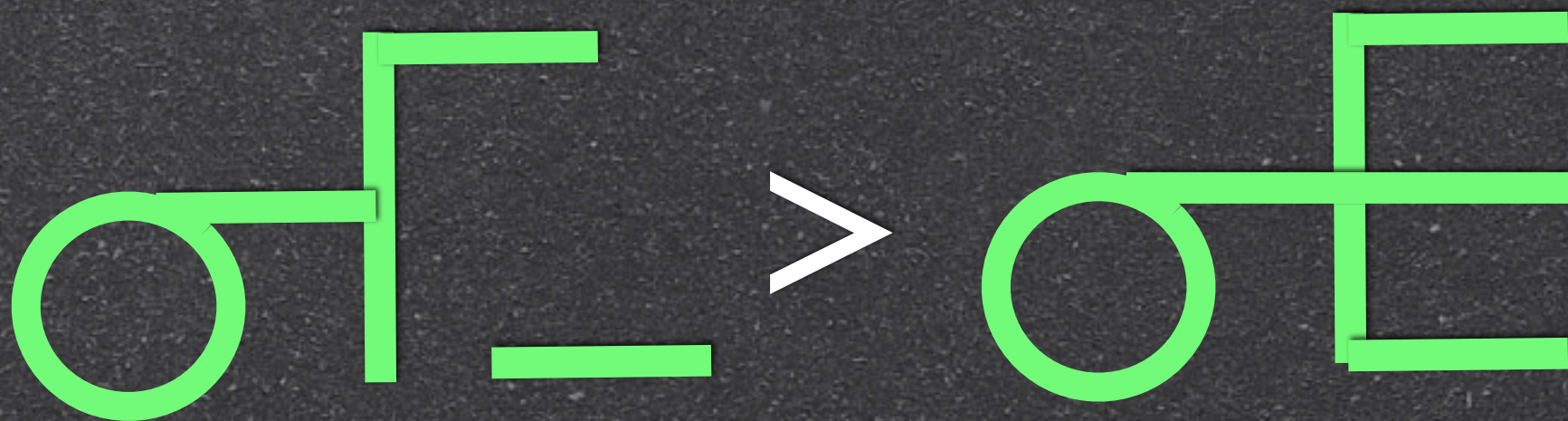
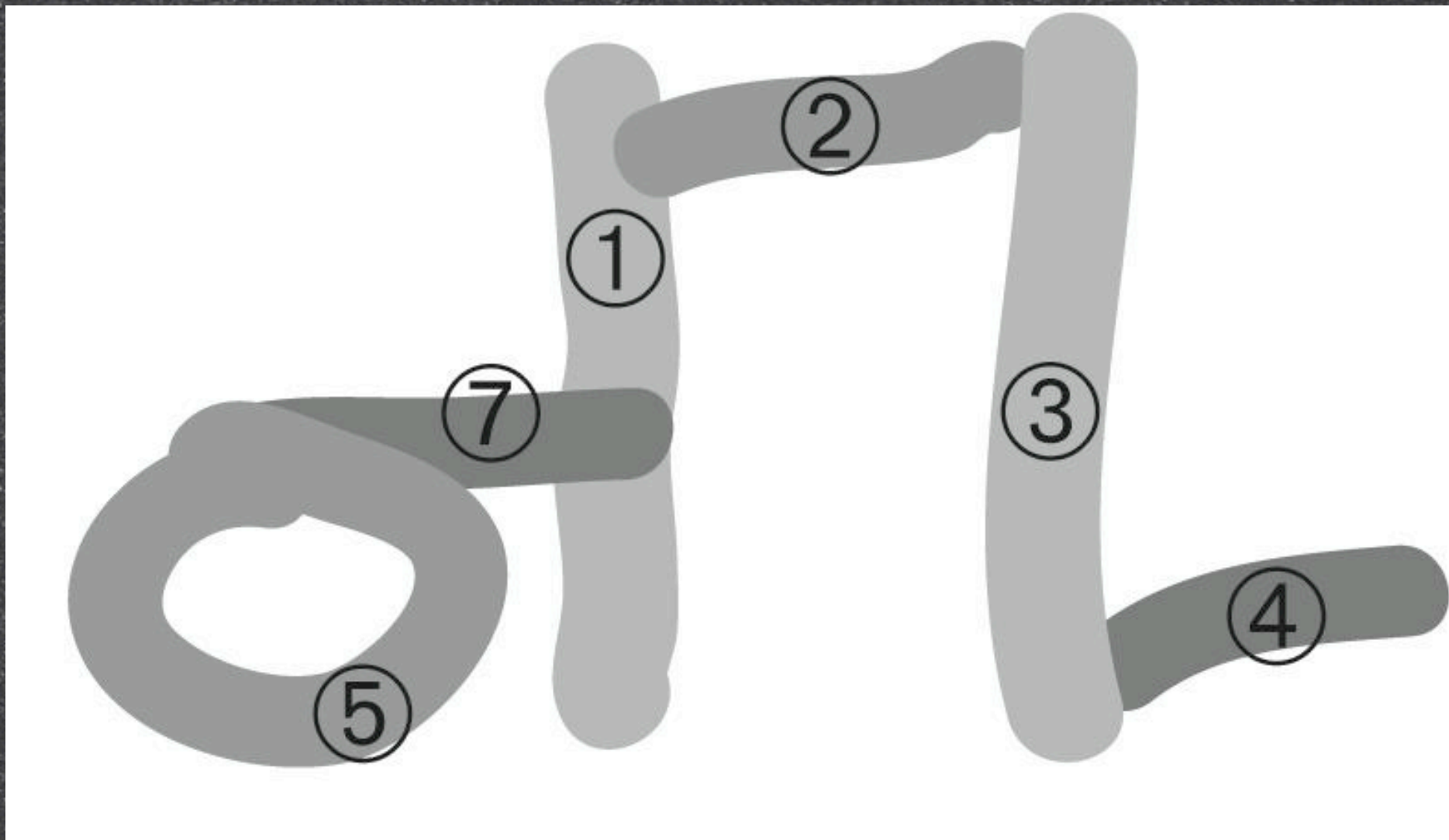
COMMON TRAITS



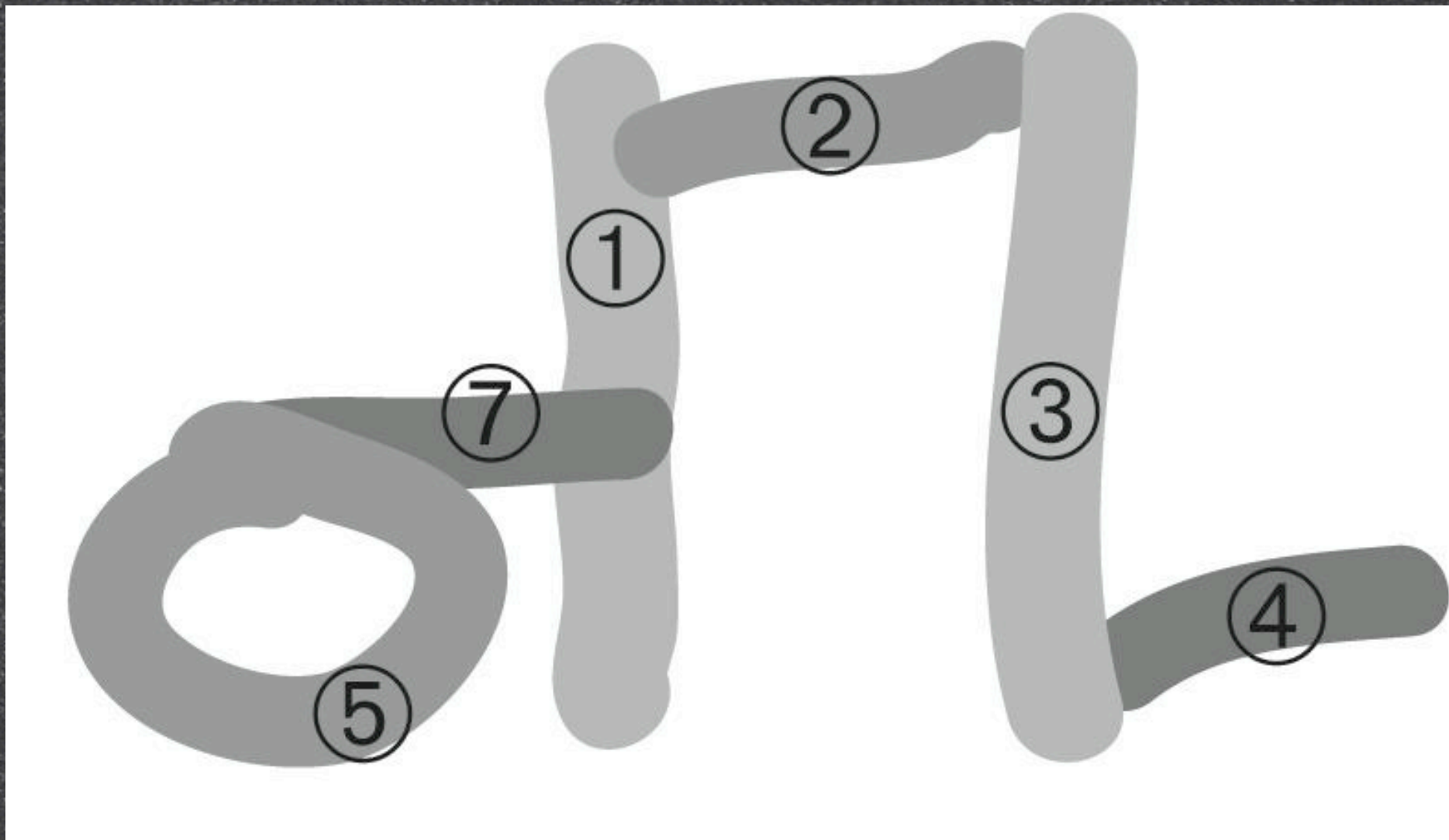
RECONSTRUCTION



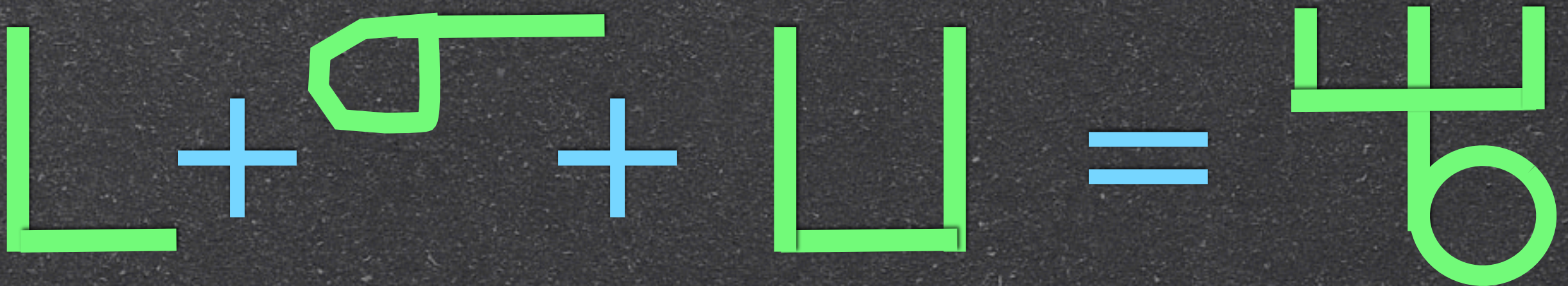
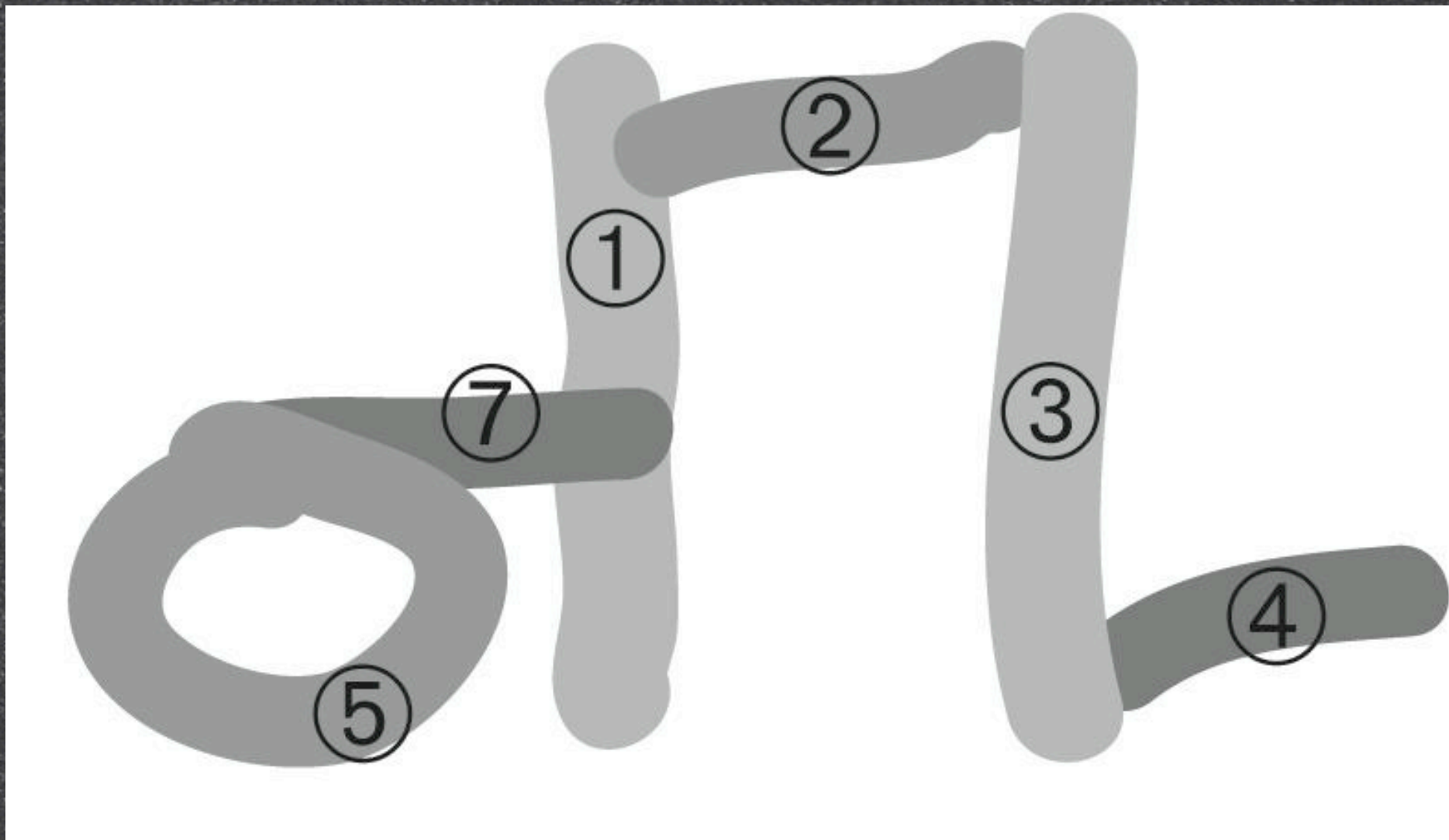
RECONSTRUCTION



RECONSTRUCTION



RECONSTRUCTION



MORE EVIDENCE

ČERNORIZEC XRABR, O PISMA.

And he made them 30 letters and 8,
some, indeed, according to the system of
the Greek letters, others, however,
according to the Slavic speech... (Veder)

... R S T U F Gǫ, and Ps Ks Th

п р с т ү ф х ѿ и пѣ хлъ тѣ

ρ σ τ υ φ χ ψ ω

MORE EVIDENCE

ČERNORIZEC XRABR, O PISMA.

- Pe character “modeled after Greek”
- at the end of the list, in group of alternate sounds / variants / affricates
- 2 candidates only: psi [ps] and phi [ph]

пѣ хлѣ тѣ

ψ ξ θ or ψ χ θ



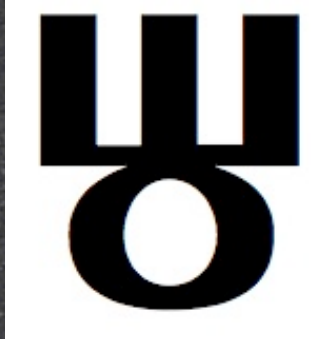
MORE EVIDENCE

ACROSTICS, LINE 26

Херовьскоу ми. | мѣсль ѿ оумъ | дождь.∴ |
О чьстѣнаѧ. прѣ|стѧѧ тройце.∴ |
Печаль мою на ра|дость прѣложи.∴ | ψ
Щѣломоудрьно. | да начьноу пь|сати.∴ |

“evidence for  in this place is undoubtedly more convincing than that for any other letter” (Veder)

HISTORY OF A LETTER

Ψ [ps] >  [ps]

PHASE ONE: ORIGINAL
GLAGOLICA (KYRILL)

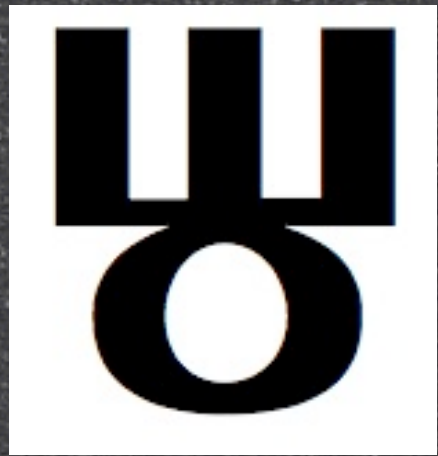
HISTORY OF A LETTER

a) Ψ Gr > Cyr Ψ

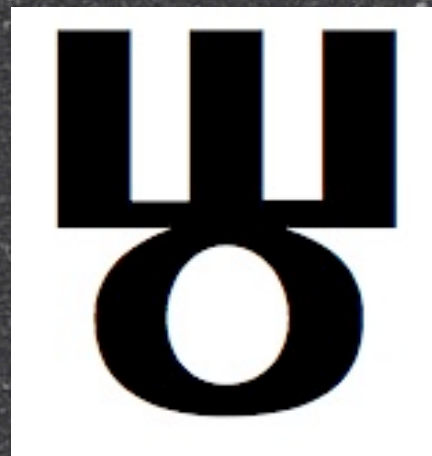
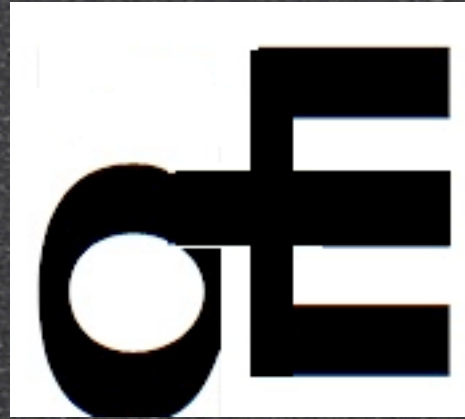
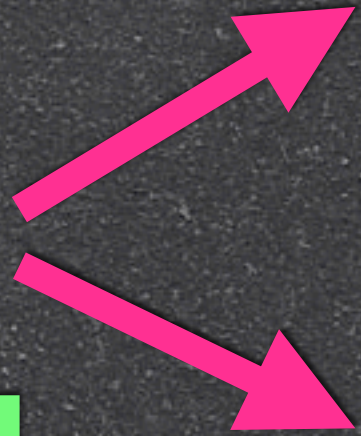
b)  [ps] > [št]

PHASE TWO: KIRILICA CREATED,
GLAG. LETTER RE-INTERPRETED

HISTORY OF A LETTER



[ps]
















































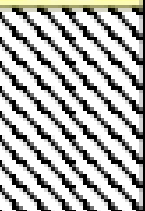


[pe]

[št]

EFFECT: ORIG. LETTER SPLIT UP INTO TWO

















































UNICODE GLAGOLITIC

8	 2008	 2018	 2028	 2038	 2048	 2058
9	 2009	 2019	 2029	 2039	 2049	 2059
A	 200A	 201A	 202A	 203A	 204A	 205A
B	 200B	 201B	 202B	 203B	 204B	 205B
C	 200C	 201C	 202C	 203C	 204C	 205C
D	 200D	 201D	 202D	 203D	 204D	 205D
E	 200E	 201E	 202E	 203E	 204E	 205E
F	 200F	 201F		 203F	 204F	

DISTORTED
SHAPE, ORIG.
SOUND VALUE
[PS, P]

















































FAITHFUL SHAPE,
LATER SOUND-
VALUE [ŠT]

UNICODE GLAGOLITIC

8	 2008	 2018	 2028	 2038	 2048	 2058
9	 2009	 2019	 2029	 2039	 2049	 2059
A	 200A	 201A	 202A	 203A	 204A	 205A
B	 200B	 201B	 202B	 203B	 204B	 205B
C	 200C	 201C	 202C	 203C	 204C	 205C
D	 200D	 201D	 202D	 203D	 204D	 205D
E	 200E	 201E	 202E	 203E	 204E	 205E
F	 200F	 201F		 203F	 204F	

SAME LETTER
TWICE: ONCE
DISTORTED, ONCE
FAITHFULLY
RENDERED

UNICODE GLAGOLITIC

8	 2008	 2018	 2028	 2038	 2048	 2058
9	 2009	 2019	 2029	 2039	 2049	 2059
A	 200A	 201A	 202A	 203A	 204A	 205A
B	 200B	 201B	 202B	 203B	 204B	 205B
C	 200C	 201C	 202C	 203C	 204C	 205C
D	 200D	 201D	 202D	 203D	 204D	 205D
E	 200E	 201E	 202E	 203E	 204E	 205E
F	 200F	 201F		 203F	 204F	

FROM DIFFERENT STAGES OF THE HISTORY OF THE GLAGOLITIC ALPHABET

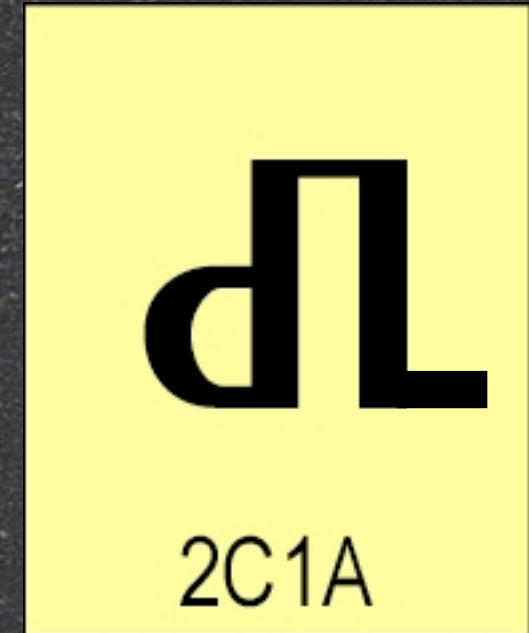
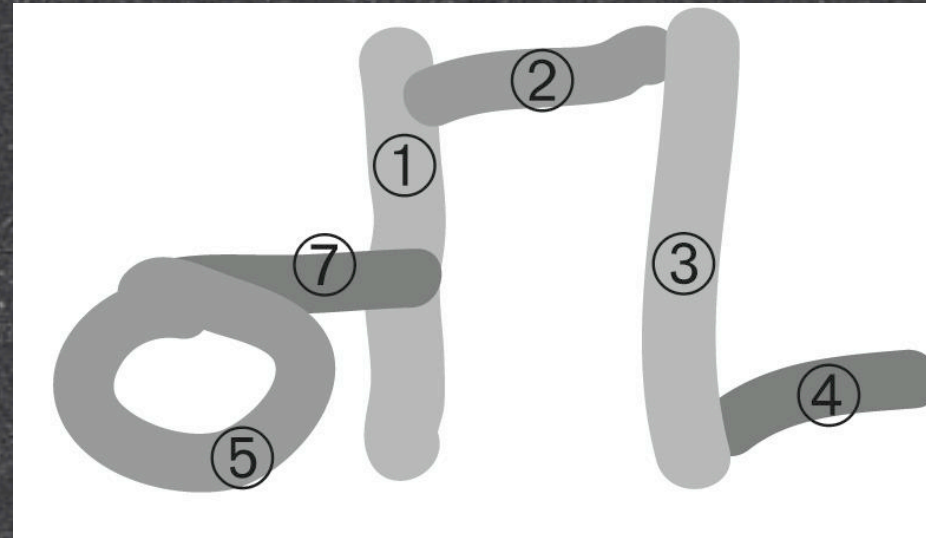
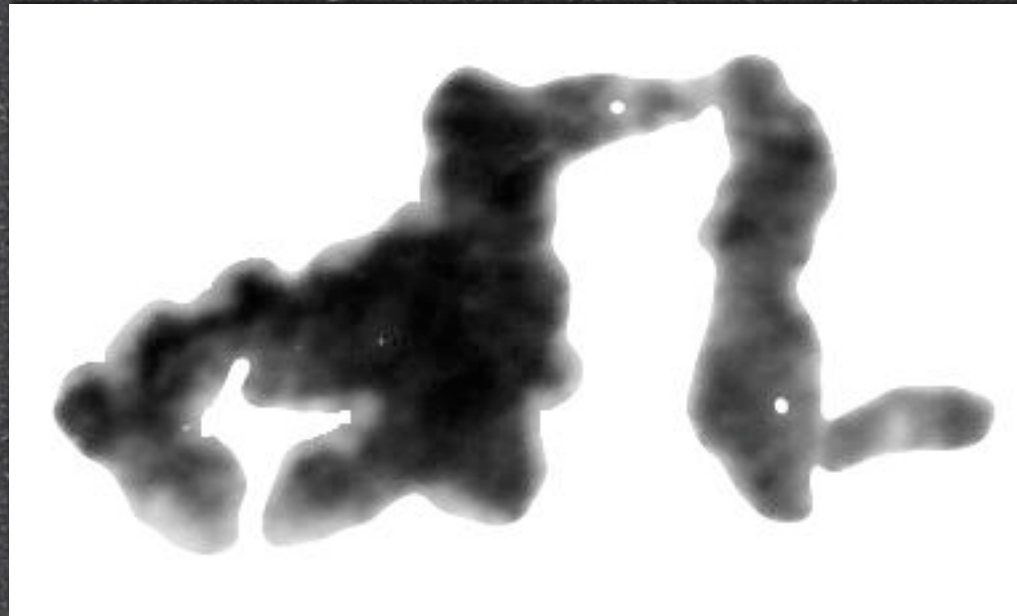
UNICODE

ENCODES CHARACTERS,
NOT SOUNDS!

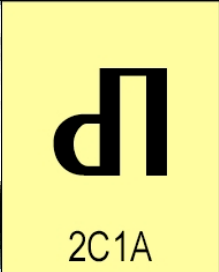
UNICODE

CERTAIN PROBLEM

RESULTS



- PROGRESS STILL BEING MADE
- BASIS FOR INCLUSION INTO UC
- DIFFERS FROM OTHER LETTERS
- SLIGHT MODIF. NECESSARY
- GENERAL PROBLEM REMAINS



Thank You!



This presentation was given as part of a panel during the XIV International Congress of Slavists, Ohrid 2008. The following paper was the printed outcome of this presentation:

Sebastian Kempgen: Unicode 2C1A - Glagolitic “Pe”: Fact or Fiction?
In: Scripta & e-Scripta vol. 6, Sofia 2008, 65-82.

The paper is available online.



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