

Humanist Scripts

- Created by a small coterie of Italian scholars in the late 14th-early 15th c.
- Late 14th c.: Petrarch began experimenting with a new personal script, as did his friend Boccaccio.
- Same period: their friend Salutati was collecting Carolingian manuscripts and experimented with imitating some of their letter forms.
- Beginning of 15th c.: Poggio invented a new script closely modeled on the Carolingian.
- Also early 15th c.: Niccolò Niccoli invented Humanist cursive (italic) as an entirely new script.
- All these men were trained scribes and notaries familiar with all the Gothic scripts of the day.

M. TVLLII. CICERONIS. DE. LEGIBVS. LIBER.

PRIMVS. INCIPIT. FELICITER.

LVCVS. QVIDEM. ILLE. ET. HAEC. ARPINATVM quer-
cus agnoscitur sepe a me lectus in mario. sin man& illa quē
cus haec est pfecto. & enī est sane uetus. Man& ū attice
nū & semp manebit. sata est enim ingenio. nullius autem
agricolę cultu stīps tam cluturna q̄ poete uersu seminari po-
test. Quo tandē modo quinte: aut quale est istuc quod
poete serunt

quare glandifera illa quercus ex qua olim
fulua iouis miranda uisa figura - nunc sit

Note spare page, spacing,
Square Capital initials and
Rustic Capital headings,
ampersand for et.

Detail below: note
proportions and spacing,
Caroline g, upright d, tall s
at word end.

Leonardi Aretini ad Nicolai nicoli civis flore
ntini in phedrone platonis Epistola incipit.



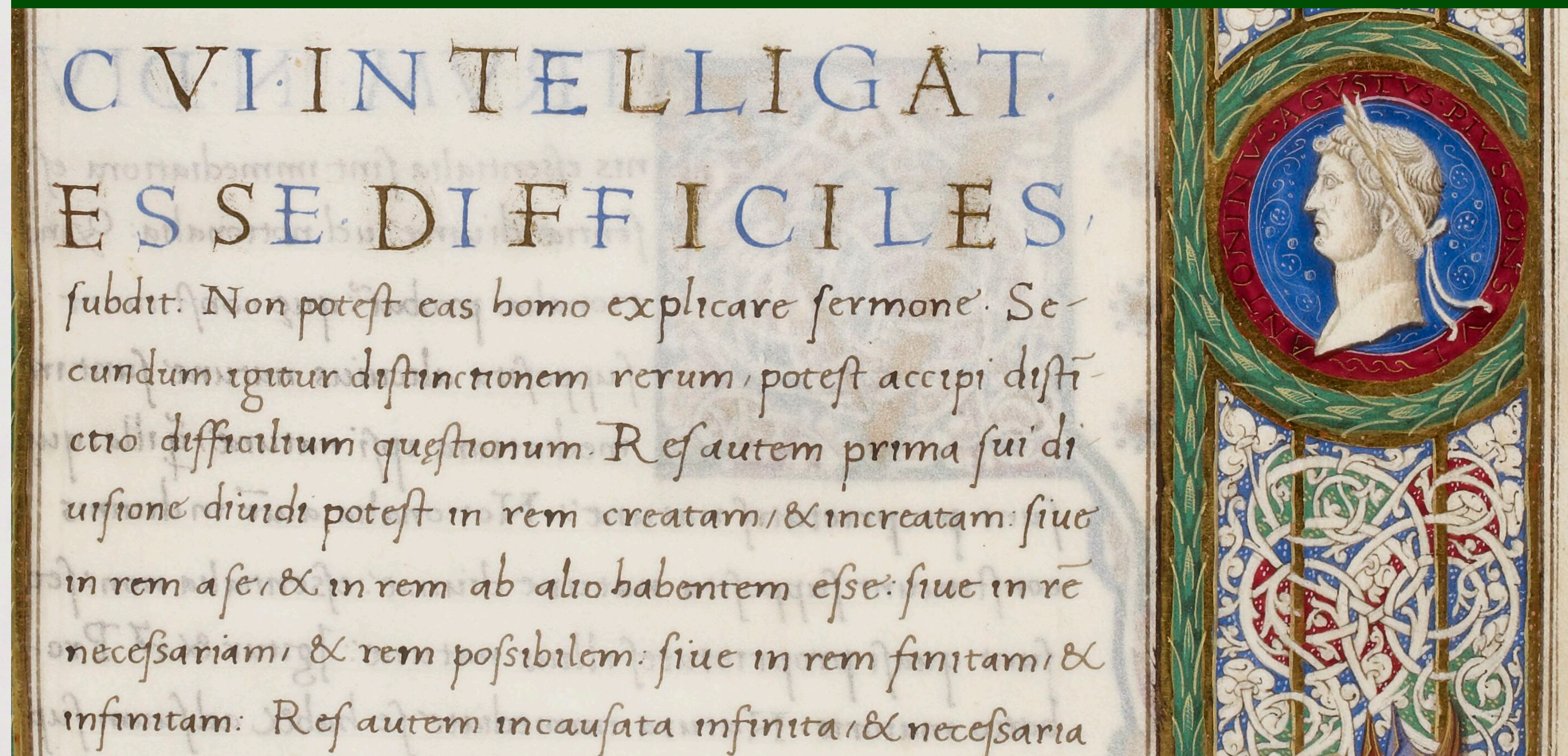
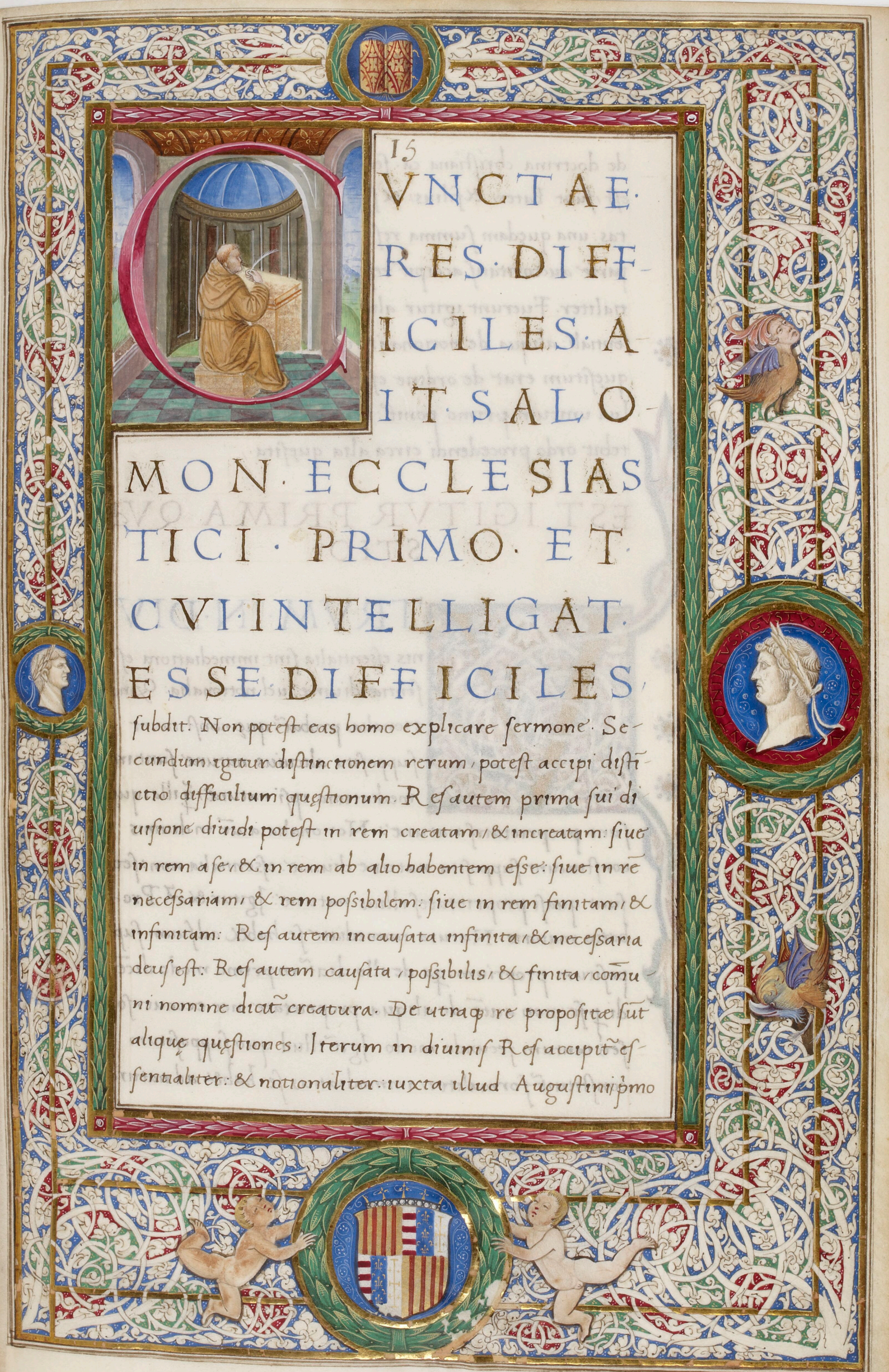
T si ego mi Nicolae prius quoq; ue
hementer amabam platonem tu
um sic. n. mihi placeat appellare il
lum pro quo tu aduersus in do
ctorum turbam omni tempore pugnavisti tñ
ex quo hunc dialogum in latinum facere ince
pi tantus mihi beniuolentie cumulus accrescit.

Note telltale
Gothic features
within Humanist
minuscule style:

Round s at
word end

Letters "biting"

B. transit in. c. ut obcurro succurro in. f. ut officio.
in. g. suggero. in. m. summitto glebus glomus. in
p. ut suppono. in. r. ut surripio in. s. ut iube us-
si. nam suscipio sustuli a' susum uel sursum ad-
uerbio composita sunt. in subtinio & subcumbo
non mutauerunt. b. in. s. suspicor et suscipio
a' sursum uel sursum componuntur et unum. s.
abijciunt. b. in. u. eufonie causa conuertitur. ut



Duns Scotus in Humanist drag: a late-15th-c. manuscript made for Ferdinand I, King of Naples



Two very different 15th-century manuscripts of Duns Scotus

The Invention of Printing in the West

What did Gutenberg really invent?
The early printed book as craft object



East Asian printing



11th-c. printed Chinese book, *The Scripture of the Great Flower Ornament of the Buddha*



The Buddhist canon
stored on 13th c.
woodblocks in a
Korean temple



Korean Hangul
(alphabetic syllabary)
in metal type from
the 15th century.

The sorts were
probably created by
sand-casting.

Et dyabolus qui deducebat eos. inferus est in stagnū ignis et sulphuris
ubi et bestia et plerūq; prophete cruciabuntur die ac nocte in secula seculorum



Block books
(1460s-70s)

An alternative
15th-century
printing
technology

Et dyabolus qui deducebat eos missus est in lacum ignis et sulphuris ubi et bestia et pseudo prophete cruciabuntur die ac nocte in secula seculorum



Et vidi thronum magnum candidum et sedere super eum cuius conspectu fugit caeli et terra et locus non est. Et vidi mortuos magnos et pusillos stantes in conspectu throni et libri apertus sunt. Et alius liber apertus est qui est vite et iudicati sunt mortui ex his que scripta sunt in libris secundum opera eorum



Et dedit mare mortuos suos qui in eo erant et mors et infernus dederunt mortuos suos que in eis erant et iudicatum est de singulis secundum opera eorum. Et infernus et mors nulli sunt in lacum ignis est hic mors sed lacum ignis est. Et qui non est in libro vite scriptus missus est in lacum ignis



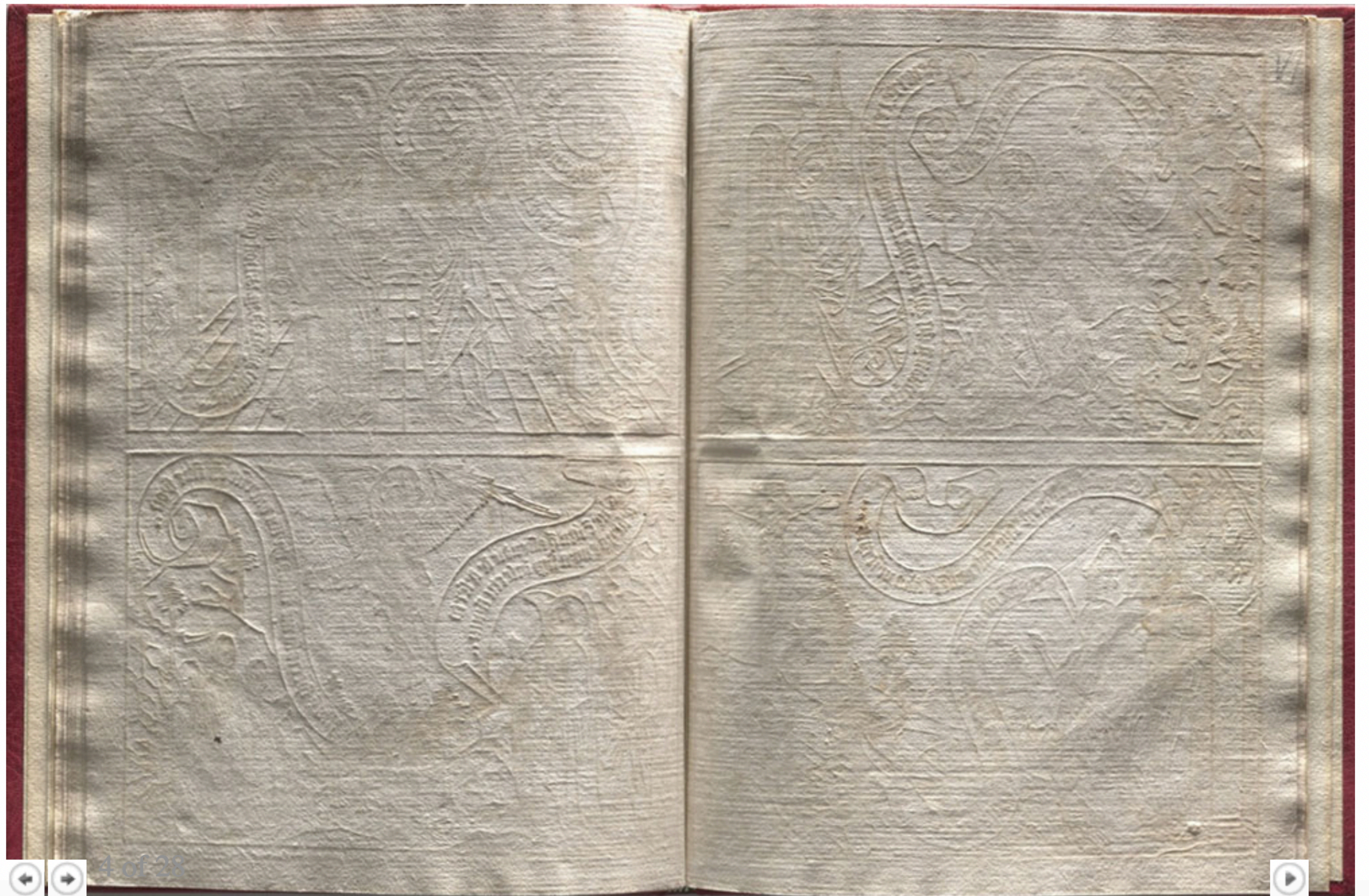
Et vidi thronum magnum candidum et sedere super eum cuius conspectu fugit caeli et terra et locus non est. Et vidi mortuos magnos et pusillos stantes in conspectu throni et libri apertus sunt. Et alius liber apertus est qui est vite et iudicati sunt mortui ex his que scripta sunt in libris secundum opera eorum



Et dedit mare mortuos suos qui in eo erant et mors et infernus dederunt mortuos suos que in eis erant et iudicatum est de singulis secundum opera eorum. Et infernus et mors nulli sunt in lacum ignis est hic mors sed lacum ignis est. Et qui non est in libro vite scriptus missus est in lacum ignis



The
backs of
printed
pages in
a 1465
block
book,
seen in
raking
light



incunable, incunabula

“cradle books”

**= book printed in the first 50 years of printing
in the West (up to 1500)**

The core of the invention, as we know it was practiced from shortly after Gutenberg's initial efforts:

MOVABLE METAL TYPE

MOVABLE: Individual pieces can be reused ad infinitum to set new texts.

METAL:

- Pieces of type are cast in metal from molds which allow the replication of many identical pieces of type.*
- Metal stands up to the pressure of the press through many, many reuses, unlike wood.

— Type metal (lead + tin + antimony) melts easily and hardens almost instantly.

A **PRESS** adapted to bring even pressure down on paper or parchment over pages laid out in metal type

INK that would work with the above system

**Did Gutenberg really use this system of typesetting? Newer scholarship raises doubts. More on that shortly...*

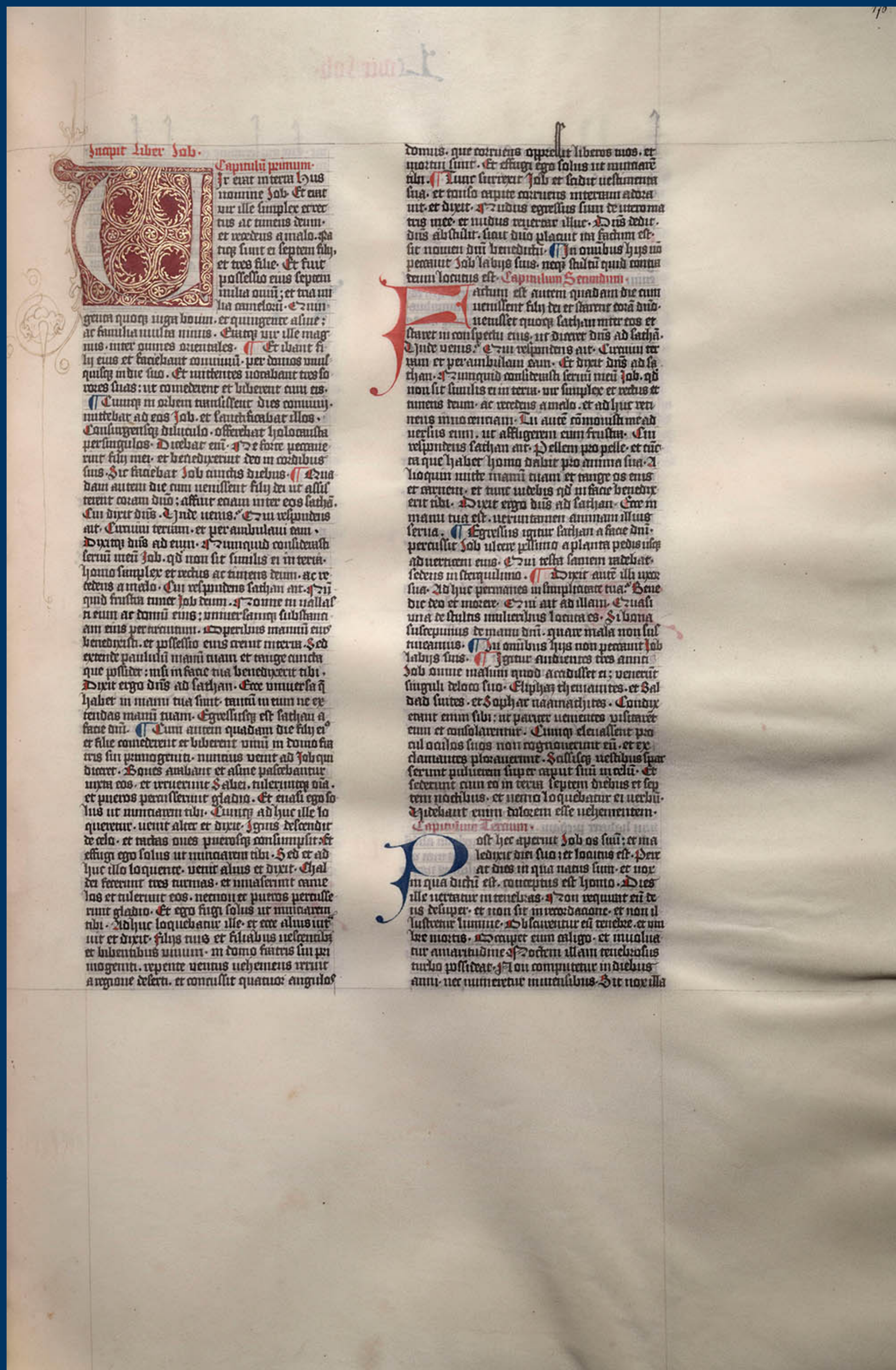
The Context for Early Printing

Knowing what books looked like in the 15th century and what the book trade already looked like gives us the context for Gutenberg's invention:

- Books: script choices, layout
- Large and growing readership in all the languages.
- Trade: multi-craft process of professionals in cities, organized through stationers who coordinated the multiple components
- Urban context: not only the multiple book arts, but many other trades and merchants

Left: the Giant Bible of Mainz, 1452-53 (pages 23 x 16 in)

Below: Library of Congress copy of Gutenberg's Bible, ca. 1450-1455 (pages 17 x 12 in)



Johannes Gutenberg, ca. 1400-1468

- Family were goldsmiths who worked in the mint of the Archbishop-Elector of Mainz
- By 1450: Fust and Schoeffer (who would soon form a printing firm of their own) invest in bible project. —> Note the huge up-front investment required to set up in printing.
- Work on the Bible was probably under way by 1452.
- Earliest surviving printed item from Gutenberg's press is an indulgence printed in 1454.
- Bible (The 42-Line Bible, the Gutenberg Bible) was finished in 1455.

The Gutenberg Bible: diversity of copies

- About 160-190 copies were printed.
- 49 survive in whole or in part, ¼ of them on vellum
- Most copies were bound in 2 vols; parchment copies may be in 3 vols. (We have a few in 15th-c. bindings.)
- Gutenberg changed his mind about several things in the course of the print run:
 - whether to print the red parts
 - how many lines per page (switched from 40 to 42)
 - the size of the print run
- All copies were hand-decorated to some extent.

Introducing the Xerox 9400. Will miracles never cease?

When people saw all the incredible things our Xerox 9200 could do, they called it a miracle. But, at Xerox, we never rest on our miracles.

Introducing the Xerox 9400 Duplicator.

It does everything the 9200 does and more.

With its automatic document handler you can feed and cycle up to 200 originals at a time. (Even difficult originals like paste-ups.)

With our density control dial, you can make copies lighter or darker without having to interrupt the job.

You can even correct most problems yourself with the help of our new self-diagnostic system which constantly monitors the machine.

And if all this wasn't enough, the Xerox 9400 can automatically copy on both sides of a sheet of paper at the same incredible speed of two pages a second.

You see, we believe that one good miracle deserves another.

XEROX



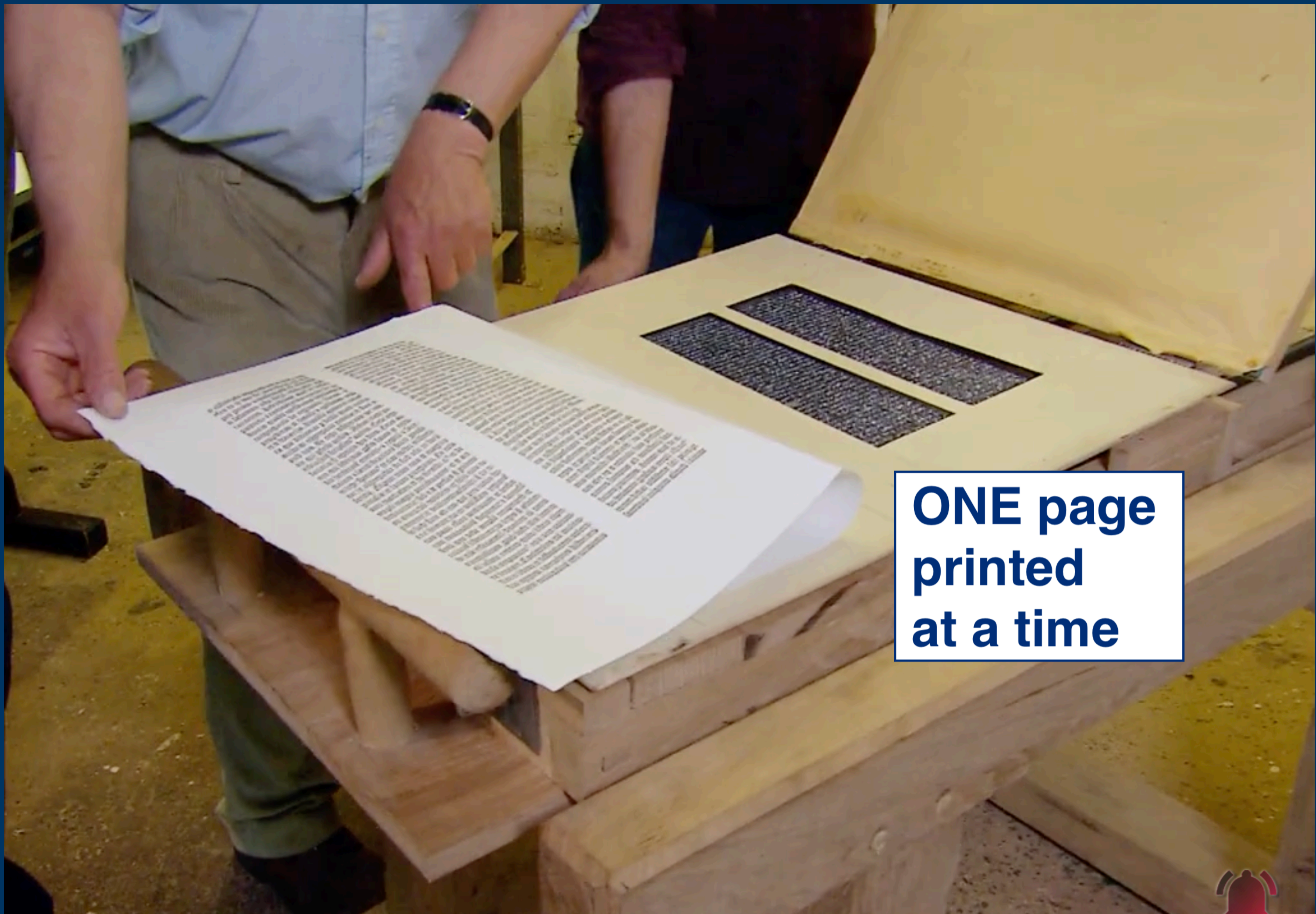
Gutenberg's press



**Wooden
screw**

**Wooden
platen the
size of
one page**

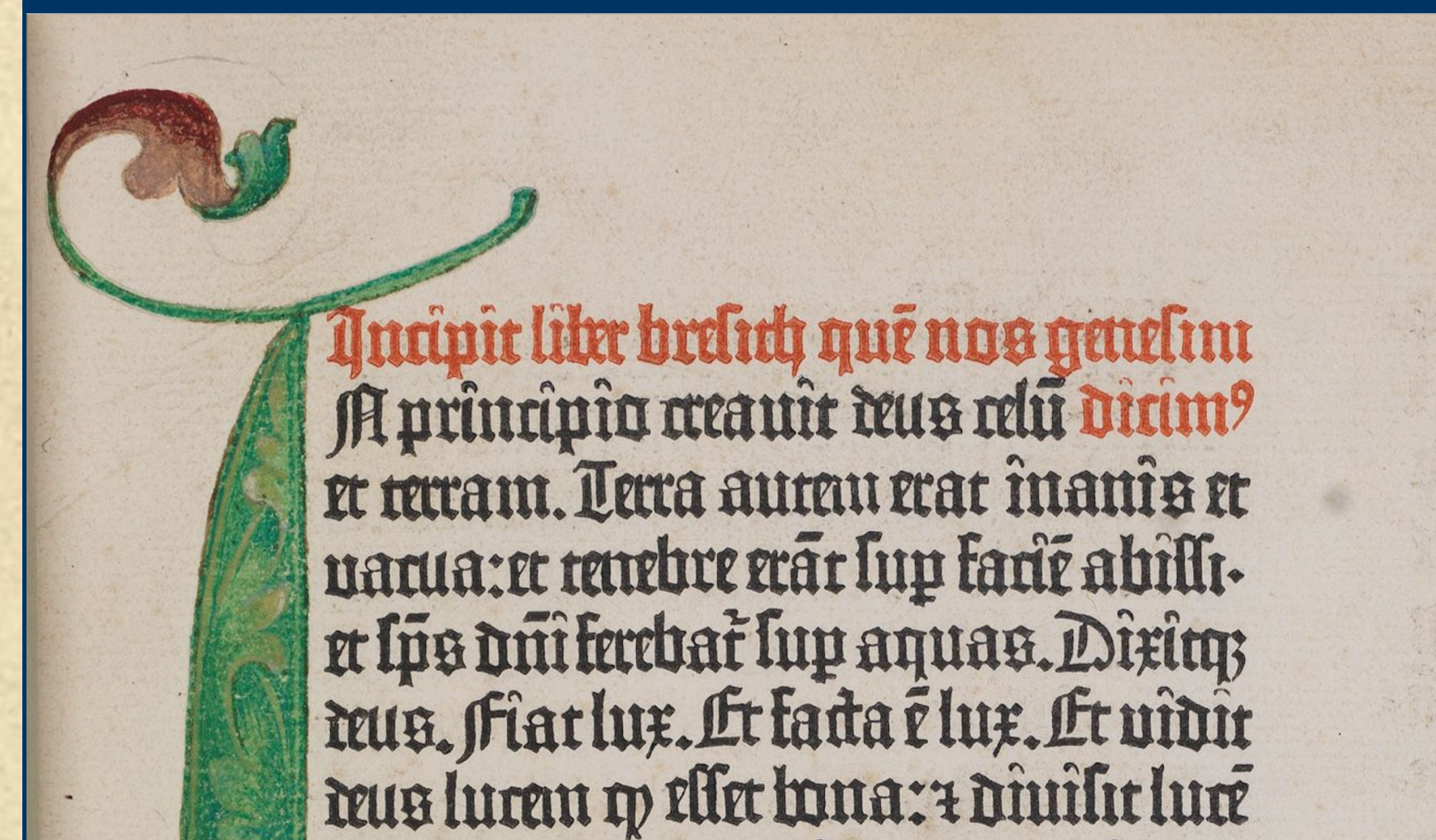
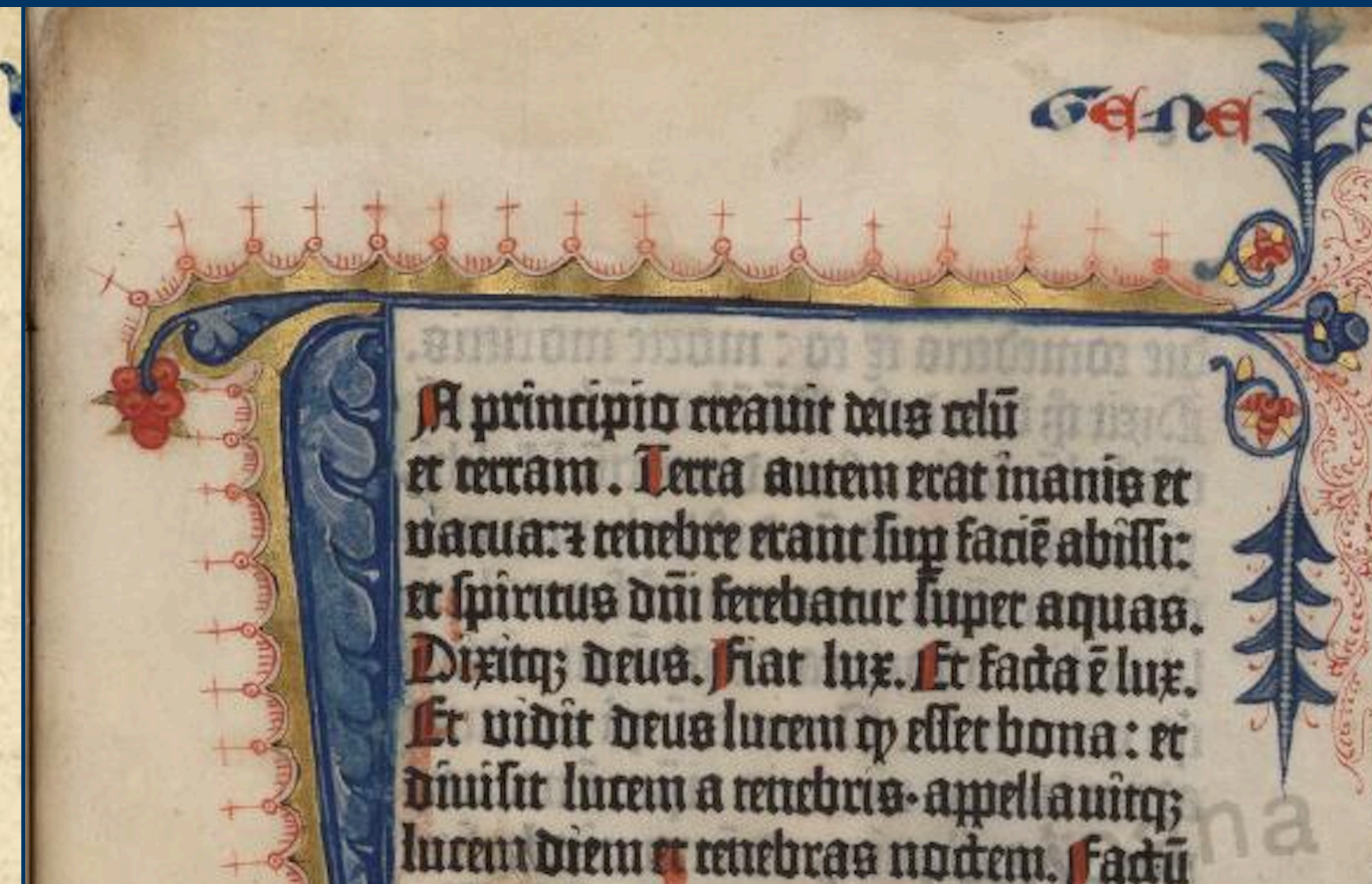
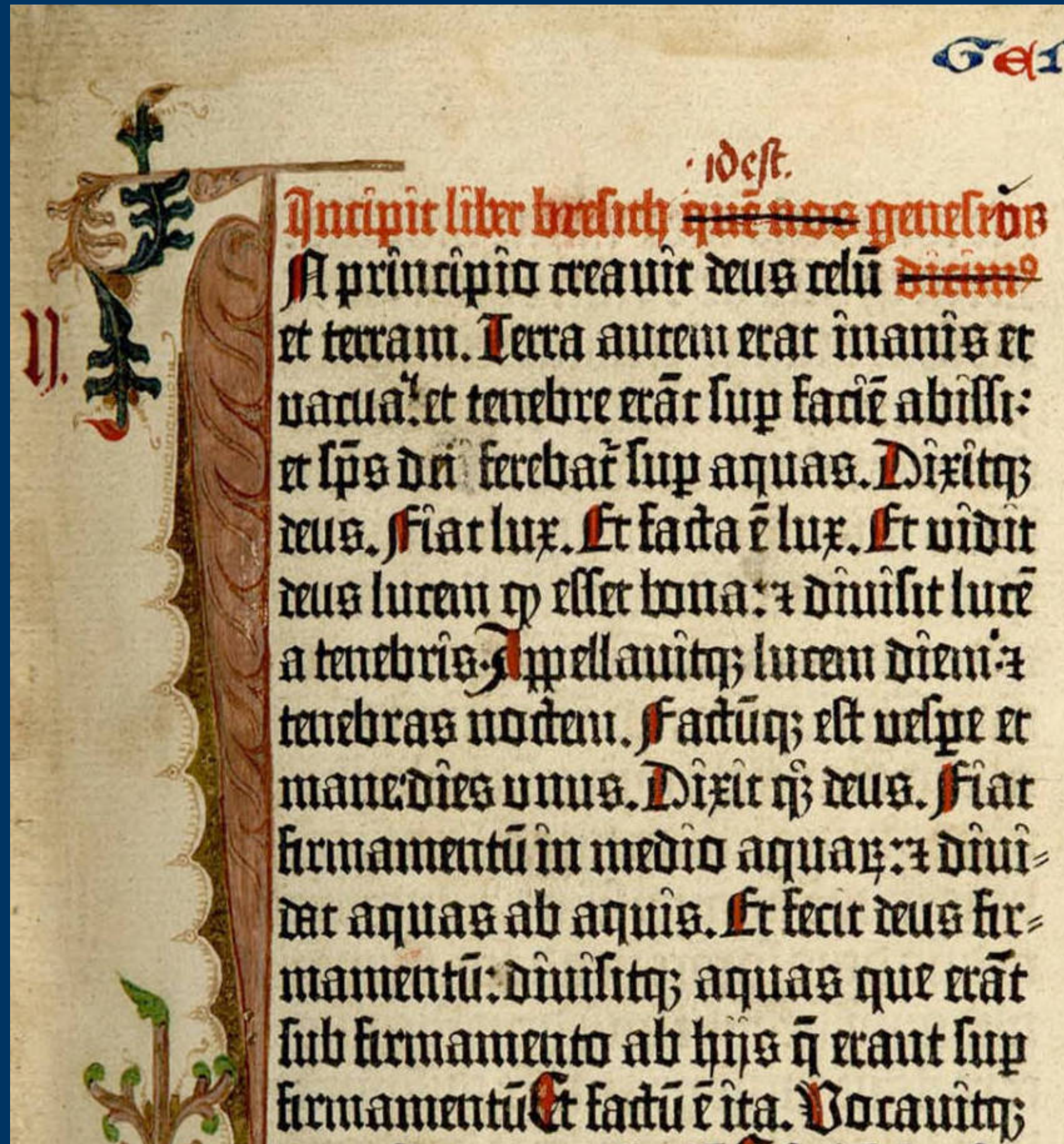




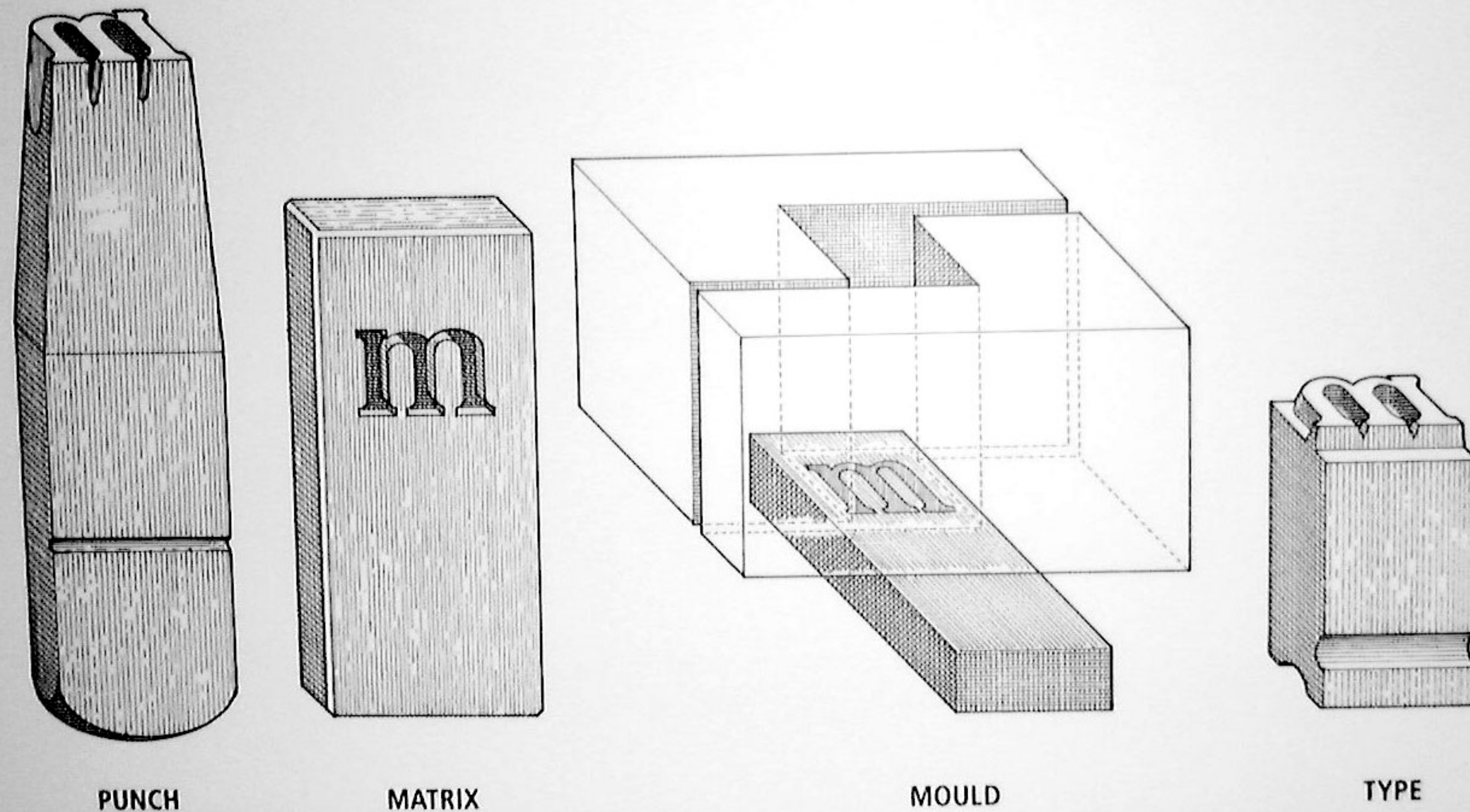
**ONE page
printed
at a time**



Details: Ransom left; Vatican top right; Stuttgart bottom right

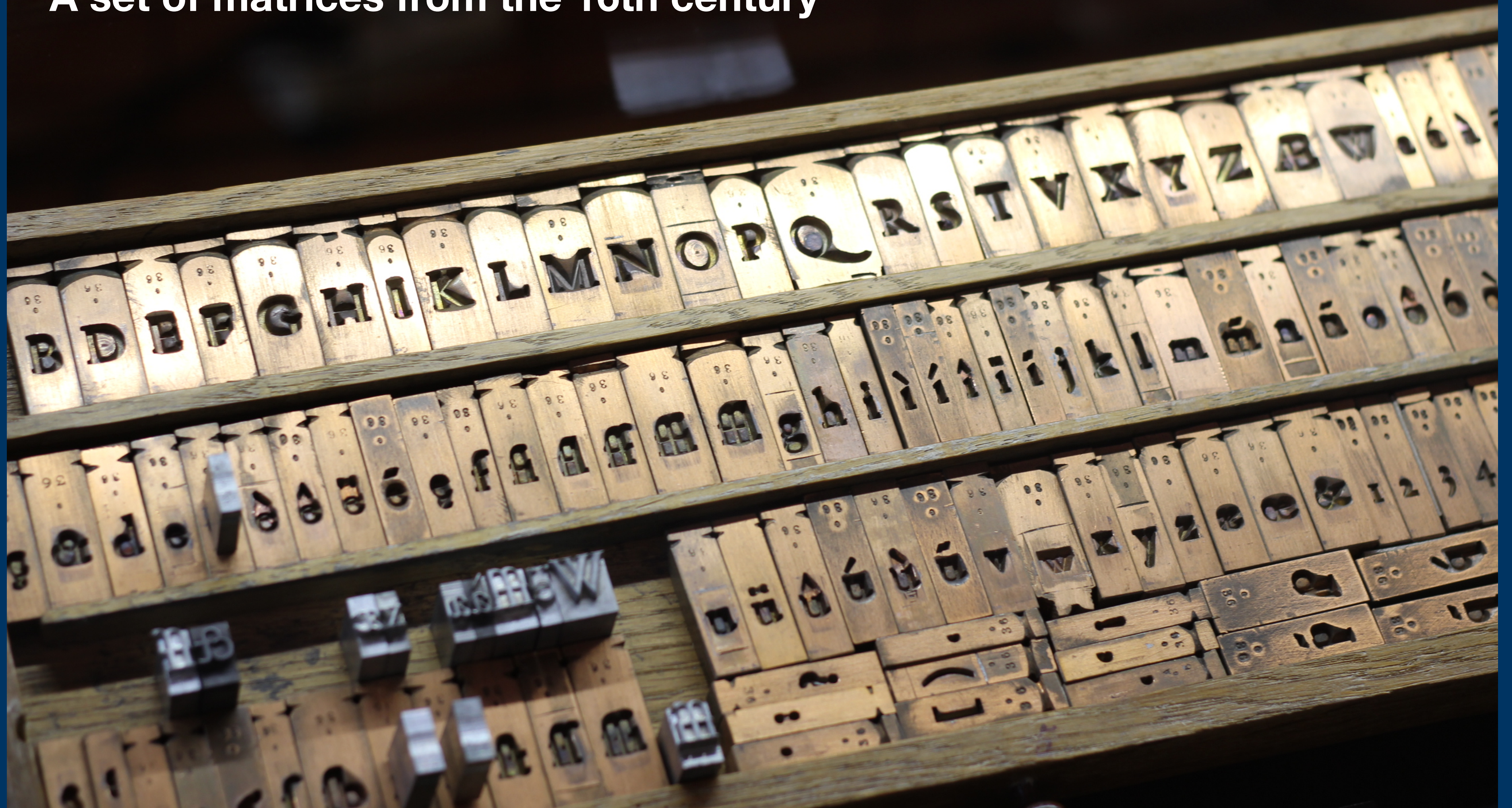


Making metal type: punch, matrix, and type



1. Punchcutter carves the steel punch.
2. Punch is struck into the copper matrix.
3. Matrix is inserted into a hand mold.
4. Hot typemetal is poured into the mold.

A set of matrices from the 16th century



Synopsis of the B42
type, Gutenberg's
type for the 42-line
Bible

270-290 distinct
characters

À	Á	Â	Ã	Ä	Å	Æ	Ç	Ð	Ñ		Œ	ℳ	ℹ	℔	℞	℟	
À	Á	Â	Ã	Ä	Å	Æ	Ç	Ð	Ñ	Þ	ℳ	ℳ	ℹ	℔	℞	℟	
						Œ	ℳ	ℹ	℔	℞	℟						
						Œ	ℳ	ℹ	℔	℞	℟						
a	a	ā	ā	ā	ā	a'	a'	b	b	ḃ	ba	ba	bā	bā	be	be	bē
bo	bo	bo	bo	c	c	c̄	c̄	c̄	c̄	c̄	dt	dt	dt	dt	dt	dt	dt
da	da	dā	dā	de	de	dē	dē	dē	dē	do	do	e	e	ē	ē	ē	ē
ē	ē	ē	ē	f	f	f̄	f̄	g	g	ḡ	ḡ	ḡ	ḡ	ḡ	h	h	h
ha	ha	hā	hā	he	he	hē	hē	i	i	i	i	i	i	i	i	i	i
j	h	l	l	l̄	l̄	m	m	m̄	m̄	m̄	n	n	n̄	n̄	n̄	n̄	n̄
o	o	ō	ō	p	p	p̄	p̄	p̄	p̄	p̄	pa	pa	pe	pe	po	po	po
pp	pp̄	pe	pp	pp̄	pp̄	pp̄	q	q	q̄	q̄	q̄	q̄	q̄	q̄	q̄	q̄	q̄
pp̄	pp̄	pp̄	r	r	r̄	r̄	s	s	s̄	s̄	s̄	s̄	s̄	s̄	s̄	s̄	s̄
ff	ff	s	s	s̄	s̄	s̄	r̄	r̄	r̄	r̄	r̄	r̄	r̄	r̄	u	u	ū
ū	ū	ū	o	o	ū	da	de	w	x	e	y	y	z	o	z	z	9
.	.	:	:	:													
						À	Ä	Ä	Å	ℳ	ℹ						
dt	dt	dt̄	dt̄	de	de	ē	ē	ē	ē	pp̄	pp̄	f	f	f	ff	i	m̄
n	n̄	p	pp̄	c	r̄	r̄	f	f	f̄	f̄	f̄	ff	ff	f̄	f̄	r̄	pp̄
						u	ū	ū	da	de	e	pp̄					

Did Gutenberg actually cast identical type pieces using the punch-matrix system?

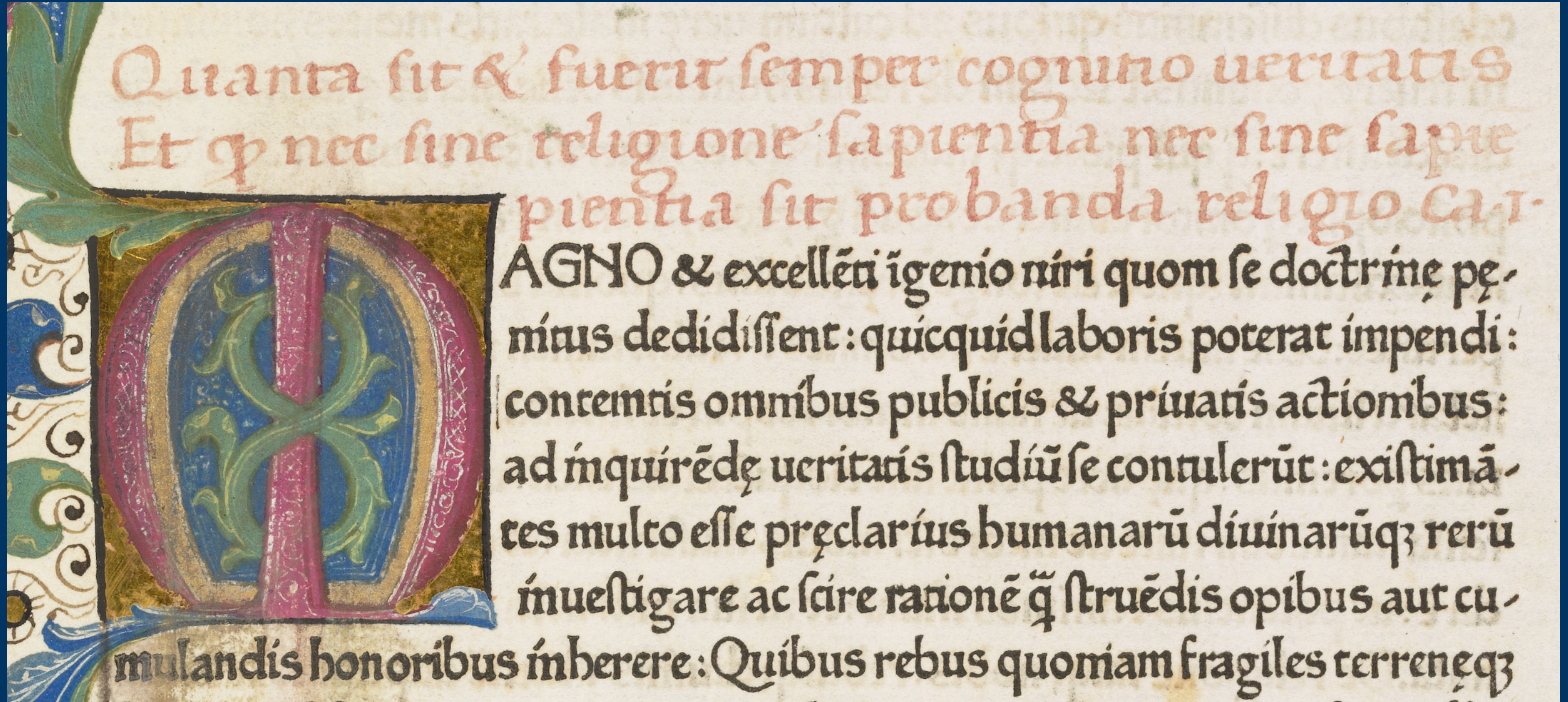


Printing in other 15th-century styles

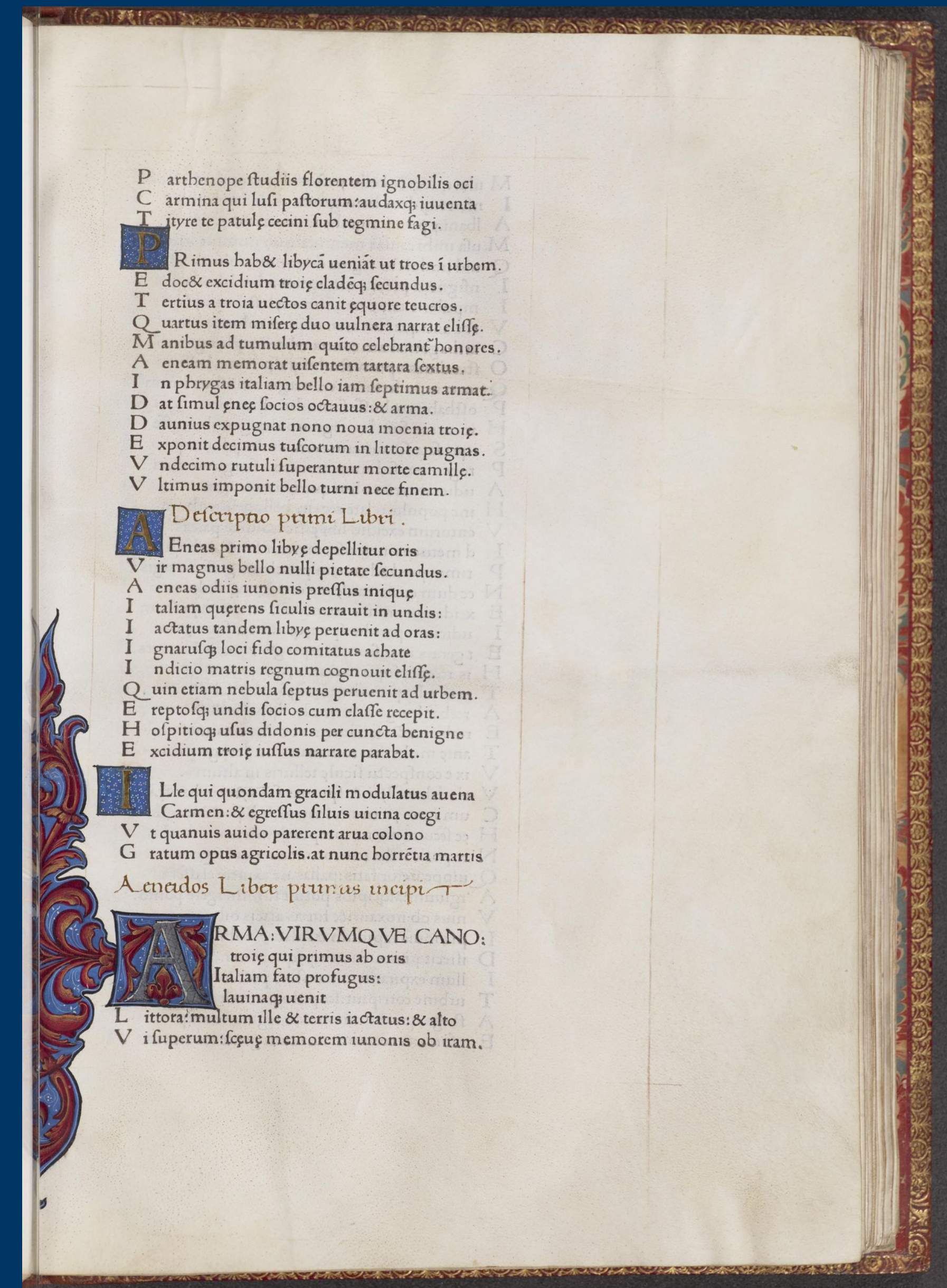
Other early printing: Sweynheym & Pannartz, Works of Lactantius, printed in Subiaco, Italy, 1465. The first book in Roman type.



Detail of the Sweynheim & Pannartz Lactantius



Mature Roman type: Jenson's Eusebius (left) and Vindelinus de Spira's Virgil (right), both Venice 1470



Details of Jenson's Eusebius and Vindelinus de Spira's Virgil

