

Roman book design

Date: 500 a.d.

Roman book design on parchment.

The Greeks and Romans designed and illustrated manuscripts, but little has survived. The vast Greek library at Alexandria was destroyed by fire during the time of Julius Caesar (100-44 bc). Over seven hundred thousand scrolls were lost.

The invention of parchment, which was so much more durable than papyrus, and the codex format, which could take thicker paint because it did not have to be rolled, opened new possibilities for design and illustration.

One manuscript on parchment from the Roman era is the *Vatican Vergil*. Created between 400-500 a.d., this volume contains two illustrated poems. The *Vatican Vergil* is completely Roman and pagan (non-Christian). The lettering is Roman, and the illustrations echo the rich colors of the wall frescoes preserved at Pompeii. This pictorial and historical method of book illustration combined with rustic capitals, represents the *classical style*. It was used in many early Christian manuscripts and characterizes late Roman book design.



The *Book of Durrow* opening page

Date: about 680 a.d.

Celtic Book Design

The period from the collapse of Rome until the eighth century was a time of migration and upheaval throughout Europe. Ireland, tucked in the far corner of Europe enjoyed relative isolation and peace during the unsettled decades of the early Medieval era.

Saint Patrick and other missionaries began to convert the Celts to Christianity in the early fifth century a.d. The Celtic craft tradition of intricate, highly abstract decorative patterns was applied to book design in the monistaries and a new concept and image of the book emerged.

Written and designed around 680 a.d., the *Book of Durrow* is the earliest fully designed and ornamented Celtic book.



The Douce Apocalypse

Date: about 1265 a.d.

Gothic illumination

The Gothic period in Europe lasted from around 1100 to the cultural Renaissance which began in the 1400s. This period saw the emergence of cities, widespread trade, and more stable central governments.

During the 1200s the rise of the universities created an expanding market for books. Literacy was on the rise, and professional illuminators emerged to help meet the growing demand for books.

The *Douce Apocalypse* is a masterpiece of Gothic illumination. Each of a hundred illustrated pages has an illustration above two columns of beautifully lettered text. You can see the grid upon which the elements are placed. The text shows the writing style called *textura*. Textura was very functional, for all the vertical strokes in a word were drawn first, then serifs and other strokes needed to transform the group of verticals into a word were added.



This page: from *Ars Moriendi* 1466
Next page: from *Ars Memorandi* c. 1470

Examples of early European block printing

The origins of woodblock printing in Europe are shrouded in mystery. After the Crusades opened Europe to Eastern influence, relief printing arrived on the heels of paper. Playing cards and religious-image prints were early manifestations. . . . Card playing was popular, and in spite of being outlawed by zealous churchmen, this pastime stimulated a thriving underground block-printing industry, possibly before 1400. . . . Playing cards were the first graphic designs to move into an illiterate culture, making them the earliest European manifestation of printing's democratizing ability.

The first known European block printing with a communications function were devotional prints. Image and lettering were cut from the same block of wood. These early graphic designs evolved into block books, where were woodcut picture books with religious subject matter and brief text. Each page was cut from a block of wood and printed as a complete word and picture unit. . . .

Drawn in a simplified illustration style with the visual elements dominant as in contemporary comic books, the block book was used for religious instruction of illiterates. This form gradually declined during the fifteenth century as literacy increased.



Angelum mai. Sedem
 habet capitula: primum.
 De baptismo cruce in ior
 dane a Johanne et eius temptacione
 in deserto. Secundum. Capitulum
 Quatuor discipuli cruce colligunt spe
 ras. Et de iusticio cui dicit ihesus
 tolle lectum tuum.
 Tertium. Capitulum. Sicut
 ihesus demonium et illud erat ma
 gnum. Et.
 Quartum. Capitulum.
 De similitudine inuicantis et tem
 ne. Et de bona mercede danda. Et
 Quintum. Capitulum.
 De filia archidiaconi q. ian. ar
 tis canonic. Et.
 Sextum. Capitulum.
 q. ro. et p. propheta acceptus
 in patria. De decollacione Joha
 nis baptis. Et.



The Gutenberg Bible

Date: 1450-55

The first book printed with moveable type.

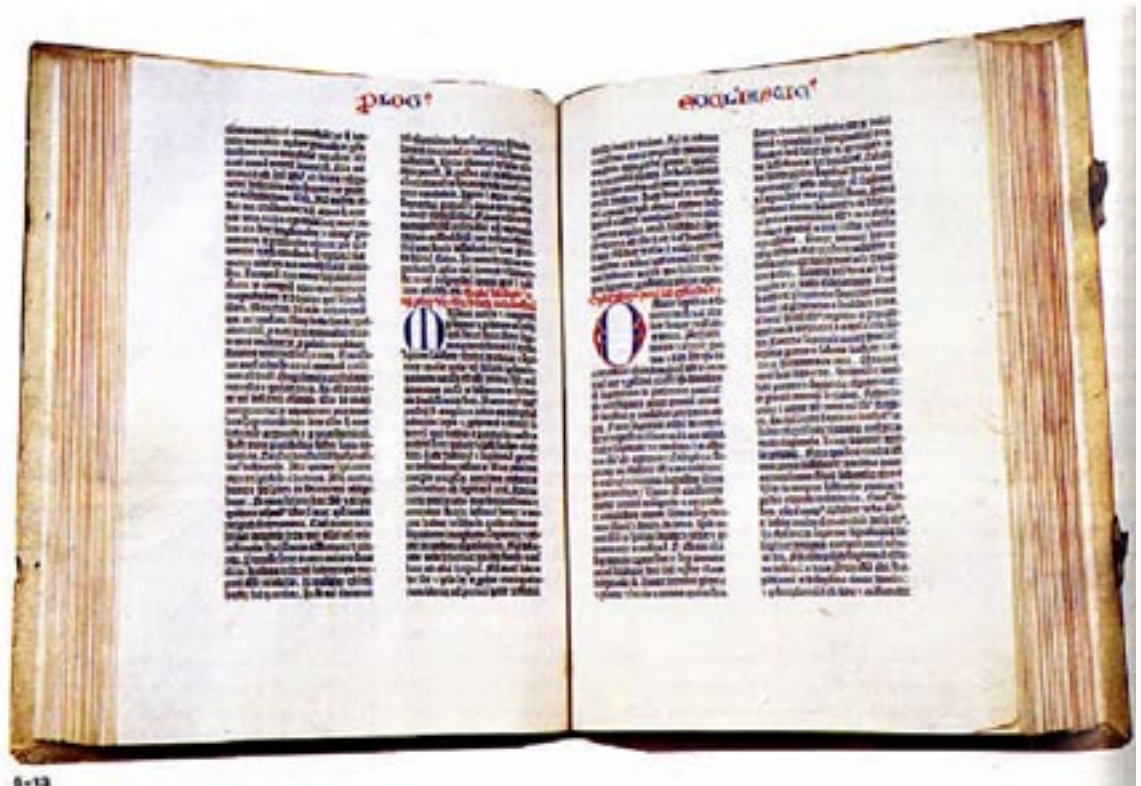
With the availability of paper, relief printing from woodblocks, and the growing demand for books, printers sought a way to mechanize the process of book production.

Johan Gutenberg, a goldsmith, is credited with the invention of the type mold used for casting individual letters. Gutenberg designed a style of letter commonly used by scribes of his day called *textura* lettering. He created a mold which permitted large volumes of type to be cast with critical tolerances. He developed a unique alloy of 80 percent lead, 5 percent tin, and 15 percent antimony to maintain a constant mass throughout the process of manufacturing type. The type was stored in compartmentalized cases and pulled out letter by letter to set the lines. After a page was printed, the type was returned to the compartments letter by letter. Gutenberg also developed a printing press capable of the pressure needed to force the ink from the type onto the paper.

After many years of research and development, Gutenberg produced a masterpiece

with his first printed book; a two-volume 1,282 page bible.

The superb typographic legibility and texture, generous margins, and excellent presswork make this first printed book a canon of quality that has seldom been surpassed. An illuminator added the red and blue headers, initials, and text by hand.



Page detail from Psalter in Latin.

Date: 1457

The red and blue initials are the earliest example of color printing in Europe.

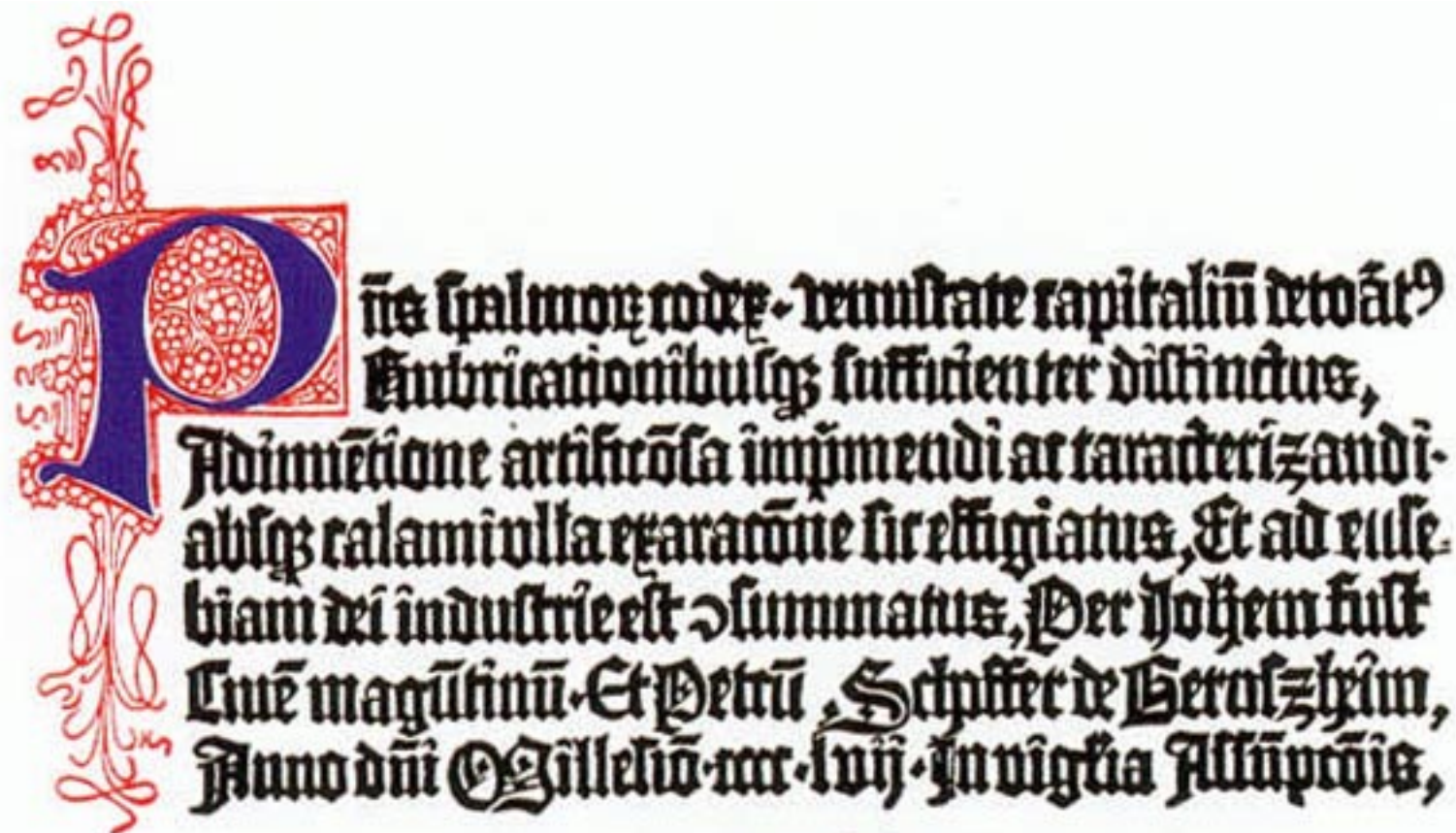
In 1457, the printing firm of Fust & Schoeffer published a magnificent Psalter in Latin with a monumental 12 by 17 inch page size. The large red-and-blue initials were printed from two-part metal blocks that were either inked separately, reassembled, and printed with the text in one press impression, or stamped after the text was printed. These famous decorated two-color initials were a major innovation; their typographic vitality and elegance rival the most beautiful manuscript pages.



Another detail from Psalter in Latin.

Date: 1457

The red and blue initials are the earliest example of color printing in Europe.



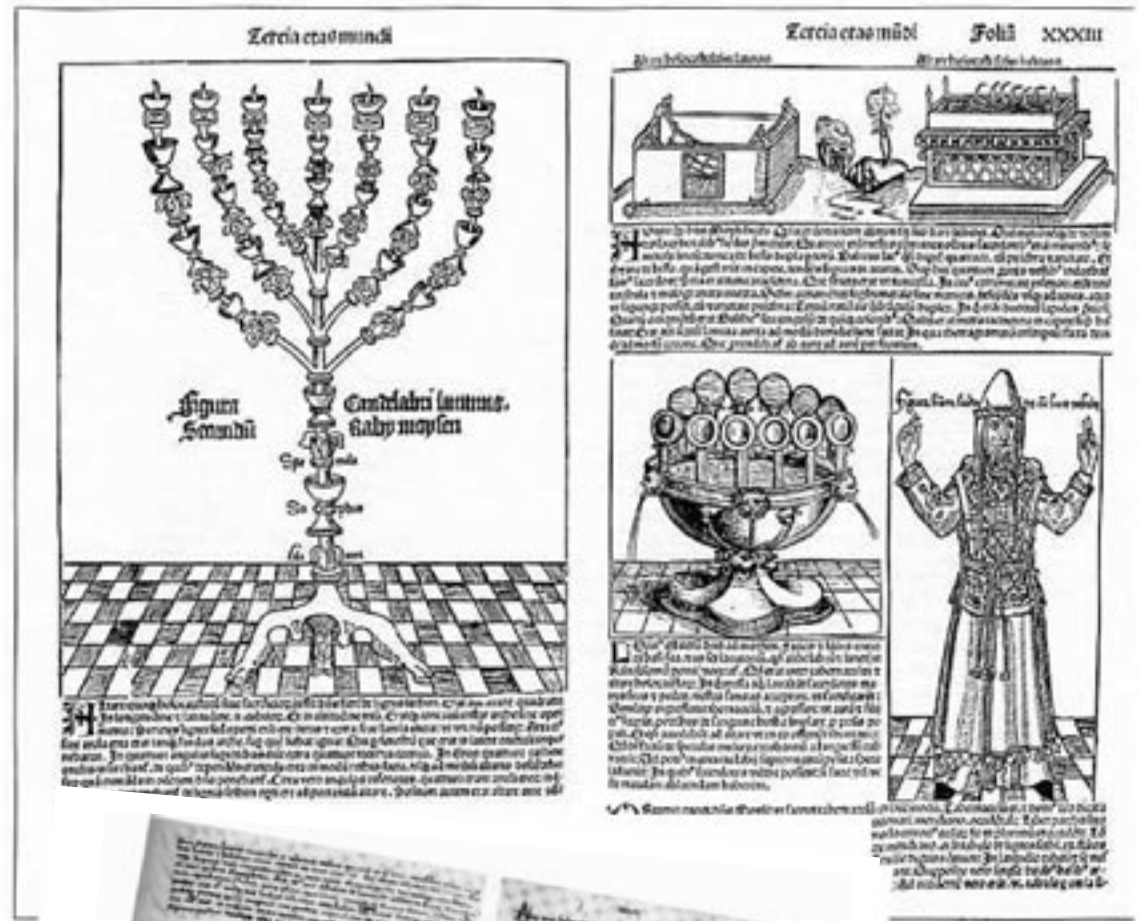
Pages from the *Nuremberg Chronicle*

Date: 1493

Design innovation took place in Germany where woodcut artists and typographic printers collaborated to develop the illustrated book.

Because printing required a huge capital investment and large trained labor force, it is not surprising that Nuremberg, which had become central Europe's prosperous center of commerce and distribution, housed Germany's most esteemed printer, Anton Koberger. His firm was staffed by a hundred craftsmen operating twenty-four presses Working in concert with master illustrators, Koberger produced the six-hundred-page *Nuremberg Chronicle*, an ambitious history of the world...

The variety and diversity of page layouts range from a full double-page illustration of the city of Nuremberg to unillustrated type pages. On some pages, woodcuts are inserted into the text; on others rectangular illustrations are placed under or above type areas. Michael Wolgemuth and his stepson, Wilhelm Pleydenwurff created the exemplars, drew the illustrations, and cut, corrected, and prepared the woodblocks for printing. They also supervised the typesetting and printing.



Layouts were designed as a guide for the compositors.

Page from Book of Trades

Date: 1568

Woodcut illustrations for a book showing over a hundred occupations. The occupations of the graphic arts is shown here.

A. The parchment maker scrapes animal skin to produce a smooth surface.

B. The papermaker lifts his mold out of the vat as he forms each sheet by hand.

C. The typefounder is depicted pouring the melted lead into the type mold to cast a character.

D. One printer is shown removing a newly printed sheet from the press while the other inks the type. In the background, compositors are shown setting type at typesets.

E. The designer is shown drawing an image in preparation for a woodcut or copper engraving.

F. The woodblock cutter carefully cuts the drawing into a block of wood.

G. The illuminator applies gold leaf and color.

H. Bookbinders are collating the pages of a volume by hand. The other prepares a book for the application of the covers.



Albrecht Dürer

1471-1528

At 15 years of age Dürer apprenticed to a master illustrator and assisted in creating layouts and illustrations. His mature works were unprecedented in their scientific exploration, emotional power and graphic expressiveness. By the age of twenty-seven, Dürer was famous throughout Europe. His type designs and illustration style furthered the advancement of graphic arts into the Renaissance.

