

The History of books

An open book lies on a sandy beach, its pages slightly weathered. In the background, a piece of driftwood stands vertically, and coastal plants with long, thin leaves are scattered around. The sky is overcast with soft, diffused light.

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The **history of books** follows a suite of technological innovations for books. These improved the quality of text conservation, the access to information, portability, and the cost of production. This history has been linked to political and economical contingencies, the history of ideas, and the history of religion.

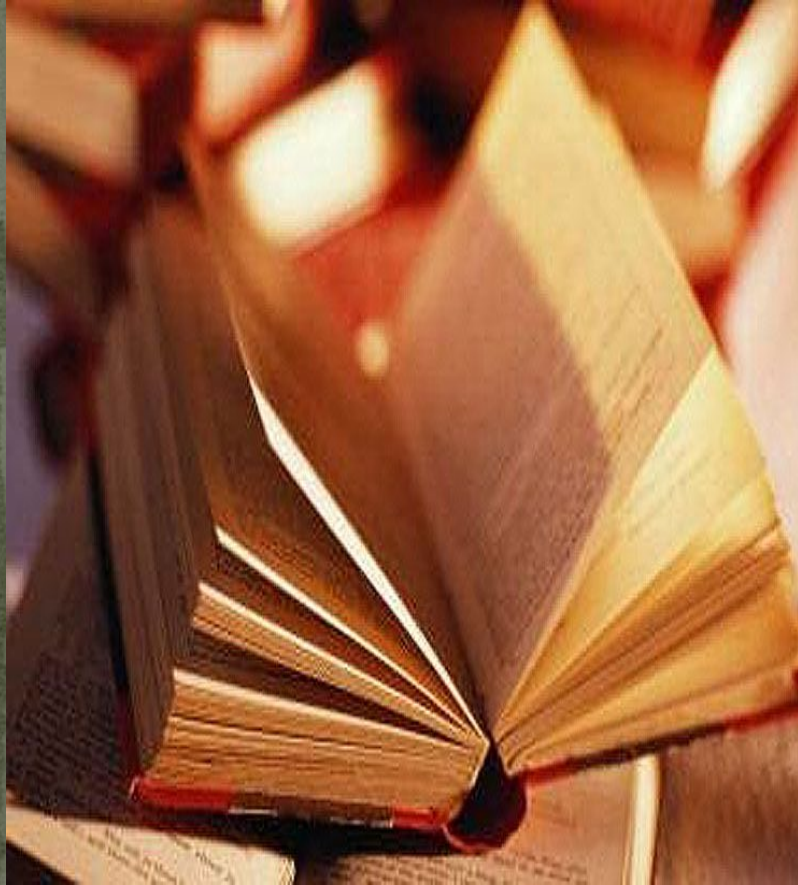




Origins and antiquity

Main article: [History of writing](#)

Writing is a system of linguistic symbols which permit one to transmit and conserve information. Writing appears to have developed between the 7th millennium BC and the 4th millennium BC, first in the form of early mnemonic symbols which became a system of ideograms or pictographs through simplification. The oldest known forms of writing were thus primarily logographic in nature. Later syllabic and alphabetic (or segmental) writing emerged.



Silk, in China, was also a base for writing. Writing was done with brushes. Many other materials were used as bases: bone, bronze, pottery, shell, etc. In India, for example, dried palm tree leaves were used; in Mesoamerica another type of plant, Amate. Any material which will hold and transmit text is a candidate for use in bookmaking.

The book is also linked to the desire of humans to create lasting records. Stones could be the most ancient form of writing, but wood would be the first medium to take the guise of a book. The words *biblos* and *liber* first meant "fibre inside of a tree". In Chinese, the character that means book is an image of a tablet of bamboo. Wooden tablets (Rongorongo) were also made on Easter Island.

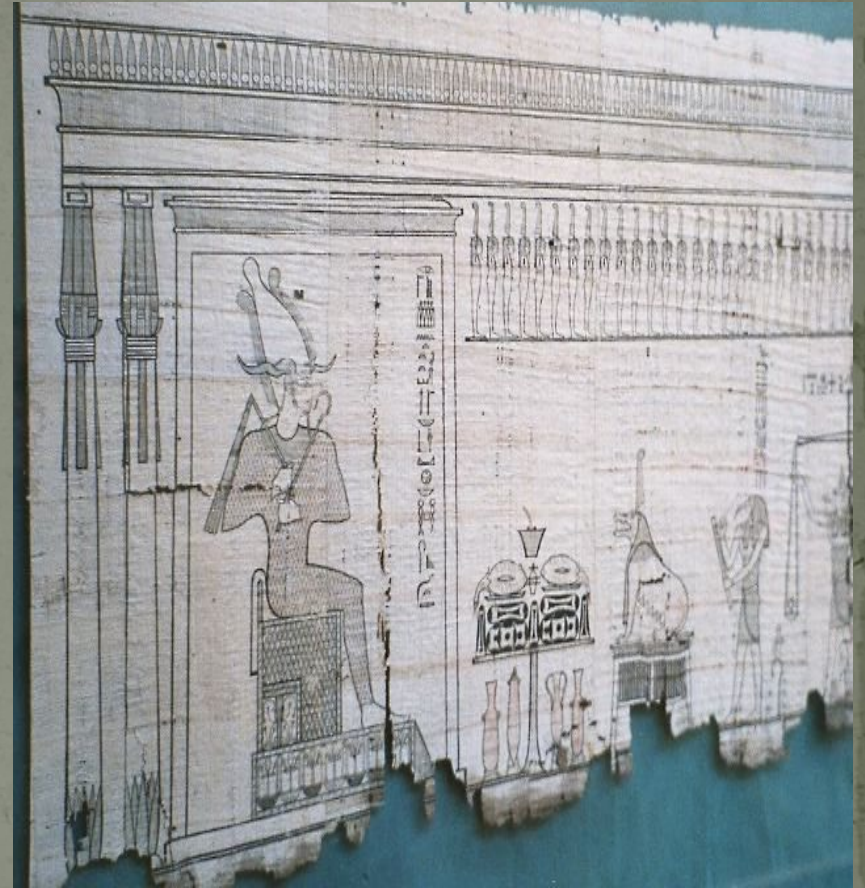
Clay tablets

Clay tablets were used in Mesopotamia in the third millennium BC. The calamus, an instrument in the form of a triangle, was used to make characters in moist clay. The tablets were fired to dry them out. At Nineveh, 22,000 tablets were found, dating from the seventh century BC; this was the archive and library of the kings of Assyria, who had workshops of copyists and conservationists at their disposal. This presupposes a degree of organization with respect to books, consideration given to conservation, classification, etc.



Papyrus

After extracting the marrow from the stems, a series of steps (humidification, pressing, drying, gluing, and cutting), produced media of variable quality, the best being used for sacred writing. In Ancient Egypt, papyrus was used for writing maybe as early as from First Dynasty, but first evidence is from the account books of King Neferirkare Kakai of the Fifth Dynasty (about 2400 BC). A calamus, the stem of a reed sharpened to a point, or bird feathers were used for writing. The script of Egyptian scribes was called hieratic, or sacredotal writing; it is not hieroglyphic, but a simplified form more adapted to manuscript writing (hieroglyphs usually being engraved or painted).





Papyrus books were in the form of a scroll of several sheets pasted together, for a total length of up to 10 meters or even more. Some books, such as the history of the reign of Ramses III, were over 40 meters long. Books rolled out horizontally; the text occupied one side, and was divided into columns. The title was indicated by a label attached to the cylinder containing the book. Many papyrus texts come from tombs, where prayers and sacred texts were deposited (such as the Book of the Dead, from the early 2nd millennium BC).

These examples demonstrate that the development of the book, in its material makeup and external appearance, depended on a content dictated by political (the histories of pharaohs) and religious (belief in an afterlife) values. The particular influence afforded to writing and word perhaps motivated research into ways of conserving texts.



East Asia

Writing on bone, shells, wood and silk existed in China by the second century BC. Paper was invented in China around the 1st century AD. The discovery of the process using the bark of the blackberry bush is attributed to Ts'ai Louen, but it may be older. Texts were reproduced by woodblock printing; the diffusion of Buddhist texts was a main impetus to large-scale production.

The format of the book evolved in China in a similar way to that in Europe, but much more slowly, and with intermediate stages of scrolls folded concertina-style, scrolls bound at one edge ("butterfly books") and so on. Printing was nearly always on one side of the paper only.

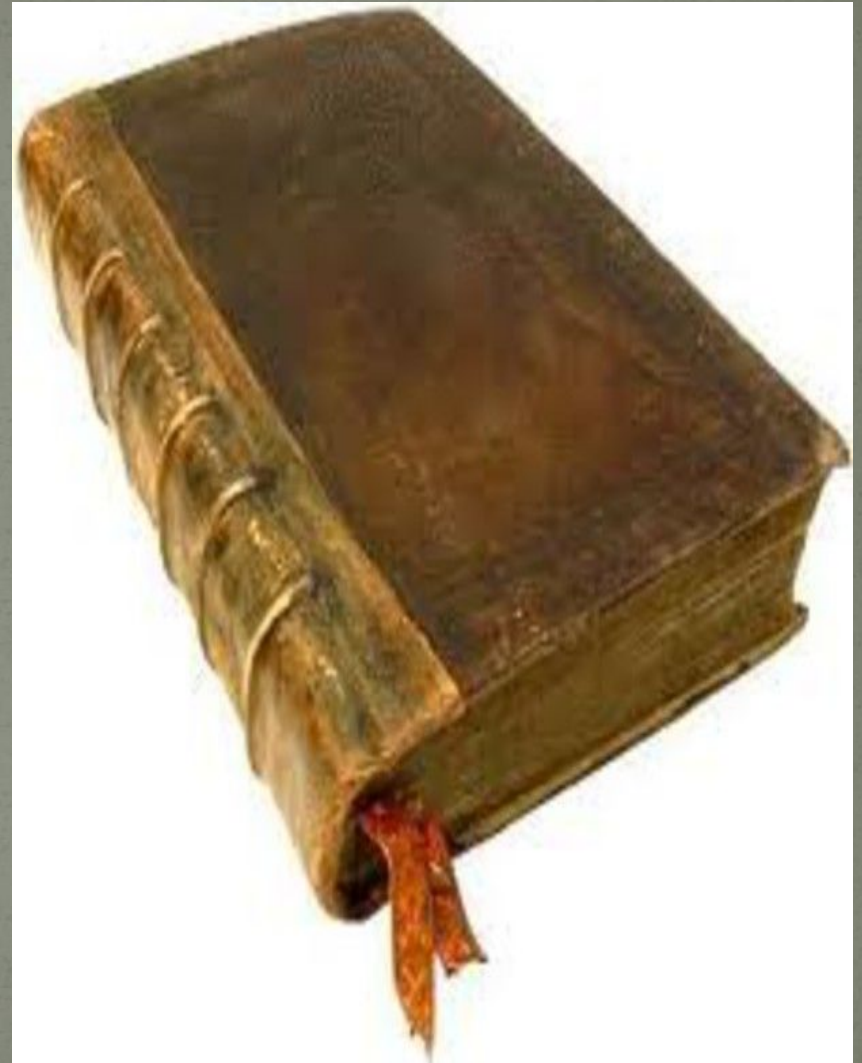




Pre-columbian codices of the Americas

The only currently deciphered complete writing system in the Americas is the Maya script. The Maya, along with several other cultures in Mesoamerica, constructed concertina-style books written on Amatl paper. Sadly, nearly all Mayan texts were destroyed by the Spanish during colonization on cultural and religious grounds. One of the few surviving examples is the Dresden Codex.

Although only the Maya have been shown to have a writing system capable of conveying any concept that can be conveyed via speech, (at about the same level as the modern Japanese writing system), other Mesoamerican cultures had more rudimentary ideographical writing systems which were contained in similar concertina-style books, one such example being the Aztec codices.



Wax tablets

Romans used wax-coated wooden tablets (*pugillares*) upon which they could write and erase by using a stylus. One end of the stylus was pointed, and the other was spherical. Usually these tablets were used for everyday purposes (accounting, notes) and for teaching writing to children, according to the methods discussed by Quintilian in his *Institutio Oratoria* X Chapter 3. Several of these tablets could be assembled in a form similar to a codex. Also the etymology of the word codex (block of wood) suggest that it may have developed from wooden wax tablets.



Parchment

- Parchment progressively replaced papyrus. Legend attributes its invention to Eumenes II, the king of Pergamon, from which comes the name "pergamineum," which became "parchment." Its production began around the 3rd century BC. Made using the skins of animals (sheep, cattle, donkey, antelope, etc.), parchment proved easier to conserve over time; it was more solid, and allowed one to erase text. It was a very expensive medium because of the rarity of material and the time required to produce a document. Vellum is the finest quality of parchment.

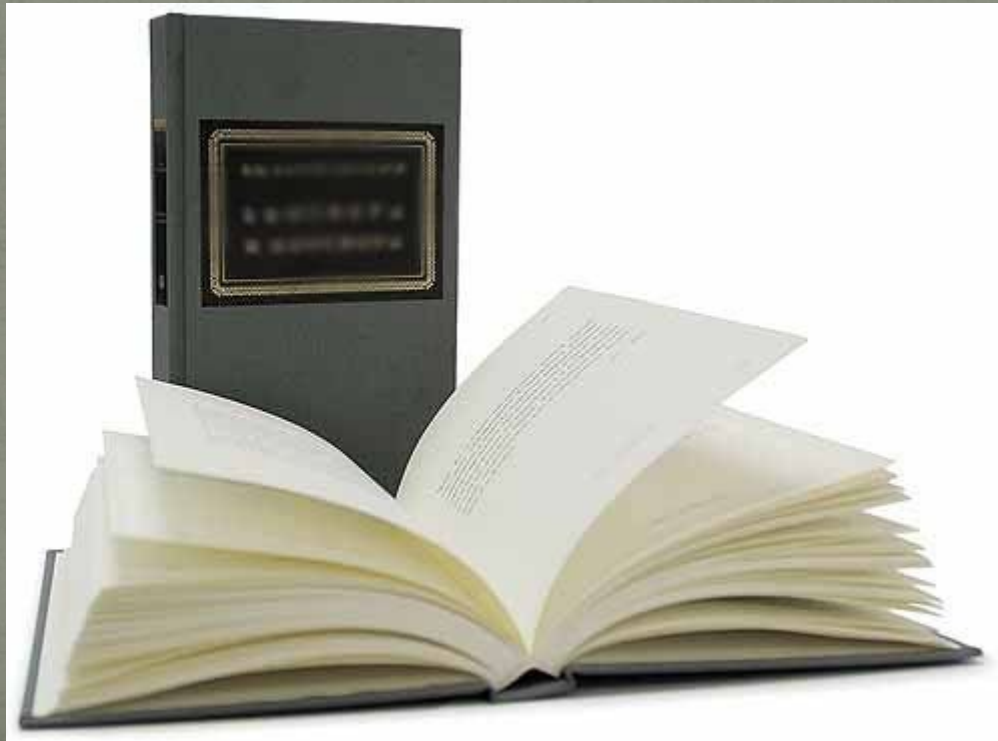


Book culture

The authors of Antiquity had no rights concerning their published works; there were neither authors' nor publishing rights. Anyone could have a text recopied, and even alter its contents. Scribes earned money and authors earned mostly glory, unless a patron provided cash; a book made its author famous. This followed the traditional conception of the culture: an author stuck to several models, which he imitated and attempted to improve. The status of the author was not regarded as absolutely personal.



From a political and religious point of view, books were censored very early: the works of Protagoras were burned because he was a proponent of agnosticism and argued that one could know whether or not the gods existed. Generally, cultural conflicts led to important periods of book destruction: in 303, the emperor Diocletian ordered the burning of Christian texts. Some Christians later burned libraries, and especially heretical or non-canonical Christian texts. These practices are found throughout human history but have ended in many nations today. A few nations today still greatly censor and even burn books.



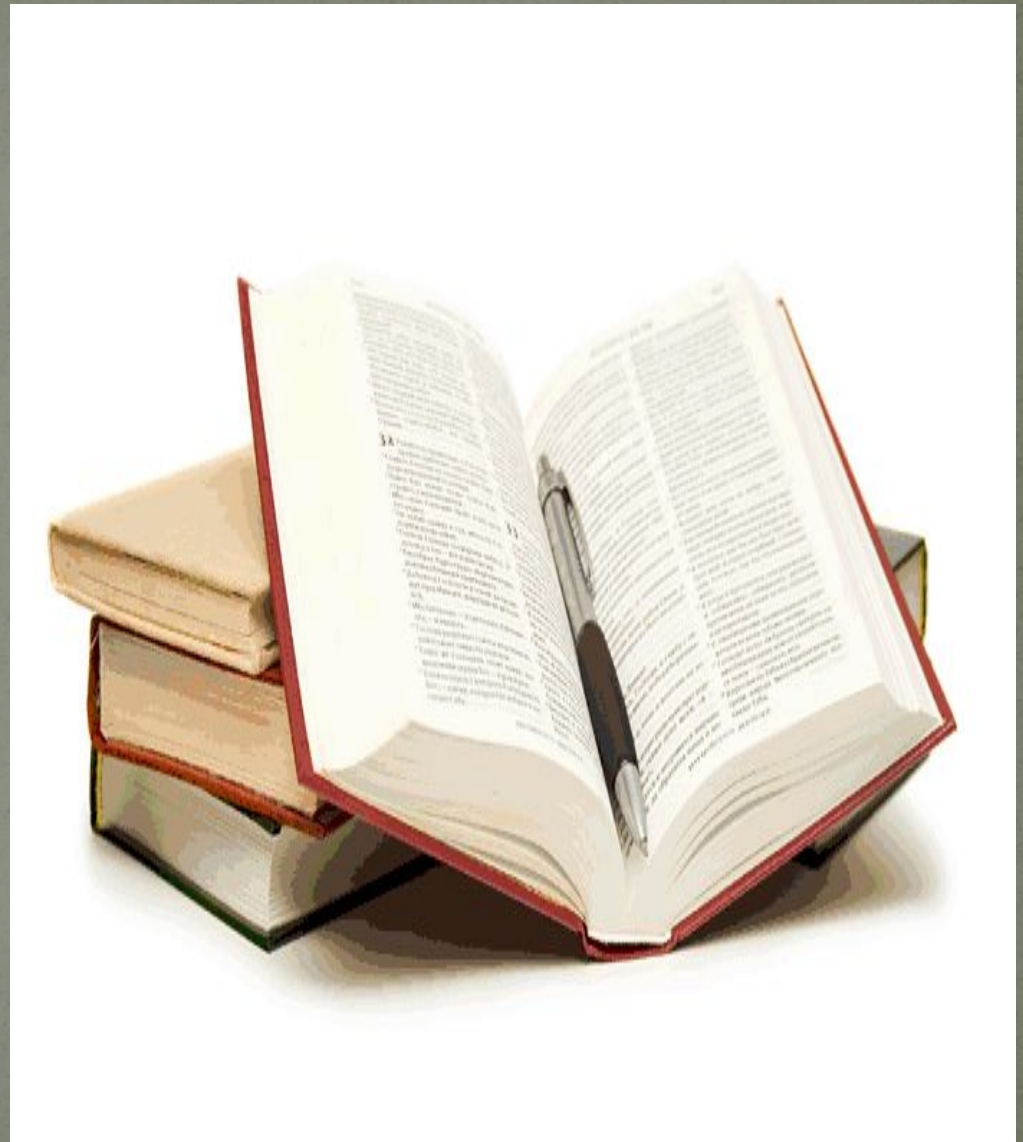
But there also exists a less visible but nonetheless effective form of censorship when books are reserved for the elite; the book was not originally a medium for expressive liberty. It may serve to confirm the values of a political system, as during the reign of the emperor Augustus, who skillfully surrounded himself with great authors. This is a good ancient example of the control of the media by a political power. More importantly, private censorship of books has occurred and continues today. What books one chooses to privately read, to destroy, to throw away, to not sell, and what to pass along to their children involves choosing some books over others. Private individuals can and do censor themselves and others, with little or no support and approval from the governing bodies of their time.



Proliferation and conservation of books in Greece

Little information concerning books in Ancient Greece survives. Several vases (Sixth century BC and fifth century BC) bear images of volumina. There was undoubtedly no extensive trade in books, but there existed several sites devoted to the sale of books.

The spread of books, and attention to their cataloging and conservation, as well as literary criticism developed during the Hellenistic period with the creation of large libraries in response to the desire for knowledge exemplified by Aristotle. These libraries were undoubtedly also built as demonstrations of political prestige:



The Library of Alexandria, a library created by Ptolemy Soter and set up by Demetrius Phalereus (Demetrius of Phaleron). It contained 500,900 volumes (in the *Museion* section) and 40,000 at the Serapis temple (*Serapeion*). All books in the luggage of visitors to Egypt were inspected, and could be held for copying. The Museion was partially destroyed in 47 BC.

The Library at Pergamon, founded by Attalus I; it contained 200,000 volumes which were moved to the Serapeion by Mark Antony and Cleopatra, after the destruction of the Museion. The Serapeion was partially destroyed in 391, and the last books disappeared in 641 CE following the Arab conquest.

The Library at Athens, the *Ptolemaion*, which gained importance following the destruction of the Library at Alexandria; the library of Pantainos, around 100 CE; the library of Hadrian, in 132 CE.

The Library at Rhodes, a library that rivaled the Library of Alexandria.

The Library at Antioch, a public library of which Euphron of Chalcis was the director near the end of the 3rd century.





The libraries had copyist workshops, and the general organisation of books allowed for the following:

Conservation of an example of each text

Translation (the Septuagint Bible, for example)

Literary criticisms in order to establish reference texts for the copy (example : *The Iliad* and *The Odyssey*)

A catalog of books

The copy itself, which allowed books to be disseminated

Book production in Rome

Book production developed in Rome in the first century BC with Latin literature that had been influenced by the Greek.

This diffusion primarily concerned circles of literary individuals. Atticus was the editor of his friend Cicero. However, the book business progressively extended itself through the Roman Empire; for example, there were bookstores in Lyon. The spread of the book was aided by the extension of the Empire, which implied the imposition of the Latin tongue on a great number of people (in Spain, Africa, etc.).

Libraries were private or created at the behest of an individual. Julius Caesar, for example, wanted to establish one in Rome, proving that libraries were signs of political prestige.

In the year 377, there were 28 libraries in Rome, and it is known that there were many smaller libraries in other cities. Despite the great distribution of books, scientists do not have a complete picture as to the literary scene in antiquity as thousands of books have been lost through time.



Paper

Papermaking has traditionally been traced to China about AD 105, when Cai Lun, an official attached to the Imperial court during the Han Dynasty (202 BC-AD 220), created a sheet of paper using mulberry and other bast fibres along with fishnets, old rags, and hemp waste.

While paper used for wrapping and padding was used in China since the 2nd century BC, paper used as a writing medium only became widespread by the 3rd century. By the 6th century in China, sheets of paper were beginning to be used for toilet paper as well. During the Tang Dynasty (AD 618-907) paper was folded and sewn into square bags to preserve the flavor of tea. The Song Dynasty (AD 960-1279) that followed was the first government to issue paper currency.





Middle Ages

By the end of antiquity, between the 2nd century and 4th century, the codex had replaced the scroll. The book was no longer a continuous roll, but a collection of sheets attached at the back. It became possible to access a precise point in the text directly. The codex is equally easy to rest on a table, which permits the reader to take notes while he or she is reading. The codex form improved with the separation of words, capital letters, and punctuation, which permitted silent reading. Tables of contents and indices facilitated direct access to information. This form was so effective that it is still the standard book form, over 1500 years after its appearance.

Paper would progressively replace parchment. Cheaper to produce, it allowed a greater diffusion of books.

Books in monasteries

A number of Christian books were destroyed at the order of Diocletian in 304 AD. During the turbulent periods of the invasions, it was the monasteries that conserved religious texts and certain works of Antiquity for the West. But there would also be important copying centers in Byzantium.

The role of monasteries in the conservation of books is not without some ambiguity:

Reading was an important activity in the lives of monks, which can be divided into prayer, intellectual work, and manual labor (in the Benedictine order, for example). It was therefore necessary to make copies of certain works. Accordingly, there existed scriptoria (the plural of scriptorium) in many monasteries, where monks copied and decorated manuscripts that had been preserved.

However, the conservation of books was not exclusively in order to preserve ancient culture; it was especially relevant to understanding religious texts with the aid of ancient knowledge. Some works were never recopied, having been judged too dangerous for the monks. Moreover, in need of blank media, the monks scraped off manuscripts, thereby destroying ancient works. The transmission of knowledge was centered primarily on sacred texts.



Copying and conserving books



Despite this ambiguity, monasteries in the West and the Eastern Empire permitted the conservation of a certain number of secular texts, and several libraries were created: for example, Cassiodorus ('Vivarum' in Calabro, around 550), or Constantine I in Constantinople. There were several libraries, but the survival of books often depended on political battles and ideologies, which sometimes entailed massive destruction of books or difficulties in production (for example, the distribution of books during the Iconoclasm between 730 and 842). A long list of very old and surviving libraries that now form part of the Vatican Archives can be found in the Catholic Encyclopedia.

The scriptorium

The scriptorium was the workroom of monk copyists; here, books were copied, decorated, rebound, and conserved. The armarius directed the work and played the role of librarian.

The role of the copyist was multifaceted: for example, thanks to their work, texts circulated from one monastery to another. Copies also allowed monks to learn texts and to perfect their religious education. The relationship with the book thus defined itself according to an intellectual relationship with God. But if these copies were sometimes made for the monks themselves, there were also copies made on demand.

The task of copying itself had several phases: the preparation of the manuscript in the form of notebooks once the work was complete, the presentation of pages, the copying itself, revision, correction of errors, decoration, and binding. The book therefore required a variety of competencies, which often made a manuscript a collective effort.



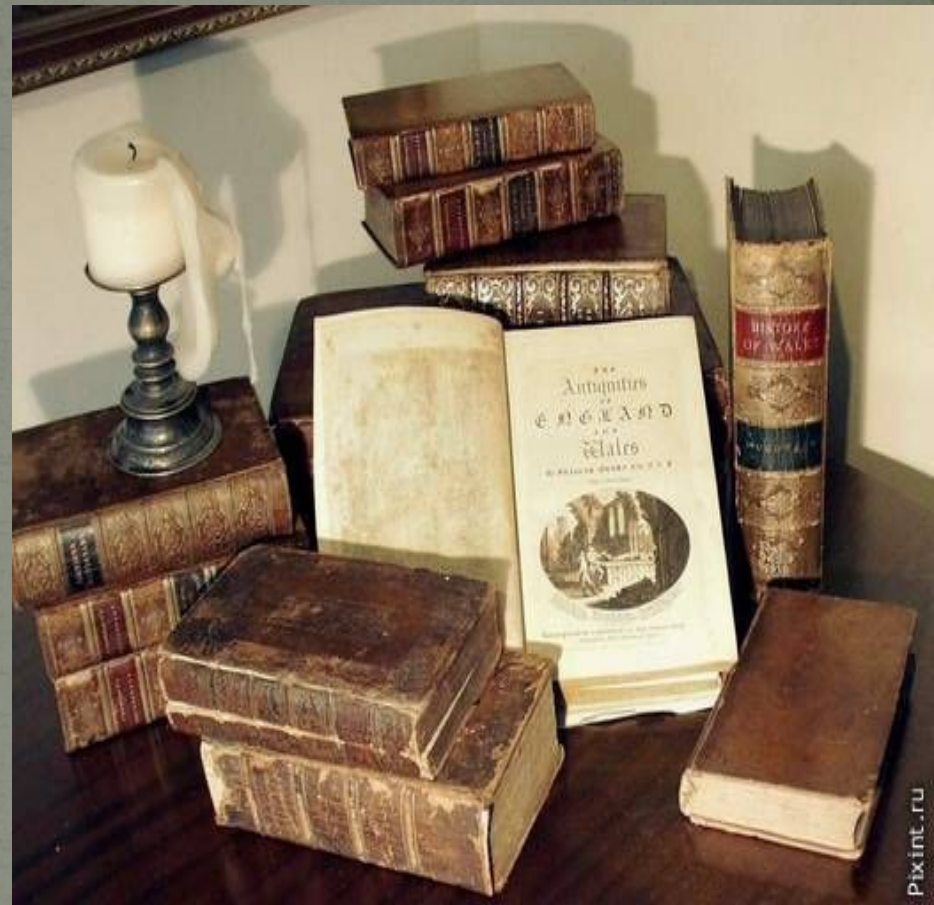
Transformation from the literary edition in the twelfth century

The revival of cities in Europe would change the conditions of book production and extend its influence, and the monastic period of the book would come to an end. This revival accompanied the intellectual renaissance of the period. The Manuscript culture outside of the monastery developed in these university-cities in Europe in this time. It is around the first universities that new structures of production developed: reference manuscripts were used by students and professors for teaching theology and liberal arts. The development of commerce and of the bourgeoisie brought with it a demand for specialized and general texts (law, history, novels, etc.). It is in this period that writing in the common vernacular developed (courtly poetry, novels, etc.). Commercial scriptoria became common, and the profession of book seller came into being, sometimes dealing internationally.

- There is also the creation of royal libraries: by Saint Louis and Charles V for example. Books were also collected in private libraries, which became common in the 14th century and 15th centuries.
- The use of paper diffused through Europe in the 14th century. This material, less expensive than parchment, came from China via the Arabs in Spain in the eleventh and 12th century. It was used in particular for ordinary copies, while parchment was used for luxury editions.

Printing press

The invention of the printing press by Johanne Gutenberg around 1440 marks the entry of the book into the industrial age. The Western book was no longer a single object, written or reproduced by request. The publication of a book became an enterprise, requiring capital for its realization and a market for its distribution. The cost of each individual book (in a large edition) was lowered enormously, which in turn increased the distribution of books. The book in codex form and printed on paper, as we know it today, dates from the 15th century. Books printed before January 1, 1501, are called incunables.

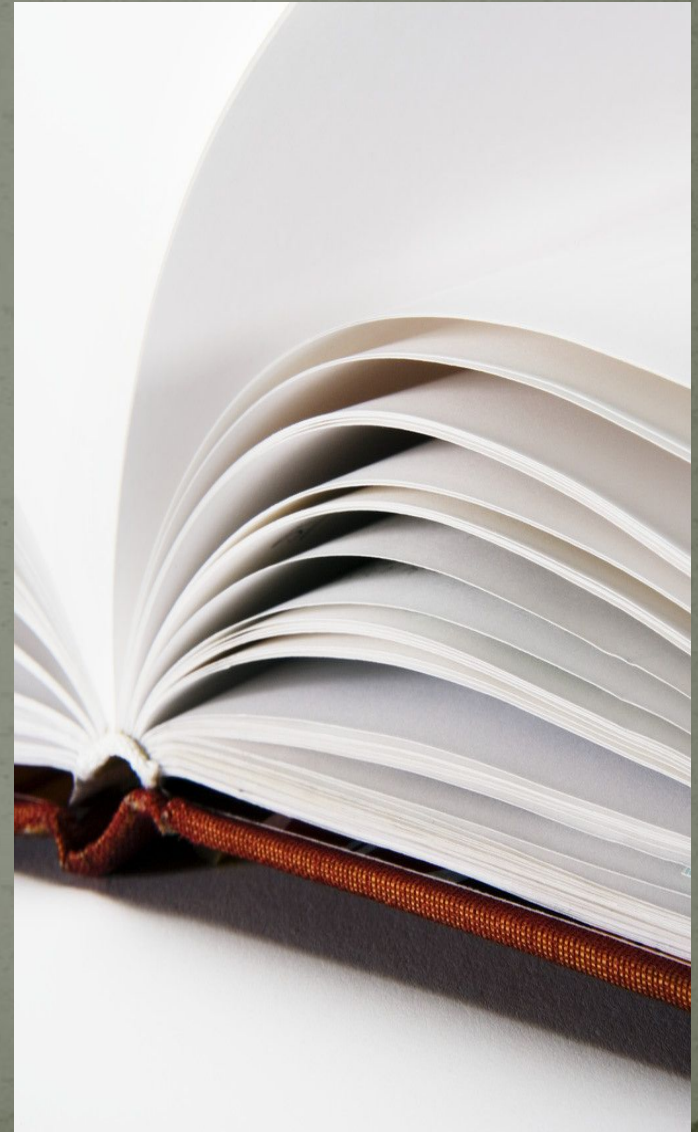


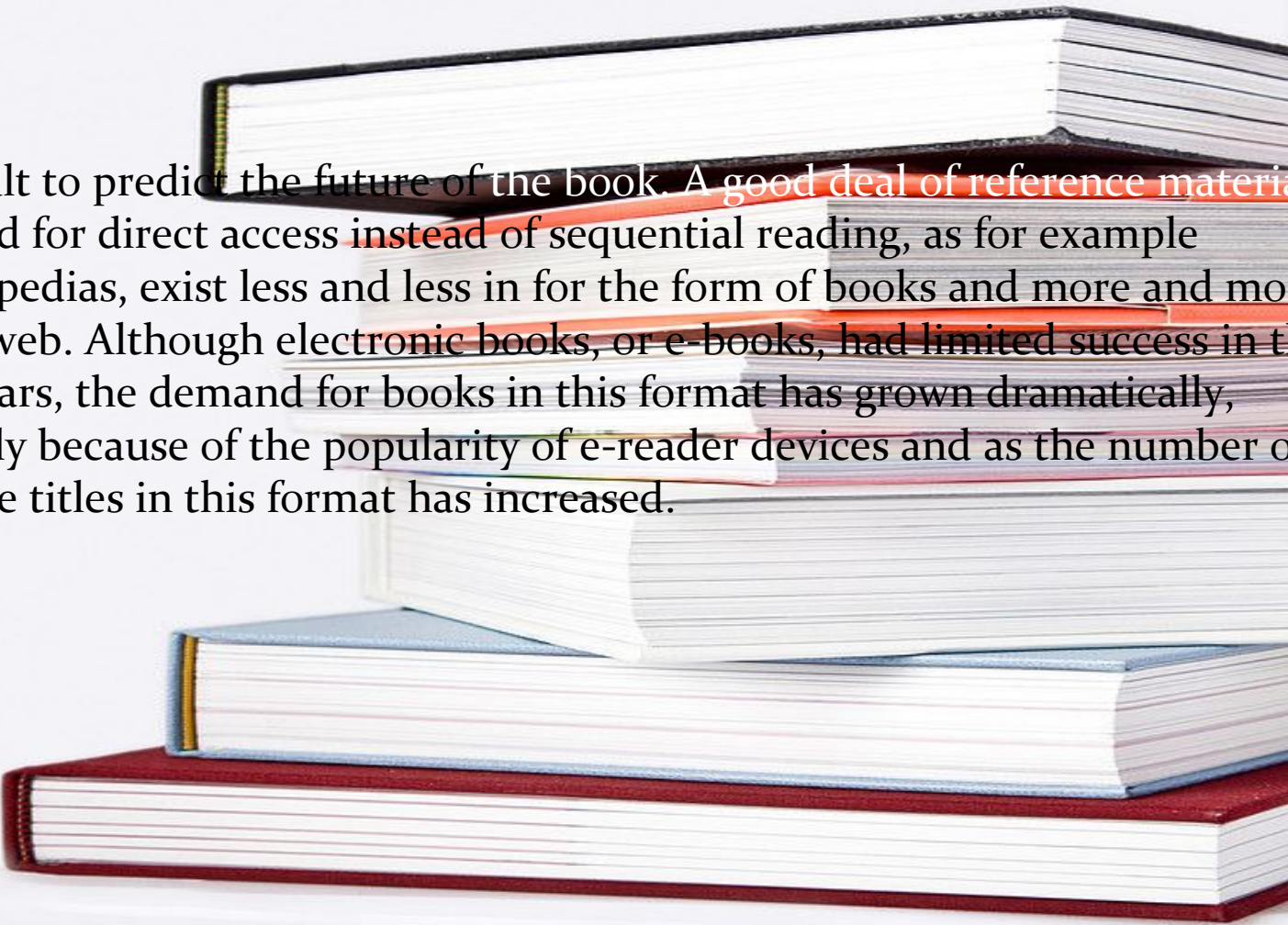
Contemporary era

The demands of the British and Foreign Bible Society (founded 1804), the American Bible Society (founded 1816), and other non-denominational publishers for enormously large and impossibly inexpensive runs of texts led to numerous innovations. The introduction of steam printing presses a little before 1820, closely followed by new steam paper mills, constituted the two most major innovations. Together, they caused book prices to drop and the number of books to increase considerably. Numerous bibliographic features, like the positioning and formulation of titles and subtitles, were also affected by this new production method. New types of documents appeared later in the 19th century: photography, sound recording and film.

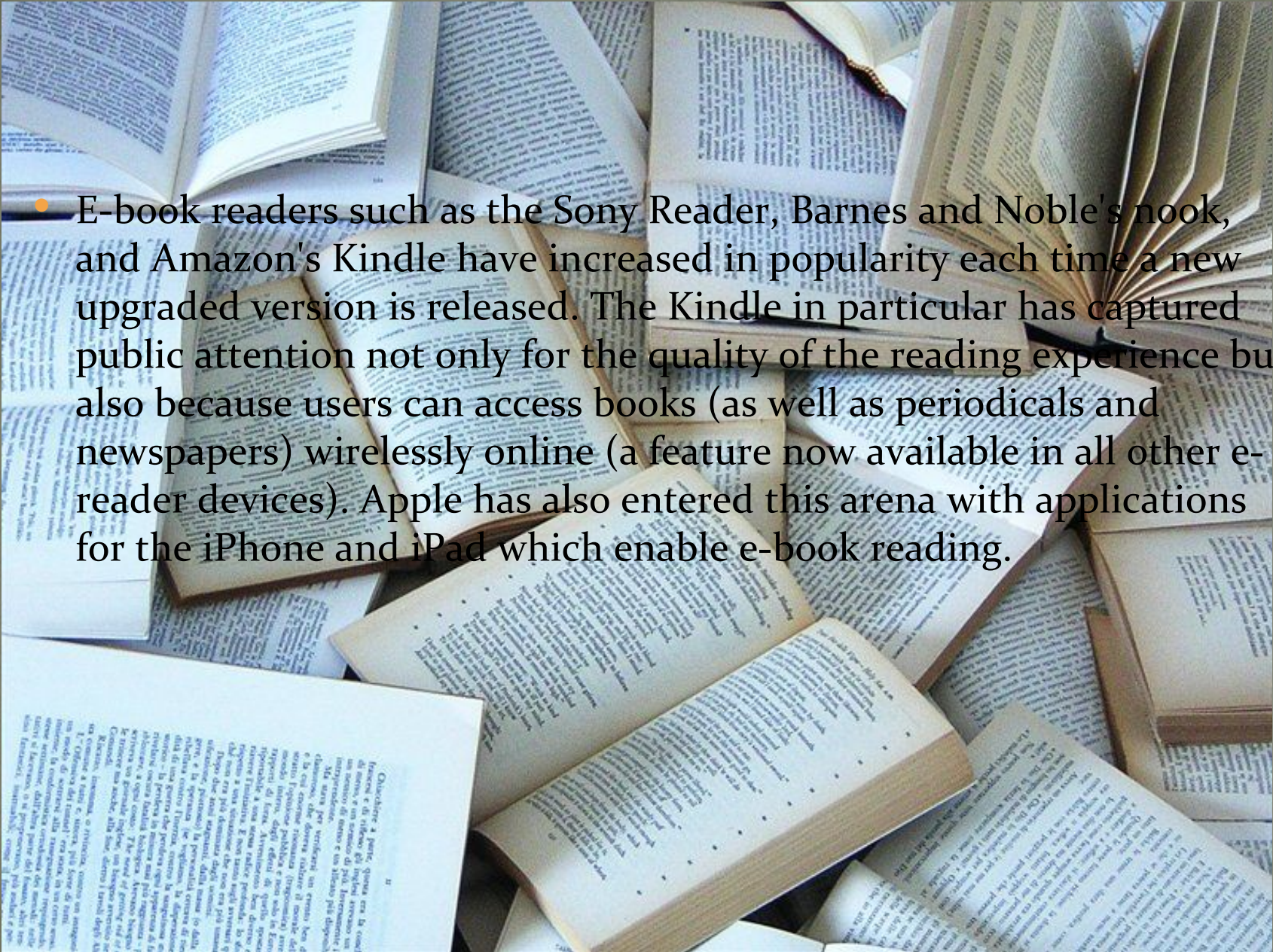
Typewriters and eventually desktop publishing let people print and put together their own documents, using staplers, ring binders, etc.

A series of new developments occurred in the 1990s. The spread of digital multimedia, which encodes texts, images, animations, and sounds in a unique and simple form is a novel development. Hypertext further improved access to information. Finally, the internet lowered production and distribution costs, as did printing at the end of the Middle Ages.



A stack of three books is shown. The bottom book has a red cover, the middle one a blue cover, and the top one a white cover. The books are thick, suggesting they contain a lot of text. The text is overlaid on the image, with some words highlighted in red.

It is difficult to predict the future of the book. A good deal of reference material, designed for direct access instead of sequential reading, as for example encyclopedias, exist less and less in the form of books and more and more on the web. Although electronic books, or e-books, had limited success in the early years, the demand for books in this format has grown dramatically, primarily because of the popularity of e-reader devices and as the number of available titles in this format has increased.

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- E-book readers such as the Sony Reader, Barnes and Noble's nook, and Amazon's Kindle have increased in popularity each time a new upgraded version is released. The Kindle in particular has captured public attention not only for the quality of the reading experience but also because users can access books (as well as periodicals and newspapers) wirelessly online (a feature now available in all other e-reader devices). Apple has also entered this arena with applications for the iPhone and iPad which enable e-book reading.

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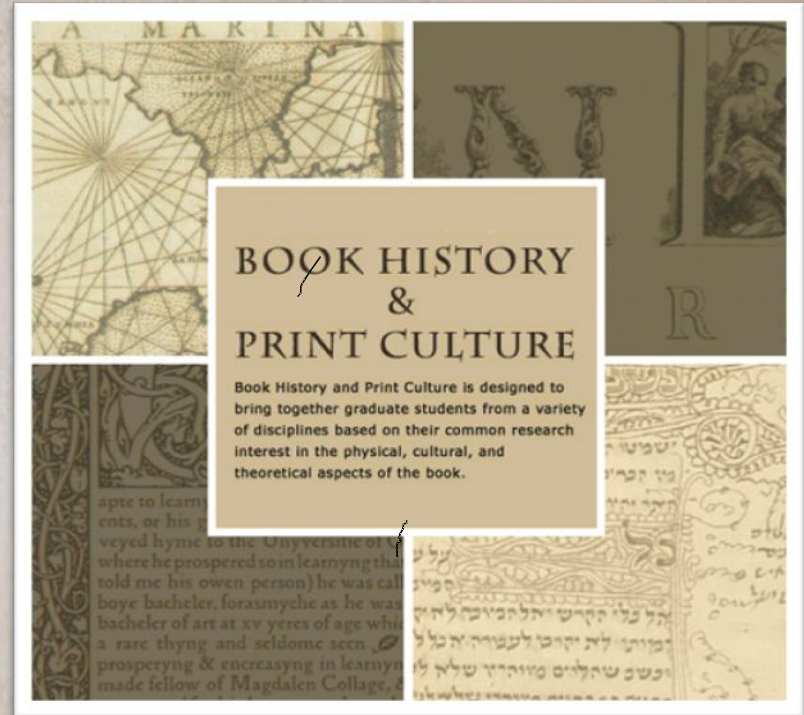
II Part:

Manuscripts, Books, and Maps: The Printing Press

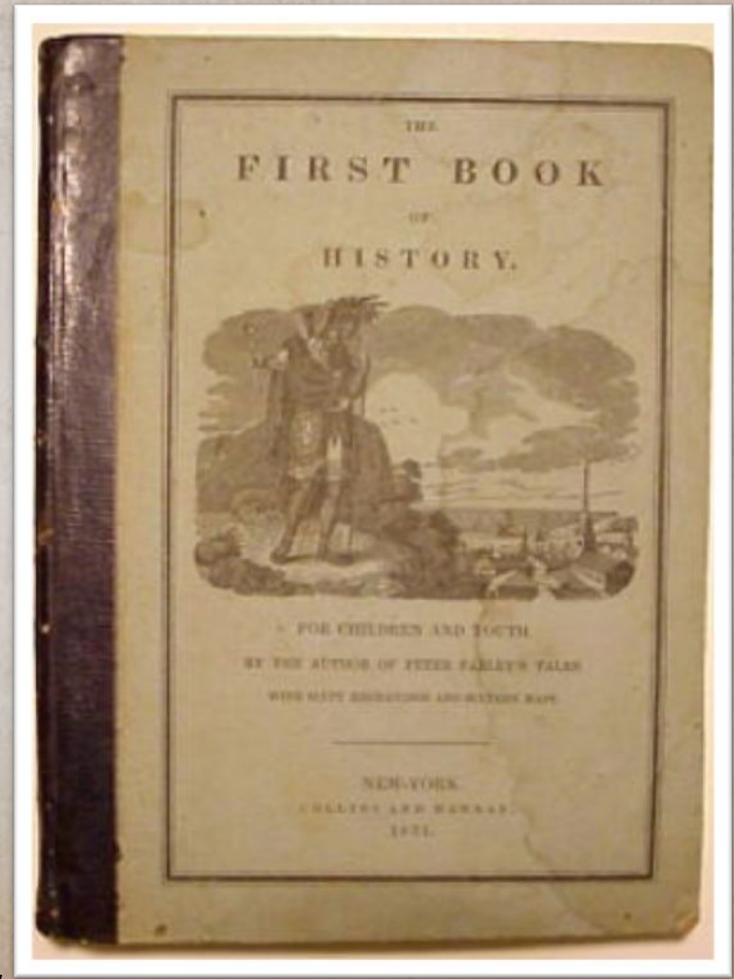
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2. Four Important Periods in the History of the Book
3. The Rise of the University
4. Luther and the Protestant Reformation
5. The Rise of Vernacular Languages and Nation States
and the Decline of the Roman Catholic Church.
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Introduction

The history of the book presents us with a complete, observable communications revolution. The historical record is such that we can watch the whole of a vast socio-cultural, political, and economic change happen over a period of some three to five hundred years (depending on whose perspective you prefer). By following the developments in manuscript and print book production, tied to the changes in the technologies used to produce those texts, we can also chart the various changes in social organization, politics and economics from the feudalism of the 7th century, through to the advent and advance of early capitalism in the 15th century.



The implications of the printed word are vast. There are those who argue that Martin Luther and the Protestant revolution could not have taken place if it were not for the printing press. While this is not entirely valid, the press and the already wide distribution of books and other printed matter in Luther's time certainly added to the distribution of his ideas and work. In the shifts in the world from the mid 15th century to the end of the 18th century, it is possible to trace the divergence of science from religion and the opening up of the new world.



In order to understand the effect of printing in the 15th century, you have to go back to the 7th century and see how the book world was organized prior to the advent of printing. Then you can see what changed along with the introduction of printing.



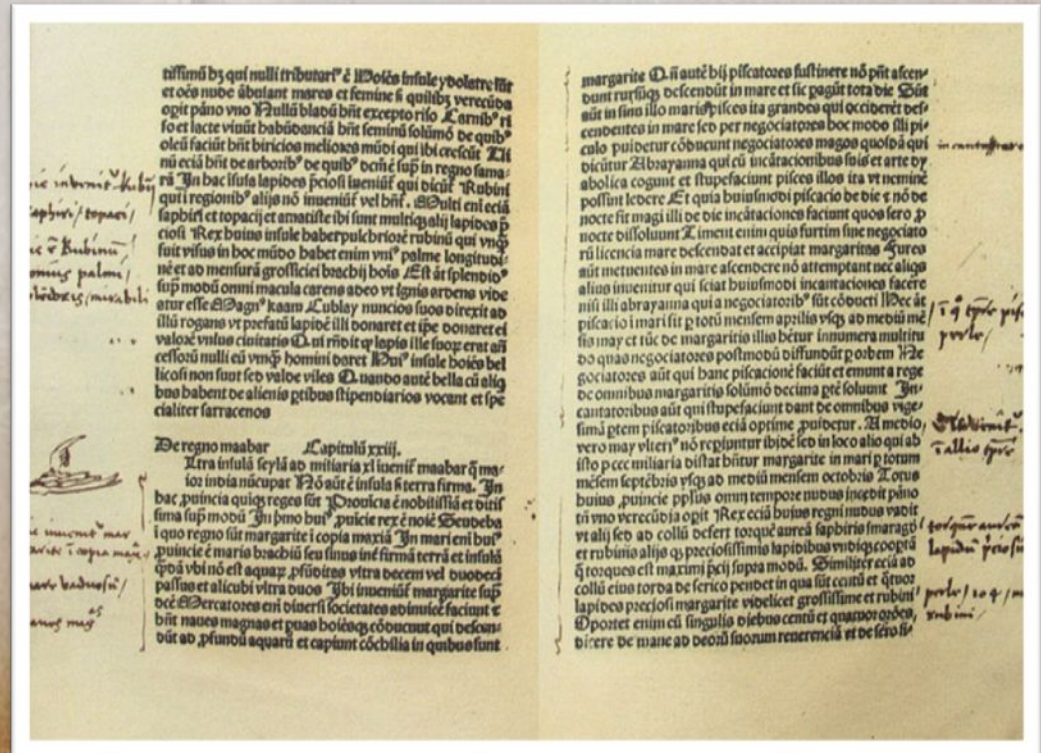
It's easy, reading an author like historian Elizabeth Eisenstein, to think that the printing press was somehow the single most important invention of the Middle Ages, that it and it alone was responsible for the changes of the European Literary, Scientific and Artistic Renaissance and the Protestant Reformation. Her position is close "technological determinism". She isn't completely determinist - she sees the other factors that were at play, but she still privileges the printing press. However, there are other important factors that contributed to the rise of intellectual activity in Europe in the mid-15th century.

For instance, if you look at the argument of Lucien Febvre and Henri Martin in their work, *The Coming of the Book*, you get a different picture of that same revolution. Febvre and Martin contend that society in Europe changed during the Renaissance because of a secularization of learning that occurred with the growth of the university. They date the important changes from the 13th century.



Four Important Periods in the History of the Book

- I. 7th to 13th Century: The age of religious "manuscript" book production. Books in this period are entirely constructed by hand, and are largely religious texts whose creation is meant as an act of worship.



II. 13th to 15th Century: The secularization of book production. Books are beginning to be produced that do not serve as objects of worship, but that try to explain something about the observable world. The difficulty with the spread of such knowledge is that production is still taking place via pre-print - manuscript - methods.

- The production of secular books is driven by two things:
- -The rise of universities in Europe, spreading from Italy.
- -The return of the crusaders in the 13th century, who bring with them texts from Byzantium. These books, written during the Greek and Roman periods in history, focus on this-world concerns.

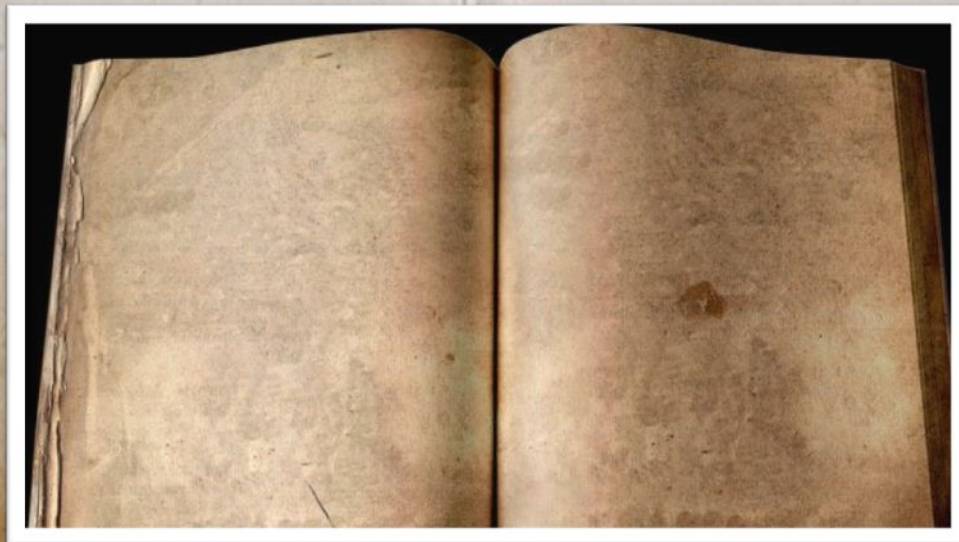


- III. 15th to 16th Century: The first printed books. These are print versions of traditional works like the Bible, books of hours (prayer books) and the religious calendars.
- IV. 16th to 17th Century: New information is put into books that has important consequences for European life and society.



Authors like Elizabeth Eisenstein, who say that print had a massive effect in European culture, are looking at the differences between periods II and III above. Febvre and Martin see other factors as more important because they are looking at the differences between periods I and IV above.

Let's now turn to an examination of each of these periods in European history so that we can get a better grasp on the motivating factors for change.



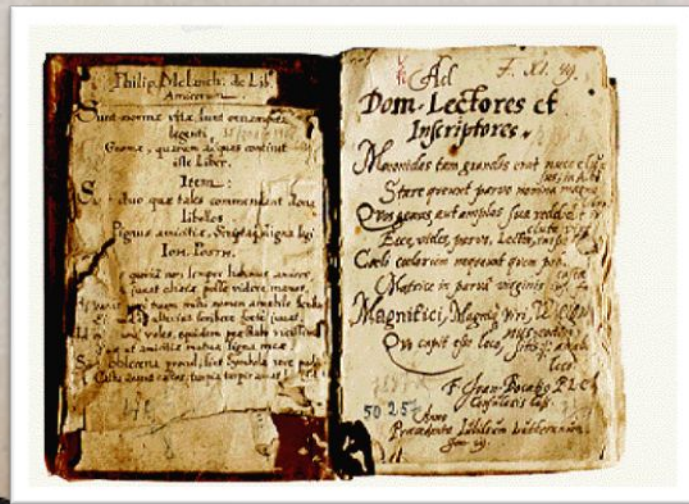


The 7th to the 9th century was the heyday of the "illuminated manuscript". Production of these works took place in the monasteries scattered across Europe. These religious retreats were the repositories of those texts of Greece and Rome which survived in Europe.

During this time, the production of Bibles was the place where the arts of the monastic scribes, and later lay artists, flowered. It was here that the most elaborate and beautiful illumination found its outlet and the manuscript books from this period represent the height of the art of decoration.

One of the most beautiful examples of an illuminated manuscript is the Irish Book of Kells: "a large-format manuscript codex of the Latin text of the gospels" (Meehan 1994:9).

The most important thing about the manuscript books of this period is that they were objects of religious veneration. They were seen as consecrated objects. Their creation was an act of religious devotion. The monks who sat for years, working on single chapters of the Bible, were not reproducing books. They were making the word of God manifest in the world.





The style of these books is very different from anything we are used to reading. They are not meant to be a collection of words that convey information from an author to the reader. Their primary function is to serve as decoration which pays tribute to the word of God.

The Book of Kells

The first page of a genealogy of Christ



- In an illuminated manuscript, the complexity of the decoration was intended to mirror the complexity of the biblical passages the decoration illustrates. Just as Biblical text is open to many different interpretations, the illumination of that text was intended to pose the same allusive and meditative possibilities. (Meehan 1994:16)

This is the "carpet page" from the Book of Durrow, created around 680 A.D. The woven pattern on this page is called "interlace" and exhibits both zoomorphic and abstract elements in its design.

The detail of the interlace in the Book of Durrow is more refined by the time the illuminators get to the creation of the Book of Kells. In the Book of Durrow, the interlace covers the page, in the Book of Kells, it becomes part of larger images.

If you look carefully at these pages, you can see that the decoration is carried into the text. There is a continuity between the words and the decoration, a continuity that suggests that the illuminated religious manuscript, is an attempt to convey the beauty of God's message to mankind.



• The Book of Durrow

The first page of Saint Jerome's translation of the four gospels into Vulgate.

For all their beauty, as mentioned above, the manuscripts of the monasteries did little to affect life in Europe. Primarily this comes about as a consequence of the inaccessibility of the monastic libraries. Instead of books being openly available as they are today, manuscript books were mostly locked up in monasteries strewn across Europe. Given the amount of time and energy and financial resources the went into their production, books were far too valuable to make available to the general public. So there was no way to use them for scholarship, even the few secular texts that may have been available.



The Rise of the University



An important event of the 12th and 13th centuries is the rise of a merchant class; a social and economic group whose function in the world is to move merchandise from one locale to another - who make their living buying and selling goods, instead of making things or growing food. A rising merchant class and a new rise of cities, also meant a rising interest in the outside world.

The first European university was founded in Bologna, Italy in 1119. Universities were established in Siena in 1203 and Vincenza in 1204. By the end of the 13th century, universities had been established in Paris, Bologna, Padua, Ghent, Oxford, Cambridge. These were major sites for the institution of a new relationship to books, to learning, and to the Word of God.



In many cases, the university consisted of lecturers who lived in the town. If a group of people wanted a class they would go hire a lecturer and pay him to give a series of lectures.

Canterbury Tales is written sometime between 1387 and Chaucer's death in 1400.

In many cases, the university consisted of lecturers who lived in the town. If a group of people wanted a class they would go hire a lecturer and pay him to give a series of lectures.

The shift from a religious focus on the next world and the worship of God to a secular focus on the present world and an interest in the natural world. Merchants have different interests from priests.

These new centers of learning created new demands for books. These students didn't have access to the books locked away in monasteries. so they had no access to books. With the rise of this new form of learning, they needed access to new kinds of books not readily available - e.g. non-religious texts.





So the university created a system of demand for books as well as a system for the use of books in ways not used with religious texts. This effect of the university on book production is what Febvre and Martin take as more revolutionary than the advent of the printing press.

Two new kinds of institutions grew up around the universities to provide for that demand: stationers and book copiers. These folks provided paper and libraries of text books that had been carefully studied and compared to other books for accuracy. They made these books available for copying by students. When a student needed a text for a class, he would go down to the stationers and copy them - by hand. Or he could pay a book copier to copy the book for him.





There are several problems with this mode of book production. The most obvious is that inaccuracies get introduced as the book gets copied.

Second, stationers may try to get accurate copies of the texts, but they have no way to really know how accurate their copies were.

The combination of these factors lead to a compounding of inaccuracies in the texts people used. Mistakes get compounded as copiers get tired, bored, or simply pass along mistakes they don't catch.

But this also created a snowball effect that led to more demand for books well in advance of the advent of the printing press's ability to meet that demand.

Books needed were not just religious texts so much as books on more secular subjects



Even quasi-religious books begin to show non-religious aspects of life: more realistic looking people and artifacts. The Visconti Hours is a 14th century book of hours. "A Book of Hours is a compendium of devotional texts that takes its name from its one essential text, the Hours of the Virgin, or more properly the Little Office of the Blessed Virgin Mary. It is called an 'Hours,' or Horae in Latin, because it is subdivided into eight parts, one for each of the 'hours' of the liturgical day - Matins, Lauds, Prime, Terce, Sext, None, Vespers, and Compline"

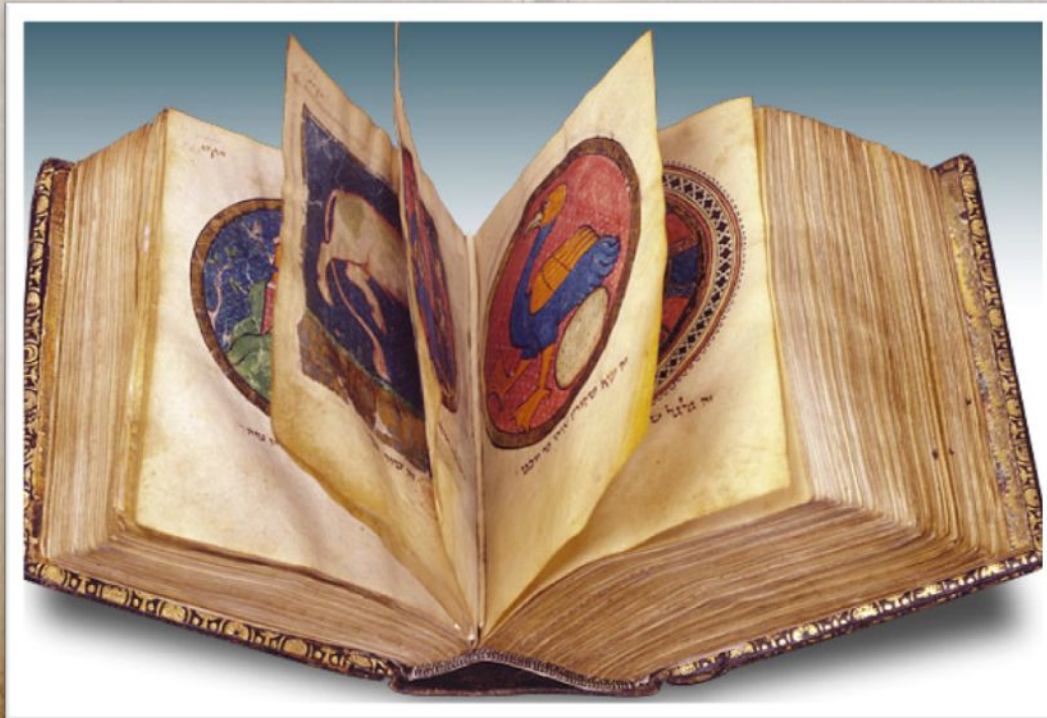


Despite the lack of perspective in the medieval images on these pages, we can see that the book is becoming a repository for naturalistic study of plants and animals. The borders of the pages include images that look like real plants, and there are rabbits at the bottom of "Meeting at the Garden Gate."

In the Book of Kells there is an other-worldly truth. In these works, we see a this-worldly presentation. Similar themes show up in other religious texts.



The creators of these works are also beginning to include images of their own social world. In this manuscript, the Hours of Catherine of Cleves, produced in 1140, there is a picture of the Holy Family with Christ in a walker. But this is not an image of the Roman-era, it is a 15th century image - a vernacular culture scene - that would look familiar to the reader of the work.





In this period there is also the beginning of the divorce of image from text/writing. The image here shows the letter "Q" - it is still decoration, but it looks more like modern decorated text than medieval text.

And there is a new kind of realism. Religious images begin to look more like what we would see today, with a more modern notion of both perspective and scene - with the sheep and the dogs in the picture with the angels and the shepherds. In other texts like the Tacuinum Sanitatis, published in the 10th century, there is a clear image of the real world, without any religious significance. Here we have production and reproduction. From this book people could learn about the real world outside their houses.





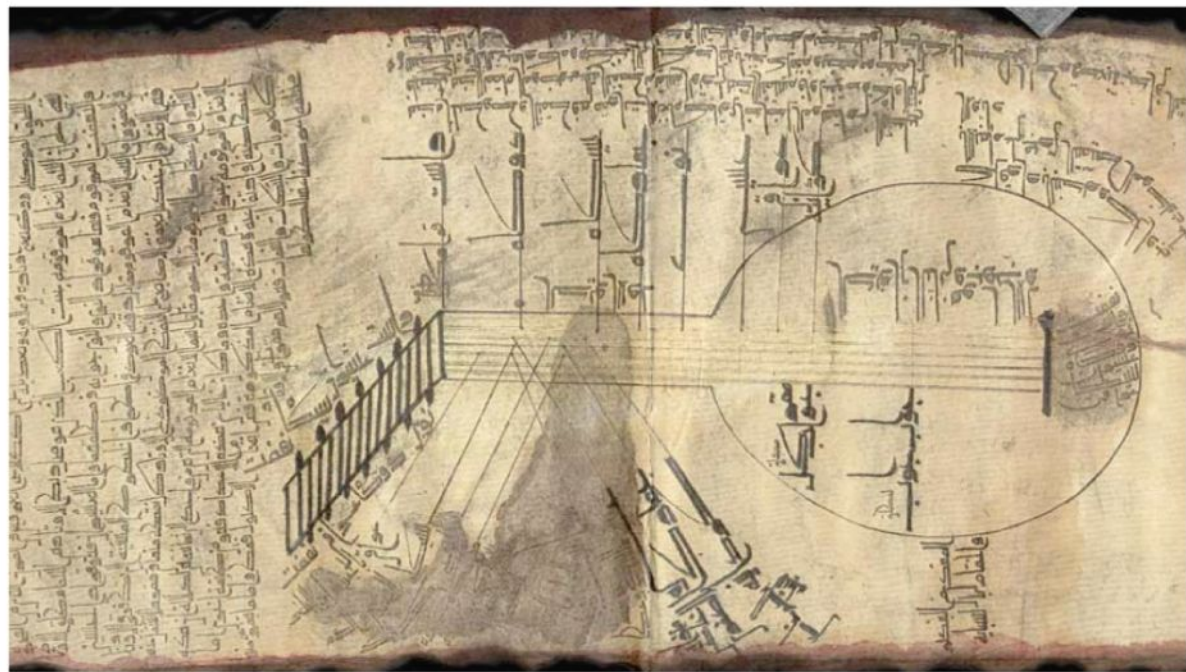
Books like the Tacuinum Sanitatis are how-to books, whose content comes much from everyday life. They are books that help and support daily life, not acts of religious devotion. They are places where people begin to record the character of their own lives. These books evince an interest in the ordinary rather than in the extraordinary.



For all the changes in this period, Eisenstein is also correct that the inaccuracies in available texts created problems for the advancement of European knowledge. First it was difficult to locate books. You could get the books needed for a particular university class, but you might not be able to get your hands on copies of other texts you might need to do independent research. You were dependent on word of mouth to learn about what books existed, but you may not have any to get copies.

Luther and the Protestant Reformation

The real innovation in culture, related to print, is in the Protestant Reformation, at the beginning of the 16th century. Martin Luther begets the Protestant Reformation in the early to mid-1500s in Germany. In 1536, John Calvin publishes his work in Strasbourg, then moves to Geneva Switzerland. The Reformation was the first revolutionary mass movement, in part because took advantage of printed propaganda.





Because of the low literacy rates of Europe at the time, much of this propaganda took form in images. One popular target for such images was the pope, here portrayed by Lucas Cranach as the "Whore of Babylon."



In another series of what might be termed "political cartoons" entitled the Passion of Christ and Anti-Christ Luther contrasts the life and actions of Christ with those of the Pope.

This propaganda was effective in challenging the power of the Roman Catholic church, primarily because the Church itself had done such a wonderful job of educating the otherwise illiterate masses. While few book audiences of today would know the story of the Whore of Babylon, virtually all of Europe was familiar with the text and was capable of understanding the cartoon.



The Rise of Vernacular Languages and Nation States and the Decline of the Roman Catholic Church.

The power of the Roman Catholic Church was based in part on the ability of the church to enforce the use of Latin as the language for the worship of God. Just as the manuscript books were the main visual means of venerating God, so to Latin was the only verbal means of communicating with him. In *Imagined Communities*, Benedict Anderson notes, that as long as the Church could maintain this link, and as long as it controlled who learned to speak and write Latin, the Church could maintain its position in the world. With Latin was the only language for religious texts, the priest represented the only true path to God and way to salvation. Through that link, the Church maintained its political power in the world.





At this time there is also the expansion by Western Europe into Africa and the New World. Prince Henry of Portugal (Henry the Navigator) sends his fleets to explore the coast of Africa in the 1440s and Columbus falls into history by stumbling over the America's at the end of the century.



One of the consequences of this push into the world is that books become a way of disseminating information about the outside world; new information about a new world that Europe was very curious about. Given that most of the artists and authors had not traveled to the New World to see for themselves, they were forced to rely on the descriptions of those who had made the journeys. This led to some interesting representations of faraway places.



Note both the difference in appearance, and the development of Durer's talent, shown between this image and the one of the pig above. There are also attempts to show the strange people who populate the New World. Like the "Christ in the Walker" image above, many of these visions were juxtapositions of what might be found in the New World, represented in terms of what people in the old world were more accustomed.

In the art of this time, there was a distortion of perception and an inability to incorporate novelty that made it difficult for Europeans to put all of their understanding of the world within this new kind of a printed frame. And, just as the flora and fauna of the New World was both frightening and fanciful, so too were the inhabitants.



A Weroans or great Lord of Virginia.

These images are from Theodore De Bry's, *Historica Americae*. While the work was intended to portray life in the Americas, "A Weroans or great Lord of Virginia," was created with the aesthetic sensibility of Greek statues or Renaissance anatomy studies - front and rear views.

As can be seen in the other two images, "The manner of making their boats" and "How the slave who had spoken ill of me was himself eaten," the same sensibilities carried over into De Bry's studies of culture.



These were the ways in which people tried to put new information into print, but there was a conservatism in the images as well.

By far, the biggest effect of the universities, print books and an increasingly literate reading public, came in the emerging scientific fields of botany, geography, and astronomy.



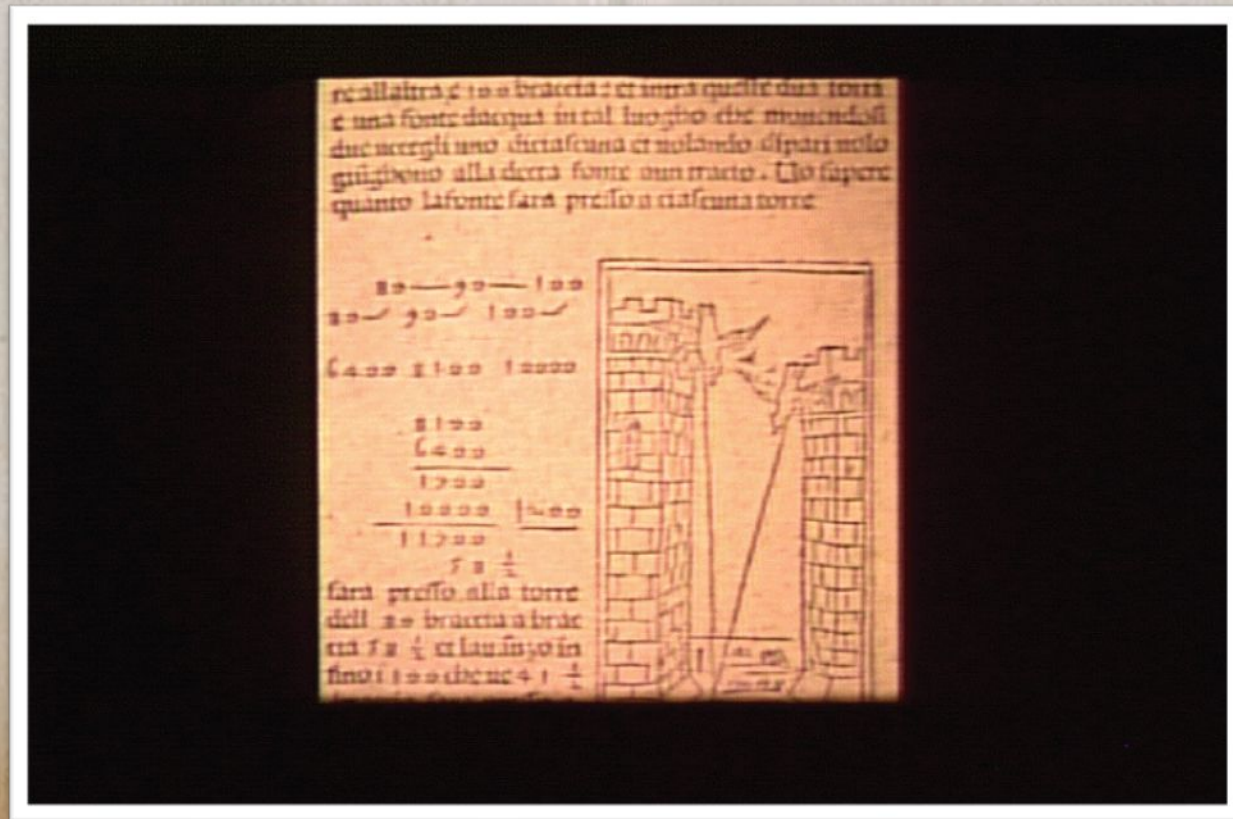
In large part, the rise of Science as a replacement for religion as a way of seeing the world has to do with the changing nature of libraries. Instead of a few repositories, usually in the control of the church, people began to accumulate private libraries.

In the early 13th century, science got a boost from the Crusaders returning from the Holy Land. These men brought back copies of the texts of the Greeks and Romans, lost to European audiences since the fall of Rome. Included in those texts were science texts from the Greeks.

When printing makes copies of these books available to a wider audience, and makes it possible to do comparison between books, the comparison of these ideas leads to new ideas.



This is a surveying exercise from a Dutch book on science by Ezechiel de Decker, *De Arithmetica*. This leads to new books on scientific subjects, when, by the 15th century, there are new books on science, mathematics, and military engineering.

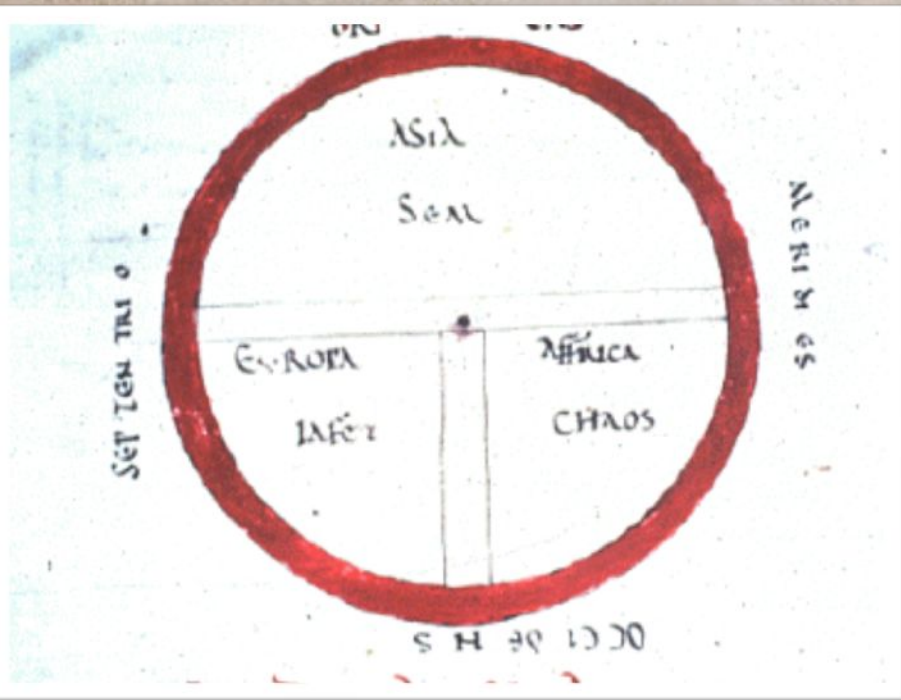


Maps

The final aspect of print and its effects on European life has more to do with economics than it does with culture: print maps and geographical information for European expansion into the new world.

Early maps of the world were religious icons, just like those icons on the carpet page of the Book of Kells.

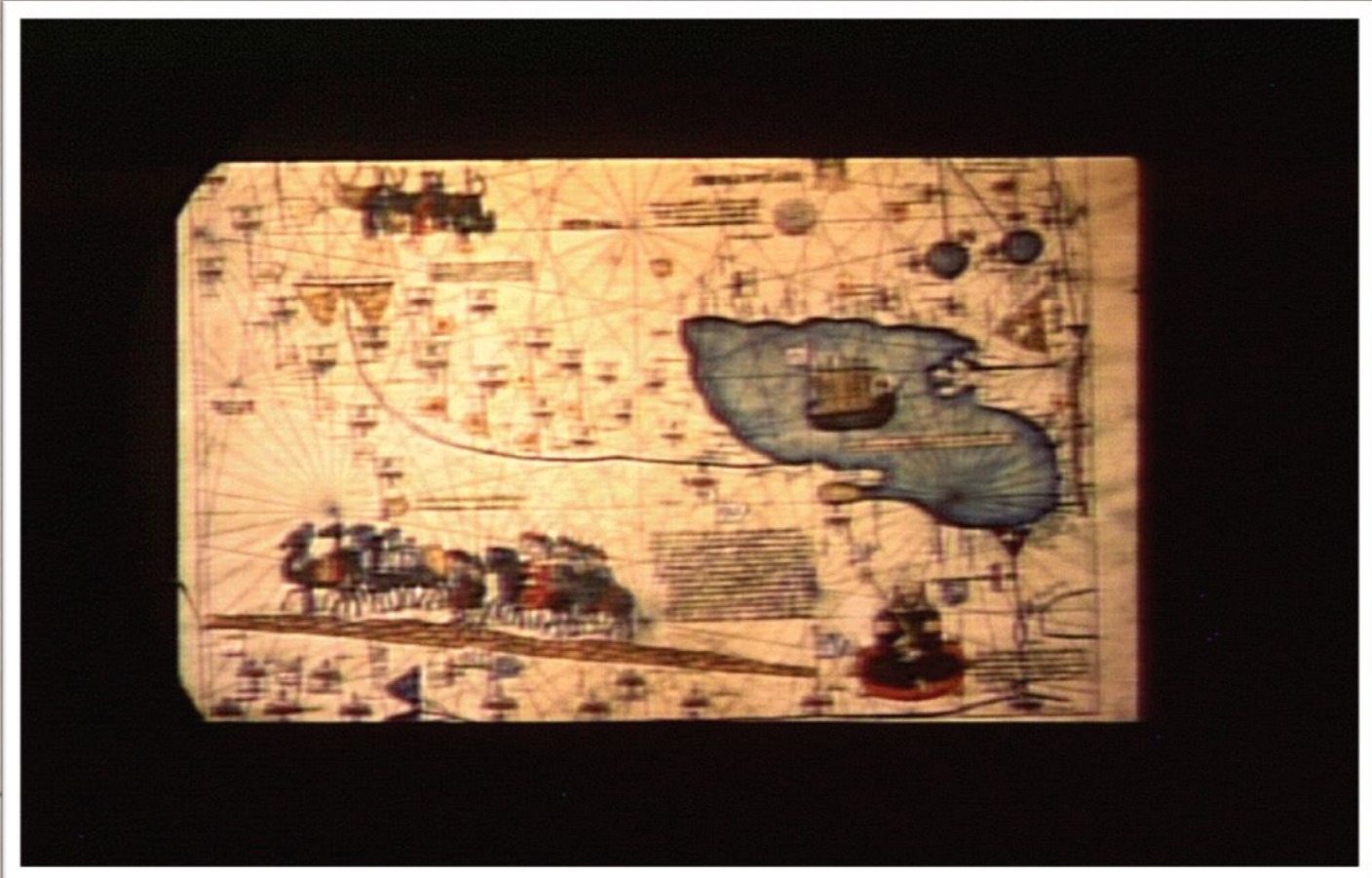




This 12th Century map of the world is called a "T and O" map because of the shape of the image. The world it portrays is a circle, divided by a T-shaped cross, the center of which is in Jerusalem. The circle represents perfection - the world as the object of God's affection. The world is divided into three continents, named after the sons of Noah. This map represented the Church's truth. It conveyed everything important to know for those who lived in a world where nature was unfolding according to God's plan.

As maps, these may have represented the veneration of God, but neither was useful as a tool for travel. Even though this second image is from the 15th century, it retains the same, iconic and religious qualities of the early manuscript books - the world is still three continents, named for the sons of Noah. While the later version of the "T and O" map shows a more naturalistic view - the continents are represented by representations of real people - there is still no sense of perspective in the image.



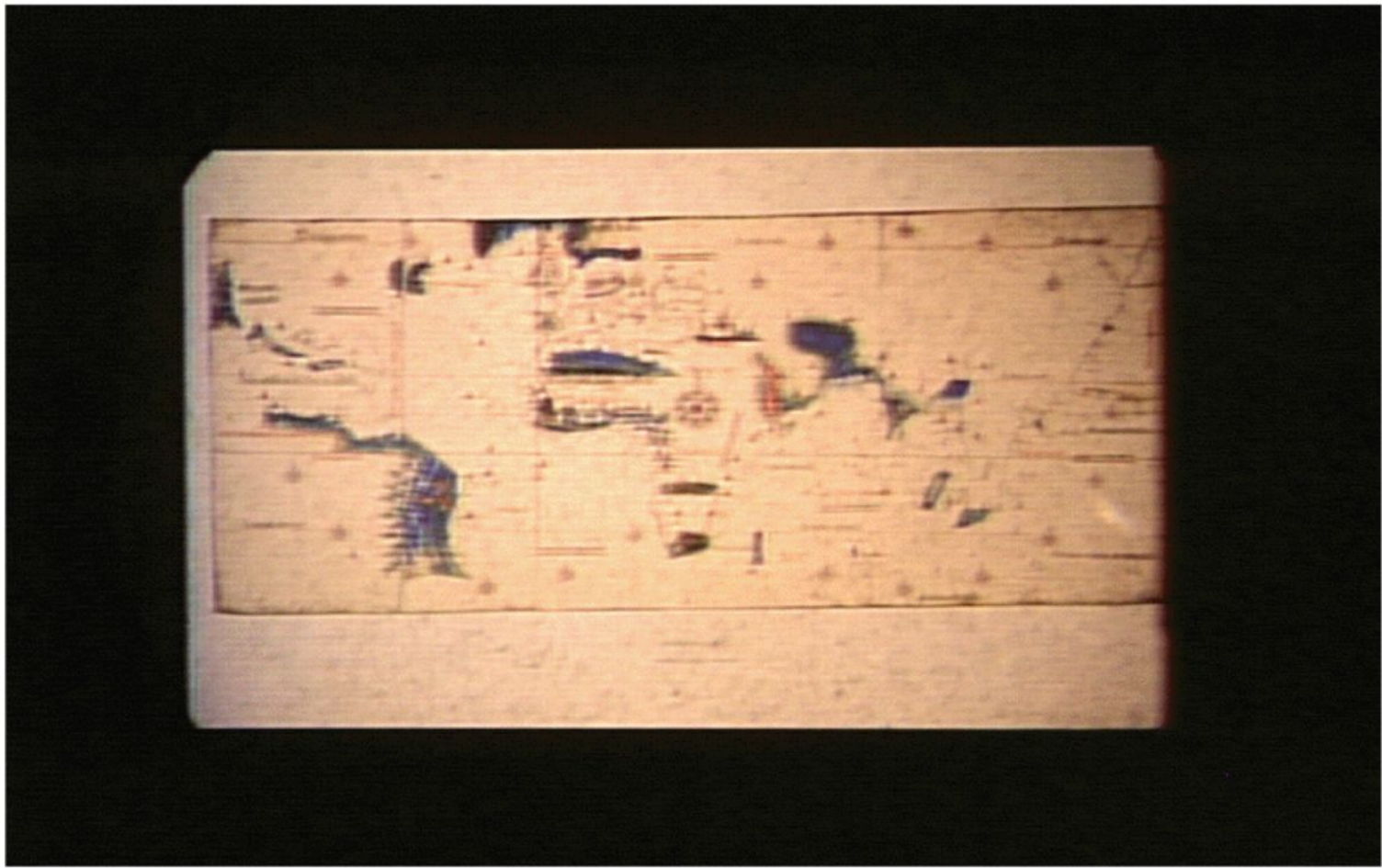


The information on early manuscript maps that try to represent the world is drawn from traveler's reports of their journeys. Representations of Europe tend to be accurate but outside Europe, where the world was less well-known, the map gets less accurate. In the case of this image, from the Catalan Atlas of 1375, Europe is fairly well laid out, while China and the East, known primarily at the time from the travels of Marco Polo (whom this map shows), is less well defined.



Here is a later map, by Ptolemy. The impulse in this kind of map making is toward an accurate representation of the world, an impulse toward creating information that can be used to navigate in the world.

Ptolemy's map was represented the state of understanding of the world until Columbus's journey in 1492.

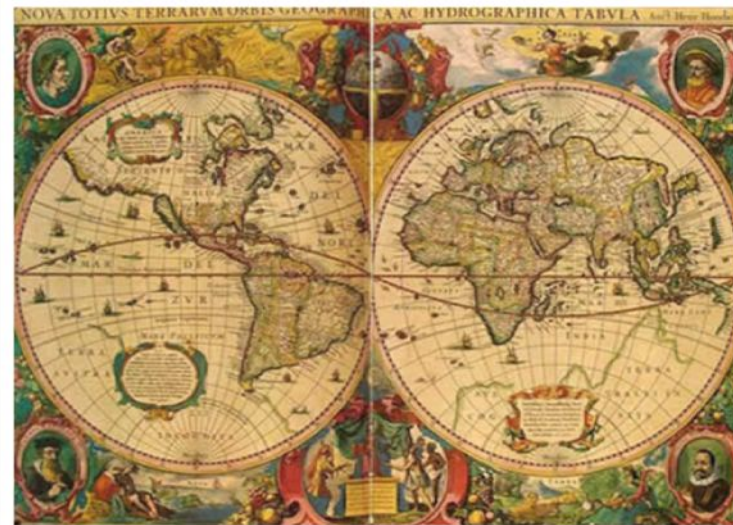


Other manuscript maps contained real geographical information, albeit not necessarily to geophysical scale. On this map, India, the Cantino World Map created in about 1502, the center of the spice trade, is enlarged in proportion to its economic importance to the world at the time.

These maps show another kind of distortion as well. In the early 1500s, the Pope divided the known world into Spanish territory and Portuguese territory. Depending on the politics of the map makers, different areas of the world might be shifted one way or another, placing them in either Spanish or Portuguese territory.

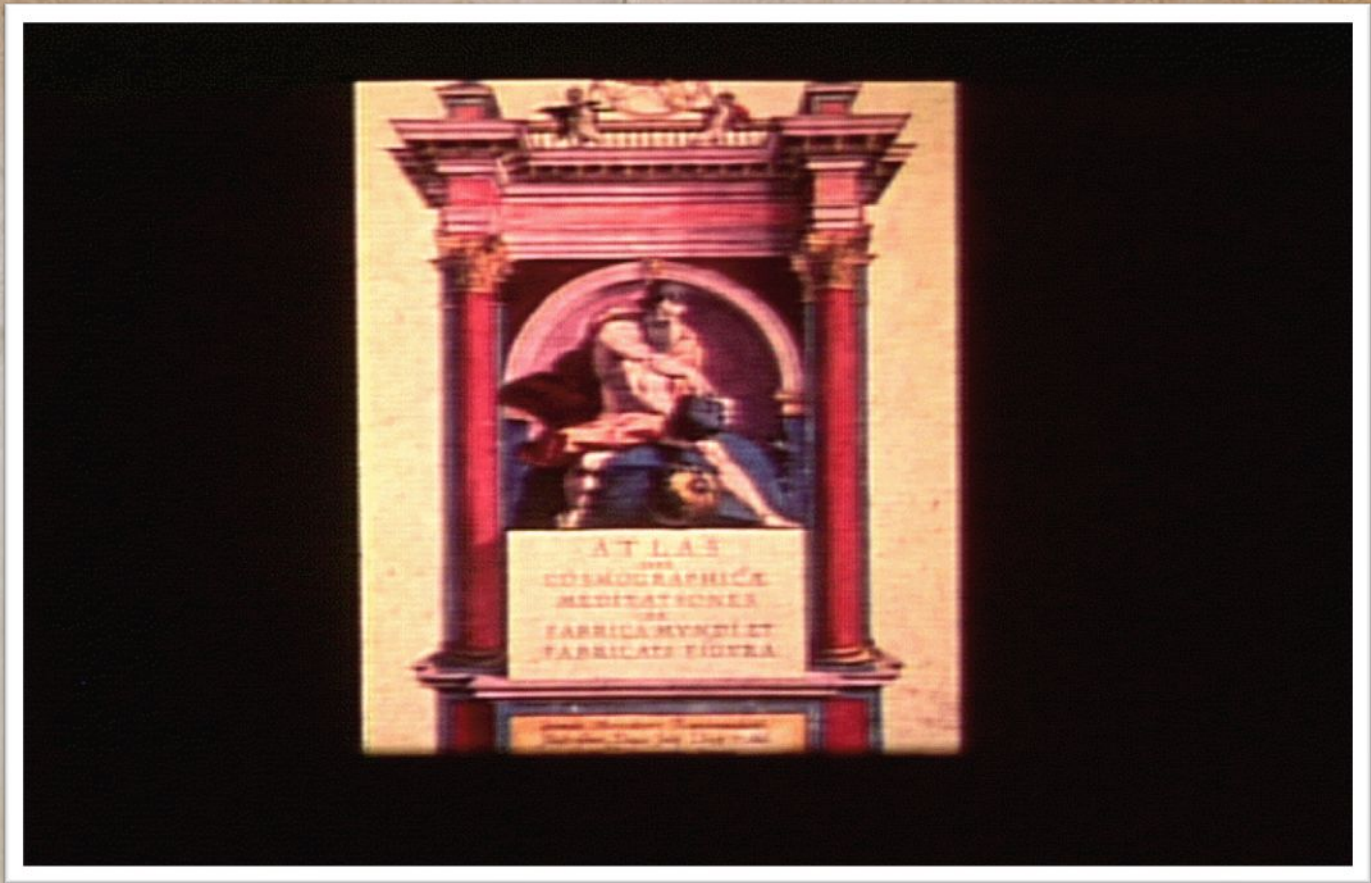
In the early years of the exploration of the New Worlds, all geographic information was collected by Portuguese and Spanish explorers. The information they gathered was tightly controlled by their governments because control of accurate geographical information meant control of important political and economic resources - control of the world.

By controlling this information, the Iberians managed to keep the British and the French out of the expansion of the early 16th century because they didn't have the necessary information.

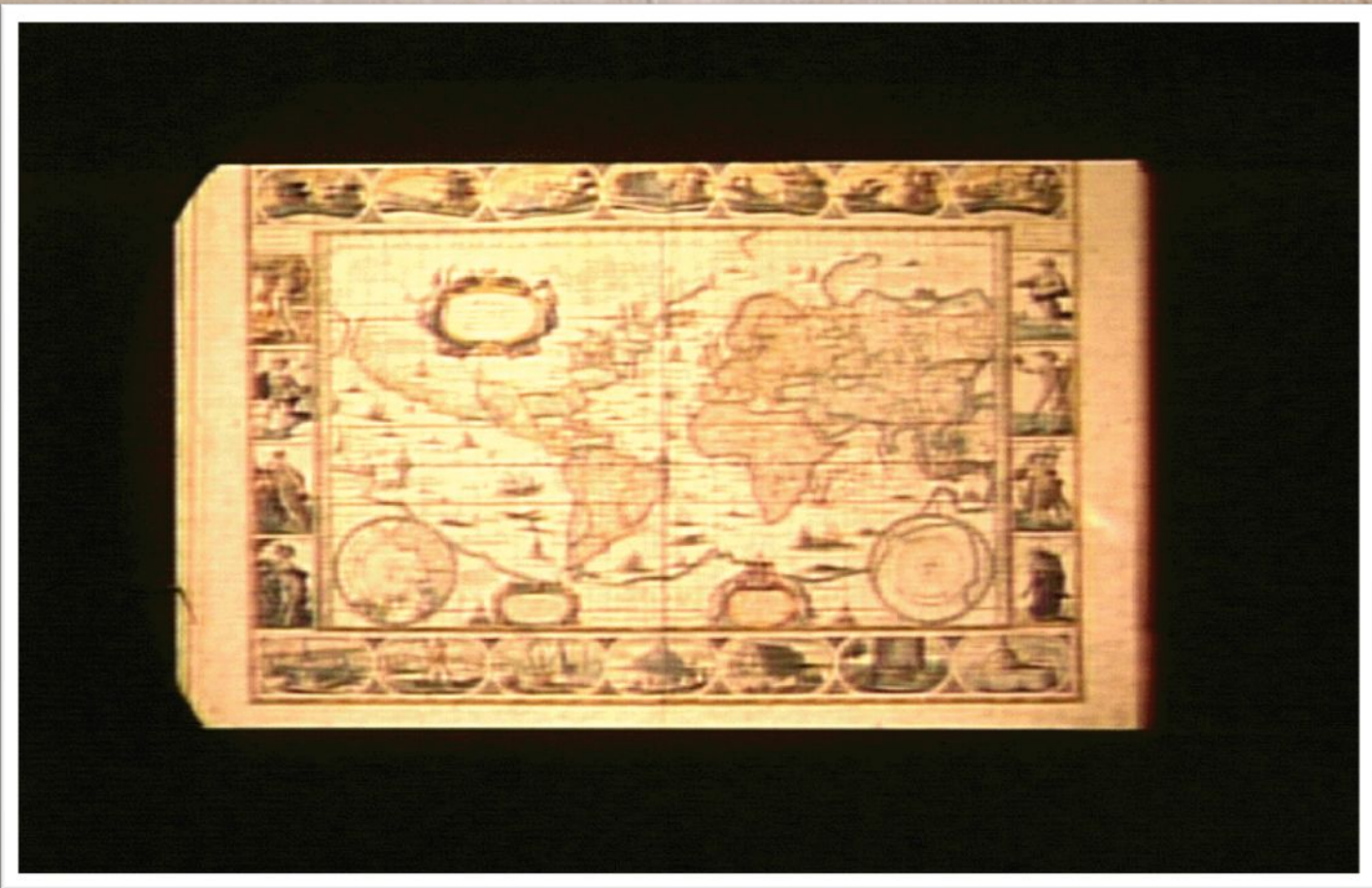




When the Dutch managed to pull away from Spanish control, they became a center for the reproduction of geographical information. They learned cartography under the Spaniards, and had collected that information in Holland. This is a world map printed in 1570 by Abraham Ortelius , 1527-1598, entitled, Theatrum Orbis Terrarum.



This exploration and exchange and comparison of information - both in maps and in printed books - changed Europe's view of the world. The world was once a place once largely unknown - represented by the Greek mythological image of Atlas carrying a huge globe on his shoulders. Now, in the most famous atlas of the period, Mercator's Atlas of 1595, Atlas plays with the earth like a basketball. The globe has become manageable, controllable, a resource to be exploited, no longer the realm of the unknown.



Modern maps, showing the world in ways that allowed a reader to leave home and return, also allowed for European expansion into the new world, and the creation of a European-centered world economy.

The new world economy was characterized by a system of nation states in economic competition with each other.

Summary

The period between the 13th and 16th centuries saw the rise of a print-dominated society, one that moved away from the Church's monopoly of information that existed during the manuscript book period.

This was initially fueled by the reproduction of classic texts of antiquity.

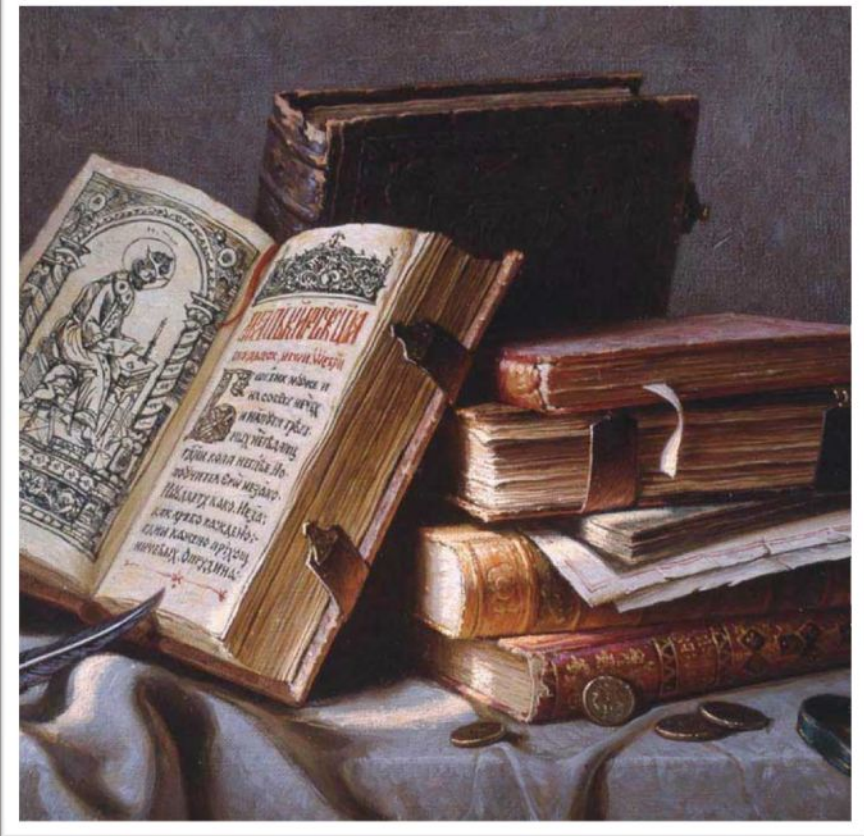
It was further fueled by the development of new kinds of books in science.

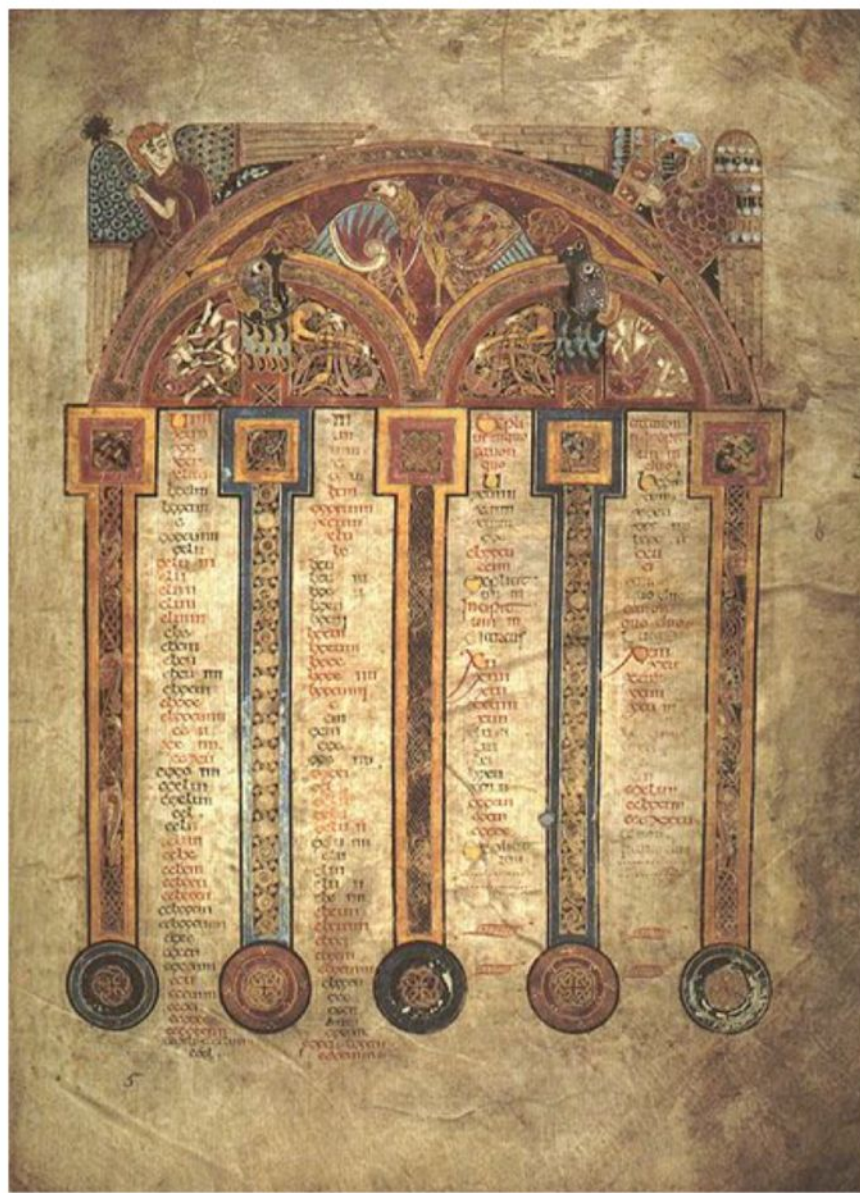
These factors led to the development of books as elements of propaganda and religious education.

This is not to argue that print drove all those changes. Clearly it did not. There were social and political and economic changes that made print important. Those changes might not have happened as quickly or perhaps at all without print but ...



One of the major shifts in world view that comes from this period in time is the notion that the natural world is just passively waiting for us to appropriate it. As can be seen from the slides, the focus of the map makers shifted from the activity of creating artifacts that explained existence to the creation of artifacts that literally "mapped" the world; maps attempted to objectively represent external reality in the same ways that other scientific texts tried to accomplish.





The shift in consciousness that occurred with this period of history is the rise of the notion that reality could be represented. This period saw the advent and expansion of a European-dominated world economy and the beginning of a system of international competition for trade among independent states. The technology of the printing press, coupled with the surrounding changes in the political/economic system, wrought changes in the ways in which Western Europe saw its place in the world.

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III Part:

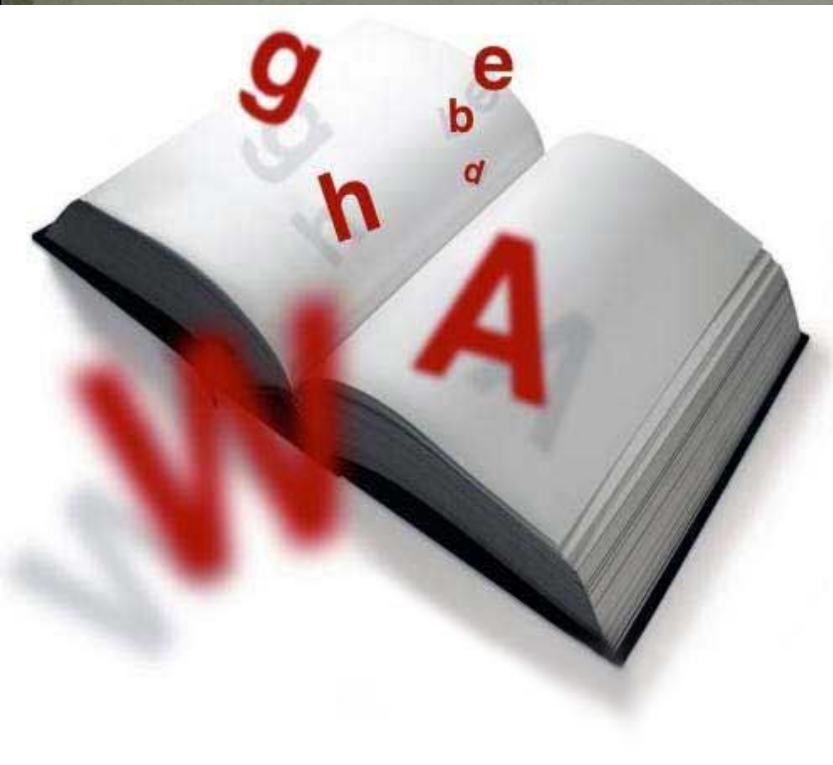
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2. Creating a Paper
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11. Shortcomings

The modern world

- Despite the growth of Book Printing in the fifteenth century, the book has been published in limited edition and was very expensive. The need for careful attitude to them was obvious. One of the earliest mentions of the use of bookmarks related to 1584, when the royal printer, Christopher Barker, presented Queen Elizabeth I with a silk bookmark border.

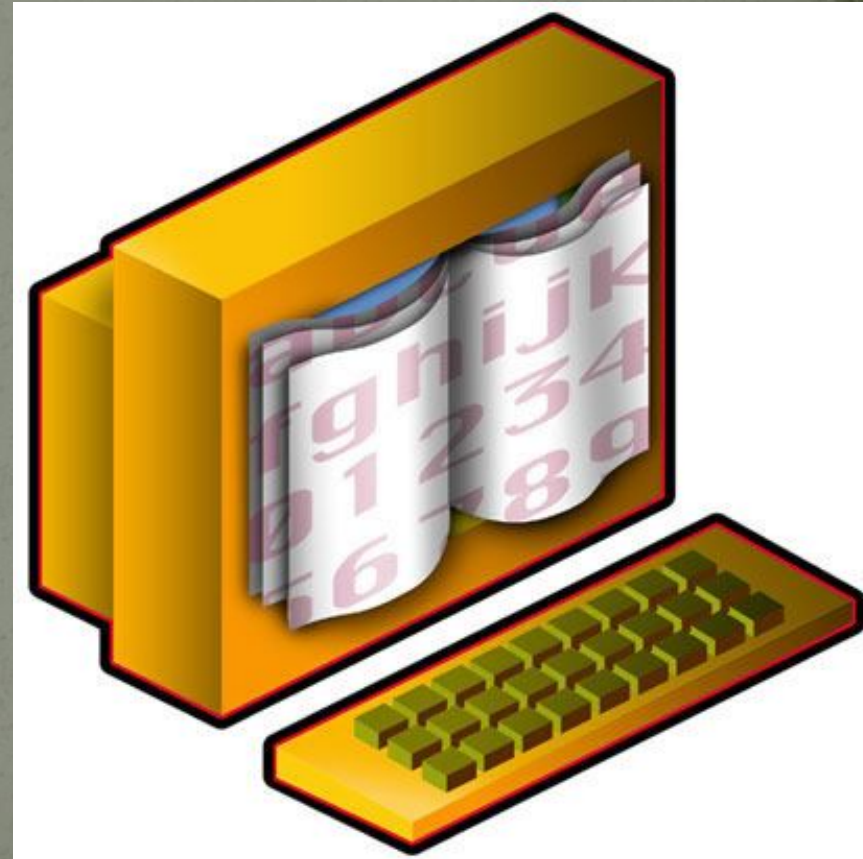


- Narrow silk ribbons have become common in the bookmark XVIII XIX centuries, they fixed on the cover and do more than the height of the page. The first detachable bookmarks began appearing in the 1850's to carry them out, usually made of silk or embroidery.

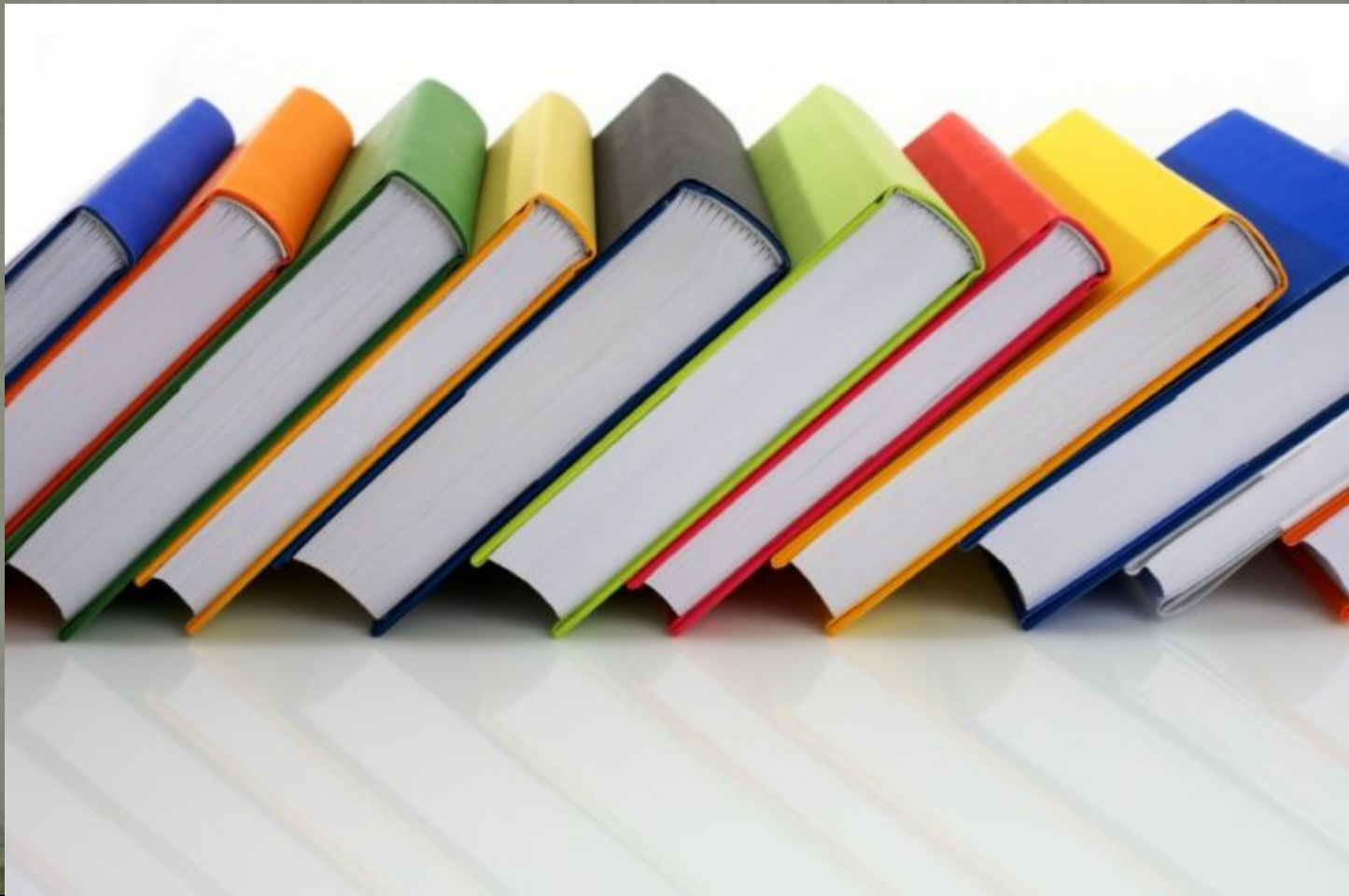


Creating a Paper

- Only during the 1880's paper was widely disseminated. In the early 1800's, became popular steam presses. They could print up to 1100 sheets per hour, but workers could set within the same time not more than 2000 characters.



- At the end of the XIX century were introduced monotypic and linotypny press. They could put up to 6000 characters and even whole lines at once.



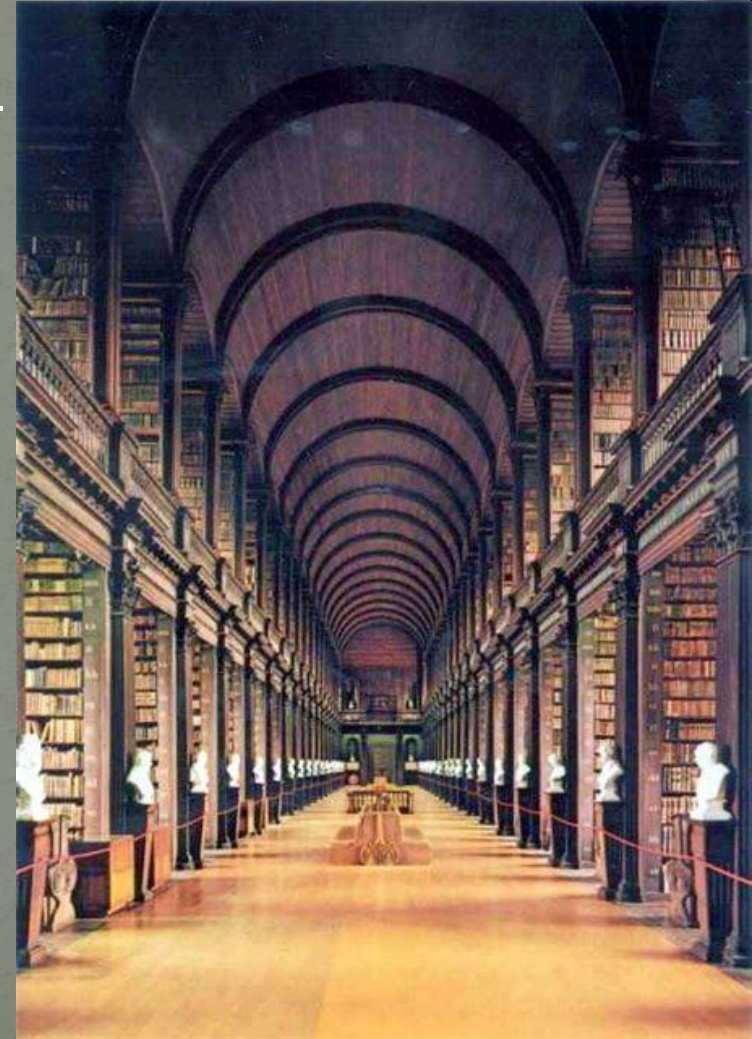
For many years, starting from the XV century has been spent on improving the printing presses and the adoption of freedom of speech, gradually reducing the level of censorship

See well as intellectual property, public domain, copyright. . And by the middle of XX century, book production in Europe, topped 200,000 titles per year.



Cultural heritage of the Russian Federation

- National Library of Russia (before 1917 - the Imperial Public Library, before 1925 - the Russian Public Library before March 27, 1992 - State Public Library (since 1932 - Saltykov-Shchedrin); informally - "Publichka") - one of the first public libraries in Eastern Europe, located in St. Petersburg. According to the decree of the President of Russia, is a particularly valuable object of national heritage and of cultural and historical heritage of the peoples of the Russian Federation. One of the largest libraries in the world.



Building on the Moscow prospectus



- On addition to the main building at the corner of Nevsky Prospekt and Sadovaya library has several branches:
- The new building on Moskovsky Avenue, opened in 1998. In the design of a large reading room of the National Library used the mosaic "metope" "Knowledge" . Authors sketches - SN Repin, Vladimir Sukhov, IG Uralov, N. Fomin.

Russian National Library

- One of the biggest libraries in the world. The book contains the largest collection of books in Russian. In late 1940 - early 1941, was held accounting of funds of the Public Library. Saltykov-Shchedrin. Counting showed that the library contained 8,869 thousand units of books, sets of newspapers and magazines, putting her in second place in the world. Currently, funds account for 34 million items.



Voltaire's Library



Voltaire's library includes 6,000 volumes and 814 is a national treasure. It was purchased in 1778 by Catherine II in the niece and heir of Voltaire. In 1779, a special ship's library was taken to St. Petersburg.

It was originally housed in the Hermitage. Under Nicholas I access to it was closed. In 1861, by order of Alexander II, Voltaire's library was transferred to the Imperial Public Library.

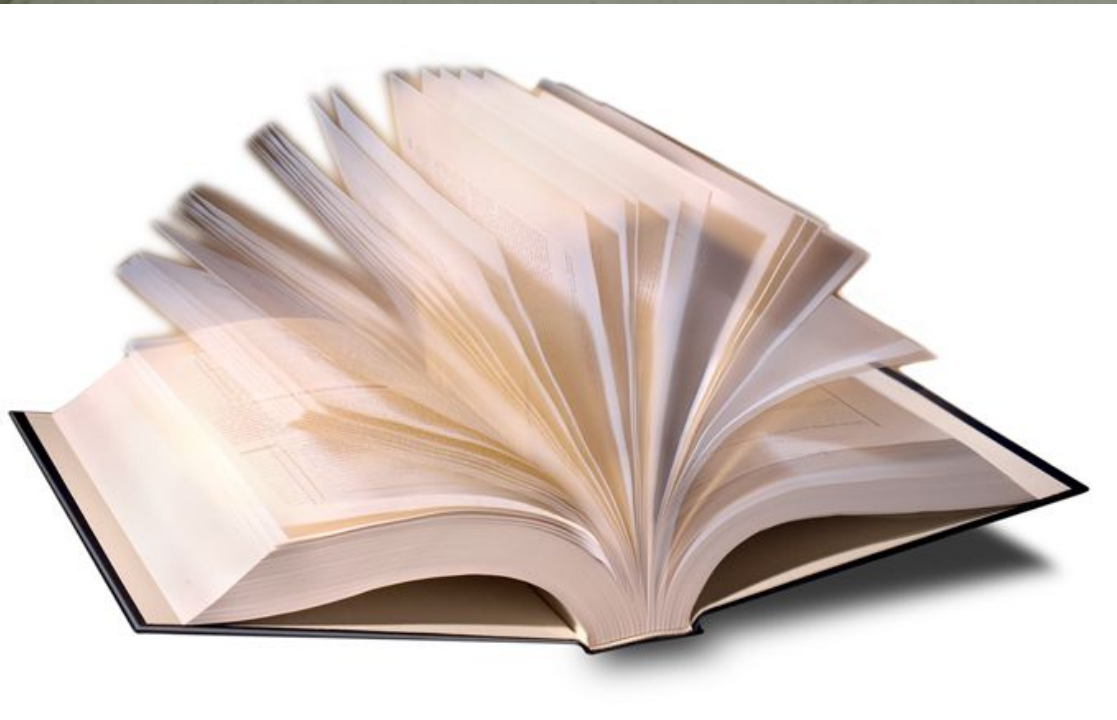
The transition to digital format

- The term e-book (electronic book) describes the information a regular book, presented in digital form. Such books can be found on the Internet, on CD-ROM, etc.
- In our century, before the library was a question of increasing the number of publications, the so-called information explosion. The advent of electronic publishing and the Internet made it possible not to print the information in the form of paper books, and make it available online through the digital library, as well as on CD-ROM or in the form of e-books.



On the other hand

- On the other hand, although the book is now out and should be made in electronic form, most of the books in this form is not yet available (either in the library or the internet). Also, in connection with the inconvenience of existing e-book reader, many people prefer paper, so their production is stagnant



But now many try to digitize books are available to provide unimpeded access to all comers and provide convenient storage for digital media. There is also an operating time for the publishing process. For example: print on demand, electronic journals, etc.

Electronic Book

- Electronic Book - the common name of the group of highly specialized compact tablet computer devices designed to display text information provided in electronic form .
- The main difference between this group of computing devices from PDAs, tablet PCs and subnotebooks is limited functionality for significantly longer battery life.
- Electronic books can be attributed to the variety of tablet PCs, since their appearance is associated with the development and specialization of tablet PCs in general, and because modern e-books are often equipped with a touchscreen and have advanced features. Although some experts, such as multifunction devices Irex Iliad, are not always referred to as e-books.



History



The first device is highly specialized for reading electronic documents has been developed by DEC. In 1996 DEC introduced embodied in the "iron» DEC Lectrice - Tablet PC with a monochrome touch screen and ability to pen input - which was the prototype of all modern e-books . Despite the initial task to develop a highly specialized device for reading electronic documents - it got too expensive and did not go into mass production.

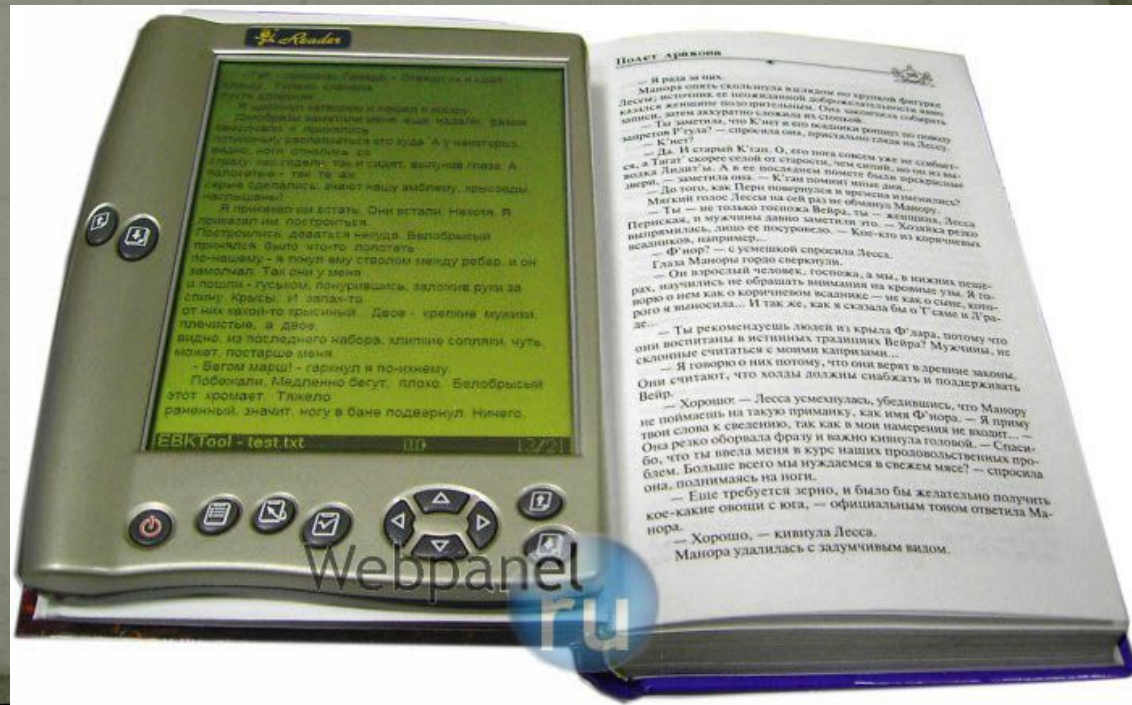
Mass production

- The first mass e-books were devices with monochrome LCD-screens that were released almost simultaneously in 1998, NuvoMedia and Softbook Press. Subsequently, they were modified, there were books with full color screens and advanced functionality. Despite the very good technical execution of the first models (analogues continued to be issued prior to 2006), the devices are not widespread. The same can be said about other companies' products, ranging from "pure" e-books to the PDA-like Hiebook and Franklin eBookMan.



Modern history

- Appeared later on e-books based on cholesteric liquid crystal displays (ChLCD), despite a significant increase in resolution and battery life proved to be little demand in connection with a long drawing of the screen and no backlight.



- Since 2007, the market for electronic books is booming due to the emergence of screens with the technology of electronic paper. This can be seen as a growing number of producers and to increase the list of models. However, despite some examples of excessive demand (for example, the model SonyReader PRS-500 or Amazon Kindle), while e-books even as a device for reading is much lower on the popularity of smartphones and PDAs.



Benefits

- In an e-book can be implemented search for text, hyperlinks, time display selections and notes
- In a single device can store hundreds and thousands of books. E-book is much easier to transport, due to lower weight and volume, compared to printed books
- Font and font size can change dynamically
- E-book allows you to display animated pictures, media clips, or play audio books



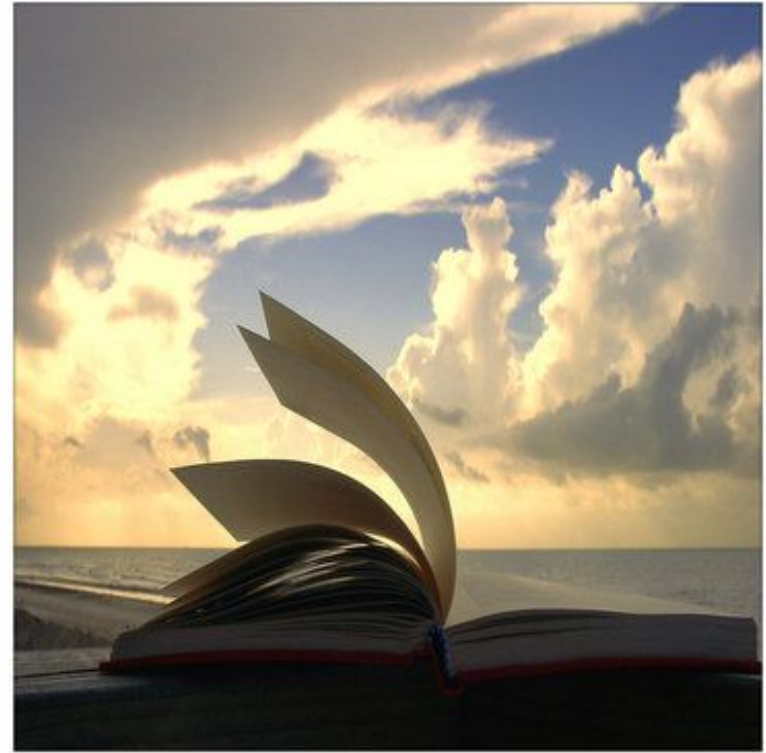
Next Benefits

- At that time, as a device for reading electronic books is much more expensive than a single book, electronic texts are cheaper than their paper counterparts
- Firmware-speech synthesizers allow reads text
- Dissemination and retrieval of electronic books has a substantially lower cost than paper-based counterparts
- Use of electronic books reduces the damage caused to the environment, as in the production (as opposed to printed counterparts) "save" a lot of paper



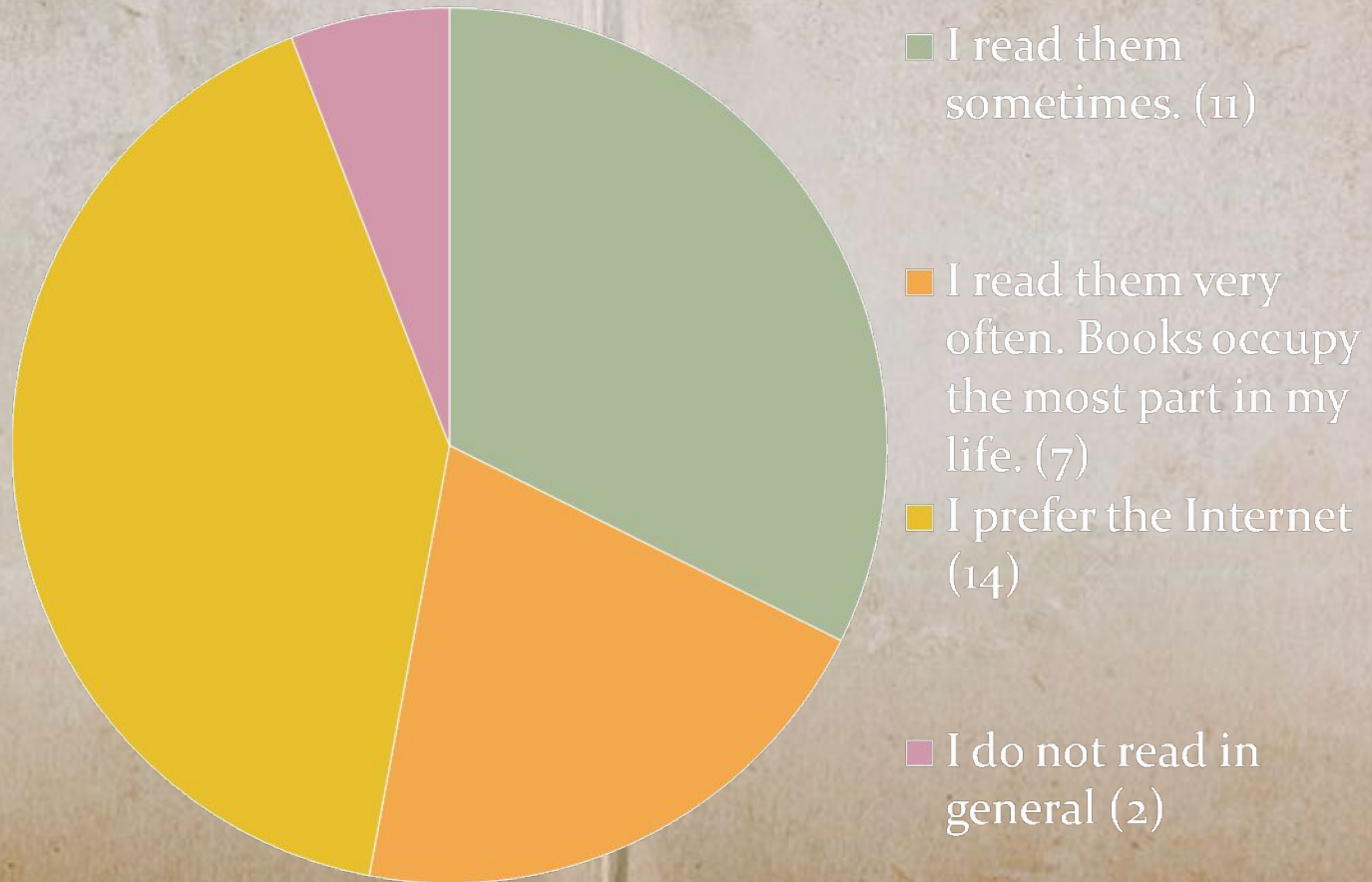
Shortcomings

- Device for reading electronic books are more susceptible to physical damage (fragile) than printed books
- Devices to date have a high cost.
- Some publishers do not produce ebooks parallel paper, which leads to significantly delay the emergence of electronic alternatives.
- The electronic books are often used DRM and even the possibility of the manufacturer remotely delete information from the devices the user
- Device for reading electronic books can not work without the timely charge, however, to date, it is - the least energy-consuming devices, capable of autonomous operation up to a month.
- Contrast and clarity while lower than that of plain paper.



Poll

What do you think about books?



Literature

1. J. Wetter, «Kritische Geschichte der Erfindung der Buchdruckerkunst» (Meinz, 1836);
2. Schaab, «Geschichte der Erfindung der Buchdruckerkunst» (Meinz, 2. Ausg., 1855);
3. Ang. Bernard, «De l'origine et des débuts de l'imprimerie en Europe» (Paris, 1853);
4. P. Dupont, «Histoire de l'imprimerie» (Paris, 1869);
5. Dane, Joseph (2003). *The Myth of Print Culture: Essays on Evidence, Textuality, and Bibliographical Method*. Toronto: University of Toronto Press.
6. Thiollet, Jean-Pierre (2005), *Je m'appelle Byblos*, H & D, Paris
7. Katz, Bill (1998). *Cuneiform to computer : a history of reference sources*. Lanham Md.: Scarecrow Press.
8. Howsam, Leslie (2006). *Old Books and New Histories: An orientation to studies in book and print culture*. Toronto: University of Toronto Press.
9. Diringier, David (1982). *The book before printing : ancient, medieval, and oriental*. New York: Dover.
10. Chartier, Roger (c2005). *Inscrire et effacer : culture écrite et littérature (XIe-XVIIIe siècle)*. Paris: Gallimard : Le Seuil.
11. Chow, Kai-Wing (2004). *Publishing, Culture, and Power in Early Modern China*. Stanford: Stanford University Press.
12. McKittrick, David (2003). *Print, Manuscript and the Search for Order, 1450-1830*. Cambridge: Cambridge University Press.
13. Warner, Michael (1990). *The Letters of the Republic: Publication and the Public Sphere in Eighteenth-Century America*. Cambridge, MA: Harvard University Press.